Gender Inequality Index (GII) in Uzbekistan: Regional Analysis

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Abstract
This study analyzes gender inequality in Uzbekistan using the Gender Inequality Index (GII), which considers reproductive health, women's empowerment, and labor market participation. Data from 2024 show a national GII of 0.136, with the highest inequality in Karakalpakstan, Bukhara, and Namangan. Factors include low female labor force participation, limited political representation, and regional disparities in maternal health and adolescent birth rates. The study highlights the need for targeted, region-specific policies to improve women's economic activity, reproductive health services, and decision-making participation.

Gender Inequality Index (GII) is a composite indicator that shows, in percentage terms, how much of a country's human development potential is lost due to disparities between women and men. The index value ranges from 0 to 1, where **0 represents absolute gender equality**, meaning that women and men achieve equal outcomes in all measured dimensions. A value of **1 indicates the highest level of inequality** in terms of opportunities and outcomes. According to the definition of the **United Nations Development Programme (UNDP)**, the lower the value of the Gender Inequality Index, the lower the level of inequality; conversely, a higher value reflects stronger gender inequality.

The Gender Inequality Index is calculated based on three main dimensions: **reproductive health**, **women's empowerment and opportunities**, and **participation in the labor market**. Within these dimensions, the situation of women is assessed in comparison with that of men.

The **Gender Inequality Index** is formed through a number of key components that make it possible to assess differences between women and men across various areas of society. First of all, the index includes indicators that reflect the state of **women's reproductive health**. In particular, the **maternal mortality ratio** represents the number of women who die due to pregnancy or childbirth-related causes per 100,000 live births. A high value of this indicator signals poor health outcomes for women and points to shortcomings in the quality and accessibility of healthcare services. In addition, the **adolescent birth rate** is measured by the number of births among girls aged 15–19 and reflects the prevalence of early marriage, the health status of young people, and the extent to which reproductive rights are ensured.

Another important dimension of the index relates to **empowerment and education**, as it assesses the level of women's participation in social and political life as well as gender equality in education. In this

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context, the **share of women in parliament** represents the percentage of seats held by women in the national legislative body and serves as an indicator for identifying gender inequality in political representation. At the same time, the **proportion of women and men aged 25 and older with at least secondary or tertiary education** reflects gender gaps in access to education and in opportunities to complete educational attainment.

Indicators related to the **labor market** also occupy an important place in the structure of the Gender Inequality Index. The **labor force participation rate** reflects the involvement of women and men within the economically active population. This indicator makes it possible to assess existing institutional, social, or economic constraints on women's employment and plays a crucial role in identifying gender disparities in the labor market.

Reproductive health includes two indicators related to women's ability to become healthy mothers: the **maternal mortality ratio** (the number of maternal deaths per 100,000 live births) and the **adolescent birth rate** (the number of births per 1,000 girls aged 15–19). Through these two indicators, the level of protection of women's reproductive health in a country is assessed. A low maternal mortality ratio indicates good health outcomes for women and a high quality of healthcare services, while a low adolescent birth rate reflects higher levels of girls' education and a lower prevalence of early marriage, meaning that women have broader opportunities. Research shows that women's access to education also contributes to reducing adolescent pregnancies and child mortality. Under **rights and opportunities**, the focus is on women's participation in politics and their educational attainment. Political involvement is measured by the **percentage of women in the national parliament**, while education is reflected by

the **share of women with secondary or higher education**. The presence of women in parliament shows their real influence in decision-making, and educational attainment demonstrates the level of equality in skills and knowledge between women and men.

Labor market participation – this refers to the share of women in the workforce, or their overall labor force activity. The **percentage of women in paid employment** serves as a key indicator for assessing the economic dimension of gender inequality. While more detailed analysis could include women's income or informal work, these data are often not comparable internationally. Therefore, participation in the labor market is used as a general measure. According to the UN Development Programme, low female participation in the workforce reflects economic gender disparities and negatively impacts the overall human development of a country.

These indicators across the three dimensions (for women and men separately) are first calculated individually, and then overall disparities between them are determined using a specific formula. A key feature of the **Gender Inequality Index** is that during aggregation, **geometric and harmonic means** are used, which ensures that strong performance in one area cannot offset poor performance in another. In other words, even if women score well in education and political participation but poorly in reproductive health, this imbalance is fully reflected in the index. This makes the Gender Inequality Index a **sensitive measure** that highlights areas where women continue to face disadvantages, rather than masking them with achievements in other fields.

Since Gender Inequality Index (GII) data are updated annually, trends in increasing or decreasing gender inequality can be tracked more accurately over time. For

example, when first calculated in 2010, many countries worldwide had relatively high GII values, indicating significant inequality. In subsequent years, gradual reductions in inequality were observed. However, because progress has been slow, it was noted that achieving full gender equality globally could still take decades if this pace continues.

In some regions, unfortunately, the opposite trend occurred: conflict and instability in countries like Yemen, Afghanistan, and Mali led to worsening gender inequality and deteriorating conditions for women. This highlights that achieving gender equality is not only a matter of social and economic development but is also closely linked to peace and

Indicators and Methodology for Calculating the Gender Inequality Index (GII)

The indicators used to calculate the Gender Inequality Index (GII) are measured in different units, so it is essential to standardize them to a common scale. Without this adjustment, some indicators could disproportionately influence the index or have little impact at all. Standardization neutralizes the effect of very low values and prevents extremely high values from skewing the index, ensuring that all indicators contribute proportionally and fairly to the final GII score. For this reason, the UNDP methodology specifies minimum and maximum "goalposts" for each indicator.

