

The Global Gender Gap Index 2014

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The Global Gender Gap Index was first introduced by the World Economic Forum in 2006 as a framework for capturing the magnitude of gender-based disparities and tracking their progress. This year is the 9th edition of the Index, allowing for time-series analysis on the changing patterns of gender equality around the world and comparisons between and within countries.

The Index benchmarks national gender gaps on economic, political, education and health criteria, and provides country rankings that allow for effective comparisons across regions and income groups. The rankings are designed to create greater awareness among a global audience of the challenges posed by gender gaps and the opportunities created by reducing them. The methodology and quantitative analysis behind the rankings are intended to serve as a basis for designing effective measures for reducing gender gaps.

The first part of this chapter reviews the underlying concepts employed in creating the Global Gender Gap Index and outlines the methods used to calculate it. The second part presents the 2014 rankings, global patterns, regional performance and notable country cases. This year's country analysis includes more detailed information on country performance over time, particularly for those countries that have been included in the Index since 2006. Next, we provide information on the key trends that can be observed through almost a decade of data for the 111 countries that have been covered since the first Index, by analysing data along issue, income and regional lines. The fourth part of this chapter lays out the latest research on the benefits of gender equality, including links between gender gaps and the economic performance of countries. In the fifth and final part, we provide information on the policy and business implications of the gender gap and the best practices currently in use for addressing it.

The Country Profiles contained in Part 2 of this *Report* give a more detailed picture of the relative strengths and weaknesses of each country's performance compared with that of other nations and relative to its own past performance. The first page of each profile contains key demographic and economic indicators as well as detailed information on the country's performance in 2014, including

a comparison within its income group. The second page of the Country Profiles shows the trends between 2006 and 2014 on the overall Index and four subindexes, as well as over 50 gender-related variables that provide a fuller context for the country's performance. These variables include information on employment & leadership; science, technology and research; health; marriage and childbearing; the childcare ecosystem; and information on rights and norms.

MEASURING THE GLOBAL GENDER GAP

The methodology of the Index has remained stable since its development in 2006, providing robust comparative and intra-country information.

Three underlying concepts

There are three basic concepts underlying the Global Gender Gap Index, forming the basis of the choice of indicators, how the data is treated and the scale used. First, it focuses on measuring gaps rather than levels. Second, it captures gaps in outcome variables rather than gaps in input variables. Third, it ranks countries according to gender equality rather than women's empowerment. These three concepts are briefly outlined below. For a description of how these concepts are captured by the construction techniques used in the creation of the Index, please see the section below, *Construction of the Index*.

Gaps vs. levels

The Index is designed to measure gender-based gaps in access to resources and opportunities in countries rather than the actual levels of the available resources and opportunities in those countries. We do this in order to make the Global Gender Gap Index independent from the countries' levels of development. In other words, the Index is constructed to rank countries on their gender gaps not on their development level. For example, rich countries, generally speaking, are able to offer more education and health opportunities to all members of society, although this is quite independent of the gender-related gaps that may exist within those higher levels of health or education. The Global Gender Gap Index, rewards countries for

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Table 1: Structure of the Global Gender Gap Index

Subindex	Variable	Source
Economic Participation and Opportunity	Ratio: female labour force participation over male value	International Labour Organisation, <i>Key Indicators of the Labour Market (KILM)</i> , 2012
	Wage equality between women and men for similar work (converted to female-over-male ratio)	World Economic Forum, <i>Executive Opinion Survey (EOS)</i> , 2014
	Ratio: female estimated earned income over male value	World Economic Forum, calculations based on the United Nations Development Programme methodology (refer to <i>Human Development Report 2009</i>)
	Ratio: female legislators, senior officials and managers over male value	International Labour Organisation, <i>ILOStat</i> online database, 2013 or latest data available
	Ratio: female professional and technical workers over male value	International Labour Organisation, <i>ILOStat</i> online database, 2013 or latest data available
Educational Attainment	Ratio: female literacy rate over male value	UNESCO Institute for Statistics, <i>Education</i> database, 2013 or latest data available; United Nations Development Programme, <i>Human Development Report 2009</i> , the most recent year available between 1997 and 2007
	Ratio: female net primary enrolment rate over male value	UNESCO Institute for Statistics, <i>Education</i> database, 2013 or latest data available
	Ratio: female net secondary enrolment rate over male value	UNESCO Institute for Statistics, <i>Education</i> database, 2013 or latest data available
	Ratio: female gross tertiary enrolment ratio over male value	UNESCO Institute for Statistics, <i>Education</i> database, 2013 or latest data available
Health and Survival	Sex ratio at birth (converted to female-over-male ratio)	Central Intelligence Agency, <i>The CIA World Factbook 2014</i> , data updated weekly
	Ratio: female healthy life expectancy over male value	World Health Organisation, <i>Global Health Observatory</i> database, data from 2012
Political Empowerment	Ratio: females with seats in parliament over male value	Inter-Parliamentary Union, <i>Women in Politics: 2014</i> , reflecting elections/appointments up to 1 May 2014
	Ratio: females at ministerial level over male value	Inter-Parliamentary Union, <i>Women in Politics: 2014</i> , reflecting appointments up to 1 January 2014, data updated every two years
	Ratio: number of years of a female head of state (last 50 years) over male value	World Economic Forum calculations, 30 June 2014

