# Adjusted Gender Pay Gap

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#### 3. Statistical presentation

#### 3.1. Data description

The adjusted gender pay gap is calculated based on the Labor Force Survey (LFS).

The Labour Force Survey is a household sample survey. Its main goal is to produce data on the labour force status of the population aged 15 years and older.

#### 3.2. Classification system

• Classification of Economic Activities (NACE Rev.2);

• International Standard Classification of Occupations (ISCO-08);

• International Classification of Status in Employment (ICSE-93).

#### 3.3. Sector coverage

LFS covers persons aged 15 and over living in private households.

Excluded:

- Persons whose absent duration in the household exceed 12 months;
- Military persons lived at a military base;

• Persons stayed in prisons, psychiatric clinics, retirement homes, boarding school and other types of specialized institutions.

#### 3.4. Statistical concepts and definitions

**Employee** – A person who performed a certain work for at least one hour during the reference period for wage or salary, in cash or kind, or a person who has a job but was temporarily absent due to a holiday, illness, technical, economic or other similar reasons.

**Reference Period for employment**– 7 days preceding the date of interview.

Gender pay gap represents the ratio of the difference between men's and women's wages to men's wages.

If the gender pay gap does not take into account demographics and job characteristics of individuals, it is referred to as **the unadjusted gender pay gap**. Even when these factors are considered, there is still a difference between wages of men and women. This difference is an indicator of gender inequality related to earnings.

**The adjusted gender pay gap** is calculated considering individual characteristics. The calculation methodology for the adjusted gender pay gap, developed by Geostat, considered international practices, available data sources in the country, and the accessibility of factors that significantly influence this indicator.

This indicator is calculated for employees aged 15–64 using a **regression model**. The calculation applies the **Mincerian earnings function**:

•  $ln(Y_i) = \alpha + \beta_i gender_i + \Sigma \gamma_j^* X' j_i + \varepsilon_i$ ,

where:

• *Yi* – wage;

- *gender*: a dummy variable (1 = male, 0 = female);
- *X*<sup>*j*</sup><sub>*j*</sub> is personal and job characteristics;
- *y*<sub>j</sub>-coefficients of regression;
- coefficient  $\beta_1$  measures the adjusted gender pay gap;
- *Ei* is the idiosyncratic error, capturing all influences onto the gender pay gap not captured by the observable variables, i.e. the *unexplained* part of the gender pay gap.

The following factors are used in the calculation of the adjusted gender pay gap:

- **Demographic (personal) characteristics:** age, educational attained level, marital status, region, type of settlement (urban/rural)
- Job characteristics: occupation based on the International Standard Classification of Occupations (ISCO-08) at the major group level, economic activity at the NACE Rev. 2 section level, usual hours worked, etc.

#### 3.5. Statistical unit

Persons aged 15 and over living in private households.

#### 3.6. Statistical population

General population of the sampling frame includes all private households of country based of the General Population Census except institutional households.

#### 3.7. Reference area

Whole area of Georgia excluding occupied territories of country.

3.8. Time coverage

Since 2020.

3.9. Base period

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#### 4. Unit of measure

Percent.

#### 5. Reference period

Year.

# 6. Institutional mandate

6.1. Legal acts and other agreements

The Law of Georgia on Official Statistics;

https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf

Statistical Work Programme (annual);

https://www.geostat.ge/en/modules/categories/307/statistical-work-programme

Charter of the National Statistics Office of Georgia.

https://www.geostat.ge/media/67749/New-Chapter-eng-upd.pdf

# 6.2. Data sharing

# 7. Confidentiality

# 7.1. Confidentiality – policy

- 1. The Law of Georgia on Official Statistics:
  - According to the article 5 of the law Statistical confidentiality and exclusive use for statistical purposes individual data collected or received by the producer of official statistics, relating to natural or legal persons, must be strictly confidential and used only for statistical purposes.
  - According to the article 34 (Observing Confidentiality of Statistical Data) of the law 1. Data collected, processed, and stored to produce official statistics are confidential if they enable the direct or indirect identification of a statistical unit. In addition, aggregated data are subject to statistical confidentiality: a) Aggregates composed of 1 to 3 units, when the unit is a natural or legal person if one of these units could be identified indirectly, thereby disclosing individual data about this unit. Aggregates composed of more than 3 units may be declared confidential by the Executive Director if required to ensure statistical confidentiality; b) Information declares as a state secret on the basis of the "Law of Georgia on State Secrets". 2. Confidential data

shall be used exclusively for the purposes of producing statistics in accordance with this law. 3. Statistical data about the administrative body cannot be considered confidential information, except for the information determined by the Law of Georgia "On State Secrets". 4. Individual data obtained from publicly available sources, which are defined as public information in accordance with the legislation of Georgia, shall not be considered confidential information. 5. Confidential (individual) data may be published if there is written consent from the statistical unit regarding the publication of such data. 6. It is not allowed to disseminate and distribute confidential data or use it for non-statistical purposes.

