Gender statistics and indicators

Gender statistics and indicators integrate a gender perspective in the collection, analysis and presentation of statistical data.

What are gender statistics and indicators?

This briefing introduces gender statistics and indicators and explains why they are important tools to promote gender equality and implement a gender mainstreaming approach. Put simply, gender statistics and indicators integrate a gender perspective in the collection, analysis and presentation of statistical data. Gender statistics play a key role in measuring gender gaps on the basis of agreed indicators that are relevant to the lives of women and men. In the EU, for example, they are used to identify gender gaps in education, the labour market, earnings and health, amongst other areas [1].
Gender statistics and indicators are an integral part of gender mainstreaming throughout the entire policy cycle. Firstly, they inform the policymaking process and ensure that interventions respond to the different needs and priorities of women and men. Secondly, they measure changes in the relations between women and men over time in a particular policy area, a specific programme or activity, or changes in the status or situation of women and men. Thirdly, they are an essential part of the monitoring and evaluation of the implementation and outcomes of policies, programmes and projects.

**Overview of gender statistics**

Gender statistics aim to ‘reflect differences and inequalities in the situation of women and men in all areas of life’ [2]. In providing evidence of gender equalities and gender gaps in key areas they help to make gender inequalities visible, which can in turn inform policymaking to address identified gender gaps. They help to identify data that is relevant to women’s and men’s lives and to key areas of policymaking.

The UN Statistical Divisions’ manual on gender statistics defines gender statistics as encompassing the following characteristics:

- ‘data are collected and presented disaggregated by sex as a primary and overall classification;
- data reflect gender issues;
- data are based on concepts and definitions that adequately reflect the diversity of women and men and capture all aspects of their lives; and
- data collection methods take into account stereotypes and social and cultural factors that may induce gender biases’ [3].

It is important to distinguish between sex-disaggregated data and gender statistics. Sex-disaggregated data refers to collecting data and breaking it down separately for women and men. Gender statistics go further as they take into account wider gender inequalities and gender bias in data collection methods and tools [4]. In addition, gender statistics have the potential to reflect different groups of women and men, taking into consideration that ‘gender intersects with age, education, family composition and parenthood, country of birth and disability’ [5]. This means that gender statistics can reflect a deeper understanding of women’s situations and needs [6], and thereby supports the analysis of intersecting inequalities.

**Overview of gender indicators**
Gender indicators (sometimes referred to as statistical indicators) are the measure(s) upon which data is collected. In the EU, relevant gender indicators have been devised to show gender gaps in access to resources and opportunities in areas such as education, employment, decision making and gender-based violence. Indicators can be used to show relative positions or positive or negative change. They are also important to show progress over time, for example, changes in women’s participation in the labour market [7].

Gender indicators allow for meaningful comparison over at least one data dimension, such as country or time. More generally, a statistical indicator is defined as a ‘[d]ata element that represents statistical data for a specified time, place, and other characteristics, and is corrected for at least one dimension (usually size) to allow for meaningful comparisons’ [8].

For example, a simple aggregation such as the number of women members of parliament is not in itself an indicator, as it is not comparable between populations. However, if these values are relativized and/or standardised, e.g. women members of parliament as a percentage of the total, then the result meets the criteria for an indicator.

Some sources suggest that to provide meaningful comparisons, indicators should not only be expressed in units that are comparable across space and time, but a reference point (a norm or benchmark) should also be defined against which value judgements can be made (such as the minimal percentage of women members of parliaments to be achieved) [9]. When defined in this way indicators become normative, ‘in the sense that a change from the reference point in a particular direction can be interpreted as “good” or “bad”’ [10].

Thus, gender indicators can be used to measure progress and allow for comparisons in gender equality progress over time, across different geographical areas, countries and between different groups of women and/or men (e.g. younger and older women and men; unemployed and employed women and men) as well as in organisations, institutions and systems. They can measure the relative situation of women and men in areas such as their access to assets, their empowerment and the attitudes of women and men toward gender equality. Gender indicators can also be used to measure the extent to which society is free from gender-based violence and/or negative gender stereotypes [11].