Note: If there are multiple sources listed, the first source is the primary source, followed by the secondary source if data was not available from the primary source.

smaller gaps in access to these resources, regardless of the overall level of resources. Thus, in the case of education, the Index penalizes or rewards countries based on the size of the gap between male and female enrolment rates, but not for the overall levels of education in the country.

Outcomes vs. inputs

The second basic concept underlying the Global Gender Gap Index is that it evaluates countries based on outcomes rather than inputs or means. Our aim is to provide a snapshot of where men and women stand with regard to some fundamental outcome variables related to basic rights such as health, education, economic participation and political empowerment. Variables related to country-specific policies, rights, culture or customs—factors that we consider “input” or “means” variables—are not included in the Index, but they are displayed in the Country Profiles. For example, the Index includes a variable comparing the

gap between men and women in high-skilled jobs such as legislators, senior officials and managers (an outcome variable) but does not include data on the length of maternity leave (a policy variable).

Gender equality vs. women’s empowerment

The third distinguishing feature of the Global Gender Gap Index is that it ranks countries according to their proximity to gender equality rather than to women’s empowerment. Our aim is to focus on whether the gap between women and men in the chosen variables has declined, rather than whether women are “winning” the “battle of the sexes”. Hence, the Index rewards countries that reach the point where outcomes for women equal those for men, but it neither rewards nor penalizes cases in which women are outperforming men on particular variables in some countries. Thus a country, which has higher enrolment for girls rather than boys in secondary school, will score equal to a country where boys’ and girls’ enrolment is the same.

The four subindexes

The Global Gender Gap Index examines the gap between men and women in four fundamental categories (subindexes): *Economic Participation and Opportunity*, *Educational Attainment*, *Health and Survival* and *Political Empowerment*. Table 1 displays all four of these subindexes and the 14 different variables that compose them, along with the sources of data used for each.

Economic Participation and Opportunity

This subindex contains three concepts: the participation gap, the remuneration gap and the advancement gap. The participation gap is captured using the difference between women and men in labour force participation rates. The remuneration gap is captured through a hard data indicator (ratio of estimated female-to-male earned income) and a qualitative variable gathered through the World Economic Forum's Executive Opinion Survey (wage equality for similar work). Finally, the gap between the advancement of women and men is captured through two hard data statistics (the ratio of women to men among legislators, senior officials and managers, and the ratio of women to men among technical and professional workers).

Educational Attainment

In this subindex, the gap between women's and men's current access to education is captured through ratios of women to men in primary-, secondary- and tertiary-level education. A longer-term view of the country's ability to educate women and men in equal numbers is captured through the ratio of the female literacy rate to the male literacy rate.

Health and Survival

This subindex provides an overview of the differences between women's and men's health through the use of two variables. The first variable is the sex ratio at birth, which aims specifically to capture the phenomenon of "missing women" prevalent in many countries with a strong son preference. Second, we use the gap between women's and men's healthy life expectancy. This measure provides an estimate of the number of years that women and men can expect to live in good health by taking into account the years lost to violence, disease, malnutrition or other relevant factors.

Political Empowerment

This subindex measures the gap between men and women at the highest level of political decision-making through the ratio of women to men in minister-level positions and the ratio of women to men in parliamentary positions. In addition, we include the ratio of women to men in terms of years in executive office (prime minister or president) for the last 50 years. A clear drawback in this category is the absence of any variables capturing differences between the participation of women and men at local

levels of government. Should such data become available at a globally comparative level in future years, they will be considered for inclusion in the Index.

Construction of the Index

The overall Global Gender Gap Index is constructed using a four-step process, outlined below. Some of the indicators listed in Table 1 require specific construction or modification in order to be used in the Index. For further information on the indicator-specific calculations, please refer to the How to Read the Country Profiles section in Part 2 of this Report.

Convert to ratios

Initially, all data are converted to female/male ratios. For example, a country with 20% of women in ministerial positions is assigned a ratio of 20 women /80 men, thus a value of 0.25. This is to ensure that the Index is capturing gaps between women and men's attainment levels, rather than the levels themselves.

