GALLUP

Gallup World Poll

Methodology

TABLE OF CONTENTS

Methodology Overview **4**
Preparing for Data Collection **5**
Sampling and Data Collection Methodology **7**
Data Preparation **9**
World Poll Methodology in 2020 and 2021 Because of COVID-19 ..... **10**
Education and Income: Creating Worldwide Comparability **11**
Employment **13**
Overview of Gallup World Poll Indexes **15**
Law and Order Index 16
Food and Shelter Index 17
Community Basics Index 18
National Institutions Index 19
Youth Development Index 20
Communications Access Index 21
Communications Use Index 22
Corruption Index 23
Job Climate Index 24
Financial Life Index 25
Economic Confidence Index 26
Personal Health Index 27
Social Life Index 28
Civic Engagement Index 29
Overview of Life Evaluation and Daily Experience Indexes 30
Life Evaluation Index 31
Positive Experience Index 32
Negative Experience Index 33
Daily Experience Index 34
Community Attachment Index 35
Diversity Index 36
Optimism Index 37
Migrant Acceptance Index 38
Appendix A: Gallup World Path: Macroeconomics **39**
Appendix B: External Measures **40**

COPYRIGHT STANDARDS

Methodology Overview

Gallup's World Poll continually surveys residents in more than 150 countries and areas, representing more than 98% of the world's adult population, using randomly selected, nationally representative samples. Gallup typically surveys 1,000 individuals in each country or area, using a standard set of core questions that has been translated into the major languages of the respective country. In some regions, supplemental questions are asked in addition to core questions.

Face-to-face interviews are approximately 1 hour, while telephone interviews are about 30 minutes. In many countries, the survey is conducted once per year, and fieldwork is generally completed in two to four weeks. The Country Dataset Details document displays each country's sample size, month/year of the data collection, mode of interviewing, languages employed, design effect, margin of error and details about sample coverage.

Gallup is entirely responsible for the management, design and control of Gallup's World Poll. For more than 80 years, Gallup has been committed to the principle that accurately collecting and disseminating the opinions and aspirations of people around the globe is vital to understanding our world. Gallup's mission is to provide information in an objective, reliable and scientifically grounded manner. Gallup is not associated with any political orientation, party or advocacy group and does not accept partisan entities as clients. Any individual, institution or governmental agency may access the Gallup World Poll regardless of nationality. The identities of clients and all surveyed respondents remain confidential.

Research Ethics

Gallup has a strong commitment to research ethics. Gallup operates an internal Institutional Review Board (IRB) that is responsible for the oversight of international research. The IRB's authority is to review the World Poll study protocol annually to ensure its design minimizes respondents' burden and protects the rights and welfare of human subjects.

Preparing for Data Collection

Question Design

Gallup develops its questions using a global network of research and political scientists[1] who understand key issues concerning question development and construction and data gathering. The organization has developed, tested, piloted and finalized thousands of questions since the World Poll's inception. Gallup retained the best questions for the core World Poll questionnaire and organized them into indexes. Most of the items have a simple dichotomous ("yes or no") response set to minimize cultural differences in response styles and to facilitate cross-cultural comparisons.

The Gallup World Poll measures key indicators such as law and order, food and shelter, job creation, migration, financial life, personal health, civic engagement and evaluative wellbeing that are related to other world development indicators. These indicators assist leaders in understanding the broad context of national interests, and establish specific relationships between indexes and lagging economic outcomes.

Gallup organizes its core group of indicators into the Gallup World Path (see Appendix A). The Path is an organizational conceptualization of seven indexes and should not be construed as a causal model. The individual indexes have many properties of a strong theoretical framework. A more in-depth description of the questions and Gallup indexes is included in the indexes section of this document.

In addition to the indexes, Gallup World Poll questions also measure opinions about national institutions, corruption, youth development, community basics, diversity, optimism, communications and other topics. In many regions of the world, Gallup asks additional questions that are specific to that region or a country.

Translation

The questionnaire is translated into the major conversational languages of each country. The translation process starts with an English, French, Portuguese or Spanish version, depending on the region. A translator translates into the target language. An independent third party with knowledge of survey methods reviews and revises the translation as necessary.

Core Gallup World Poll question translations remain consistent over time. Any new question items are translated according to the Gallup World Poll's quality procedures. Interviewers are instructed to follow the interview script and may not deviate from the translated language.

1 The Brookings Institution, World Bank, USAID, United Nations, the late Daniel Kahneman, the late Ed Diener, Deepak Chopra, Richard Florida, John Helliwell, Jeffrey Sachs and Arthur Stone were consulted as part of the World Poll project.

Training and Field Quality Control

Gallup selects vendors based on experience in nationwide survey research studies and conducts in-depth training sessions with local field staff prior to the start of data collection. To assist the fieldwork team with training and to ensure consistency and structure, Gallup provides a standardized training manual. Topics covered in training include:

1. Standards for conducting a quality interview:
   - Closed-ended questions
   - Open-ended questions
   - Skip patterns
   - Probing
2. Random route procedures:
   - Selecting a starting point
   - Household selection and substitution
   - Within household selection
   - Disposition coding

Sampling and Data Collection Methodology

With some exceptions, all samples are probability based and nationally representative of the resident adult population. The coverage area is the entire country including rural areas, and the sampling frame represents the entire civilian, non-institutionalized, aged 15 and older population. Exceptions include areas where the safety of interviewing staff is threatened, scarcely populated areas in some countries, and areas that interviewers can reach only by foot, animal or small boat. Gallup World Poll is a household survey; group quarters, homeless persons, and nomadic residents are not included.

Gallup uses telephone surveys in Northern America Western Europe, developed Asia, and Gulf Cooperation Council (GCC) countries. In Central and Eastern Europe, much of Latin America, former Soviet states, nearly all of Asia, the Middle East and Africa, an area frame design is used for face-to-face interviewing.

The typical Gallup World Poll survey includes interviews with at least 1,000 individuals. In some countries, Gallup collects oversamples in major cities or areas of special interest. Additionally, in some large countries, such as China and Russia, sample sizes may include at least 2,000 adults for some waves. Although rare, in some instances, the sample size falls between 500 and 1,000.