1. **Reproductive health indicators** are specific to women.

Maternal Mortality Ratio (MMR) – the number of maternal deaths per 100,000 live births. This indicator can vary greatly and sometimes shows extreme values. To address this, UNDP truncates MMR values within the range of **10–1000**.

✓**Why 10 is the minimum:** In highly developed countries, MMR can be extremely low (e.g., 1, 2, or 3), but such low

values are statistically unstable and can cause the index to fluctuate excessively year to year. Therefore, a minimum of 10 is considered the lowest realistic boundary for "very good" outcomes.

✓**Why 1000 is the maximum:** In very poor countries or conflict zones, MMR can exceed 1000 (e.g., 1100–1500). UNDP considers that differences above 1000 are not methodologically significant because all such cases indicate extremely adverse conditions. Using 1000 as the maximum prevents the index from being disproportionately "punished" by extreme values.

Adolescent Birth Rate (ABR) – the number of births per 1,000 girls aged 15–19. This indicator varies widely across countries: in some developed countries it may be 0–3, while in some developing countries it can exceed 150–200. Therefore, UNDP sets **truncation limits** for ABR:

✓Minimum (best) value = 0

✓Maximum (worst) value = 200

Unlike MMR, an ABR of 0 is theoretically and practically possible, representing an ideal situation. Studies (e.g., Gaye et al., 2010) have examined how these limits affect the index calculation.

For Uzbekistan, analysis often uses births among girls aged 15–17 per 1,000, instead of 15–19, because the legal minimum marriage age is 18. Girls under 18 are therefore treated as adolescents for reproductive health analysis.

These two indicators—MMR and ABR—together form the **reproductive health component** of the Gender Inequality Index.

Indicators for Political Empowerment, Education, and Labor Market Participation in GII Calculation

1. **Political participation – share of women in the national parliament** The share of women in the national parliament is measured as a percentage, with a minimum of 0% and a maximum of

100%. In calculating the Gender Inequality Index (GII), all indicators are combined using the **geometric mean**. If an indicator's value is 0, the geometric mean would collapse to zero, causing the overall index to be incorrectly low and distorting the calculation.

To prevent this, the UNDP methodology applies a **"technical zero replacement"** for proportional indicators (expressed as percentages or shares). A minimum value of **0.1% (0.001)** is used. This means that even if women hold 0% of parliamentary seats in practice, the calculation treats it as 0.001. This ensures the geometric mean remains stable and prevents the index from artificially falling to zero.

2. **Educational attainment – share of women and men aged 25 and older with at least secondary or higher education**. The minimum value is 0% (no one has secondary or higher education) and the maximum is 100% (all individuals have secondary or higher education). The GII formula also accounts for the **gender gap** in education. For example, if 80% of women have secondary or higher education and 90% of men do, the 10% difference contributes to the gender inequality component of the index.

3. **Labor market participation – share of women and men in the economically active population**. This is also measured as a percentage.

Step 2 in GII calculation: Indicators within each gender group are aggregated using the **geometric mean**. Using the geometric mean ensures that the index is sensitive to disparities in each component and prevents one strong indicator from offsetting weaknesses in others (Seth, 2009).

Formula for Women (Female Component) in GII Calculation:

$$G_F = \sqrt[3]{\left(\frac{10}{MMR} * \frac{1}{ABR}\right)^{1/2} * (PR_F * SE_F)^2 * LFPR_F}$$

PR_F – Political empowerment for women (share of women in parliament)
SE_F – Education indicator
$LFPR_F$ – Share of women in the economically active population
MMR – Number of maternal deaths per 100,000 live births
ABR – Number of births per 1,000 women aged 15–19

Formula for Men:

$$G_F = \sqrt[3]{1 * (PR_M * SE_M)^{1/2} * LFPR_M}$$

For men, only political empowerment, education, and share in the economically active population are considered.

Step 3 in calculating the Gender Inequality Index: Combining female and male indices (harmonic mean)

In the GII calculation, the indices calculated for women and men are combined. This is done using the following harmonic mean formula.

$$HARM(G_F, G_M) = \left[\frac{(G_F)^{-1} + (G_M)^{-1}}{2}\right]^{-1}$$

G_F- Index for women calculated using the geometric mean
G_M- Index for men calculated using the geometric mean

Step 4 in calculating the Gender Inequality Index: Calculating the arithmetic and geometric means for each indicator

To accurately measure inequality, it is necessary to combine the indicators for women and men. In this process, women and men are considered equal, meaning they are given equal weights. For each indicator, the values for women and men are first averaged using the arithmetic mean to produce a single value. Then, to form the overall index, all indicators are combined using the geometric mean.

$$G_{F,M} = \sqrt[3]{Healh * Empowerment * LFPR}$$

Reproductive Health Index : *Health =*

$$\frac{\sqrt{\left(\frac{10}{MMR}*\frac{1}{ABR}\right)}+1}{2}$$

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The Health Index is not interpreted as the average of women's and men's values. It only shows the extent of deviation from reproductive health standards.