Truncate data at equality benchmark

As a second step, these ratios are truncated at the "equality benchmark". For all variables, except the two health variables, this equality benchmark is considered to be 1, meaning equal numbers of women and men. In the case of the sex ratio at birth variable, the equality benchmark is set to be 0.944,¹ and the healthy life expectancy benchmark is set to be 1.06.² Truncating the data at the equality benchmarks for each variable assigns the same score to a country that has reached parity between women and men and one where women have surpassed men.

The type of scale chosen determines whether the Index is rewarding women's empowerment or gender equality.³ To capture gender equality, two possible scales were considered. One was a *negative-positive scale* capturing the size and direction of the gender gap. This scale penalizes either men's advantage over women or women's advantage over men, and gives the highest points to absolute equality. The second choice was a *one-sided scale* that measures how close women are to reaching parity with men but does not reward or penalize countries for having a gender gap in the other direction. We find the one-sided scale more appropriate for our purposes, as it does not reward countries for having exceeded the parity benchmark.

Calculate subindex scores

The third step in the process involves calculating the weighted average of the variables within each subindex to create the subindex scores. Averaging the different variables would implicitly give more weight to the measure that exhibits the largest variability or standard deviation. We therefore first normalize the variables by equalizing their standard deviations. For example, within the Educational

Table 2: Calculation of weights within each subindex

Economic Participation and Opportunity Subindex	Standard deviation	Standard deviation per 1% point change	Weights
Ratio: female labour force participation over male value	0.160	0.063	0.199
Wage equality between women and men for similar work (converted to female-over-male ratio)	0.103	0.097	0.310
Ratio: female estimated earned income over male value	0.144	0.069	0.221
Ratio: female legislators, senior officials and managers over male value	0.214	0.047	0.149
Ratio: female professional and technical workers over male value	0.262	0.038	0.121
Total.....			1
Educational Attainment Subindex	Standard deviation	Standard deviation per 1% point change	Weights
Ratio: female literacy rate over male value	0.145	0.069	0.191
Ratio: female net primary enrolment rate over male value	0.060	0.167	0.459
Ratio: female net secondary enrolment rate over male value	0.120	0.083	0.230
Ratio: female gross tertiary enrolment ratio over male value	0.228	0.044	0.121
Total.....			1
Health and Survival Subindex	Standard deviation	Standard deviation per 1% point change	Weights
Sex ratio at birth (converted to female-over-male ratio)	0.010	0.998	0.693
Ratio: female healthy life expectancy over male value	0.023	0.441	0.307
Total.....			1
Political Empowerment Subindex	Standard deviation	Standard deviation per 1% point change	Weights
Ratio: females with seats in parliament over male value	0.166	0.060	0.310
Ratio: females at ministerial level over male value	0.208	0.048	0.247
Ratio: number of years of a female head of state (last 50 years) over male value	0.116	0.086	0.443
Total.....			1

Note: Figures are based on the *Global Gender Gap Report 2006*.

Attainment subindex, standard deviations for each of the four variables are calculated. Then we determine what a 1% point change would translate to in terms of standard deviations by dividing 0.01 by the standard deviation for each variable. These four values are then used as weights to calculate the weighted average of the four variables.

This way of weighting variables allows us to make sure that each variable has the same relative impact on the subindex. For example, a variable with a small variability or standard deviation, such as primary enrolment rate, gets a larger weight within the Educational Attainment subindex than a variable with a larger variability, such as tertiary enrolment rate. Therefore, a country with a large gender gap in primary education (a variable where most countries have achieved near-parity between women and men) will be more heavily penalized. Similarly, in the case of the sex ratio variable (within the Health and Survival subindex), where most countries have a very high sex ratio and the spread of the data is small, the larger weight will penalize more heavily those countries that deviate from this value. Table 2 displays the values of the weights used in the Global Gender Gap Index 2006.⁴

Calculate final scores

In the case of all subindexes, the highest possible score is 1 (equality) and the lowest possible score is 0 (inequality), thus binding the scores between inequality and equality benchmarks.⁵ An un-weighted average of each subindex score is used to calculate the overall Global Gender Gap Index score. As in the case of the subindexes, this final value ranges between 1 (equality) and 0 (inequality), thus allowing for comparisons relative to ideal standards of equality in addition to relative country rankings.⁶ The equality and inequality benchmarks remain fixed across time, allowing the reader to track individual country progress in relation to an ideal standard of equality. Furthermore, the option of roughly interpreting the final Index scores as a percentage value that reveals how a country has reduced its gender gap should help make the Index more intuitively appealing to readers.⁷

THE GLOBAL GENDER GAP INDEX RESULTS IN 2014 Country Coverage 2014

We aim to include a maximum number of countries in the *Report* every year, within the constraints posed by data availability. To be included in the *Report*, a country must have data available for a minimum of 12 indicators out of the 14 that make up the Index. In 2014, we have been able