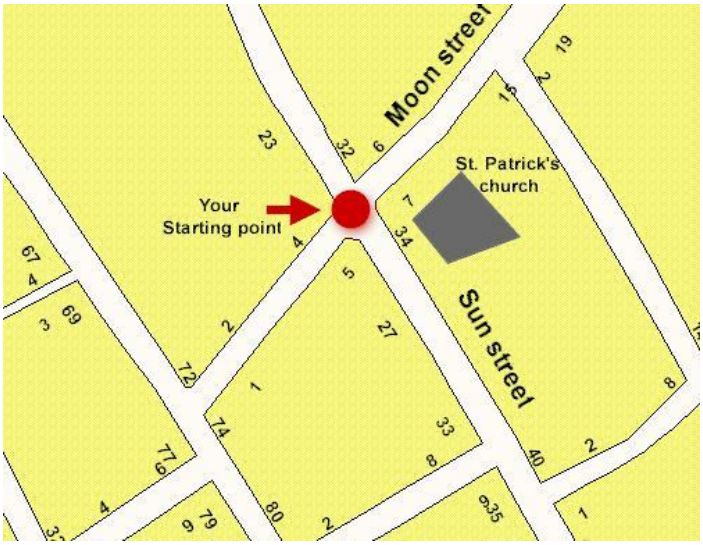
Face-to-Face Survey Design

First Stage: Stratification and sampling

In countries where face-to-face surveys are conducted, sampling units are stratified by population size and or geography and clustering is achieved through one or more stages of sampling. Where population information is available, sample selection is based on probabilities proportional to population size, otherwise, simple random sampling is used. Samples are drawn independently of any samples drawn for surveys conducted in previous years. The goal is to identify 100 to 125 ultimate clusters (sampling units), consisting of clusters of households.

Second Stage: Household selection

Random route procedures are used to select sampled households. In each ultimate cluster, the supervisor or field manager has pre-selected a starting point/address for the interviewer. Once the interviewer reaches the starting point, he or she will need to follow strict rules to determine the households he or she will need to visit to attempt an interview.



Third Stage: Respondent selection

After a person in the household, aged 15 or older, has agreed to an interview, the interviewer's next step is to randomly select the respondent within the household. The interviewer lists all household members age 15+ who live in the household. The CAPI (Computer Assisted Personal Interviewing) system then randomly selects the household member to be interviewed. (For countries or areas where paper and pencil interviewing are employed, the Kish grid selection is used.)

Telephone Survey Design

In countries where interviews are conducted by telephone, Gallup uses random-digit-dialing (RDD) or a nationally representative list of phone numbers. Gallup typically uses either a dual sampling frame (landline and mobile telephone) or a mobile telephone only frame. The split between expected landline and mobile completes in a dual-frame design is based on information Gallup has on landline and mobile use in those countries, either from past surveys or other secondary data.

For respondents contacted by landline telephone, random respondent selection within the household (among eligible respondents aged 15 and older) is performed by:

- asking for the person aged 15 and older who has the next birthday, or
- listing all eligible household members, and random selection of the respondent by the CATI program

Panel Survey Design

Prior to 2009, and in 2024, U.S. data were collected using the Gallup Panel. The Gallup Panel is a probability-based, nationally representative panel.

Data Preparation

Quality Assurance

To ensure interviewers are following the methodology and executing the questionnaire properly, Gallup requires vendors to conduct in-field validations for a percentage of face-to-face interviews and telephone interviews. Face-to-face interviews are validated by supervisor accompaniment, in-person re-contact, phone re-contact, or listening to recorded interviews. Telephone interviews are validated by live listen-ins, or recordings. In addition, interviewer productivity metrics and para data are tracked throughout data collection.

The dataset goes through a rigorous quality assurance process before it is publicly released. Gallup's directors of survey research in each region of the world review the data to confirm the sampling plan was followed and the data are nationally representative. They also review the data for consistency and stability by interviewer and region. If the regional director suspects a problem, it may be necessary to collect new data.

After the regional directors review the data, Gallup scientists perform additional validity reviews. The data are centrally aggregated and cleaned, ensuring correct variable codes and labels are applied. The data are then reviewed in detail for logical consistency and trends over time. Once the data are cleaned, weighted and vetted, the final step is to calculate approximate study design effect and margin of error.

Data Weighting

Data weighting is used to minimize bias in survey-based estimates, to ensure samples are nationally representative for each country and is intended to be used for generating estimates within a country. The weighting procedure was formulated based on the sample design and performed in multiple stages.

In countries where data are collected face-to-face, first Gallup constructs sampling weights to account for any disproportionality in selection of primary and subsequent levels of sampling within each stratum. Sampling weights are calculated to account for any disproportionalities in allocation and probability of selection.

In countries where data are collected via telephone, Gallup constructs a probability weight factor (base weight) to account for selection of telephone numbers from the respective frames and correct for unequal selection probabilities

Next, the base weights are post-stratified to adjust for non-response and to match the weighted sample totals to known target population totals obtained from country level census data. Gallup makes non-response adjustments to gender, age, and, where reliable data are available, education or socioeconomic status.

Margin of Error

The maximum margin of error is calculated for each country-level dataset, assuming a 95% confidence level. The margin of error also includes the approximate design effect, taking into account the variability in weights for the total country sample.

Because these surveys are a clustered sample design, the margin of error varies by question, and if the data user is making decisions based on the margin of error, he or she should consider using appropriate software that incorporates design variables such as strata and clustering.

World Poll Methodology in 2020 and 2021 Because of COVID-19

In 2020, the prevalence of COVID-19 presented too much risk of community transmission to conduct face-to-face data collection in the Gallup World Poll. Gallup prepared a contingency methodology based entirely on telephone interviewing, with the goal of protecting the safety of interviewers and respondents, retaining high levels of representativity, and ensuring high quality of data collection. As a standard practice, Gallup and our partners comply with all government-issued guidance from local authorities and have taken this guidance into account throughout the interviewing process, including following social distancing measures for telephone interviews. Gallup and local data collection agencies conducted all training remotely using available technologies such as e-learning and video conferencing.

All samples were probability based and nationally representative of the resident adult population. The sampling frame represented adults aged 15 and older with access to a phone (either landline or mobile).

In 2022, Gallup returned to face-to-face interviewing in most regions/countries where it had traditionally collected World Poll surveys using this mode.

Education and Income: Creating Worldwide Comparability

The ways that income and education are reported vary by country, making equivalent cross-cultural comparisons difficult. Gallup harmonized education variables and consulted with Gallup Senior Scientist Angus Deaton[2] to create income variables. In doing so, Gallup has created a worldwide dataset with standardized respondent-level education and income data.

Education

Countries have unique ways of classifying education levels, and these classifications need to be preserved during data collection for weighting purposes. However, to make comparisons across countries by educational attainment, consistent categories also needed to be created. All education descriptions can be placed within three categories: elementary, secondary and tertiary. All responses regarding education are coded into their relevant category for global comparison.

