



The Global Youth Wellbeing Index

METHODOLOGY REPORT

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The Youth Wellbeing Index (Index) measures youth wellbeing for 30 countries across 40 indicators in six domains—citizen participation, economic opportunity, education, health, information and communications technology (ICT), and safety and security. The structure of the Index was developed in close consultation with experts from each domain as well as a global experts review team. The following sections provide an overview of the process undertaken, with the Institute for Economics and Peace, to construct the Index and yield the scores and rankings.

DATA PROFILE AND SOURCES

The data in the Index span from 1997 to 2013, with 96 percent of the data sourced after 2005 and nearly 98 percent after 2008. The majority of the Index data comes from public sources, including the World Bank, UNESCO, International Telecommunications Union (ITU), and the Institute for Health Metrics and Evaluation (IHME). For some indicators such as candidacy age, youth policy, and the youth outlook and perception indicators, data was collected and provided by other independent sources, including youthpolicy.org, the Futures Company, and Youth Business International. In some instances where a specific indicator was not available for an Index country, a secondary proxy source was used to fill the gap. Annex 1 provides a complete list of primary sources for each indicator and Annex 2 provides a complete list of secondary sources.

THE BANDING PROCESS

In order to allow aggregation of noncommensurate indicators, a process of normalization, or banding, was conducted. Under this process, each indicator is scaled between a score of 0 and 1 relative to a global data set, not just the countries within the Index. To do this, appropriate minimum and maximum values for the data set are decided such that anything below the minimum is assigned 0, anything above the maximum is assigned 1, and everything else is scaled evenly between 0 and 1. Depending on the nature of the data, the banding process can take different forms.

For example, in the “GDP per capita” indicator, a higher score reflects a more desirable situation. Therefore, in this case the banding process requires the largest data point in the GDP per capita indicator to be assigned a value of 1. Conversely, the lowest data point in the indicator is assigned 0, while all other data is scaled relative to these two points. This process is referred to as forward banding. On the other hand, in the indicator “mortality rates,” a lower score reflects a more desirable situation. In this case, the data is reverse banded, meaning that the lowest value is assigned 1 in the banding process, while the highest is assigned 0.

Therefore, in year y , a forward-banded score is calculated for indicator i by Equation 1. A reverse-banded score is calculated by Equation 2.

Equation 1: Banding Equation

$$Banded_i = \frac{\text{Country Indicator Value in Year } y_i - \text{minimum cutoff}_i}{\text{maximum cutoff}_i - \text{minimum cutoff}_i}$$

Equation 2: Reverse-banding equation

$$Reverse\ Banded_i = 1 - \frac{\text{Country Indicator Value in Year } y_i - \text{minimum cutoff}_i}{\text{maximum cutoff}_i - \text{minimum cutoff}_i}$$

DATA GAP STRATEGIES

Gathering the best existing country information often represents a significant proportion of the research required to complete a composite index. As discussed in the main report, the scope of this inaugural Index is limited to a certain degree by data constraints. In the development of the Index, the issue of low availability for current or historical data was a factor in a number of methodological decisions made—especially indicator selection and country inclusion. There are a number of empirical and statistical techniques that can be employed to deal with missing data issues.¹ For the Index, the hot and cold deck imputations were primarily used, thereby avoiding an overly complex methodology. Table 1 defines the three imputation techniques used in the Index.

Table 1: Data Imputation Methods

Method	Description	Application in Youth Wellbeing Index
Cold Deck Imputation	Replace the missing value with a value from another source	The Index uses this either when it uses the most recent data point in a series as the current data point, or it uses additional country statistics to fill in gaps.
Hot Deck Imputation	Assign missing data the value of a “similar” data point	The Index uses this approach when it assigns certain missing indicators the value of the region in which the country is located.
Regression Imputation	Correlate combinations of indicators to imputed missing values	This method is used only sparingly in the Index.

Cold deck imputation has been used when measuring a variable that is in itself “slow moving” and is not expected to affect the results in any significant way. Historical data was used to a limited extent for the indicators, as presented in Table 2.

¹ Organization for Economic Cooperation and Development, *Handbook on Constructing Composite Indicators: Methodology and User Guide*, 2008, <http://www.oecd.org/std/42495745.pdf>.

Table 2: Data Timelines in Cold Deck Imputation

<i>Indicator</i>	<i>Earliest data point (from primary or secondary sources)</i>	<i>Latest data point (from primary or secondary sources)</i>	<i>Percentage pre-2005</i>	<i>Percentage pre-2008</i>	<i>Potential Issue</i>
Existence of youth policy	1996	2013	6%	10%	No
Percentage of households with radio	1997	2011	36%	43%	Unlikely
Percentage of households with TV	1997	2011	13%	26%	Unlikely
School enrolment secondary (% gross)	1998	2012	6%	10%	Unlikely
School life expectancy (years), primary to tertiary	1998	2012	13%	16%	Unlikely
Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	1999	2010	30%	70%	Potential issue with changes in smoking rates in the past decade
Public spending on education total (% of GDP)	1999	2012	13%	16%	Potential Issue expenditure per student is dependent on annual budgets
Access to electricity (% of population)	2002	2013	33%	33%	Potential issue; however, countries using historical data tend to have high access
Literacy rate youth total (% of people ages 15–24)	2002	2010	30%	40%	Unlikely
Unemployment youth total (% 15–24)	2004	2012	1%	6%	Unlikely
Involved In early stage entrepreneurial activity nascent or new business	2006	2013	0%	13%	Unlikely
As an adult, how do you think your standard of living will compare to your parents? (Mine will be better)	2006	2012	0%	10%	No
I am concerned about being a victim of a violent crime (agree net)	2006	2012	0%	6%	Unlikely
Mobile phone subscriptions per 100 people	2007	2012	0%	3%	Unlikely