**Approaches to data collection**

There are two main methods of data collection relevant for gender statistics and indicators, which are briefly described here.

1. **Quantitative methods** of data collection produce quantifiable results. In other words, they focus on issues that can be counted, such as percentages of women and men in the labour
EIGE hosts a Gender Statistics Database, which is a comprehensive source of information with data on various aspects of (in)equalities between women and men, highlighting differences and inequalities between both sexes in all areas of life. EIGE’s Gender Statistics Database contributes extensively to the collection of a series of gender statistics and indicators in order to monitor whether, or to what extent, equality is being achieved. Through this EIGE can provide information to support the policymaking process.

EIGE’s Gender Equality Index is a comprehensive measure to assess progress in gender equality over time, which has been an important tool in contributing to policy debates at EU and Member State levels. In supporting the development of evidence-based gender equality policies at EU and national levels, the Gender Equality Index provides data on gender gaps in key policy areas linked to EU objectives in various policy areas and targets related to gender equality, and shows the different outcomes of policies for women and men. The Gender Equality Index also aims to increase decision-makers’ and citizens’ awareness on progress and challenges in gender equality. In addition, by revealing gaps in gender statistics, it contributes to drawing decision-makers’ attention to the need to improve the collection of reliable, timely and comparable gender statistics [14].

The Gender Equality Index is made up of 31 indicators measuring gender gaps and progress towards gender equality in six domains (work, knowledge, power, money, health and time), which are further disaggregated in sub-domains. For each of the domains a score is assigned to EU Member States from 1, corresponding to total inequality, to 100, corresponding to total equality. Gender indicators also measure progress on tackling violence against women and intersecting inequalities.
Read more on gender statistics and indicators

In addition to EIGE’s Gender Statistics Database, several international organisations provide sets of gender indicators and statistics.

The United Nations Development Programme Gender Inequality Index provides evidence on gender inequalities in three areas (reproductive health, empowerment and economic status) for 159 countries. It unveils areas in which gender inequalities are still persistent and calls for policies to overcome such inequalities.

The United Nations Statistical Division Minimum Set of Gender Indicators compiles data from countries around the world and includes both quantitative indicators (e.g. average number of hours spent on unpaid domestic work by sex) and qualitative indicators (e.g. the extent of a country’s commitment to gender equality in employment). These indicators are categorised in three tiers according to relevance to gender equality, methodological standards and regularity in production.

The United Nations Economic Commission for Europe (UNECE) has reviewed international indicators on gender equality by systematising and consolidating gender indicators with an internationally consistent framework. The UNECE framework seeks to improve the monitoring and evaluation of progress on gender equality at the international level. It includes quantitative gender indicators in areas included in the Beijing Platform for Action: poverty, education and training, health, violence against women, economy, including the labour market and work and family issues, women in power and decision-making, media, environment, the girl child, and power and decision-making in households [15].

The Organisation for Economic and Cooperation and Development Gender Data Portal includes a set of indicators that measure gender inequalities in education, employment, entrepreneurship, health and development and show progress made in achieving gender equality and areas where actions are most needed.

The World Bank Gender Data Portal includes gender statistics covering demography, education, health, economic opportunities, public life and decision-making.

Why are gender statistics and indicators important?
Gender statistics and indicators have the potential to contribute to the narrowing of gender inequalities by providing an evidence base that makes gender inequalities visible. Such indicators ensure that women's and men's situations and contributions to society are measured correctly and valued equally. They also allow gender aspects to be made visible in areas where they were previously considered irrelevant.