• According to the article 38 (Confidentiality commitments) of the law the confidential statistical data collected and processed for statistical purposes shall not be used or disseminated either for personal, academic, research or any other activities, by the employees of the producers of Official Statistics.

https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf 2. Data Confidentiality Policy at Geostat

- https://www.geostat.ge/media/20860/Data-Confidentiality-Policy-at-Geostat\_En.pdf
- 3. Procedure for providing access to confidential data for research purposes <u>https://www.geostat.ge/media/61533/Rule-on-Access-to-Confidential-Data-for-Scientific-and-Research-Purposes....pdf</u>
- 4. The Law of Georgia on Personal Data Protection https://matsne.gov.ge/en/document/view/1561437?publication=9

# 7.2. Confidentiality – data treatment

• Confidentiality guidelines.

• Written undertakings by an employee of Geostat on ensuring confidentiality of gained/collected data as a result of official duties.

# 8. Release policy

#### 8.1. Release calendar

Data dissemination dates are defined by the calendar developed on the basis of the Statistical Work Programme, which is published on the website of Geostat and is publicly available.

8.2. Release calendar access

https://www.geostat.ge/en/calendar

8.3. User access

All users have the equal access to the statistical data simultaneously.

# 9. Frequency of dissemination

Annually, Quarterly.

# 10. Accessibility and clarity

# 10.1. News release

New release is disseminated along with results of the Survey:

https://www.geostat.ge/en/single-news/3286/adjusted-gender-pay-gap-2023

# 10.2. Publications

Statistical publication "Women and men in Georgia":

https://www.geostat.ge/en/single-categories/95/statistical-yearbook

10.3. On-line database

The data is available on the Geostat website in the PC-Axis database:

<u>https://pc-</u>

axis.geostat.ge/PXweb/pxweb/en/Database/Database\_Gender%20Statistics\_Income/Adj\_GpG\_by\_Year\_Ec\_A.px/?rxi d=52cb5a1c-8fd6-4250-b586-fcf8cd9bb0f2

and in the Gender Statistics Portal:

https://gender.geostat.ge/gender/index.php?action=Income

# 10.4. Micro-data access

According to the "Rule on Access to Confidential Data for Scientific and Research Purposes" of the Law of Georgia on Official Statistics, users are allowed to access individual data to promote scientific progress. All direct and indirect identifiers, such as personal number, address, and name, are deleted from individual data files. Extreme values and similar indirect identifiers are corrected using appropriate statistical methods. All files are appropriately anonymised to minimise the risk of disclosure:

https://www.geostat.ge/media/61533/Rule-on-Access-to-Confidential-Data-for-Scientific-and-Research-Purposes....pdf The anonymised microdata in SPPS format are available on the website of Geostat.

https://www.geostat.ge/en/modules/categories/130/labour-force-survey-databases

# 10.5. Other

According to the Law of Georgia on Official Statistics statistical data is public and upon an electronic form or written request, Geostat ensures delivery of the statistical data for all users.

#### 10.6. Documentation on methodology

10.7. Quality documentation

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# 11. Quality management

# 11.1. Quality assurance

To ensure the quality of the statistical processes and products Geostat follows Chapter 10 – Quality of official statistics – of the Law of Georgia on Official Statistics, as well as the European Statistics Code of Practice, the UN Fundamental Principles of Official Statistics and Quality Assurance Framework of the European Statistical System (ESS QAF).

# 11.2. Quality assessment

Methodology and Quality Management Division of Geostat, along with the sectoral departments, is responsible for the quality of the produced statistical products and processes. The Division carries out quality audit, self-assessment of statistical processes and assesses the risks for the quality of statistical processes and products. Geostat has developed policy documents, guidelines and standard routine descriptions. These documents ensure the standardization of statistical processes and products and the establishment of a unified quality assurance system.

Quality policy is available on the following link:

https://www.geostat.ge/media/44380/QP Geostat EN.pdf

# 12. Relevance

# 12.1. User needs

Users of the GPG are state authorities, international agencies, researchers, human rights organizations, etc. They use this data to assess gender inequality in the labor market in Georgia.

# 12.2. User satisfaction

In 2023 user satisfaction survey was conducted, the target of the survey was to analyze the assessment of quality of statistical data by users and explore ways to improve user services. The survey report is available on the website of Geostat:

https://www.geostat.ge/en/page/customer-service

# 12.3. Completeness

The data comply to international standards.

# 13. Accuracy and reliability

# 13.1. Overall accuracy

Labour Force Survey is based on a sampling method. Generally, this process is attended by existence of statistical deviation (error). In accordance with this during the calculation of survey results standard deviation is taken into consideration.

# 13.2. Sampling error

Sample size of the survey comprises about 6 400 households quarterly. In 2023, Response rate of households which is calculated as interviewed households divided on sampled households, amounted to 83.1 percent.

The table below represents standard errors, confidence intervals and coefficients of variation for the adjusted gender pay gap:

	Standard	95% Confidence Interval		The Coefficient
	Error	Lower Bound	Upper Bound	of Variation
Adjusted GPG (hourly), %	1.1	11.0	15.4	8.7
Adjusted GPG (monthly), %	1.0	18.9	22.9	4.9

#### 13.3. Non-sampling error

Non-sampling error can occur because of non-responses – refusal of respondents on obtaining information; Inaccurate or incomplete information, as well as proxy answers (interviewing another household member instead of respondent). In order to minimize non-sampling errors, interviewer should make 3 visits to the household to directly interview the respondent.