WEIGHTING THE INDICATORS

The Index is built on six domains; five have an equal weighting of 18 percent, and ICT has a 12 percent weighting. Within each domain, each indicator is weighted in terms of its relative importance to the other indicators of the domain to arrive at a domain score that feeds into the overall Index calculation. There are a number of methods available to decisionmakers, including data envelopment analysis, benefit-of-the-doubt approach, and unobserved components.² The weightings in the Index are based on youth development evidence and practice, expert consultations including an Analytical Hierarchy Process (AHP)³ as part of the global experts review, technical soundness, and normative judgments. The final weightings are shown in Table 3.

Table 3: Final Indicator Weightings

<i>Domain</i>	<i>Indicator</i>	<i>Weight</i>	<i>% Weights</i>	<i>Domain Sum</i>
Citizen participation	Democracy Index	0.21	21%	18%
	Existence of youth policy	0.15	15%	
	Candidacy age	0.10	10%	
	How often do you do the following? (volunteer work) (few times a month)	0.18	18%	
	I don't believe young people are respected enough (agree net)	0.18	18%	
	My government cares about my wants and needs (agree net)	0.18	18%	
Economic opportunity	GDP per capita (PPP using 2005 international dollar)	0.18	21%	18%
	Global competitiveness index	0.18	21%	
	Involved In early stage entrepreneurial activity nascent or new business	0.08	9%	
	Loan from a financial institution in the past year, young adults (% ages 15–24)	0.09	10%	
	Unemployment youth total (% 15–24)	0.10	12%	
	Youth not in employment or education (NEET)	0.13	15%	
	As an adult, how do you think your standard of living will compare to your parents? (Mine will be better)	0.10	12%	
Education	Public spending on education total (% of GDP)	0.15	16%	18%
	School enrolment tertiary (% gross)	0.12	13%	
	Literacy rate youth total (% of people ages 15–24)	0.20	21%	
	School enrolment secondary (% gross)	0.15	16%	

² Ibid.

³ Ibid.

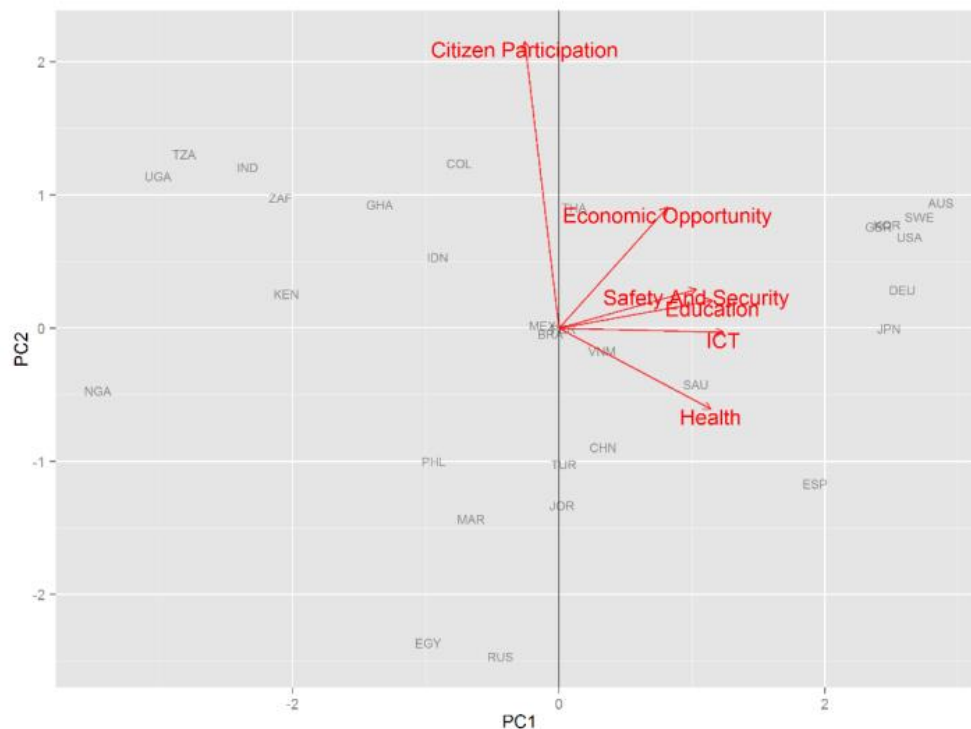
	School life expectancy (years), primary to tertiary	0.22	23%	
	Satisfaction with education system	0.10	11%	
Health	Improved water source (% of population with access)	0.10	10%	18%
	Life expectancy at birth	0.20	19%	
	People living with HIV/AIDS total	0.10	10%	
	Adolescent fertility rate (births per 1,000 women ages 15–19)	0.13	13%	
	GBD youth DALY (self-harm)	0.12	12%	
	GBD youth mortality rate per 100,000 15–24 yrs (all causes)	0.18	17%	
	It is important for me to eat and live healthy right now (agree net)	0.05	5%	
	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	0.10	10%	
	My life is too stressful (agree net)	0.10	10%	
	Information and communications technology	Access to electricity (% of population)	0.08	
ICT for development score		0.20	27%	
Percentage of households with radio		0.15	21%	
Digital natives (% 15–24 years)		0.20	27%	
I can't imagine life without the Internet anymore.		0.10	14%	
Safety and security	Global disaster risk reduction score (Hyogo Framework for Assessment)	0.10	8%	18%
	Global peace index—internal	0.23	18%	
	U.S. State Department Human Trafficking Tier List	0.10	8%	
	World Justice Report—Fundamental Rights	0.15	12%	
	GBD youth DALY 15–24 yrs (interpersonal violence)	0.23	18%	
	GBD youth DALY 15–24 yrs (road Injury)	0.24	19%	
	I am concerned about being a victim of a violent crime (agree net)	0.20	16%	