4. Political and Education Index:

$$Empowerment = \frac{(\sqrt{PR_F * SE_F} + \sqrt{PR_M * SE_M})}{2}$$

PR_M, PR_F − The proportion of women/men in parliament (proportion of seats)

Labor force participation: $LFPR = \frac{LFPR_F + LFPR_M}{2}$

Step 5 in calculating the Gender Inequality Index: Comparing the indices

This stage is the final step in calculating the Gender Inequality Index. Here, two types of indices are compared with each other:

1. $HARM(G_F, G_M)$— The harmonic mean of the indices calculated for women and men
This shows the actual, real-world inequality.
2. $G_{F,M}$— he benchmark (ideal) index, obtained by combining the women's and men's indices with equal weights using arithmetic and geometric methods
3. The Gender Inequality Index is calculated using the following formula: $\frac{HARM(G_F, G_M)}{G_{F,M}}$

Why does the formula start with "1 – …"?

If gender equality is high → the Gender Inequality Index approaches 0.
If gender inequality is high → the Gender Inequality Index approaches 1.

Global indicators of the Gender Inequality Index

In 2023, significant differences were observed among countries worldwide in terms of gender equality, health, and education indicators. According to 2023 data, Denmark ranked at the top of the global ranking, recording the lowest Gender Inequality Index value at just 0.003. Norway (0.004), Sweden (0.007), Switzerland (0.010), and the Netherlands (0.013) also ranked among the top countries globally and were noted as having the lowest levels of gender inequality. Health, education, and income indicators for women and men in these countries are nearly equal, reflecting a very high level of gender parity.

In Iceland, only 3 out of every 100,000 live births resulted in maternal deaths due to pregnancy- or childbirth-related complications; the adolescent fertility rate was 3.4 per 1,000 girls, and women accounted for 47.6 percent of parliamentary seats. In addition, 99.9 percent of the population aged 25 and older had at least secondary education, and women's participation in the labor market stood at 70.5 percent. These figures indicate a well-functioning healthcare system, a high level of education, and a strong role of women in society.

Among developed countries, although the share of women in parliament in the United States is relatively lower, 21 out of every 100,000 live births resulted in maternal deaths due to pregnancy-related complications, and the adolescent pregnancy rate was 13.1 percent.

Experience of countries with high performance in the Gender Inequality Index Singapore also consistently ranks among the leading countries in the Gender Inequality Index due to its strong economic development and significant achievements in women's health and education (with a Gender Inequality Index of approximately 0.02 in 2023).

A value of the Gender Inequality Index close to 0 indicates that gender inequality is minimal. This means that in these countries, differences between women and men in terms of opportunities, rights, and achievements have been greatly reduced, and a largely equal environment has been established in practice.

We now turn to how these countries have achieved such results and which factors

have been decisive in their experience. The analysis shows that the most successful countries share the following common features:

Investment in women's health and respect for reproductive rights: In countries such as Denmark, Norway, and Sweden, maternal and child healthcare systems are highly developed. For example, in Denmark the maternal mortality ratio is 5 per 100,000 live births, and the adolescent birth rate is extremely low at 1.1 (that is, only one out of every 1,000 girls aged 15–19 becomes a mother). Women hold 43.6 percent of seats in the Danish parliament; 91 percent of Danish women aged 25 and older have attained at least secondary education; and 59.7 percent of women aged 15 and above participate in the labor market, compared to 67.7 percent among men. The world's first female minister was appointed in Denmark—Nina Bang became Minister of Education in 1924. Denmark appointed its first Minister for Gender Equality in 1999, and the country's first female Prime Minister took office in 2011. The current Prime Minister, Mette Frederiksen, is also a woman. Denmark even established a dedicated Ministry for Gender Equality in 1999 (and appointed the first equality minister), illustrating the seriousness with which the issue has been addressed at the level of state policy.

According to the **2025 Global Gender Gap Report**, Denmark ranks among the top countries in the world in terms of gender equality. Based on the table presented in the report, Denmark has achieved **79.1 percent gender parity overall**, placing it **14th out of 148 countries**.

In the Scandinavian and Western European countries, gender equality has been shaped at the level of state policy over many years. Key pillars of this process include the introduction of gender-neutral parental leave, support for women's active

participation in the labor market, and the creation of equal opportunities in education and healthcare. In Denmark, Sweden, Finland, Norway, and Iceland, women hold a high share of seats in parliament and government, educational coverage is nearly universal, and maternal mortality and adolescent birth rates are low, reflecting the effectiveness of the social welfare state model. At the same time, even in the most advanced countries, full equality in economic opportunities has not yet been achieved: gender wage gaps and the relatively low representation of women in senior management positions persist. The experience of the Netherlands demonstrates that gender equality can be promoted not only at the national but also at the international level through feminist foreign policy, legal guarantees, and expanded access to resources. Overall, the experience of these countries shows that achieving gender equality requires sustained political will, strong institutional mechanisms, supportive cultural values, and continuous monitoring, while economic equality remains a key challenge for the future.

Gender Inequality Index indicators across the regions of Uzbekistan

As noted above, the Gender Inequality Index incorporates an indicator of women's reproductive health, which consists of two sub-indicators: maternal mortality ratio and early childbirths. For early childbirths, the indicator used is the birth rate among girls aged 15–17.

Maternal mortality ratio: In 2024, the maternal mortality ratio in Uzbekistan stood at **14.8 per 1,000 live births**, representing a **3.7 percent decrease compared to 2020**. This indicates that reforms in the field of maternal health have yielded some positive results. At the same time, significant regional differences in maternal mortality persist.