- **Elementary:** Completed elementary education or less (up to eight years of basic education)
- **Secondary:** Completed some secondary education up to three years tertiary education (nine to 15 years of education)
- **Tertiary:** Completed four years of education beyond “high school” and/or received a four-year college degree

Income

How Gallup Measures Income

To provide household income measurements that are comparable across countries, Gallup asks respondents two questions. The respondent who answers these questions is the one randomly selected from the household in the final stage of sampling. The first question asks respondents about their monthly household income in local currency before taxes. Respondents are instructed to include all income from all wages and salaries in the household, remittances from family members living elsewhere, and all other sources. In a few countries, Gallup asks about annual rather than monthly income.

If respondents hesitate to answer or have difficulty answering the first question, they are presented with a set of income ranges in their local currency.

- *What is your total MONTHLY household income in (country), before taxes? Please include income from wages and salaries, remittances from family members living elsewhere, farming, and all other sources.*
- *(If don’t know or refused, ask:) Would you say your total MONTHLY household income is _____ ?*

Estimates for respondents answering the second income question are computed using hot deck imputation, while restricting imputing values to the reported range. Estimates for respondents who did not answer either income question are imputed using the same method, with no restriction of range. In this imputation process, each missing value is replaced with an observed value from another unit that has characteristics similar to the missing unit.

[2] Thank you to Angus Deaton for his expertise and input during the creation of income variables. Angus Deaton, Ph.D., is a Gallup Senior Scientist and the Dwight D. Eisenhower Professor of Economics and International Affairs Emeritus at the Princeton School of Public and International Affairs and the Economics Department at Princeton University.

Estimates of household income are expressed in both local and International Dollars. Local income is converted to International Dollars using the World Bank's individual consumption PPP conversion factor, making income estimates comparable across all countries. From these two questions, several income variables are created.

Gallup researchers calculate the following income variables:

- Annual Household Income in Local Currency
- Annual Household Income in International Dollars
- Per Capita Annual Income in Local Currency
- Per Capita Annual Income in International Dollars
- Per Capita Income Quintiles
- Reported Versus Imputed Values
- Total Number of People Living in Household

Employment

Gallup has released employment measures, starting with 2009 figures, as part of the World Poll dataset. Gallup collects employment information using identical questions worldwide and standardizes calculations, making equivalent cross-national comparisons possible.

Gallup's Research and Development of Employment Metrics

In 2009, Gallup began developing and testing a question series that measures key employment metrics as outlined by International Conference of Labour Statisticians' standards. The questionnaire went through several revisions before Gallup implemented a final version. Gallup has collected data on a nightly basis in the U.S. since April 2009, and the data collected in the U.S. are in line with those the Bureau of Labor Statistics (BLS) reported during the same time period. Not only are Gallup's unadjusted numbers highly correlated with BLS numbers, but Gallup's unemployment data are also highly predictive of the official seasonally adjusted figures the BLS reports each month.

Categories of Employment

Gallup classifies respondents into one of six categories of employment based on a respondent's combination of answers to a series of questions about employment. Respondents worldwide are asked an identical series of questions and classification calculations for each respondent and country-level aggregates are also standardized.

Employed Full Time for an Employer

A respondent is considered employed full time for an employer if he or she is employed by an **employer** and if he or she works for this employer for at least 30 hours per week.

Employed Full Time for Self

Respondents are considered employed full time for themselves if they are self-employed and if they work for at least 30 hours per week.

Employed Part Time, Do Not Want to Work Full Time

Respondents who work either for an employer or themselves and do not work more than 30 hours per week at either job are categorized as employed part time. Additionally, when asked, these respondents indicated that they **do not** want to work more than 30 hours per week.

Employed Part Time, Want to Work Full Time

Respondents who work either for an employer or themselves and do not work more than 30 hours per week at either job are categorized as employed part time. Additionally, when asked, these respondents indicated that they **do** want to work more than 30 hours per week.

Unemployed

A respondent is unemployed if he/she reports not being employed in the last seven days, either for an employer or for himself or herself. The respondent must also report actively looking for a job in the past four weeks AND being able to begin work in the last four weeks.

Out of the Workforce

Respondents who are out of the workforce were not employed within the last seven days, either for an employer or for themselves, are not looking for work, AND/OR are not available to start work. Respondents may be full-time students, retired, disabled or homemakers; however, some respondents will not fall into any of these scenarios.

Employment Indexes

In addition to the employment variable, Gallup also calculates four employment indexes: unemployment, underemployment, employed full time for an employer and labor force participation rate.

Unemployment

The Gallup Unemployment Rate is the percentage of respondents in the workforce who are not employed, who have been actively looking for work within the last four weeks, AND who say they would have been able to begin work in the last four weeks. Gallup's unemployment measure is comparable to BLS and International Labour Organization unemployment calculations.

Underemployment

The Gallup Underemployment Index measures the percentage of respondents in the workforce who are working at less than desired capacity. Respondents are "underemployed" if they are employed part time but want to work full time OR if they are unemployed.

Employed Full Time for an Employer

The Gallup Employed Full Time for an Employer Index measures the percentage of the workforce that is employed full time for an employer. A respondent is classified as employed for an employer if he or she works at least 30 hours per week for an employer.

Employed Full Time for an Employer — Percentage of Population

This index measures the percentage of the population that is employed full time for an employer. This index is calculated based on the total population.

Labor Force Participation Rate

The Labor Force Participation Rate Index is a measure of the percentage of the adult population that is part of the workforce. This includes people who are unemployed, as they desire to be active members of the workforce.

Total Number of Hours Work Per Week

The total number of hours work per week includes hours worked for an employer or self, and categorizes them into five groups: Less than 15 hours per week, 15 to 29 hours per week, 30 to 39 hours per week, 40 to 49 hours per week, 50 or more hours per week.

Overview of Gallup World Poll Indexes

Gallup indexes span multiple political, social and economic topics that make up the interconnected components of the Gallup World Path: Macroeconomics, a behavioral economic model for the well-being of societies. The indexes break down according to the elements of the Gallup World Path.

Law and Order	Law and Order Index
Food and Shelter	Food and Shelter Index
Institutions and Infrastructure	Community Basics Index National Institutions Index Youth Development Index Communications Use Index Communications Access Index Corruption Index
Good Jobs	Job Climate Index
Well-Being	Financial Life Index Economic Confidence Index Local Economic Confidence Index Personal Health Index Social Life Index Civic Engagement Index Life Evaluation Index Positive Experience Index Negative Experience Index Daily Experience Index
Brain Gain	Community Attachment Index

The vast amount of data allow Gallup to calculate other indexes, as shown in this document. Because of government restrictions in some countries, interviewers cannot ask select questions. If the missing question is part of an index, it may not have been possible to calculate an index score for that country.