PRINCIPAL COMPONENT ANALYSIS

Principal components analysis (PCA) is a statistical technique that allows visual representation of how closely related multiple measures are to each other. Figure 1 illustrates the results of PCA on the domains of the Index. The arrows represent the direction of the domain scores and the points represent where the countries fall within this plane in relation to the domains. The closer the two arrows are, the more they are correlated.

Examining the PCA results on the Index domains, as depicted in Figure 1, it is clear that five out of the six domains are related, either directly or indirectly. However, the citizen participation domain is capturing a significantly different type of information, which is also apparent from the Index results.

Figure 1: Principal Component Analysis of the Youth Wellbeing Index Domains



SENSITIVITY ANALYSIS AND ROBUSTNESS CHECKS

The Institute for Economics and Peace (IEP) performed a robustness check to ensure the validity of the results as well as the principal components analysis presented above. The analysis shows limited variation when changing the weightings or removing indicators, thus illustrating the strength of the index construction. While some elements of the index are closely related, their inclusion is also determined by the normative priorities of the expert panelists and their analytical and policy link to youth wellbeing.

Annex 1: Primary Data Sources

Domain	Indicator	Source	Definition
Citizen participation	Democracy Index	Economist Intelligence Unit	An index that measures the state of democracy in 167 countries, of which 166 are sovereign states and 165 are United Nations member states. The index is based on 60 indicators grouped in five different categories: electoral process and pluralism, civil liberties, functioning of government, political participation, and political culture.
	Existence of youth policy	youthpolicy.org	1 if youth policy exists, 0.5 if one is being revised, 0 if none at all
	Candidacy age	youthpolicy.org	The minimum age that an individual can participate in the political process
	How often do you do the following? (Volunteer work) (Few times a month)	TRU Survey	Percentage of respondents who volunteered a few times a week
	I don't believe young people are respected enough (agree net)	TRU Survey	Percentage of respondents who agreed that they did not believe that young people were respected
	My government cares about my wants and needs (agree net)	TRU Survey	Percentage of respondents who agreed that their government respected them
Economic opportunity	GDP per capita (PPP using 2005 international dollar)	World Bank	GDP per capita based on purchasing power parity (PPP)
	Global Competitiveness Index	WEF	Measures the set of institutions, policies, and factors that set the sustainable current and medium-term levels of economic prosperity
	Involved In early stage entrepreneurial activity nascent or new business	Gallup World Poll/GEM/IEP	The Global Entrepreneurship Monitor (GEM) project is an annual assessment of the entrepreneurial activity, aspirations, and attitudes of individuals across a wide range of countries.
	Loan from a financial institution in the past year, young adults (% ages 15–24)	World Bank	Adults who borrowed any money in the past 12 months from any of the following sources: a formal financial institution, a store by using installment credit, family or friends, employer, or another private lender (% ages 15–24)
	Unemployment youth total (% 15–24)	World Bank	Youth unemployment refers to the share of the labor force ages 15–24 without work but available for and seeking employment. Definitions of labor force and unemployment differ by country.

	Youth not in employment or education (NEET)	WDR, OECD, ILO	Percentage of 15–24 year olds not in employment or education
	As an adult, how do you think your standard of living will compare to your parents? (Mine will be better)	TRU Survey	Percentage of respondents who agreed that their lives would be better than their parents
Education	Public spending on education total (% of GDP)	World Bank	Public expenditure on education as percentage of total government expenditure is the total public education expenditure (current and capital) expressed as a percentage of total government expenditure for all sectors in a given financial year.
	School enrolment tertiary (% gross)	World Bank	Tertiary (ISCED 5 and 6) gross enrolment ratio is the total enrolment in tertiary education (ISCED 5 and 6), regardless of age, expressed as a percentage of the total population of the five-year age group following on from secondary school leaving.
	Literacy rate youth total (% of people ages 15–24)	CIA World Factbook	Youth between the ages of 15 to 24 who can read and write. Generally literacy also encompasses basic numeracy.
	School enrolment secondary (% gross)	World Bank	Secondary gross enrolment ratio is the total enrolment in secondary education, regardless of age, expressed as a percentage of the population of official secondary education age. GER can exceed 100% due to the inclusion of over-aged and under-aged students because of early or late school entrance and grade repetition.
	School life expectancy (years). Primary To tertiary.	World Bank	School life expectancy (SLE) is the total number of years of schooling (primary to tertiary) that a child can expect to receive, assuming that the probability of his or her being enrolled in school at any particular future age is equal to the current enrolment ratio at that age.
	Satisfaction with education system	Gallup World Poll	Respondents who answered "satisfied" to the question "In the city or area where you live, are you satisfied or dissatisfied with the educational system or the schools?"