Specifically, the highest maternal mortality ratio was recorded in the **Republic of Karakalpakstan**, reaching **38.4 per 1,000 live births** in 2024. This situation can be explained by environmental challenges in the region, factors negatively affecting public health, the high share of rural population, and limited access to specialized medical services. In **Navoi (27.2 per 1,000)** and **Bukhara (23.9 per 1,000)** regions, maternal mortality also remains significantly above the national average, which is associated with dispersed population settlement, shortages of obstetric-gynecological personnel in some districts, and insufficient early detection mechanisms for high-risk pregnancies.

At the same time, the maternal mortality ratio was relatively low in **Jizzakh (7.8 per 1,000)**, **Samarkand (9.0 per 1,000)**, and **Namangan (11.0 per 1,000)** regions. These positive outcomes are attributed to factors such as the wide coverage of primary healthcare services, the implementation of early registration practices for pregnant women, and the better organization of perinatal services at the regional level.

Overall, regional differences indicate that medical infrastructure, personnel availability, environmental conditions, and access to healthcare services play a decisive role in reducing maternal mortality. Therefore, in regions with higher rates, it is necessary to strengthen targeted healthcare policy measures that take into account the specific characteristics of each area.

In 2024, the adolescent birth rate (ABR) — the number of births per 1,000 women aged 15–19 — varied across regions of Uzbekistan. Nationwide, the ABR was **14.7**, reflecting regional differences influenced by fertility levels, early marriage practices, and access to reproductive health services.

Regionally, the highest adolescent birth rates were recorded in **Samarkand (23.6),**

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Namangan (20.0), Kashkadarya (18.0), and Fergana (18.0) regions. The relatively high rates in Samarkand and Kashkadarya are largely explained by the overall higher fertility levels in these areas, which together account for a significant proportion of total births in the country.

In **Bukhara (12.8)** and **Surxhandarya (16.4)** regions, elevated adolescent birth rates are primarily associated with the persistence of early marriage trends, traditional family values, premature school dropouts among girls, and limited access to reproductive health information and services.

The lowest adolescent birth rates were observed in **Republic of Karakalpakstan (6.5), Khorezm (6.9), Syrdarya (7.2), Navoi (7.4), and Tashkent city (9.7)**, reflecting comparatively better access to education and reproductive health services in these areas.

Overall, the data indicate that adolescent reproductive behavior remains a socio-demographic concern, with no uniform decline in birth rates among girls aged 15–19 across the country.
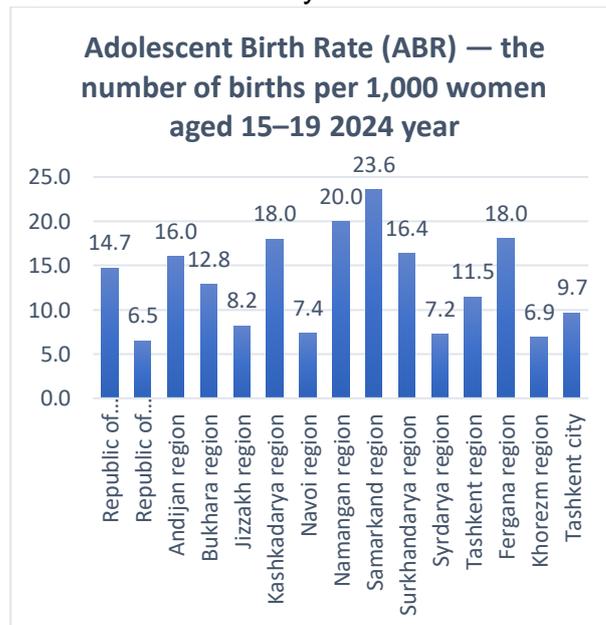
Adolescent Birth Rate (ABR) — the number of births per 1,000 women aged 15–19 2024 year

Source: *Calculated by the authors based on data from the **State Committee of the Republic of Uzbekistan on Statistics***

At the same time, the fertility rate among adolescent girls in the Navoi, Khorezm, Namangan, and Andijan regions has been relatively low. This situation can be explained by the lower prevalence of early marriages in these areas, the relatively higher level of girls' participation in education, and the larger proportion of urban population. Additionally, in these regions, preventive measures related to reproductive health and access to medical services have been relatively better organized, which is also considered a positive factor.

In general, regional differences in the fertility rate among adolescent girls indicate the need for targeted policy measures that take regional characteristics into account, rather than relying solely on a nationwide approach to address this issue. In particular, in regions where early marriage trends are observed, it is important to encourage continued education, expand coverage of reproductive health information and services, and strengthen preventive work with families.

Women's representation in Parliament.
The share of women in the Legislative Chamber and the Senate of the Oliy Majlis of the Republic of Uzbekistan has shown varying dynamics in recent years. This indicator is an important measure for assessing gender equality and the level of women's participation in decision-making processes.

In the Legislative Chamber, the share of women was 12.6% in 2018 and increased to 38.0% by 2024. Thus, during the period under analysis, this indicator rose by 25.4 percentage points, representing nearly a threefold increase. The largest increase occurred in 2019, when the share of women rose from 12.6% to 32.0% within a single year. In the following years (2020–2023), the indicator remained relatively stable, hovering around 32.0–32.7%. In 2024, another significant increase was observed, reaching 38.0%. This trend demonstrates the effectiveness of institutional changes in the electoral system aimed at increasing women's participation in the Legislative Chamber, mechanisms ensuring gender balance in party lists, and policy measures designed to enhance women's political engagement in society.

