



APPLICATION OF GENDER INDICES IN DEMOGRAPHIC AND NON- DEMOGRAPHIC SPHERES

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implementation of the gender approach

Currently, the gender approach in the theory and practice of education is at the stage of development. The main conceptual idea of gender is that it is a social construct that appears, exists and varies under the influence of culture and traditions of the society and adequately reflects the idea of the social structure of differences between women and men. The implementation of the gender approach led to a revision of the existing methodology in social and socio-human sciences and, accordingly, the application of new methods. As a result, the tendency for the formation of gender up-to-date knowledge applying an integrated approach (gender mainstreaming) to the issue of equality of women and men has become widespread.



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gender mainstreaming

The concept of gender mainstreaming was internationally recognized (Beijing Declaration and Platform for Action, 1995; Gender Mainstreaming Concept of the Economic and Social Council of the UN General Assembly, 1997; Conceptual Framework for Gender Mainstreaming of the Council of Europe, 1998 and the State Programme for the Promotion of Gender Equality (2006) which was taken by the Ukrainian Gender Policy as the basis.



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methods in gender studies

The **theoretical** method in gender studies enables identifying the range of existing problems and clarifying the subject of study. The method also determines the proper place of gender knowledge in modern humanities as a whole.

Concerning gender, the **historical and genetic method** is characterized as a gender dimension of the historical process, a two-way approach for assessing historical events, situations and activities in a certain period of life of societies and its results. This method discloses events and problems from the point of view of realizing the interests and needs of both women and men.



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methods in gender studies

Social and psychological methods of studying gender include the study of socially constructed female and male roles and relationships, identity and sexual characteristics, psychological characteristics, etc.

The **empirical method** of gender studies proves the existence and significance of the fact, real events, real actions, and the presence of the manifestation of quantitative and qualitative parameters in the analysis of gender situations.

The **prognostic method** in the study of gender answers the questions that deal with the prospects of gender development in view of the gender situation in the world (or its separate region) as a whole.



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methods in gender studies

The above-mentioned methods of gender studies are closely connected with **statistical methods** that involve the introduction and application of numerical indicators which reflect the degree of fairness of distribution and use of national welfare and services among social groups in the system of general achievements of the world or a particular region of the country, taking into account the gender factor. Gender statistics shows social and demographic characteristics of specific groups such as women and men.



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simplest indices of gender statistics

The indices of gender statistics are the information source for monitoring the situation of women and men in the world (or its separate region); they help to ensure the development of strategic solutions for the social and economic policy to implement the principle of equality in society.

The simplest indices of gender statistics are **Gender Parity/Asymmetry Indices**, which are widely used in the calculation of more complex indicators. Due to the fact that the Gender Parity/Asymmetry Indices give different results in different spheres of their application, there is an opinion on the need to develop a separate methodological approach using such indices in the demographic sphere and a separate approach for all other spheres.



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Assessment of gender parity for demographic indicators

In the demographic indicators, the **gender ratio** is used to analyse the world's population, regions of the world and countries of the world or smaller territorial units:

$$GR = \frac{population_m}{population_f} \cdot 100.$$

The ratio shows the number of men for every 100 women in a certain region.

Further $population_m$ will mean the number of male in the corresponding region, and $population_f$ will be the corresponding number of female.



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Assessment of gender parity for demographic indicators

- Gender ratios may vary in different subgroups of population. The gender ratio of newborns is a completely different indicator and is different from the gender ratio for the whole population and the gender ratio for the elderly. Biologically, boys are born more than girls (from 104 to 107 boys for every 100 girls). On average, women are more resistant to illnesses and live longer than men.
- Also, the tendency of men to more risky occupations and aggressive behaviour increases their chances of early death. Therefore, the gender ratio of newborns shows an excess of the number of men, and the gender ratio for the elderly indicates an excess of women (the ratio is less than 100).