Health	Improved water source (% of population with access)	World Bank	Access to an improved water source refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, and rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within one kilometer of the dwelling.
	Life expectancy at birth	World Bank	Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.
	People living with HIV/AIDS total	World Bank	Prevalence of HIV refers to the percentage of people ages 15–49 who are infected with HIV.
	Adolescent fertility rate (births per 1,000 women ages 15–19)	World Bank	Adolescent fertility rate is the number of births per 1,000 women ages 15–19.
	Self harm (youth DALY 15-24 yrs)	Institute for Health Metrics and Evaluation (IHME)—Global Burden of Disease (GBD)	GBD youth mortality rate per 100,000 (self-harm)
	All cause youth mortality (rate per 100,000 15–24 yrs)	IHME—GBD	GBD youth mortality rate per 100,000 (all causes)
	It is important for me to eat and live healthy right now (agree net)	TRU Survey	Percentage of youth who agreed that it was important to eat and live healthy.
	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	Cancer Council	Smoking levels for students between the ages of 15 to 24
	My life is too stressful (agree net)	TRU Survey	Percentage of respondents who agreed that their life was too stressful.

Information and communications technology	Access to electricity (% of population)	UNESCO	Access to electricity (% of population)
	ICT for development score	International Telecommunication Union	Score based on access to mobile phones and Internet
	Percentage of households with radio	ITU	Percentages of households with radio
	Digital natives (% 15-24)	ITU	Percentage of youth who have always had access to the Internet
	I can't imagine life without the Internet anymore.	TRU Survey	Percentage of respondents who could not see their life without the Internet
Safety and security	Global disaster risk reduction score (Hyogo Framework for Assessment)	HFA GAR	Average of a country's HFA score in governance, risk identification and early warning, knowledge and innovation, underlying risk and preparedness and response
	Global Peace Index—Internal	Institute for Economics and Peace	Measures the levels of peace within a nation
	U.S. State Department human trafficking tier list	U.S. State Department	The Trafficking in Persons (TIP) Report is the U.S. government's principal diplomatic tool to engage foreign governments on human trafficking. In the TIP Report, the Department of State places each country onto one of three tiers based on the extent of their governments' efforts to comply with the "minimum standards for the elimination of trafficking" found in Section 108 of the TVPA.
	World Justice Report—Fundamental Rights	World Justice Report	Measures government enforcement and due process
	Interpersonal violence (youth DALY 15–24 yrs)	IHME—GBD	GBD Youth Mortality Rate per 100,000 (Interpersonal Violence)
	Road injury (youth DALY 15–24 yrs)	IHME—GBD	GBD youth mortality rate per 100,000 (road injury)
	I am concerned about being a victim of a violent crime (agree net)	TRU Survey	Percentage of youth who expressed concern of becoming a victim of a violence crime.

Annex 2: Secondary Data Sources

Country	Indicator	Year	Value	Source	Definition
Australia	Access to electricity (% of population)	2002	100.00	UNESCO	Access to electricity (% of population)
Germany	Access to electricity (% of population)	2002	98.70	UNESCO	Access to electricity (% of population)
Japan	Access to electricity (% of population)	2002	99.70	UNESCO	Access to electricity (% of population)
Kyrgyzstan	Access to electricity (% of population)	2013	97.40	World Bank/ITU/IEP	Regression on access to electricity v percentage of households with TV, $0.9479x + 7.6177$, $R_{\text{squared}} = 0.9$
Mexico	Access to electricity (% of population)	2002	99.60	UNESCO	Access to electricity (% of population)
Norway	Access to electricity (% of population)	2002	100.00	UNESCO	Access to electricity (% of population)
Russia	Access to electricity (% of population)	2013	60.50	World Bank/ITU/IEP	Regression on access to electricity v percentage of households with TV, $0.9479x + 7.6177$, $R_{\text{squared}} = 0.90$
South Korea	Access to electricity (% of population)	2002	75.00	UNESCO	Access to electricity (% of population)
Spain	Access to electricity (% of population)	2002	73.00	UNESCO	Access to electricity (% of population)
Sweden	Access to electricity (% of population)	2002	100.00	UNESCO	Access to electricity (% of population)
Turkey	Access to electricity (% of population)	2002	99.40	UNESCO	Access to electricity (% of population)
United Kingdom	Access to electricity (% of population)	2002	18.10	UNESCO	Access to electricity (% of population)
United States	Access to electricity (% of population)	2002	95.00	UNESCO	Access to electricity (% of population)
Norway	Account at a formal financial institution, young adults (% ages 15–24)	2013	98.90	IEP	Account at a formal financial institution, young adults (% ages 15–24)
Colombia	As an adult, how do you think your standard of living will compare to your parents? (Mine will be better)	2011	50.30	Gallup World Poll/UNDP/IEP	Regression on standard of living (satisfied) v as an adult, $-0.5523x + 180.14$, $R_{\text{squared}} = 0.31$
Japan	As an adult, how do you think your standard of living will compare to your parents? (Mine will be better)	2011	85.50	Gallup World Poll/TRU/IEP	Regression on standard of living (satisfied) v as an adult, $-0.5523x + 180.14$, $R_{\text{squared}} = 0.31$
Jordan	As an adult, how do you think your standard of living will compare to your parents? (Mine will be better)	2011	83.30	Gallup World Poll/TRU/IEP	Regression on standard of living (satisfied) v as an adult, $-0.5523x + 180.14$, $R_{\text{squared}} = 0.31$