Share of positions held by women (deputy and senator seats) in the Legislative Chamber and the Senate of the Oliy Majlis

Indicators	2018	2019	2020	2021	2022	2023	2024
Legislative Chamber of the Oliy Majlis of the Republic of Uzbekistan	12.6	32.0	32.7	32.0	32.0	32.0	38.0
Senate of the Oliy Majlis of the Republic of Uzbekistan	20.0	24.7	23.7	24.0	25.0	25.0	25.0

Source: Data from the State Committee of the Republic of Uzbekistan on Statistics

In the Senate of the Oliy Majlis, the share of women has been relatively stable and characterized by slow growth. Specifically, this indicator was 20.0% in 2018, increased to 24.7% in 2019, and slightly declined to 23.7% in 2020. In the following years, the share of women rose again, stabilizing at 25.0% from 2022 and remaining at this level

through 2024. Overall, during 2018–2024, the share of women in the Senate increased by 5.0 percentage points.

A comparative analysis between the Legislative Chamber and the Senate shows that in 2018, the share of women in the Senate was higher than in the Legislative Chamber (20.0% versus 12.6%). However, starting from 2019, the Legislative Chamber became the leader in women's representation. By 2024, this gap widened further, with the share of women in the Legislative Chamber exceeding that in the Senate by 13.0 percentage points.

Overall, the analysis shows that the process of increasing women's political representation has accelerated in the Legislative Chamber through active institutional support, whereas in the Senate, due to the specific features of the appointment and formation procedures, the share of women has stabilized at a certain level. This indicates that achieving gender equality requires differentiated and targeted approaches for each chamber.

Average years of schooling among the population aged 25 and older. As of 2024, the average years of schooling among the population aged 25 and older in Uzbekistan are relatively high across both genders and regions; however, certain regional and gender disparities remain.
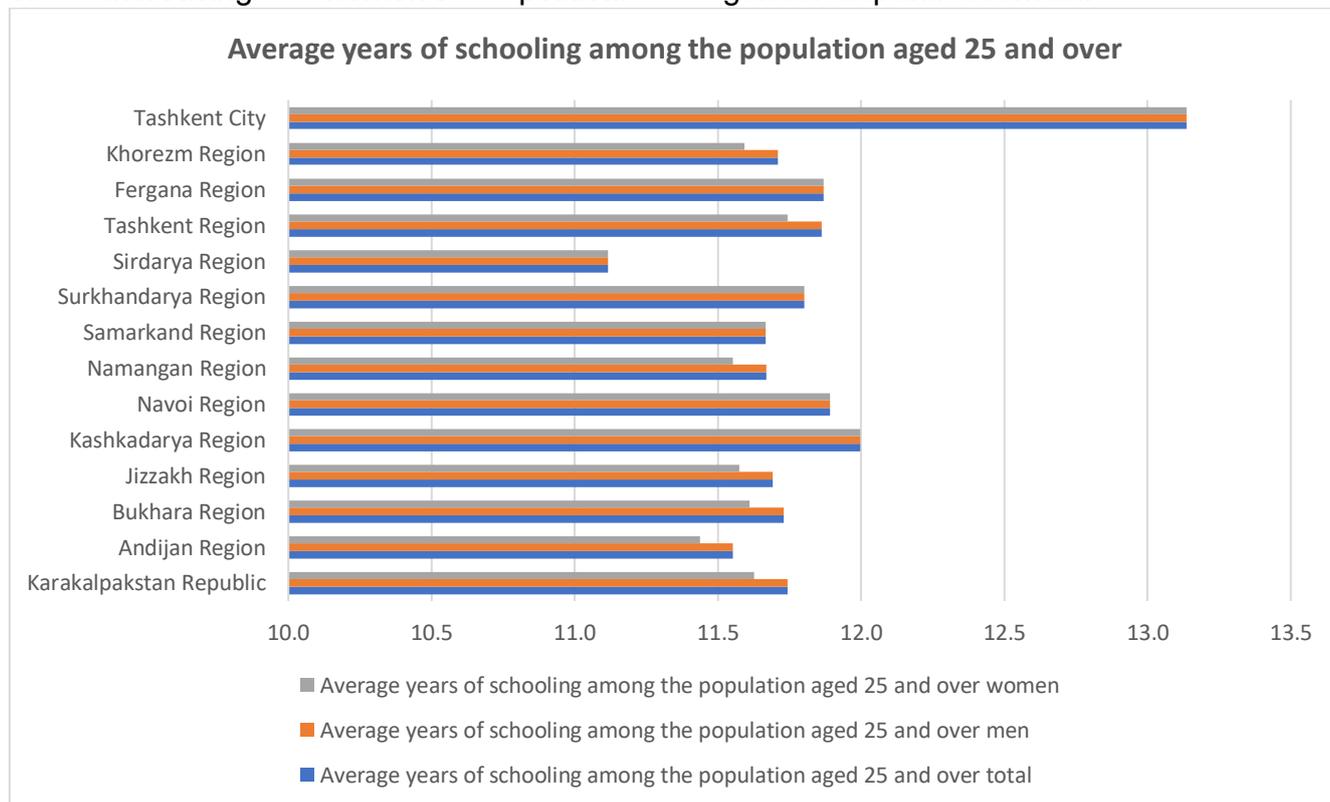
Average years of schooling among the population aged 25 and over