Gallup scientists used Cronbach's alpha on country-level data to evaluate index reliability. For all indexes, this measure is .69 or greater, and for many it exceeds .85. Additionally, scientists correlated indexes at the country level with all Gallup World Poll indexes. Further, Gallup scientists used World Bank, CIA, United Nations and Freedom House measures to validate the indexes against external measures. See Appendix B for descriptions of external measures. The most relevant relationships for each index are detailed. All correlations are significant at the .01 level.

Law and Order Index

The Law and Order Index measures security levels that respondents report. It incorporates four questions that gauge respondents' sense of personal security. Higher scores on this index indicate that more residents report feeling secure.

Reliability

The Law and Order Index has a Cronbach's alpha of .75 when aggregated at the country level.

Law and Order — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Food and Shelter Index	0.716
Community Basics Index	0.711
Local Economic Confidence Index	0.691
Community Attachment Index	0.669
Youth Development Index	0.665

External Measures (descriptions in Appendix B)	Pearson's r
Maternal mortality ratio (modeled estimate, per 100,000 live births) *	-.715
Adolescent fertility rate	-.686
People using safely managed sanitation services	.678
Depth of the food deficit (kilocalories per person per day)*	-.646
Life expectancy (total years)	.639
GDP per capita, PPP*	.614
Mortality rate, infant	-.602
Mortality rate, under-5	-.597
Internet users	.575
Health expenditure per capita*	.557
Intentional homicides	-.535

**Log transformation*

Food and Shelter Index

The Food and Shelter Index assesses the ability people have to meet basic needs for food and shelter. Lower scores on this index indicate that more respondents reported struggling to afford food and shelter in the past year, while higher scores indicate fewer respondents reported such struggles.

As would be expected, respondents in wealthier countries are more likely than those in lesser developed nations to report difficulties in affording food and shelter. However, even in the wealthiest countries, some percentage of the population has struggled. The Food and Shelter Index serves as an effective summary measure and indicator of the prevalence of poverty across individuals in a group, country or region.

Reliability

The Food and Shelter Index has a Cronbach's alpha of .82 when aggregated at the country level.

Food and Shelter — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Communications Use Index	.834
Communications Access Index	.818
Law and Order Index	.716
Community Attachment Index	.654
Thriving Index	.652
Personal Health Index	.650
Social Life Index	.641

External Measures (descriptions in Appendix B)	Pearson's r
Maternal mortality ratio*	-.897
GDP per capita, PPP*	.866
Health expenditures per capita*	.854
Internet users	.846
Life expectancy	.837
Depth of the food deficit (kilocalories per person per day)*	-.825
Adolescent fertility rate	-.807
Mortality rate, infant	-.773
Mortality rate, under 5	-.757
People using at least basic drinking water (% of population)	.744
People using safely managed sanitation services	.734
Rural population	-.633
Urban population	.633

**Log transformation*

Community Basics Index

The Community Basics Index evaluates everyday life in a community, including environment, housing and infrastructure. Because of the functional nature of the items that make up the index, it is practical to view it as a driver of more abstract constructs such as overall satisfaction with life in a community, or the likelihood that one is to recommend the community as a place to live, or the likelihood one is to leave the community. This approach is apparent in the relationships the index has with other Gallup World Poll indexes such as the Community Attachment Index.

Reliability

The Community Basics Index has a Cronbach's alpha of .90 when aggregated at the country level.

Community Basics — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Youth Development Index	.842
Local Economic Confidence Index	.787
Financial Life Index	.758
Community Attachment Index	.756
Law and Order Index	.711
Social Life Index	.676
Daily Experience Index	.660
Personal Health Index	.644
Thriving Index	.596
Optimism Index	.595

External Measures (descriptions in Appendix B)	Pearson's r
GDP per capita, PPP*	.546
People using safely managed sanitation services	.562
Life expectancy	.551
Mortality rate, infant	-.519
Mortality rate, under-5	-.519
Maternal mortality ratio*	-.521
Youth literacy rate	.508

**Log transformation*

National Institutions Index

The National Institutions Index reflects citizens' confidence in key institutions prominent in a country's leadership: the military, the judicial system, the national government and the honesty of elections.

Reliability

The National Institutions Index has a Cronbach's alpha of .87 when aggregated at the country level.

National Institutions — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Youth Development Index	.720
Corruption Index	-.629
Job Climate Index	.593
Community Basics Index	.578
Local Economic Confidence Index	.512

External Measures (descriptions in Appendix B)	Pearson's r
Homicide rate	-.354
Health expenditure per capita*	.328
GDP Growth (annual %)	.328

**Log transformation*

Youth Development Index

The Youth Development Index measures a community's focus on the welfare of its children. This index includes general measures of development of youth and respect for youth, along with satisfaction with the educational system.

Reliability

The Youth Development Index has a Cronbach's alpha of .83 when aggregated at the country level.

Youth Development — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Community Basics Index	.842
Local Economic Confidence Index	.756
National Institutions Index	.720
Financial Life Index	.706
Law and Order Index	.665
Community Attachment Index	.625
Job Climate Index	.618

External Measures (descriptions in Appendix B)	Pearson's r
GDP per capita, PPP*	.433
Gini Index	-.513
Health expenditures per capita*	.408
People using safely managed sanitation services	.500
Maternal mortality*	-.456

**Log transformation*

Communications Access Index

The Communications Access Index measures respondents' access to telephone and internet for personal use.

Communications Access — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Communications Use Index	.996
Food and Shelter Index	.818
Social Life Index	.702
Personal Health Index	.683
Thriving Index	.668

External Measures (descriptions in Appendix B)	Pearson's r
Internet users	.926
GDP per capita, PPP*	.924
Health expenditures per capita*	.875
Mortality rate, infant	-.873
People using at least basic drinking water (% of population)	.861
Mortality rate, under 5	-.861
Maternal mortality ratio*	-.857
Life expectancy	.843
Depth of the food deficit (kilocalories per person per day)*	-.842
Adult literacy rate	.827
Youth literacy rate	.780
Adolescent fertility rate	-.779

**Log transformation*

Communications Use Index

The Communications Use Index measures respondents' access to telephone and internet for personal use, and use of the internet in the past seven days.