Gender statistics and indicators are important because they:

- give evidence on progress towards gender equality, contribute to closing persistent gender gaps and to correcting gender bias. For instance, policies for alleviating poverty have traditionally used the concept of household income to measure the distribution of resources. This is based on a gender-biased assumption that income is equally distributed within the household and amongst household members, ignoring gender differences in access to income and resources and the impact of gender roles and relations in the household. In this case, collecting gender relevant data both at individual and household level can help reveal such differences [16];

- show that gender inequalities are a concern for the whole of society and that they have to be taken seriously by all actors in the public arena;

- provide evidence for the development of policies, programmes, projects and legislation that respond to the needs of women and men as beneficiaries of an intervention in a specific context;

- sustain learning processes for policymakers and stakeholders by making gender inequalities visible;

- contribute to increasing citizens’ and decisionmakers’ awareness on gender inequalities (see gender awareness; link here) that may encourage them to take action [17];

- provide information on the potential impacts of policies and interventions on women and men [18];

- contribute to preventing the adoption of policies that perpetuate gender bias and gender inequalities, and/or that avoid the risk of not fulfilling the objectives of the respective intervention [19];

- provide evidence for monitoring and evaluating the implementation of an intervention (e.g. policy, programme, project, legislation) and for assessing its relevance, efficiency and effectiveness for both women and men [20].
Gender statistics and indicators are important to promote gender mainstreaming at an organisational level. In workplaces, they are essential to inform the development of human resources policies and procedures, and to measure the gender pay gap or the representation of women in decision-making positions in an organisation. International organisations (such as the European Commission, the United Nations, the International Labour Organisation and the World Bank) frequently use gender statistics and indicators to inform gender audits and measure progress in gender equality in their internal structures, procedures, human resources and culture.

Gender statistics and indicators are an integral part of national progress to improve national statistical systems. For instance, when data users require specific gender statistics this helps to reveal gaps in general statistics and raises awareness about how to implement improvements in data collection processes (e.g. in the methodologies, concepts, topics, data series) in order to avoid gender bias and fully reflect women's and men's life situations [21].

Additionally, the importance of gender statistics and indicators has been reaffirmed at the international level through:

- commitments towards the improvement of the collection of gender statistics made under the Beijing Platform for Action, the EU Treaty of Amsterdam and in EU strategic policy commitments such as the Strategic Engagement for Gender Equality 2016-2019, as well as the Council of Europe Convention on preventing and combating violence against women and domestic violence (Istanbul Convention);
- the creation of guidelines (e.g. Quality Criteria of EIGE’s Gender Statistics Database, UNECE tool for the development of gender statistics), databases on gender statistics (e.g. EIGE Gender Statistics Database, the World Bank Gender Data Portal, the Eurostat database) and support for Member States in mainstreaming a gender perspective in their statistical systems.

Read more about the use of and commitment to producing gender statistics and indicators at EU and international levels

A gender perspective is mainstreamed within the European Statistical System. In particular, gender statistics cover the key areas of concern tackled by the **Strategic Engagement for Gender Equality 2016–2019** [22]: equal economic independence of women and men, equal pay for work of equal value, equality in decision-making, gender-based violence and the promotion of gender equality beyond the EU. Gender statistics are used to assess progress on gender-specific objectives in areas such as employment rate, the gender pay gap and the at-risk-of-poverty and social inclusion rates. Examples of indicators include the following.

- **Objective 1** — increasing female labour-market participation and equality in the
1. Under the Istanbul Convention, Article 11 on data collection and research requires parties to collect relevant statistical data disaggregated by sex and to conduct population-based surveys at regular intervals to assess the prevalence of and trends in relation to violence against women and domestic violence. Data collection is intended to support research on the root causes and effects, incidences and conviction rates of violence against women, as well as to monitor the efficacy of measures taken to implement the convention [23].

2. Strategic Objective H.3 of the Beijing Declaration and Platform for Action includes a series of actions to be taken to generate and disseminate gender-disaggregated data and information for planning and evaluation. These actions include developing and collecting statistics that are presented by sex and age and that reflect problems, issues and questions related to women and men in society; developing an international classification of activities for time-use statistics that is sensitive to the differences between women and men in paid and unpaid work; improving concepts and methods of data collection on poverty among women and men, the human rights of women, women and men with disabilities, etc.; and using more gender-sensitive data in the formulation of policy and implementation of programmes and projects [24].
The United Nations **2030 Agenda for Sustainable Development** contains a statistics and indicator framework for the implementation of the 17 Sustainable Development Goals. The aim of this framework is to monitor progress, inform policy and ensure accountability. Sustainable Development Goal 5, ‘Achieve gender equality and empower all women and girls’, contains a series of targets and respective indicators on gender-based violence and harmful practices, unpaid domestic and care work, women's participation in decision-making, sexual and reproductive health and reproductive rights, amongst others [25]. Examples of targets and indicators include the following.