*Source: Calculated by the authors based on data from the **State Committee of the Republic of Uzbekistan on Statistics***

At the national level, the average years of schooling among those aged 25 and older is 12.0 years for men and 11.7 years for women. This indicates that while overall educational attainment is high, women's average duration of education is slightly lower than that of men. This gap is primarily related to differences in access to and completion of higher education, as well as, in some regions, early marriage and family responsibilities.
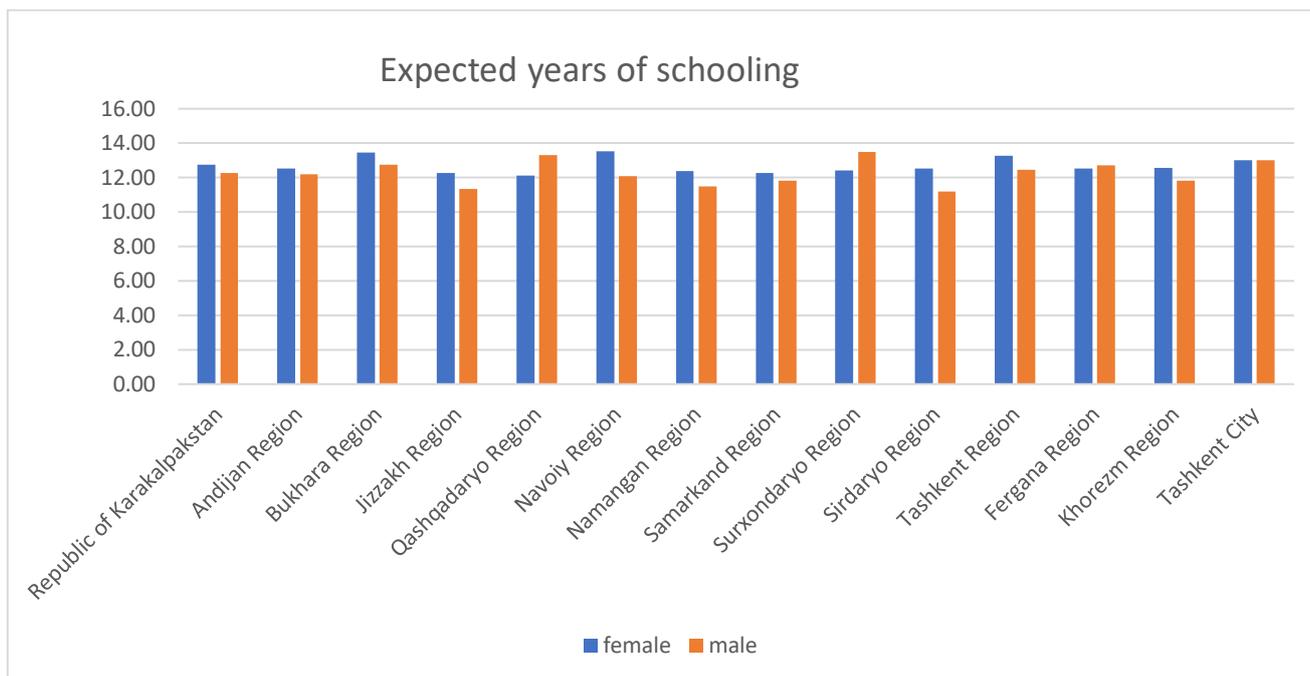
Expected years of schooling

*Source: Calculated by the authors based on data from the **State Committee of the Republic of Uzbekistan on Statistics***

Regions with the highest indicators. Tashkent city leads all regions in terms of educational attainment, with the average years of schooling among the population aged 25 and older being the same for men and women—13.1 years. This is explained by the concentration of higher education institutions in the capital, the well-developed educational infrastructure, and relatively fewer barriers to women's education.

Additionally, in Kashkadarya region, the average years of schooling for both men and women is 11.99 years, with practically no gender gap. This indicates that, despite high educational coverage in the region, the duration of education is balanced between genders.

Regions with relatively low indicators. In Syrdarya region, the average years of schooling for both men and women is 11.12 years, one of the lowest in the country. Similarly, in Andijan, Namangan, and Khorezm regions, the average years of schooling range between 11.5 and 11.7 years. In these regions, the relatively lower

duration of education may be associated with dense settlement in rural areas, early entry into the labor market, and limited opportunities for continuing education.

Analysis of Gender Differences. In most regions, the average years of schooling for men are **0.2–0.3 years** higher than for women. However, in Tashkent city, Kashkadarya, Surkhandarya, Navoiy, and Syrdarya regions, gender differences are hardly observed, which can be considered as regions where gender equality in education has been achieved.

At the same time, in Andijan, Bukhara, and Khorezm regions, the average years of schooling for women are lower than for men, indicating that women's educational trajectories are being shortened due to family and social factors.

Overall, although the average years of schooling among the population aged **25 and over** in Uzbekistan are relatively high, certain differences persist across regions and between genders. In particular, the lower educational attainment of women in some regions may later negatively affect their opportunities in the labor market, income levels, and gender development indicators. Therefore, it is important to develop targeted regional and gender-

sensitive policy measures in the field of education.