Communications Use — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Communications Access Index	.996
Food and Shelter Index	.834
Social Life Index	.707
Thriving Index	.693
Personal Health Index	.679

External Measures (descriptions in Appendix B)	Pearson's r
Internet users	.941
GDP per capita, PPP*	.931
Health expenditures per capita*	.893
Mortality rate, infant	-.878
Maternal mortality ratio*	-.871
Mortality rate, under 5	-.865
Life expectancy	.859
People using at least basic drinking water (% of population)	.857
Depth of the food deficit (kilocalories per person per day)*	-.837
Adult literacy rate	.829
Adolescent fertility ate	-.790
Youth literacy rate	.776
Rural population	-.767
People using safely managed sanitation services	.759

**Log transformation*

Corruption Index

The Corruption Index measures perceptions in a community about the level of corruption in business and government. Higher scores on the Corruption Index indicate more residents perceive corruption as widespread.

Reliability

The Corruption Index has a Cronbach's alpha of .96 when aggregated at the country level.

Corruption — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
National Institutions Index	-.629
Youth Development Index	-.544
Law and Order Index	-.515
Financial Life Index	-.486
Community Basics Index	-.472

External Measures (descriptions in Appendix B)	Pearson's r
GDP per capita, PPP*	-.332
Health expenditure per capita*	-.341
People using safely managed sanitation services	-.389

**Log transformation*

Job Climate Index

The Job Climate Index measures the attitudes about a community's efforts to provide economic opportunities.

Reliability

The Job Climate Index has a Cronbach's alpha of .85 when aggregated at the country level.

Job Climate — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Optimism Index	.876
Local Economic Confidence Index	.762
Financial Life Index	.709
Youth Development Index	.618
National Institutions Index	.593
Community Basics Index	.574

External Measures (descriptions in Appendix B)	Pearson's r
GDP growth (annual %)	.422
Unemployment (% of workforce)	-.413

Financial Life Index

The Financial Life Index measures respondents' personal economic situations and the economics of the community where they live. The subjective measures of financial life that make up the index are an important complement to traditional macroeconomic indicators such as GDP and unemployment rates, particularly in cases in which these data are difficult to obtain or the quality is suspect.

Even in developed regions where traditional economic indicators are highly reliable, survey data represent complementary measures that can compensate for existing "blind spots." GDP, for instance, is an important measure of rising or falling economic activity in the monetized sector, but an imprecise indicator of how such changes translate to living conditions for the bulk of the country's population. Survey data on satisfaction with living standards, on the other hand, help complete the picture with a bottom-up perspective that accounts for individual-level judgments of welfare. Furthermore, expressions of sentiment often serve as leading indicators of economic conditions. Perhaps the greatest promise of these data is their potential to predict economic progress.

Reliability

The Financial Life Index has a Cronbach's alpha of .86 when aggregated at the country level.

Financial LIfe — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Local Economic Confidence Index	.888
Optimism Index	.774
Community Basics Index	.758
Thriving Index	.750
Community Attachment Index	.713
Job Climate Index	.709
Diversity Index	.707
Youth Development Index	.706
Social Life Index	.692
External Measures (descriptions in Appendix B)	**Pearson's r**
People using safely managed sanitation services	.606
GDP per capita, PPP*	.601
Health expenditure per capita*	.593
Life expectancy	.577
Maternal mortality ratio*	-.563
Depth of the food deficit (kilocalories per person per day)*	-.545
Internet users	.544
People using at least basic drinking water (% of population)	.533
Mortality rate, infant	-.524
Mortality rate, under 5	-.515
Adolescent fertility rate	-.509

**Log transformation*

Local Economic Confidence

Gallup's Local Economic Confidence Index is based on the combined responses to two questions asking respondents, first, to rate economic conditions in their city today, and second, whether they think economic conditions in their city as a whole are getting better or getting worse.

Local Economic Confidence — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Financial Life Index	.888
Community Basics Index	.787
Optimism Index	.775
Job Climate Index	.762
Youth Development Index	.756
Community Attachment Index	.723
Law and Order Index	.691
Social Life Index	.650
Daily Experience Index	.650
Suffering Index	-.644
Thriving Index	.627

External Measures (descriptions in Appendix B)	Pearson's r
People using safely managed sanitation services	.588
Maternal mortality ratio*	-.542
GDP per capita, PPP*	.539
Depth of the food deficit (kilocalories per person per day)*	-.530
Mortality rate, infant	-.502
Life expectancy	.499

**Log transformation*

Personal Health Index

The Personal Health Index measures perceptions of one's own health. Attempts to assess the state of a country's overall health usually involve the accumulation of health-related statistics such as life expectancy, infant mortality, and disease infection rates. Additionally, many government studies in individual countries collect health data via surveys from their own residents. Less numerous are survey projects that collect consistent health-related data from respondents across several countries, and in most cases those multinational efforts focus on Western countries.

Reliability

The Personal Health Index has a Cronbach's alpha of .77 when aggregated at the country level.

Personal Health — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Negative Experience Index	-.896
Daily Experience Index	.830
Social Life Index	.737
Communications Access Index	.683
Communications Use Index	.679
Food and Shelter Index	.650
Community Basics Index	.644
Financial Life Index	.601
Local Economic Confidence Index	.599
Law and Order Index	.577
Community Attachment Index	.575

External Measures (descriptions in Appendix B)	Pearson's r
GDP per capita, PPP*	.699
Mortality rate, under 5	-.659
Mortality rate, infant	-.658
Internet users	.655
Youth literacy rate	.642
Life expectancy	.637
Adult literacy rate	.637
People using at least basic drinking water (% of population)	.636
Maternal mortality ratio*	-.631
Health expenditures per capita*	.620
Depth of the food deficit (kilocalories per person per day)*	-.619
Adolescent fertility rate	-.609

**Log transformation*

Social Life Index

The Social Life Index assesses a respondent's social support structure and opportunities to make friends in the city or area where he or she lives.

Reliability

The Social Life Index has a Cronbach's alpha of .65 when aggregated at the country level.

Social Life — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Daily Experience Index	.771
Community Attachment Index	.752
Personal Health Index	.737
Thriving Index	.715
Communications Use Index	.707
Communications Access Index	.702
Financial Life Index	.692
Community Basics Index	.676
Local Economic Confidence Index	.650
Food and Shelter Index	.641
Negative Experience Index	-.638
Suffering Index	-.634

External Measures (descriptions in Appendix B)	Pearson's r
GDP per capita, PPP*	.704
Life expectancy	.695
Health expenditures per capita*	.693
Mortality rate, infant	-.689
Mortality rate, under-5	-.686
People using at least basic drinking water (% of population)	.674
Literacy rate	.674
Maternal mortality ratio*	-.660
Internet users	.656
Youth literacy rate	.642

**Log transformation*

Civic Engagement Index

The Civic Engagement Index assesses respondents' inclination to volunteer their time and assistance to others. It is designed to measure a respondent's commitment to the community where he or she lives.