Morocco	As an adult, how do you think your standard of living will compare to your parents? (Mine will be better)	2011	100.00	Gallup World Poll/TRU/IEP	Regression on standard of living (satisfied) v as an adult, - 0.5523x + 180.14, Rsquared = 0.31
Peru	As an adult, how do you think your standard of living will compare to your parents? (Mine will be better)	2011	99.00	Gallup World Poll/UNDP/IEP	Regression on standard of living (satisfied) v as an adult, - 0.5523x + 180.14, Rsquared = 0.31
Turkey	As an adult, how do you think your standard of living will compare to your parents? (Mine will be better)	2012	75.80	Gallup World Poll/TRU/IEP	Regression on standard of living (satisfied) v as an adult, - 0.5523x + 180.14, Rsquared = 0.31
Morocco	Candidacy age	2012	100.00	CSIS-IYF/IEP	Assign global average of "candidacy age"
Ghana	Existence of youth policy	2013	100.00	youthpolicy.org	
Egypt	Expenditure per student, secondary (% of GDP per capita)	2004	100.00	OECD	Expenditure per student, secondary (% of GDP per capita)
Kyrgyzstan	Expenditure per student, secondary (% of GDP per capita)	2010	14.80	World Bank/IEP	Regression on public expenditure v expenditure per student, 3.3149x + 5.3161, Rsquared = 0.29
Nigeria	Expenditure per student, secondary (% of GDP per capita)	2003	87.70	World Bank/IEP	Regression on public expenditure v expenditure per student, 3.3149x + 5.3161, Rsquared = 0.30
Russia	Expenditure per student, secondary (% of GDP per capita)	2004	95.00	OECD	Expenditure per student, secondary (% of GDP per capita)
Turkey	Expenditure per student, secondary (% of GDP per capita)	2004	8.50	OECD	Expenditure per student, secondary (% of GDP per capita)
Vietnam	Expenditure per student, secondary (% of GDP per capita)	2006	100.00	UNESCO	Expenditure per student, secondary (% of GDP per capita)
Japan	Global disaster risk reduction score (Hyogo Framework for Assessment)	2011	100.00	HFA website	Average of all indicators in the HFA that have been implemented in country
Jordan	Global disaster risk reduction score (Hyogo Framework for Assessment)	2011	97.60	HFA website + IEP calculation	Middle East-North Africa (MENA) regional average
Kenya	Global disaster risk reduction score (Hyogo Framework for Assessment)	2011	13.31	HFA website	Average of all indicators in the HFA that have been implemented in country
Philippines	Global disaster risk reduction score (Hyogo Framework for Assessment)	2013	75.88	HFA website	Average of all indicators in the HFA that have been implemented in country

Russia	Global disaster risk reduction score (Hyogo Framework for Assessment)	2011	8.96	HFA website + IEP calculation	Russia and CIS regional average
Saudi Arabia	Global disaster risk reduction score (Hyogo Framework for Assessment)	2011	69.38	HFA website + IEP calculation	MENA regional average
South Africa	Global disaster risk reduction score (Hyogo Framework for Assessment)	2013	41.83	HFA website	Average of all indicators in the HFA that have been implemented in country
South Korea	Global disaster risk reduction score (Hyogo Framework for Assessment)	2013	7.06	HFA website	South East Asia regional average
Spain	Global disaster risk reduction score (Hyogo Framework for Assessment)	2013	64.12	HFA website	Average of all indicators in the HFA that have been implemented in country
Thailand	Global disaster risk reduction score (Hyogo Framework for Assessment)	2011	77.00	HFA website	Average of all indicators in the HFA that have been implemented in country
Uganda	Global disaster risk reduction score (Hyogo Framework for Assessment)	2011	42.90	HFA website	Average of all indicators in the HFA that have been implemented in country
United Arab Emirates	Global disaster risk reduction score (Hyogo Framework for Assessment)	2013	5.83	HFA website	Average of all indicators in the HFA that have been implemented in country
United Kingdom	Global disaster risk reduction score (Hyogo Framework for Assessment)	2011	24.25	HFA website + IEP calculation	European regional average
Colombia	How often do you do the following? (Volunteer work) (Few times a month)	2011	98.52	Gallup World Poll/TRU/IEP	Volunteering
Jordan	How often do you do the following? (Volunteer work) (Few times a month)	2012	66.52	Gallup World Poll/TRU/IEP	Volunteering
Morocco	How often do you do the following? (Volunteer work) (Few times a month)	2012	11.68	Gallup World Poll/TRU/IEP	Volunteering
Peru	How often do you do the following? (Volunteer work) (Few times a month)	2011	112.74	Gallup World Poll/TRU/IEP	Volunteering
Colombia	I am concerned about being a victim of a violent crime (agree net)	2011	49.93	Gallup World Poll/GEM/IEP	Response to Gallup World Poll "Safe Walking Alone" (No, 15–24)