Economic Activity by Region and Gender in Uzbekistan. The level of economic activity among the population shows significant differences by gender across regions. In all regions, men's economic activity is higher than that of women, indicating that gender imbalances in the labor market persist.

Among women, the level of economic activity in most regions ranges between 60–70 percent. Relatively higher figures are observed in Tashkent city, Navoiy, and Tashkent region, which can be explained by the broader opportunities in the services sector, industry, and formal labor market in these areas.
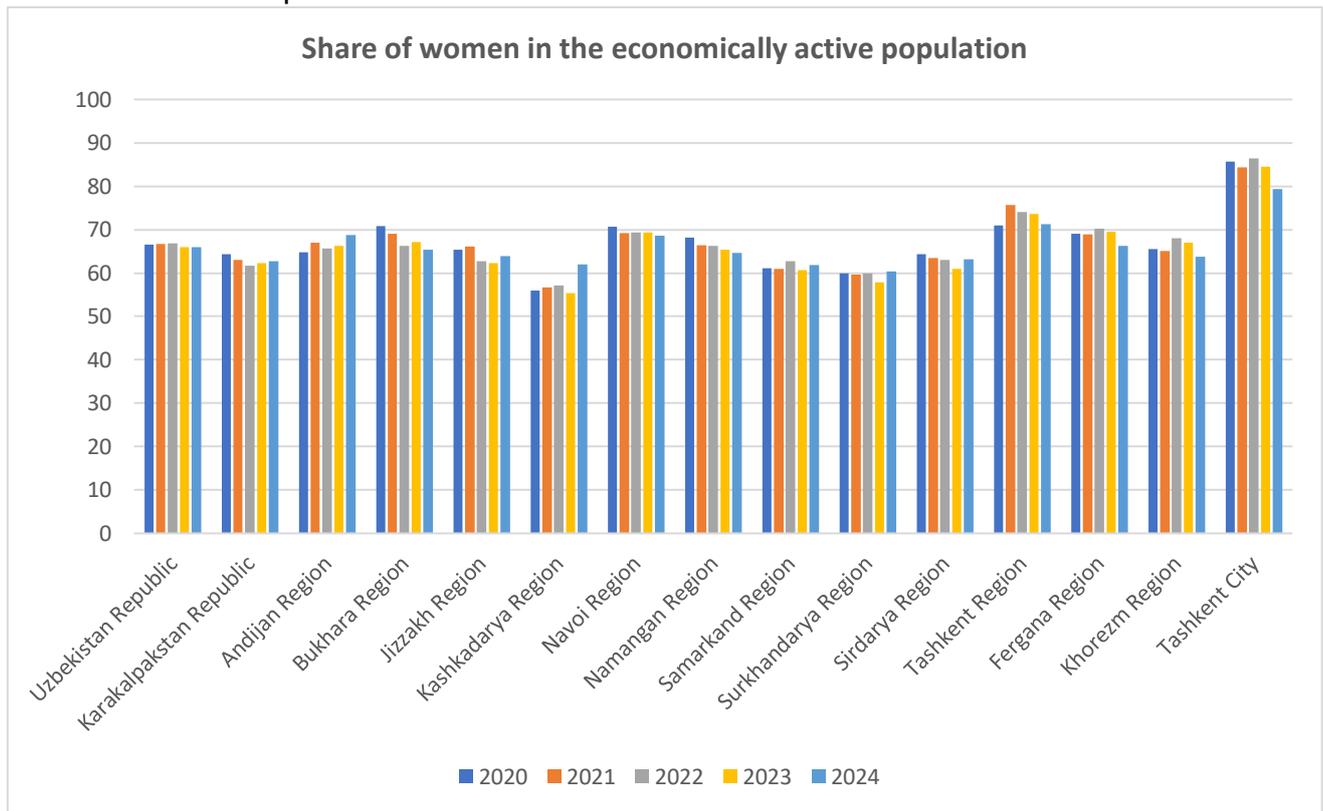
At the same time, in the Republic of Karakalpakstan, Kashkadarya, Surkhandarya, and Khorezm regions, women's economic activity is relatively low.

This may be associated with a high share of rural population, family and reproductive responsibilities, and limited formal employment opportunities.