Reliability

The Civic Engagement Index has a Cronbach's alpha of .81 when aggregated at the country level.

Civic Engagement — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Optimism Index	.413
Positive Experience Index	.409
Financial Life Index	.402

External Measures (descriptions in Appendix B)	Pearson's r
Unemployment rate	-.225

Overview of Life Evaluation and Daily Experience Indexes

Life Evaluation and Daily Experience Indexes reflect a broad view of the wellbeing concept; they include measures of life satisfaction, optimism, meaning and purpose, domain satisfaction, optimism, and positive and negative effect. Wellbeing is broken down into four indexes: Life Evaluation, Positive Experience, Negative Experience and Daily Experience.

Nobel laureate Daniel Kahneman and University of Illinois psychology professor Ed Diener were influential in conceiving the contemporary views of wellbeing. Hedonic psychology, as defined by Kahneman, Diener, and University of Michigan psychology professor Norbert Schwarz "is the study of what makes experiences and life pleasant or unpleasant. It is concerned with feelings of pleasure and pain, of interest and boredom, of joy and sorrow, and of satisfaction and dissatisfaction. It is also concerned with the whole range of circumstances, from the biological to the societal, that occasion suffering and enjoyment."[3]

Kahneman noted of the distinction between "experienced wellbeing" and "evaluative wellbeing." As described by Kahneman, experienced wellbeing is concerned with momentary affective states and the way people feel about experiences in real-time, while evaluative wellbeing is the way they remember their experiences after they are over. Evaluative wellbeing may include individual assessments of life domains such as standard of living, housing, job, marriage, and personal health. On the other hand, experienced wellbeing seeks to bypass the effects of judgment and memory and capture feeling and emotions as close to the subject's immediate experience as possible. The Life Evaluation index is rooted in the "remembering self," while the Positive Experience, Negative Experience and Daily Experience Indexes are based on the "experiencing self."

Across countries, measures of wellbeing correlate highly with income, education levels, and reported disease conditions. Individuals who are thriving have fewer disease conditions, fewer sick days, higher incomes, are more highly educated, and have better work environments. Countries with a higher percentage of thriving respondents also report that the area they live is a good place to live for people of different ethnicities, races, and cultures. In comparison to thriving respondents, struggling respondents are much more likely to worry about money on a daily basis, and suffering respondents are less likely to have basic necessities such as food and shelter.

[3] Kahneman, D., Diener, E., Schwarz, N. (Eds.) (1999). *Well-being: the foundations of hedonic psychology.* New York: Russell Sage Foundation.

Life Evaluation Index

The Life Evaluation Index measures respondents' perceptions of where they stand now and in the future. Building on the earlier work by Hadley Cantril and the Cantril Self-Anchoring Striving Scale[4], Gallup measures life satisfaction by asking respondents to place the status of their lives on a "ladder" scale with steps numbered from 0 to 10, where 0 indicates the worst possible life and 10 the best possible life. Individuals who rate their current lives a "7" or higher AND their future an "8" or higher are "thriving." Individuals are "suffering" if they report their current AND future lives as a "4" and lower. All other individuals are "struggling."

Reliability

The Life Evaluation Index has a Cronbach's alpha of .91 when aggregated at the country level.

Life Evaluation — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Financial Life Index	.750
Community Attachment Index	.743
Social Life Index	.715
Communications Use Index	.693
Communications Access Index	.668
Diversity Index	.668
Daily Experience Index	.664
Food and Shelter Index	.652
Local Economic Confidence Index	.627
Positive Experience Index	.601

External Measures (descriptions in Appendix B)	Pearson's r
Health expenditures per capita*	.795
GDP per capita, PPP*	.731
Internet users	.711
Maternal mortality ratio*	-.680
Life expectancy	.673
People using safely managed sanitation services	.623
Rural population	-.617
Mortality rate, infant	-.615
Mortality rate, under 5	-.590
Depth of the food deficit (kilocalories per person per day)*	-.585
People using at least basic drinking water (% of population)	.583
Adult literacy rate	.545

**Log transformation*

[4] Cantril, H. (1965). *The pattern of human concerns*. New Brunswick, NJ: Rutgers University Press.

Positive Experience Index

The Positive Experience Index is a measure of respondents' experienced well-being on the day before the survey. Questions provide a real-time measure of respondents' positive experiences.

Reliability

The Positive Experience Index has a Cronbach's alpha of .91 when aggregated at the country level.

Positive Experience — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Daily Experience Index	.817
Suffering Index	-.640
Optimism Index	.623
Thriving Index	.601
Social Life Index	.600
Financial Life Index	.571
Diversity Index	.525
Community Basics Index	.514
Local Economic Confidence Index	.513

External Measures (descriptions in Appendix B)	Pearson's r
Health expenditures per capita*	.380
GDP per capita, PPP*	.322

**Log transformation*

Negative Experience Index

The Negative Experience Index is a measure of respondents' experienced well-being on the day before the survey. The index provides a real-time measure of respondents' negative experiences.

Reliability

The Negative Experience Index has a Cronbach's alpha of .80 when aggregated at the country level.

Negative Experience — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Personal Health Index	-.896
Daily Experience Index	-.804
Social Life Index	-.638
Food and Shelter Index	-.605
Communications Access Index	-.595
Communications Use Index	-.587
Community Basics Index	-.550
Local Economic Confidence Index	-.547
Law and Order Index	-.530
Youth Development Index	-.527

External Measures (descriptions in Appendix B)	Pearson's r
GDP per capita, PPP*	-.587
Maternal mortality ratio*	.576
Depth of the food deficit (kilocalories per person per day)*	.576
Internet users	-.556
Mortality rate, under 5	.550
Mortality rate, infant	.548
Adult literacy rate	-.545
Adolescent fertility rate	.543
Youth literacy rate	-.523
People using at least basic drinking water (% of population)	-.519

**Log transformation*

Daily Experience Index

The Daily Experience Index is a measure of respondents' experienced well-being on the day before the survey. The index provides a real-time, composite measure of respondents' positive and negative experiences.

Reliability

The Daily Experience Index has a Cronbach's alpha of .72 when aggregated at the country level.