- **Target 5.1**: end all forms of discrimination against all women and girls everywhere.
  1. Indicator 5.1.1: whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex.

- **Target 5.2**: eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.
  1. Indicator 5.2.1: proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age.
  2. Indicator 5.2.2: proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence.

- **Target 5.4**: recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.
  1. Indicator 5.4.1: proportion of time spent on unpaid domestic and care work, by sex, age and location.

- **Target 5.C**: adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.
  1. Indicator 5.C.1: proportion of countries with systems to track and make public allocations for gender equality and women’s empowerment.
Producing and assessing gender statistics and indicators

Gender statistics [26]

As the Quality Criteria of EIGE’s Gender Statistics Database explains: ‘[the] overarching general principle in the production of high quality gender-sensitive data is that of gender mainstreaming’ [27]. This, according to the United Nations Statistical Division, means ‘that gender issues and gender-based biases are systematically taken into account in the production of all official statistics and at all stages of data production’ [28].

Having established the principle of gender mainstreaming, there are a series of steps that can be taken in developing gender statistics [29].

Step 1. Selection of topic from a gender perspective

It is important to select topics that are relevant for gender statistics, namely topics that specifically tackle inequalities between women and men in all aspects of life. Of particular relevance to gender equality are equal decision-making power, equal economic opportunities, pay and status, work-life balance, elimination of gender stereotypes and freedom from gender-based violence [30]. Specific attention should be paid to ensure that the indicators used measure progress in the respective topic.

Step 2. Identification of appropriate concepts, methodologies and measurement tools

In the planning stage of the collection of gender statistics it is important to assess whether existing concepts, theories and methodologies applied to the respective area adequately reflect differences between women and men, reveal gender inequalities and are not gender biased. In cases where they fail to do so, gender-sensitive concepts and methodologies will have to be developed. For instance, while labour force surveys provide information on employment in a country, they only partially reflect gender inequalities if they do not include unpaid work. To better understand gender inequalities in this area, labour force surveys can be complemented by time-use surveys. Coherence and comparability of data must be ensured at this stage, particularly where cross-country comparisons are being made.

Step 3. Definition of the measurement tools for collecting data

The quantitative approach to the collection of data involves the following steps.
1. The identification of the unit of analysis

The unit of analysis may include physical entities such as population groups (e.g. women with disabilities, young men), households, companies and schools, or actions (e.g. births, economic transactions). The unit of analysis determines the data to be collected and influences the way a gender perspective is reflected in the collected data. For instance, using the example of household income data, it is important that data collection takes account of gender differences in access to and control over household income by including relations between the members of a household in the measurement.

2. The design of the questionnaire and the sample

A questionnaire, either self-administered or administered through a one-to-one interview, can be used to collect new data. In these cases the design of the questionnaire is a relevant phase of gender statistics planning as the content of the questionnaire influences the value of the data collected in making gender inequalities visible. Inadequate formulation of questions risks creating gender-biased data. In order to mainstream a gender perspective in the questionnaire and to avoid gender bias, the following should be considered:

1. the data that is needed for the purpose of collecting gender statistics;
2. the use of concepts and definitions that adequately reflect gender issues;
3. clarity and wording of questions so that no room is left for interpretation based on the respondents’ (and in the case of one-to-one interviews) interviewers’ own personal beliefs and social norms;
4. selecting the appropriate respondent.

Furthermore, particular attention should be paid to the intersection of gender with other characteristics (e.g. income, employment status, educational level, age, citizenship, ethnicity). In this case, the sample size has to be considered. The sample should be large enough to allow for reliable estimates for smaller sub-samples [31].
Another important step in this phase is the definition of the sample to ensure the accuracy and reliability of the data. To avoid gender bias, gender balance should be ensured in the sample frames. Focusing specifically on the sample definition of the household unit, as mentioned above, may lead to gender bias and requires that particular attention be paid to the reference unit (i.e. the person questioned in the survey process) and to their selection [32]. Another challenge consists of the use of an individual unit of analysis, when the household is used as a sampling unit. In this case, the respondent should not provide answers on behalf of his/her partner. This point is particularly pertinent to sensitive questions such as gender-based violence or the use of time and childcare [33].