Share of men in the economically active population
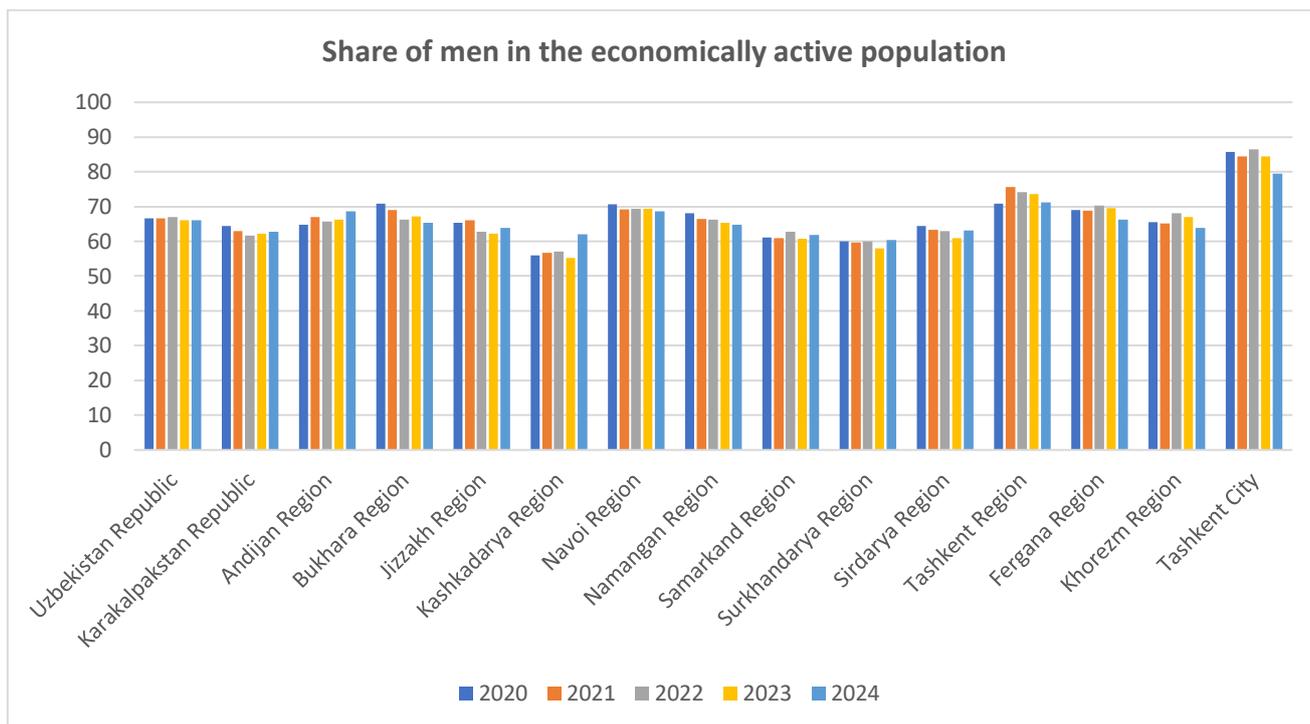
Economic Activity Among Men and Gender Comparison. Among men, the level of economic activity is around 75–90 percent in nearly all regions. In particular, men's economic activity is highest in Tashkent city, which can be explained by the high demand and diversity of jobs in the capital's labor market. In other regions, men's economic activity remains steadily high.

A gender comparison shows that in all regions, there is a gap of approximately 10–20 percentage points between women's and men's economic activity. This difference is especially pronounced in regions with a high share of rural population, indicating the presence of socio-economic and institutional factors that hinder women's participation in the labor market.

Overall, the data suggest the need to strengthen gender- and region-sensitive approaches in policies aimed at increasing economic activity. In particular, in regions where women's economic activity is low, it is crucial to develop childcare infrastructure, expand opportunities for remote and part-time work, and increase access to formal employment.

Analysis of the Gender Inequality Index by Region. The higher the value of the Gender Inequality Index (GII), the greater the imbalance between genders. The analysis shows that gender inequality is not uniform across the country but varies depending on regional characteristics.

The highest gender inequality is observed in Bukhara, the Republic of Karakalpakstan, Namangan, Syrdarya regions, and Tashkent city. In these areas, the high index values are associated with low female participation in the labor market, limited access to economic opportunities, and disparities in reproductive health and decision-making processes. In particular, in the Republic of Karakalpakstan, environmental and social factors further exacerbate gender inequality.

Regions with average index values include Kashkadarya, Surkhandarya, Navoiy, Fergana, and Khorezm. In these areas, gender inequality is mainly linked to insufficient female economic activity, a high share of informal employment, persistent occupational segregation in the labor

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market, and limited access for women to high value-added sectors. However, the gradual improvement in social service coverage in these regions provides certain opportunities to reduce gender inequality.

Regions with the Lowest Gender Inequality Index. The regions with the lowest gender inequality are Tashkent region, Andijan region, Samarkand region, and Jizzakh region. In these areas, the relatively low level of gender inequality can be explained by high economic activity, a diversified labor market, broad access to education and healthcare services, and high levels of female employment. These regions serve as exemplary cases for developing effective regional practices to promote gender equality and for potential replication in other areas.

Overall Assessment and Policy Implications. In general, a nationwide approach alone is insufficient to reduce gender inequality in Uzbekistan. Targeted, region-specific policy measures are particularly necessary in areas with high Gender Inequality Index (GII) values, focusing on increasing women's economic activity, expanding access to reproductive health services, and strengthening their participation in decision-making processes. According to the calculations, in 2024, the Gender Inequality Index (GII) stood at **0.136**, representing an improvement of **0.162 points** compared to 2023. This positive trend indicates that Uzbekistan's level of gender inequality is approaching that of countries such as China (0.132) and Montenegro (0.121). It is worth noting, however, that in countries with very high human development, the average GII is **0.125**.

At the regional level, there is potential to bring Uzbekistan's gender inequality indicators closer to the level of these benchmark countries by 2026 through **targeted and evidence-based interventions** aimed at: expanding

women's participation in the labor market, reducing maternal mortality, and lowering adolescent birth rates.

Conclusion:
Gender inequality in Uzbekistan is decreasing nationally but varies regionally. Regions with high GII require targeted interventions to enhance women's workforce participation, reduce adolescent births, and improve reproductive health access. Low-GII regions, such as Tashkent and Samarkand, show progress in gender equality. Region-focused policies are essential to further reduce disparities and align Uzbekistan with international standards.

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