Daily Experience — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Personal Health Index	.830
Personal Experience Index	.817
Negative Experience Index	-.804
Social Life Index	.771
Suffering Index	-.698
Financial Life Index	.666
Thriving Index	.664
Community Basics Index	.660
Local Economic Confidence Index	.650
Community Attachment Index	.623

External Measures (descriptions in Appendix B)	Pearson's r
GDP per capita, PPP*	.563
Health expenditures per capita*	.560
Internet users	.526
Adult literacy rate	.523
Mortality rate, infant	-.515
Mortality rate, under 5	-.510
People using safely managed sanitation services	.502

**Log transformation*

Community Attachment Index

The Community Attachment Index measures respondents' satisfaction with the city or area where they live and their likelihood to move away or recommend that city or area to a friend.

Reliability

The Community Attachment Index has a Cronbach's alpha of .76 when aggregated at the country level.

Community Attachment — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Community Basics Index	.756
Social Life Index	.752
Thriving Index	.743
Local Economic Confidence Index	.723
Financial Life Index	.713
Law and Order Index	.669
Food and Shelter Index	.654
Youth Development Index	.625
Daily Experience Index	.623
Communications Use Index	.617
Diversity Index	.609

External Measures (descriptions in Appendix B)	Pearson's r
Maternal mortality ratio*	-.710
Life expectancy	.707
Mortality rate, infant	-.669
Health expenditures per capita*	.667
GDP per capita, PPP*	.657
People using safely managed sanitation services	.655
Mortality rate, under 5	-.653
Internet users	.617
People using at least basic drinking water (% of population)	.593
Depth of the food deficit (kilocalories per person per day)*	-.580

**Log transformation*

Diversity Index

The Diversity Index was designed to measure a community's acceptance of people from different racial, ethnic or cultural groups. Relationships with other Gallup World Poll indexes indicate that citizens of countries with higher scores on the Diversity Index are more likely to be considered "thriving" and are more engaged in their communities. Individuals who live in accepting societies also report lower Corruption Index scores and higher Community Basics Index scores.

Reliability

The Diversity Index has a Cronbach's alpha of .74 when aggregated at the country level.

Diversity — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Financial Life Index	.707
Thriving Index	.668
Community Attachment Index	.609
Social Life Index	.583
Migrant Acceptance Index	.545
Community Basics Index	.540
Local Economic Confidence Index	.529
Personal Experience Index	.525

External Measures (descriptions in Appendix B)	Pearson's r
GDP per capita, PPP*	.461
Health expenditures per capita*	.560
Life expectancy	.478
Rural population	-.445
Urban population	.445
Internet users	.411

**Log transformation*

Optimism Index

The Optimism Index measures respondents' positive attitudes about the future. Specifically, respondents are asked whether certain aspects of their life are getting better or getting worse. Countries with higher Optimism Index scores report more confidence in national institutions and better youth development. Individual factors such as financial life and personal health are also related to optimism. As would be expected, percentage of the population that rates their lives poorly enough to be considered suffering has a strong negative relationship with the Optimism Index.

Reliability

The Optimism Index has a Cronbach's alpha of .92 when aggregated at the country level.

Optimism — Relationships With Other Measures

Gallup World Poll Index Measures	Pearson's r
Job Climate Index	.876
Local Economic Confidence Index	.775
Financial Life Index	.774
Suffering Index	-.683
Positive Experience Index	.623
Community Basics Index	.595
Daily Experience Index	.558
Youth Development Index	.542

External Measures (descriptions in Appendix B)	Pearson's r
GDP growth (annual %)	.363

Migrant Acceptance Index

Gallup created the Migrant Acceptance Index to gauge people's acceptance of migrants based on increasing degrees of personal proximity.

Gallup finds the least-accepting countries are geographically and culturally clustered, many with long histories of conflict with neighboring countries. The most-accepting countries for migrants, on the other hand, are located in disparate parts of the globe. However, a common thread tying many of the most-accepting countries together is their long history as receiving countries for migrants.

Reliability

The Migrant Acceptance Index has a Cronbach’s alpha of .97 when aggregated at the country level.

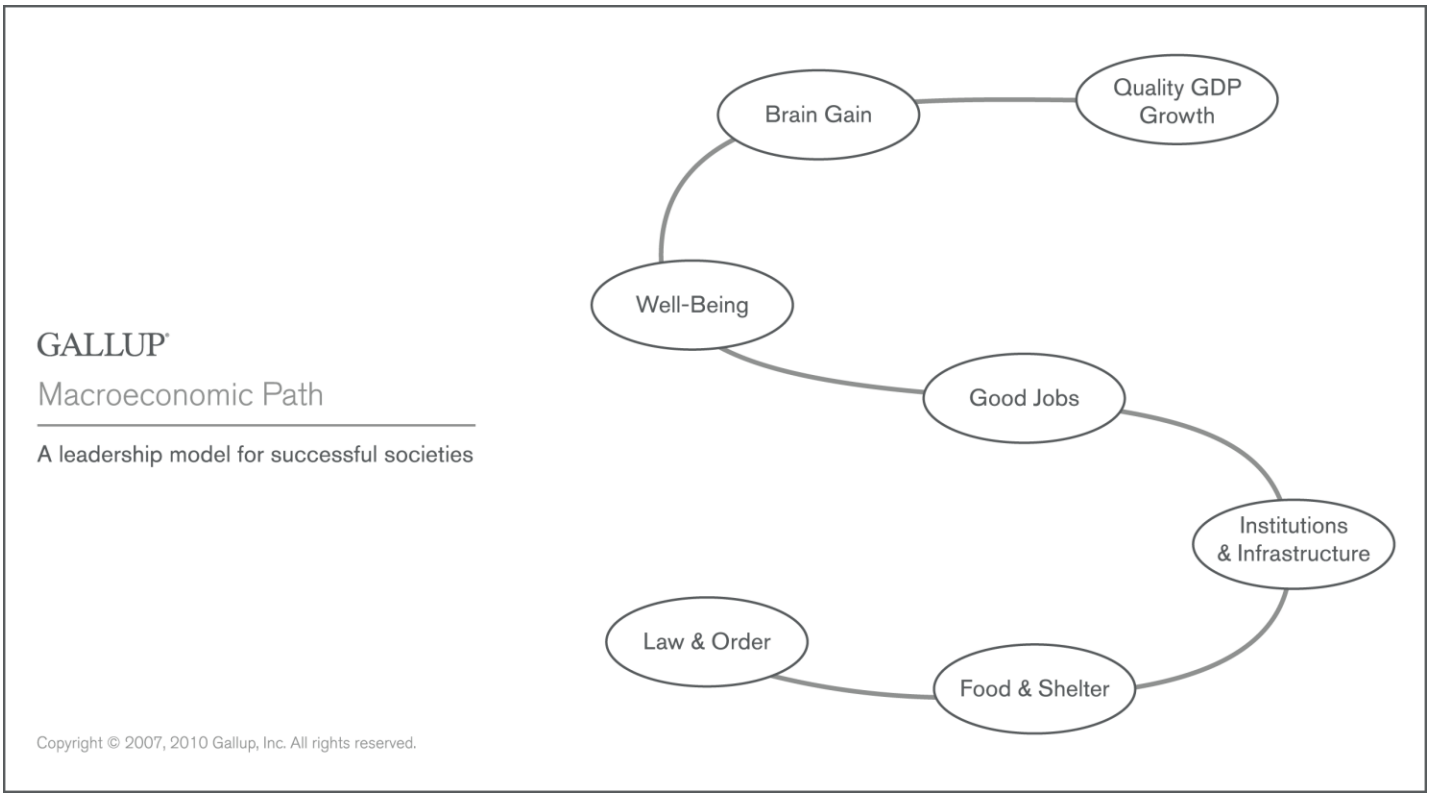
Appendix A: Gallup World Path: Macroeconomics