Jordan	I am concerned about being a victim of a violent crime (agree net)	2012	48.01	Gallup World Poll/TRU/IEP	Response to Gallup World Poll "Safe Walking Alone" (No, 15–24)
Morocco	I am concerned about being a victim of a violent crime (agree net)	2011	24.58	Gallup World Poll/TRU/IEP	Response to Gallup World Poll "Safe Walking Alone" (No, 15–24)
Peru	I am concerned about being a victim of a violent crime (agree net)	2011	19.96	Gallup World Poll/GEM/IEP	Response to Gallup World Poll "Safe Walking Alone" (No, 15–24)
Colombia	I can't imagine life without the Internet anymore.	2011	52.18	Gallup World Poll/IEP	Regression on GWP Access to Internet (yes) v I Cant Imagine My Life without Internet Anymore, $0.4014x + 30.745$, $R^2 = 0.55$
Japan	I can't imagine life without the Internet anymore.	2012	5.09	Gallup World Poll/IEP	Regression on GWP Access to Internet (yes) v I Can't Imagine My Life without Internet Anymore, $0.4014x + 30.745$, $R^2 = 0.55$
Jordan	I can't imagine life without the Internet anymore.	2012	11.09	Gallup World Poll/IEP	Regression on GWP Access to Internet (yes) v I Can't Imagine My Life without Internet Anymore, $0.4014x + 30.745$, $R^2 = 0.55$
Morocco	I can't imagine life without the Internet anymore.	2012	6.43	Gallup World Poll/IEP	Regression on GWP Access to Internet (yes) v I Can't Imagine My Life without Internet Anymore, $0.4014x + 30.745$, $R^2 = 0.55$
Peru	I can't imagine life without the Internet anymore.	2011	129.03	Gallup World Poll/IEP	Regression on GWP Access to Internet (yes) v I Can't Imagine My Life without Internet Anymore, $0.4014x + 30.745$, $R^2 = 0.55$
Turkey	I can't imagine life without the Internet anymore.	2012	38.23	Gallup World Poll/IEP	Regression on GWP Access to Internet (yes) v I Can't Imagine My Life without Internet Anymore, $0.4014x + 30.745$, $R^2 = 0.55$
Colombia	I don't believe young people are respected enough (agree net)	2011	32.19	Gallup World Poll/GEM/IEP	Response to Gallup World Poll "Are Children Allowed to Learn and Grow" (No, 15–24)
Jordan	I don't believe young people are respected enough (agree net)	2012	131.10	Gallup World Poll/GEM/IEP	Response to Gallup World Poll "Are Children Allowed to Learn and Grow" (No, 15–24)

Morocco	I dont believe young people are respected enough (Agree Net)	2012	29.72	Gallup World Poll/GEM/EP	Response to Gallup World Poll "Are Children Allowed to Learn and Grow" (No, 15–24)
Peru	I dont believe young people are respected enough (Agree Net)	2011	30.14	Gallup World Poll/GEM/EP	Response to Gallup World Poll "Are Children Allowed to Learn and Grow" (No, 15–24)
Australia	Involved In early stage entrepreneurial activity nascent or new business	2010	23.51	Gallup World Poll/GEM/EP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
India	Involved In early stage entrepreneurial activity nascent or new business	2010	48.00	Gallup World Poll/GEM/EP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
Indonesia	Involved In early stage entrepreneurial activity nascent or new business	2010	89.00	Gallup World Poll/GEM/EP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
Jordan	Involved In early stage entrepreneurial activity nascent or new business	2010	87.00	Gallup World Poll/GEM/EP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
Kenya	Involved In early stage entrepreneurial activity nascent or new business	2010	60.64	Gallup World Poll/GEM/EP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
Morocco	Involved In early stage entrepreneurial activity nascent or new business	2010	85.00	Gallup World Poll/GEM/EP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05

Philippines	Involved In early stage entrepreneurial activity nascent or new business	2010	38.00	Gallup World Poll/GEM/IEP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
Saudi Arabia	Involved In early stage entrepreneurial activity nascent or new business	2010	96.00	Gallup World Poll/GEM/IEP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
Tanzania	Involved In early stage entrepreneurial activity nascent or new business	2010	83.00	Gallup World Poll/GEM/IEP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
United Arab Emirates	Involved In early stage entrepreneurial activity nascent or new business	2010	89.00	Gallup World Poll/GEM/IEP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
Vietnam	Involved In early stage entrepreneurial activity nascent or new business	2010	66.72	Gallup World Poll/GEM/IEP	Response to Gallup World Poll "Start Own Business" (yes, 15–24) - Have you ever thought about starting your own business, or not? Regression $0.0013x + 0.058$, Rsquared = 0.05
Colombia	It is important for me to eat healthy right now (agree net)	2012	63.96	South America regional average for TRU data question	
Jordan	It is important for me to eat healthy right now (agree net)	2007	86.00	Pew Research Center's Global Attitudes Project Spring 2007 survey	People who answered that making sure people can get health care services when they need them was one of the most important priorities
Morocco	It is important for me to eat healthy right now (agree net)	2007	78.00	Pew Research Center's Global Attitudes Project Spring 2007 survey	People who answered that making sure people can get health care services when they need them was one of the most important priorities