#### 14. Timeliness and punctuality

# 14.1. Timeliness

The data on the adjusted gender pay gap is published annually in October of the year following the reference period. 14.2. Punctuality

The data is published according to the date specified in the statistical work program. There has not been any violation of publication dates.

#### 15. Coherence and comparability

# 15.1. Comparability – geographical

15.2. Comparability - over time

Data is comparable over time.

15.3. Coherence - cross domain

# Comparability with the indicator from the Enterprise and Organization Survey

- The adjusted gender pay gap is calculated based on labor force survey data, considering individuals' demographic and job-related characteristics. Data collection within the survey is carried out through face-to-face interviews with respondents.
- Based on enterprise and organization survey data, only the unadjusted gender pay gap is calculated, which does not take into account demographic and job characteristics of individuals. In this survey, salary data is based on information provided by enterprises and organizations.
- The labor force survey covers both formal and informal employment, while the enterprise and organization survey covers only the formal sector.
- The unadjusted gender pay gap calculated based on the labor force survey covers the population aged 15-64, while in the case of the enterprise and organization survey, no age restriction is applied.

#### 15.4. Coherence – internal

The data is coherent.

# 16. Cost and burden

Average duration of interview for Main Questionnaire - 15 minutes. In 2024, budget of survey on Labour Force Survey amounted to 797.4 thousand GEL

#### 17. Data revision

17.1. Data revision - policy

Statistical data revision policy is available on the website of Geostat:

https://www.geostat.ge/media/59824/Data-Revision-Policy-and-Error Correction-at-Geostat Eng.pdf

#### 17.2. Data revision – practice

There is no data planned revision. Unplanned revision (in order to specify the data) has not taken place in practice.

# 18. Statistical processing

#### 18.1. Source data

The source of the adjusted gender pay gap data is Labour Force Survey (LFS). Sample frame of LFS is databases of the General Population Census.

The sample of household is selected in two stages. The urban and rural areas within each region were identified as the main sampling strata. Primary sampling unit (PSU) is a census unit, and secondary sampling unit (SSU) is the address of a household. Within each stratum a specified number of census enumeration areas (PSU) are selected systematically with probability proportional to size. Household listing is carried out in each new selected enumeration areas. After a

household listing is carried out within the selected enumeration areas, specified number of households are selected using random sampling.

The selected households are surveyed using the 2-(2)-2 rotation scheme. This rotation scheme is based on having a panel of sample households interviewed for two consecutive quarters, out of the sample for two quarters, and then interviewed again for a final two quarters. Sample household is interviewed a maximum of 4 times over a period of 18 months. Quarterly 1/4 of the sample is renewed.

# 18.2. Frequency of data collection

Data is collected monthly basis.

#### 18.3. Data collection

Since 2021 data have been collected using (CAPI) Computer-Assisted Personal Interviews.

Thee questionnaires are used in the survey: 1) Demographic questionnaire to collect basic demographic information on all household members; 2) Main questionnaire administer in each sampled household to all members aged 15 and over; 3) Refusal sheet – the non-response form to record reasons of refusal.

Fieldwork starts on the 8<sup>th</sup> of each month and lasts until the end of the month.

Electronic versions of questionnaires are available on Geostat website:

https://www.geostat.ge/en/modules/categories/562/labour-force-survey

#### 18.4. Data validation

#### Data validation consist of several stages:

- The electronic questionnaires of the survey integrate basic logical controls, based on which the software can instantly identify errors made during the interview.
- Initially, field supervisors perform the first logical control of the questionnaires completed by the interviewers. In case of discrepancies or suspicious data, the field supervisor returns the questionnaire to the interviewer with relevant comments/instructions for verification. Finally, the non-compliance questionnaire is sent electronically (via appropriate software) to the head office of Geostat by the fieldwork supervisor.
- In the next step, the questionnaires are checked by the staff of Geostat head office. In this case as well, if the inconsistent and suspicious data turn out in the questionnaire, the head office employee returns the questionnaire with relevant comments/instructions to the field supervisor for verification.
- The head office receives and codifies non-compliant questionnaires (according to the International Classification of Economic Activities (NACE) and the International Employment Classifier (ISCO)), and reflects them in the survey database.
- Finally, in-depth control of the survey database (based on established rules and criteria, which also includes checking the links between surveys of different periods) and data clearance. To verify the data, if necessary, the field staff and/or the respondent are contacted.
- At the last stage, databases are processed and analyzed by the staff of the Labour Statistics Division of the Social Statistics Department.

# 18.5. Data compilation

After the cleaning of the database, the aggregated database is formed and the data is weighted. The data are weighted at the stratum level (Region and urban-rural are considered). Results are calculated using MS Access, while data are disseminated in MS Excel and PC-Axis formats.

# 18.6. Adjustment

Not applied.

# 19. Comment

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