Gallup employs a unique approach to understanding and improving well-being by focusing on the importance of metrics and continuous monitoring. The Gallup World Path: Macroeconomics highlights this approach. The constituent parts of the path comprise a pattern of relationships. The model provides the framework Gallup researchers believe societies must follow to thrive.

The Gallup World Path: Macroeconomics highlights the link between every resident's individual contribution and the community's or country's overall success. The heart of the path is well-being. Just as great workplaces must deliberately create conditions to produce engaged employees and customers, communities must deliberately promote well-being to attract the best talent and promote quality GDP growth. As engaged employees and customers make growth and prosperity possible for companies, engaged residents do the same for their communities.

The fundamental needs of a community's residents, such as food and shelter, form the early steps of the path, followed by higher order needs such as good jobs and well-being. Many communities succeed at addressing basic needs, but they fail in achieving the latter steps of the path.

The Gallup World Path: Macroeconomics measures interconnected components regarding law and order, food and shelter, institutions and infrastructure, good jobs, well-being, and brain gain in a society. These components are composed of indicators that correlate with real-world outcomes.



Appendix B: External Measures

Correlations between World Poll Indexes and external variables were calculated using five years of World Poll survey data. External data for the same time period were aggregated using a simple average of the data sources over this period. Gallup transformed some data sources to improve the interpretability of the analysis or to meet assumptions for statistical inference.

While Gallup has reported Pearson's correlation coefficient in this report, the Spearman and Kendall rank correlation coefficients were also calculated as a comparison point. While Spearman's rank correlation consistently produced similar results (in direction and magnitude) as Pearson's correlation, Kendall's Rank Correlation Coefficient generally indicated weaker relationships than those noted here.

Measure	Source	Notes
Adolescent fertility rate	World Bank	Adolescent fertility rate is the number of births per 1,000 women aged 15 to 19.
Age dependency ratio	World Bank	Age dependency ratio is the ratio of dependents--people younger than 15 or older than 64--to the working-age population--those ages 15-64. Data are shown as the proportion of dependents per 100 working-age population.
CO2 emissions (metric tons per capita)	World Bank	Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring.
Depth of the food deficit (kilocalories per person per day)	World Bank	The depth of the food deficit indicates how many calories would be needed to lift the undernourished from their status, everything else being constant. The average intensity of food deprivation of the undernourished, estimated as the difference between the average dietary energy requirement and the average dietary energy consumption of the undernourished population (food-deprived), is multiplied by the number of undernourished to provide an estimate of the total food deficit in the country, which is then normalized by the total population.
GDP per capita, PPP (current international $)	World Bank	GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current international dollars.
GDP growth (annual %)	World Bank	Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2005 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.
GINI index	World Bank	GINI index measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution. A GINI index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

Measure	Source	Notes
Health expenditure per capita (current US$)	World Bank	Total health expenditure is the sum of public and private health expenditures as a ratio of total population. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. Data are in current U.S. dollars.
Intentional homicide rate per 100,000 population	United Nations	Intentional homicides are estimates of unlawful homicides purposely inflicted as a result of domestic disputes, interpersonal violence, violent conflicts over land resources, intergang violence over turf or control, and predatory violence and killing by armed groups.
Internet users (per 100 people)	World Bank	Internet users are people with access to the worldwide network.
Maternal mortality ratio (modeled estimate, per 100,000 live births)	World Bank	Maternal mortality ratio is the number of women who die during pregnancy and childbirth, per 100,000 live births. The data are estimated with a regression model using information on fertility, birth attendants, and HIV prevalence.
Mortality rate, under-5 (per 1,000)	World Bank	Under-five mortality rate is the probability per 1,000 that a newborn baby will die before reaching age five, if subject to current age-specific mortality rates.
Mortality rate, infant (per 1,000)	World Bank	Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year.
Life expectancy at birth, total (years)	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.
Literacy rate, adult total (% of people ages 15 and above)	World Bank	The percentage of the population age 15 and above who can, with understanding, read and write a short, simple statement on their everyday life. Generally, 'literacy' also encompasses 'numeracy', the ability to make simple arithmetic calculations. This indicator is calculated by dividing the number of literates aged 15 years and over by the corresponding age group population and multiplying the result by 100.
People using at least basic drinking water (% of population)	World Bank	The percentage of people using at least basic sanitation services, that is, improved sanitation facilities that are not shared with other households. This indicator encompasses both people using basic sanitation services as well as those using safely managed sanitation services. Improved sanitation facilities include flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, compositing toilets or pit latrines with slabs.
People using safely managed sanitation services (% of population)	World Bank	The percentage of people using improved sanitation facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite. Improved sanitation facilities include flush/pour flush to piped sewer systems, septic tanks or pit latrines: ventilated improved pit latrines, compositing toilets or pit latrines with slabs.
Rural population (% of total)	World Bank	Rural population refers to people living in rural areas as defined by national statistical offices. It is calculated as the difference between total population and urban population.
School enrollment, tertiary (% gross)	UNESCO	Total enrollment 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.
Urban population (% of total)	World Bank	Urban population refers to people living in urban areas as defined by national statistical offices. It is calculated using World Bank population estimates and urban ratios from the United Nations World Urbanization Prospects.

Measure	Source	Notes
Youth literacy rate, population 15-24 years, both sexes (%)	World Bank	Number of people age 15 to 24 years who can both read and write with understanding a short simple statement on their everyday life, divided by the population in that age group. Generally, 'literacy' also encompasses 'numeracy', the ability to make simple arithmetic calculations. Divide the number of people aged 15 to 24 years who are literate by the total population in the same age group and multiply the result by 100.