Peru	It is important for me to eat healthy right now (agree net)	2007	67.27	Pew Research Center's Global Attitudes Project Spring 2007 survey	People who answered that making sure people can get health care services when they need them was one of the most important priorities
Australia	Literacy rate youth total (% of people ages 15–24)	2003	90.00	CIA World Factbook	Age 15 and over can read and write
Germany	Literacy rate youth total (% of people ages 15–24)	2003	68.93	CIA World Factbook	Age 15 and over can read and write
Japan	Literacy rate youth total (% of people ages 15–24)	2002	62.00	CIA World Factbook	Age 15 and over can read and write
Norway	Literacy rate youth total (% of people ages 15–24)	2013	79.00	CIA World Factbook	Age 15 and over can read and write
South Korea	Literacy rate youth total (% of people ages 15–24)	2002	87.00	CIA World Factbook	Age 15 and over can read and write
Sweden	Literacy rate youth total (% of people ages 15–24)	2003	70.00	CIA World Factbook	Age 15 and over can read and write
United Kingdom	Literacy rate youth total (% of people ages 15–24)	2003	67.00	CIA World Factbook	Age 15 and over can read and write
United States	Literacy rate youth total (% of people ages 15–24)	2003	46.00	CIA World Factbook	Age 15 and over can read and write
Australia	Mobile phone subscriptions per 100 people	2012	53.00	ITU Statistics	Mobile phone subscriptions per 100 people
China	Mobile phone subscriptions per 100 people	2012	81.00	ITU Statistics	Mobile phone subscriptions per 100 people
Colombia	Mobile phone subscriptions per 100 people	2012	78.00	ITU Statistics	Mobile phone subscriptions per 100 people
India	Mobile phone subscriptions per 100 people	2012	73.35	ITU Statistics	Mobile phone subscriptions per 100 people
Jordan	Mobile phone subscriptions per 100 people	2012	81.00	ITU Statistics	Mobile phone subscriptions per 100 people
Kenya	Mobile phone subscriptions per 100 people	2012	47.00	ITU Statistics	Mobile phone subscriptions per 100 people
Kyrgyzstan	Mobile phone subscriptions per 100 people	2012	58.00	ITU Statistics	Mobile phone subscriptions per 100 people
Nigeria	Mobile phone subscriptions per 100 people	2012	93.00	ITU Statistics	Mobile phone subscriptions per 100 people
Peru	Mobile phone subscriptions per 100 people	2012	18.00	ITU Statistics	Mobile phone subscriptions per 100 people
Philippines	Mobile phone subscriptions per 100 people	2012	21.00	ITU Statistics	Mobile phone subscriptions per 100 people
Russia	Mobile phone subscriptions per 100 people	2012	18.00	ITU Statistics	Mobile phone subscriptions per 100 people

Saudi Arabia	Mobile phone subscriptions per 100 people	2012	25.00	ITU Statistics	Mobile phone subscriptions per 100 people
South Africa	Mobile phone subscriptions per 100 people	2012	30.00	ITU Statistics	Mobile phone subscriptions per 100 people
Tanzania	Mobile phone subscriptions per 100 people	2012	18.00	ITU Statistics	Mobile phone subscriptions per 100 people
Uganda	Mobile phone subscriptions per 100 people	2012	21.00	ITU Statistics	Mobile phone subscriptions per 100 people
United Arab Emirates	Mobile phone subscriptions per 100 people	2012	25.00	ITU Statistics	Mobile phone subscriptions per 100 people
United States	Mobile phone subscriptions per 100 people	2012	21.00	ITU Statistics	Mobile phone subscriptions per 100 people
Vietnam	Mobile phone subscriptions per 100 people	2012	25.00	ITU Statistics	Mobile phone subscriptions per 100 people
Colombia	My government cares about my wants and needs (agree net)	2010	30.00	Gallup World Poll/TRU/IEP	Regression on TRU Government Respect v GWP Express Political View (Some Are afraid), $-1.0937x + 68.283$, $R^2 = 0.43$
Jordan	My government cares about my wants and needs (agree net)	2009	21.00	Gallup World Poll/TRU/IEP	Regression on TRU Government Respect v GWP Express Political View (Some Are afraid), $-1.0937x + 68.283$, $R^2 = 0.43$
Morocco	My government cares about my wants and needs (agree net)	2010	21.00	Gallup World Poll/TRU/IEP	Regression on TRU Government Respect v GWP Express Political View (Some Are afraid), $-1.0937x + 68.283$, $R^2 = 0.43$
Peru	My government cares about my wants and needs (agree net)	2010	23.00	Gallup World Poll/TRU/IEP	Regression on TRU Government Respect v GWP Express Political View (Some Are afraid), $-1.0937x + 68.283$, $R^2 = 0.43$
Vietnam	My government cares about my wants and needs (agree net)	2010	23.00	Gallup World Poll/TRU/IEP	Regression on TRU Government Respect v GWP Express Political View (Some Are afraid), $-1.0937x + 68.283$, $R^2 = 0.43$
Colombia	My life is too stressful (agree net)	2011	30.00	Gallup World Poll/IEP	Response to Gallup World Poll "Standard of Living" (dissatisfied, 15–24)
Jordan	My life is too stressful (agree net)	2011	25.00	Gallup World Poll/IEP	Response to Gallup World Poll "Standard of Living" (dissatisfied, 15–24)
Morocco	My life is too stressful (agree net)	2011	25.00	Gallup World Poll/IEP	Response to Gallup World Poll "Standard of Living" (dissatisfied, 15–24)