3. The implementation of a pilot test, the analysis of its results and the revision of the measurement tool, if needed

The testing/piloting of questionnaires is crucial to reveal potential gender bias or lack of clarity in the questions in general and in relation to gender-specific questions. Based on the test/pilot results, the questionnaire should be revised.

4. The drafting of standard templates for data collection and training of people involved to ensure data homogeneity, comparability, integration of different sources of information and avoidance of gender bias

International standard templates may be used to facilitate data comparability and country/sector/ etc. benchmarking. These may include: International Classification for Time-Use Statistics; International Standard Classification of Occupations; Statistical Classification of Economic Activities in the European Community; International Classification of Diseases; and guides provided by the 2010 European Statistics Conference on population census. The use of standard templates together with interviewers’ training is useful to avoid interviewers’ values or beliefs influencing the data collection process. In order to collect data on gender inequalities, interviewers need to understand the gender issues at stake and the different ways in which women and men may respond to some issues.

5. Administrative data
Administrative data are defined as information collected primarily for administrative (not statistical) purposes such as registration, transaction and record keeping. This type of data is typically collected by public sector organisations with a specific decision-making purpose in mind. Therefore, the identity of the unit corresponding to a given record is essential in contrast with statistical records where the identity of individuals is of no interest or even allowed [34]. The use of administrative records can be advantageous because it avoids further direct data collection costs and respondent burden because the data already exists. An additional advantage is the possibility to link several data sources. If this takes place, it is crucial that a unified identification system exists, allowing different data sources to use common identification codes [35].

Step 4. Collection of gender statistics

There are various methods for data collection (e.g. telephone, face-to-face, computer assisted or personal assisted interviews, door-to-door or online surveys, self-compilation). When selecting a specific method, it is important to assess how gender bias can be avoided in the data collection process. For instance, in interviews the interviewers’ values/beliefs/construction of gender roles may influence the opinions of the interviewee, as mentioned above. The characteristics of an interviewer (e.g. gender, age) may also affect how women and men behave during the interview and the answers they give. An analysis of potential risks in terms of gender should be conducted when selecting the data collection method and measures should be adopted to mitigate them.

Step 5. Analysis of gender statistics

The type of analysis carried out on the collected gender statistics will depend on the purpose of the collection process. For instance, the analysis of gender statistics may be carried out over time and across sectors, policies, programmes, projects, organisations, etc. to provide benchmarking on specific issues. Where gender impact assessments are carried out, the analysis of gender statistics should focus on the potential impact of an intervention on women and men. In gender evaluation, the analysis of gender statistics focuses on the changes brought about by the respective interventions for women and men.

Step 6. Dissemination to a wide range of users (e.g. policymakers, nongovernmental organisations, citizens)
Once the analysis is completed, gender statistics have to be communicated and disseminated. The communication of gender statistics and their analysis from a gender perspective is important to raise policymakers’, stakeholders’ and, in general, citizens’ awareness on gender issues. Communicating the value of gender statistics is also important to enhance their use and show their potential for different users or audiences (e.g. researchers, evaluators, policymakers, stakeholders). When disseminating gender statistics, data summaries and information, they should be made accessible for different target audiences. The dissemination of gender statistics can be carried out through publications related to gender equality, general statistical publications, research reports, journal and newspaper articles, online databases and social media.

**Gender indicators**

The planning stage needs to take account of how the design of gender indicators can measure progress on broad gender equality objectives, as well as the specific goals of policies, programmes or projects. Gender indicators need to be tailored and appropriate to the policy objectives. The selection of gender indicators also depends on the scale of the intervention, the availability of gender statistics and the capacity of the actors involved in the data collection. In selecting the appropriate gender indicators, the following principles should be adhered to [36].

