
DATA SOURCE

World Happiness Reports 2015 to 2019

Data Source: The external sourced datasets are from Gallup World Polls collected from 2015 to 2019 which were publicized by Sustainable Development Solutions Network. The reports obtain data from various countries worldwide. The data set is presumably from a trustworthy source.

Data Collection: The survey data is collected semiannual, annual, and biennial from various country's Gallup World Poll respondents' which rank several life evaluation questions. Gallup World Poll surveys are conducted via face-to-face and telephone interviews based on country. Random sampling is performed for both methodologies. Sample size can range from 500 to 2000, routinely including 1000 contributors.

Data Contents: The survey data is collected by countries from 2015 to 2019. The data is assembled by country and ranking of the life evaluation questions. Data is comprised from individuals answering of questions that rank their current lives based on a Cantril ladder, scale of 0 worst possible life to 10 best possible life.

Data Limitations and Ethics: The statistics is doubtful to have overall bias, there is nothing to gain by the individual providing influenced information at the time it is gathered. However, there can be a bias of emotions at that moment in time of participation. For example, is the person taking the survey just had a positive or negative event take place this may distort the persons over-all emotion of a time period.

The data is quantitative value is not defined and have assorted number of decimal places. The figures are estimates to which the happiness variables contribute to a lower/higher evaluation in each country.

The data contains no personal identifiable information that can be linked to the respondents.

Data Relevance: The data is relevant and trustworthy to use for analysis to aid in testing the hypothesis. This data set will be supportive in providing the appraisal of delight per country.

Data Election: The dataset was selected as it poses an intriguing question as “What does make someone happy?”. The question is very subjective and with world events that have taken place over the span between 2015 to 2019 it will be interesting to uncover if much has changed with time and region. basic

Data Profile: The data profile break down can be observed in supplemental document WHR 2015-2019 Data Profile and Quality Checks excel document.

Dataframe	Rows Before Cleaning	Columns Before Cleaning	Rows After Cleaning	Columns After Cleaning	Duplicate Values	Missing Values
WHR_ALLYEARS	777	N/A	N/A	11	0	0
WHR_2015	158	13	156	11	0	0
WHR_2016	157	14	156	11	0	0
WHR_2017	155	14	155	11	0	0
WHR_2018	156	11	156	11	0	1*
WHR_2019	156	11	154	11	0	0

*Trust column has one entry as N/A for United Arab Emirates, left as is.

Variables	time -variant/-invariant	structured/unstructured	qualitative/quantitative	qualitative: nominal/ordinal quantitative: discrete/continuous
Year	time -variant	structured	qualitative	qualitative: ordinal
Country	time -invariant	structured	qualitative	qualitative: ordinal
Region	time -invariant	structured	qualitative	qualitative: ordinal
Happiness Ranking	time -invariant	structured	quantitative	quantitative: continuous
Happiness Score	time -invariant	structured	quantitative	quantitative: continuous
Economy	time -invariant	structured	quantitative	quantitative: continuous
Family	time -invariant	structured	quantitative	quantitative: continuous

Freedom	time -invariant	structured	quantitative	quantitative: continuous
Generosity	time -invariant	structured	quantitative	quantitative: continuous
Health	time -invariant	structured	quantitative	quantitative: continuous
Trust	time -invariant	structured	quantitative	quantitative: continuous

Data Dictionary:

Merged Dataframe:

WHR_ALLYEARS (777 rows, 11 columns):

Year: Time of when World Happiness Report was released

Country: Name of country participating in the Gallup World Poll to comprise the World Happiness Report

Region: Area of the world participating in the Gallup World Poll to comprise the World Happiness Report

Happiness Rank: An order of the country's particular well-being

Happiness Score: A measure of the country's well-being for partaking year base on respondents' answers organized on a Cantril Ladder (scale method of 0-10).

Economy: Measurement of how the country's GDP contributes to the computation of the country's *Happiness Score*.

Family: Measurement of how relationships or support of people contributes to the computation of the country's *Happiness Score*.

Freedom: Measurement of how the autonomy to make life choices contributes to the computation of the country's *Happiness Score*.

Generosity: Measurement of how donating money to charity contributes to the computation of the country's *Happiness Score*.

Health: Measurement of how life expectancy contributes to the computation of the country's *Happiness Score*.

Trust: Measurement of how perception of government corruption contributes to the computation of the country's *Happiness Score*.

Original Dataframes:

WHR_2015 (158 rows, 13 columns):

Year: Time of when World Happiness Report was released

Country: Name of country participating in the Gallup World Poll to comprise the World Happiness Report

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Happiness Rank: An order of the country's particular well-being

Happiness Score: A measure of the countries well-being for partaking year base on respondents' answers organized on a Cantril Ladder (scale method of 0-10).

Economy: Measurement of how the country's GDP contributes to the computation of the country's *Happiness Score*.

Family: Measurement of how relationships or support of people contributes to the computation of the country's *Happiness Score*.

Freedom: Measurement of how the autonomy to make life choices contributes to the computation of the country's *Happiness Score*.

Generosity: Measurement of how donating money to charity contributes to the computation of the country's *Happiness Score*.