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Assessment of gender parity for demographic indicators

In gender-neutral societies where men and women live in the same conditions, the gender ratio is from 98 to 100. In 2015, the gender ratio for the whole world was 102, but in different countries it was various: from 274 in the Arab Emirates to 85 in Latvia and Lithuania (86 in Ukraine).

The following indicators and methods are used to make an analysis of gender parity in the demographic sphere: Gender Parity Index, Gender Gap Index, Gender Asymmetry Index and correlation fields. Let us apply the method for calculating these indices.



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Gender Parity Index (GPI) is the ratio of the number of women in a certain territorial region to the number of men:

$$GPI = \frac{population_f}{population_m}. \quad (1)$$

This index is used as the generally accepted Gender Parity, which was introduced by the UNESCO organization. Theoretically, this ratio may vary from 0 (in the absence of women in the group) to infinity (in the absence of men in the group). In the case of full equality of women and men, the ratio is equal to 1.



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Absolute Gender Gap (AGG) is calculated as the difference between the number of men and the number of women in a certain territorial region:

$$AGG = population_m - population_f . \quad (2)$$

Disproportions in favour of women are denoted by the negative meanings of the gender gap. The gender gap identifies the number of women/men which is not enough for the absolute parity in the region.



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Gender Asymmetry Index (GAI) is calculated with the help of the following

ratio

$$GAI = \frac{population_f - population_m}{population_f + population_m} \quad (3)$$

which differs in the interval $[-1; 1]$ and indicates the symmetry between the number of people in men and women groups in case of GAI = 0, the asymmetry towards women group will be in the case of $GAI > 0$ (the closer the value GAI to 1, the bigger disbalance towards women); the asymmetry towards men group will be $GAI < 0$ (when the values GAI close to -1 then it is an obvious disbalance towards men).



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Assessment of gender parity in the social and economic, political and legal spheres

Let us consider a number of indices for the assessment of the gender parity in the non-demographic spheres of human activity. We can introduce the following notations:

$$ratio_f = \frac{number_sph_f}{population_f}; \quad ratio_m = \frac{number_sph_m}{population_m};$$

where $number_sph_f$ is the number of female representatives who have certain feature in the chosen for the analysis sphere in a certain region, $population_f$ is the female population in this region.



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Gender Parity Index GPI_{sph} . Gender Parity Index is calculated in the

following way:

$$GPI_{sph} = \frac{ratio_f}{ratio_m}. \quad (4)$$

This index characterizes how many times the proportion of women with a certain feature in the chosen field of study is larger/smaller than the corresponding proportion of men. Thus, GPI_{sph} changes within the limits $[0; +\infty]$ and is a qualitative value of the ratio of the distribution of certain features in gender groups. The cases when $GPI_{sph} = 1$ we will call parity; and when GPI_{sph} is different from 1 we will call the lack of parity (and if $GPI_{sph} > 1$ then, with the predominance of the proportion of women, otherwise it is the predominance of the proportion of men).



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Absolute Gender Gap AGG_{sph} is calculated as the difference of the men proportion from their total number in the corresponding demographic group and the proportion of women (%):

$$AGG_{sph} = (ratio_m - ratio_f) \cdot 100\%. \quad (5)$$

This index is meaningful if the number of men and women in the corresponding demographic groups is approximately the same ($population_m \approx population_f$). The index characterizes what is the percentage of men with a certain feature is larger/smaller than the corresponding proportion of women.



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Gender Asymmetry Index GAI_{sph} is calculated by the proportion of women

from their number in the corresponding demographic group $ratio_f$ and the proportion of men $ratio_m$ in the given field of analysis, and:

$$GAI_{sph} = \frac{ratio_f - ratio_m}{ratio_f + ratio_m}. \quad (6)$$

Thus, GAI_{sph} changes within the limits $[-1; 1]$ and also is a qualitative value of the ratio of the distribution of certain features in gender groups. The cases when $GAI_{sph} = 0$ we will call symmetry between the proportions of men and women, and when it is different from 0, then it will be asymmetry (and, if, $GAI_{sph} > 0$ then it will be predominance of women proportion and in the opposite case – predominance of men).



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