- Undertake a gender analysis to support the definition of gender indicators.
- Use both quantitative and qualitative gender indicators; this should cover all aspects of the respective intervention or topic in question and prevent gaps in the data collection process.
- Ensure indicators are collectable, as some may prove to be irrelevant or difficult to collect.
- Ensure relevance and partner ownership. This includes ensuring gender indicators are meaningful for policymakers and stakeholders, as well as for the intervention and context. In particular, gender indicators should be in line with relevant gender equality commitments and gender-specific policy objectives.
- Involve stakeholders in the definition of gender indicators for the respective intervention through participatory approaches. In order to avoid bottlenecks in the definition and collection of data on gender indicators, it is important to assess the level of commitment and capacity of actors involved.
- Consider the timeframe for expected changes of policies, programmes or projects analysed, which may take place over a short-term, medium-term and long-term period of time. The expected term should be considered in the definition of the timeframe for the collection and measurement of the indicator.
- Ensure flexibility and transparency in the development of the gender indicators as
objectives and actions of the respective intervention may need to be changed or adjusted.

Once the indicators are selected, baseline information should be collected to provide a reference point to measure changes that take place over time in the respective intervention. This can be very useful in benchmarking and mapping progress over time. Data collected on gender indicators can be assessed against the agreed outcomes to examine whether the intervention triggered the expected changes in women’s and men’s situations.

Read more on gender statistics and indicators

When designing gender statistics and indicators, attention should be paid to their robustness and quality, based on the following criteria.

- **Data relevance**: the capacity of data collected to meet the requests and needs of data users and its relevance to the intervention implemented/analysed. For instance, indicators should be clearly linked to an input, output or outcome of the policy, strategy, programme, project or initiative being measured.

- **Data accuracy**: the correct level of data collected.

- **Data timeliness**: the period of time between the moment of data collection and the phenomena that the data captures.

- **Data clarity**: data collected is presented in an easy-to-understand way for all users and accompanied by adequate explanations (for instance, on methods used for collection, tabulation, interpretation).

- **Data comparability**: enabling comparisons of results or effectiveness over time and in different contexts, and ‘the extent to which differences between data from different geographical areas, non-geographical domains, or over time, can be attributed to differences between the true values of the statistics’ [37].

- **Data punctuality**: the respect of deadlines for the analysis of and release of collected data.

- **Data accessibility**: ‘the ease with which the existence of information can be ascertained, as well as the suitability of the form or medium through which the information can be accessed’ [38]. Cost also may be a factor affecting the accessibility for some users.

In addition, when defining indicators, the following criteria are ‘features of a good indicator’:

- ‘Valid: measuring what the indicator is intended to measure.'
Specific: measuring only the particular aspect of the initiative it is intended to measure.

Reliable: minimizing random error; and producing the same result consistently, given the same set of circumstances, including the same observer or respondent.

Comparable: enabling comparisons of results or effectiveness over time, and in different contexts. Nondirectional: enabling a measurement of change in any direction.

Precise: using clear, well-specified definitions.

Feasible: able to be measured using available tools, methods, resources, and skills.

 Relevant: clearly linked to an input, output, or outcome of the policy, strategy, program, project, or initiative being measured.

Verifiable: able to be proven or tested empirically’ [39].

Further information

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Endnotes

[1] For further information on gender gaps in each of these indicators see Eurostat (online), Gender Statistics, February 2018. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php/Gender_statistics


[4] Ibid.


[9] Ibid.


[13] Ibid.


[17]-[21] Ibid.


[25] United Nations (online), Sustainable Development Goal 5 — Achieve gender equality and empower all women and girls (Sustainable Development knowledge Platform). Available at: https://sustainabledevelopment.un.org/sdg5


[30]-[35] Ibid.


[38] Ibid.


Other resources

European Institute for Gender Equality, Gender Statistics Database. Available at http://eige.europa.eu/gender-statistics/dgs


United Nations Economic Commission for Europe, Statistical Database. Available at: https://w3.unece.org/PXWeb/enMinimum. Set of Gender Indicators. Available at: https://genderstats.un.org/#/home


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Metadata

KEYWORDS: gender statistics