Peru	My life is too stressful (agree net)	2011	21.00	Gallup World Poll/IEP	Response to Gallup World Poll "Standard of Living" (dissatisfied, 15–24)
India	People living with HIV/AIDS total	2009	30.00	World Bank	People 15–49 living with AIDS
Jordan	People living with HIV/AIDS total	2006	18.00	UNAIDS	Adult population with AIDS
Russia	People living with HIV/AIDS total	2007	25.00	UNAIDS	Adult population with AIDS
Saudi Arabia	People living with HIV/AIDS total	2001	18.00	CIA World Factbook	People 15–49 living with AIDS
United Arab Emirates	People living with HIV/AIDS total	2008	18.00	http://www.naseej-cyd.org	Adult population with AIDS
Australia	Percentage of households with radio	1997	21.00	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
China	Percentage of households with radio	1997	25.00	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
Germany	Percentage of households with radio	1997	30.00	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
Japan	Percentage of households with radio	1997	18.00	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
Norway	Percentage of households with radio	1997	18.00	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
Saudi Arabia	Percentage of households with radio	1997	25.00	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
South Korea	Percentage of households with radio	1997	21.00	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
Sweden	Percentage of households with radio	1997	0.58	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
Turkey	Percentage of households with radio	1997	0.54	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
United Kingdom	Percentage of households with radio	1997	0.43	UNESCO	100*Radios per capita (capped at 100) * 2.5 people per household
Australia	Percentage of households with TV	1997	0.70	UNESCO	TVs per 1,000 (capped at 100)/10 * 2.5 people per household

China	Percentage of households with TV	1997	0.35	UNESCO	TVs per 1,000 (capped at 100)/10 * 2.5 people per household
Saudi Arabia	Percentage of households with TV	1997	0.51	UNESCO	TVs per 1,000 (capped at 100)/10 * 2.5 people per household
Australia	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	2008	0.61	Cancer Council	15–24 year olds 2008
Germany	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	2001	0.65	WHO	14–15 year old smokers
Japan	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	2006	0.61	What Japan Thinks	National smoking rate, at least one per day
Norway	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	1999	0.47	WHO	Overall smoking rate of 15–16 year olds
Spain	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	2000	0.46	WHO	Average of male and female smoking rates 14–18
Sweden	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	1999	0.55	WHO	Overall smoking rate of 15–16 year olds
United Kingdom	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	2010	0.53	Cancer Research Council	16–24 year olds 2010
United States	Percentage of students who smoked cigarettes on at least 1 day during the month preceding the survey	2010	0.44	CDC	High school
Australia	Primary school completion rate	2013	0.51	Assumption	
United Kingdom	Primary school completion rate	2013	0.53	Assumption	
Nigeria	Public spending on education total (% of GDP)	2003	0.46	University of Lagos	Public spending on education total (% of GDP)
Germany	School life expectancy (years), primary to tertiary	2006	0.26	CIA World Factbook	School life expectancy (years), primary to tertiary
South Africa	School life expectancy (years), primary to tertiary	2004	0.49	CIA World Factbook	School life expectancy (years), primary to tertiary
United Arab Emirates	School life expectancy (years), primary to tertiary	2009	0.67	CIA World Factbook	School life expectancy (years), primary to tertiary

China	Unemployment youth total (% 15–24)	2012	0.58	World Bank/IEP	Assign global average of "Unemployment youth total (% 15–24)"
Kenya	Unemployment youth total (% 15–24)	2012	0.45	United Nations	Unemployment youth total (% 15–24)
Nigeria	Unemployment youth total (% 15–24)	2012	0.57	Guidance and Counselling Unit, School of Education, National Open University of Nigeria	Unemployment youth total (% 15–24)
Saudi Arabia	World Justice Report— Fundamental Rights	2012	0.65	MENA regional average for World Justice Report	
Jordan	Youth not in employment or education (NEET)	2013	0.60	World Bank	Youth not in employment or education 15–24 years (average of education levels, NEET with primary education 27%, secondary 18%, tertiary 48%)
Morocco	Youth not in employment or education (NEET)	2013	0.45	World Bank	Youth not in employment or education 15–24 years (average of education levels, NEET with primary education 15%, secondary 22%, tertiary 50%)
South Korea	Youth not in employment or education (NEET)	2013	0.60	http://www.yannprell.com/tag/neets/	Youth not in employment or education 15–29 years