Health: Measurement of how life expectancy contributes to the computation of the country's *Happiness Score*.

Trust: Measurement of how perception of government corruption contributes to the computation of the country's *Happiness Score*.

Dystopia Residual: A benchmark to establish measurement of an imaginary country which would have the world's lowest level of happy individuals.

Standard Error: A measurement of statistical accuracy

WHR_2016 (157 rows, 14 columns):

Year: Time of when World Happiness Report was released

Country: Name of country participating in the Gallup World Poll to comprise the World Happiness Report

Region: Area of the world participating in the Gallup World Poll to comprise the World Happiness Report

Happiness Rank: An order of the country's particular well-being

Happiness Score: A measure of the country's well-being for partaking year base on respondents' answers organized on a Cantril Ladder (scale method of 0-10).

Economy: Measurement of how the country's GDP contributes to the computation of the country's *Happiness Score*.

Family: Measurement of how relationships or support of people contributes to the computation of the country's *Happiness Score*.

Freedom: Measurement of how the autonomy to make life choices contributes to the computation of the country's *Happiness Score*.

Generosity: Measurement of how donating money to charity contributes to the computation of the country's *Happiness Score*.

Health: Measurement of how life expectancy contributes to the computation of the country's *Happiness Score*.

Trust: Measurement of how perception of government corruption contributes to the computation of the country's *Happiness Score*.

Dystopia Residual: A benchmark to establish measurement of an imaginary country which would have the world's lowest level of happy individuals.

Lower Confidence Interval: The lesser margin of error from the sample mean.

Upper Confidence Interval: The higher margin of error from the sample mean.

WHR_2017(155 rows, 14 columns):

Year: Time of when World Happiness Report was released

Country: Name of country participating in the Gallup World Poll to comprise the World Happiness Report

Region: Area of the world participating in the Gallup World Poll to comprise the World Happiness Report

Happiness Rank: An order of the country's particular well-being

Happiness Score: A measure of the country's well-being for partaking year base on respondents' answers organized on a Cantril Ladder (scale method of 0-10).

Economy: Measurement of how the country's GDP contributes to the computation of the country's *Happiness Score*.

Family: Measurement of how relationships or support of people contributes to the computation of the country's *Happiness Score*.

Freedom: Measurement of how the autonomy to make life choices contributes to the computation of the country's *Happiness Score*.

Generosity: Measurement of how donating money to charity contributes to the computation of the country's *Happiness Score*.

Health: Measurement of how life expectancy contributes to the computation of the country's *Happiness Score*.

Trust: Measurement of how perception of government corruption contributes to the computation of the country's *Happiness Score*.

Dystopia Residual: A benchmark to establish measurement of an imaginary country which would have the world's lowest level of happy individuals.

Whisker High: The maximum value of the data set for individual country.

Whisker Low: The minimum value of the data set for individual country.

WHR_2018 (156 rows, 11 columns):

Year: Time of when World Happiness Report was released

Country: Name of country participating in the Gallup World Poll to comprise the World Happiness Report

Region: Area of the world participating in the Gallup World Poll to comprise the World Happiness Report

Happiness Rank: An order of the country's particular well-being

Happiness Score: A measure of the country's well-being for partaking year base on respondents' answers organized on a Cantril Ladder (scale method of 0-10).

Economy: Measurement of how the country's GDP contributes to the computation of the country's *Happiness Score*.

Family: Measurement of how relationships or support of people contributes to the computation of the country's *Happiness Score*.

Freedom: Measurement of how the autonomy to make life choices contributes to the computation of the country's *Happiness Score*.

Generosity: Measurement of how donating money to charity contributes to the computation of the country's *Happiness Score*.

Health: Measurement of how life expectancy contributes to the computation of the country's *Happiness Score*.

Trust: Measurement of how perception of government corruption contributes to the computation of the country's *Happiness Score*.

WHR_2019 (156 rows, 11 columns):

Year: Time of when World Happiness Report was released

Country: Name of country participating in the Gallup World Poll to comprise the World Happiness Report

Region: Area of the world participating in the Gallup World Poll to comprise the World Happiness Report

Happiness Rank: An order of the country's particular well-being

Happiness Score: A measure of the country's well-being for partaking year base on respondents' answers organized on a Cantril Ladder (scale method of 0-10).

Economy: Measurement of how the country's GDP contributes to the computation of the country's *Happiness Score*.

Family: Measurement of how relationships or support of people contributes to the computation of the country's *Happiness Score*.

Freedom: Measurement of how the autonomy to make life choices contributes to the computation of the country's *Happiness Score*.

Generosity: Measurement of how donating money to charity contributes to the computation of the country's *Happiness Score*.

Health: Measurement of how life expectancy contributes to the computation of the country's *Happiness Score*.

Trust: Measurement of how perception of government corruption contributes to the computation of the country's *Happiness Score*.

Questions to Explore:

1. Which country is the happiest per year?
2. What variable contributes most to defining a country's happiness?
 - a. Does the variable change per year?
3. How much does each variable contribute to a country's happiness?
4. Which country is the least happy per year?