

## **EDUCATION AS AN EQUALISER: INVESTIGATING THE RELATIONSHIP BETWEEN EDUCATION AND GENDER EQUITY**

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### **Abstract:**

Gender disparity particularly in access to education and opportunities for advancement remains a persistent global issue with profound social economic and political implications. This research paper examines the relationship between education and gender disparity aiming to shed light on the transformative potential of education in addressing gender inequalities. By analyzing existing literature and empirical evidence the paper explores the impact of education on various aspects of gender disparity including access to education economic empowerment health outcomes and social and political participation. Moreover it also investigates the barriers and challenges facing the attainment of gender equality through education. The findings highlight the importance of comprehensive and gender-responsive educational policies and programs in promoting equitable societies.

**KEY WORDS:** Education, Gender Inequality, Mean Years of Schooling, Gender Inequality Index

### **1. Introduction:**

Gender disparity, defined as unequal treatment based on an individual's gender, continues to persist in societies worldwide. Education has long been recognized as a key driver for social change and development, showing promise in reducing gender inequality. This research paper aims to explore the impact of education on gender disparity, focusing on the long-term implications within a formal framework. By examining various research studies, statistical data, and case studies, this essay aims to shed light on the transformative power of education in bridging the gender gap.

#### **1.1 Historical Context:**

To understand the impact of education on gender disparity, it is crucial to examine the historical context. Historically, women have faced limited access to education and were often pushed into traditional gender roles. However, with the advent of educational reforms and movements advocating for the rights of women, significant progress has been made towards narrowing the gender gap.

#### **1.2 Educational Attainment and Economic Empowerment:**

Education plays a vital role in empowering women economically, thereby reducing gender disparity. Women who receive education are more likely to enter the workforce and earn higher incomes. Additionally, education equips women with skills, knowledge, and confidence, enabling them to break societal barriers and compete on an equal footing with men.

#### **1.3 Social and Political Participation:**

Education not only facilitates economic empowerment but also enhances women's social and political participation. Educated women are more likely to engage in civic activities, take leadership roles, and contribute to decision-making processes at various levels. These active contributions promote gender equality and challenge gender norms within society. This section will analyze case studies and research findings highlighting the transformative effects of education on women's social and political engagement.

#### **1.4 Health and Well-being:**

Education has a direct impact on improving women's health and well-being. Educated women tend to have better reproductive health outcomes, reduced maternal mortality rates, and improved nutritional practices. By providing women with access to health-related information and empowering them to make

informed choices, education contributes significantly to narrowing the gender disparity gap in health outcomes.

Education serves as a catalyst for social change, and its impact on reducing gender disparity is undeniable. By empowering women economically, enhancing their social and political participation, improving health outcomes, and promoting gender equality in education itself, education plays a crucial role in achieving gender equality. Governments, policymakers, and individuals must continue to prioritize investment in education to ensure transformative changes that benefit society as a whole.

**2. OBJECTIVES OF THE STUDY:** The objectives of this research paper are as follows:

- To study the status of gender disparity in the selected countries.
- To explore the relationship between female education and gender disparity.
- To offer policy prescriptions, if any.

### **3. RESEARCH METHODOLOGY**

The present study covers 40 selected countries. The countries have been selected on the basis of HDI ranking. From each group, bottom 10 countries are selected. From very high HDI group, 10 countries viz., Panama, Bahamas, Barbados, Oman, Georgia, Costa Rica, Malaysia, Kuwait, Serbia and Mauritius have been selected. The countries belonging to the data set-2 are Uzbekistan, Bolivia, Indonesia, Philippines, Belize, Venezuela, South Africa, Egypt, Viet Nam and Gabon. They are bottom 10 high HDI countries. The countries selected from Middle HDI group are Cambodia, Zambia, Myanmar, Angola, Congo, Zimbabwe, Syrian Arab Republic, Cameroon, Pakistan and Papua New Guinea. The final data set consists of Liberia, Yemen, Mozambique, Burkina Faso, Sierra Leone, Mali, Burundi, Chad, Central African Republic and Niger. These countries belong to the 4<sup>th</sup> category i.e., low HDI countries. The entire study is based on secondary data which have been sourced from Human Development Report, 2020 and various journals, books and websites.

To explore the relationship between female education and gender disparity, the following model is constructed.

$$GII = \alpha + \beta.MYS$$

Where,

GII= Gender Inequality Index

MYS= Female mean years of schooling

The SPSS software has been used for data analysis.

### **4. HYPOTHESIS**

The study wants to test the following null hypothesis.

*“Gender inequality is unaffected by the educational attainment of the female population.”*

### **5. SIGNIFICANCE OF THE STUDY**

The formal exploration of the relationship between education and gender disparity is essential in order to gather empirical evidence and foster a thorough understanding of the issue. It is expected that the present study will provide policymakers, researchers and general readers useful insights and data to develop evidence-based strategies. It is imperative that this kind of research continues to be conducted and utilized to drive progress towards a more inclusive and equitable society.

### **6. CONCEPTUAL FRAMEWORK**

#### **6.1 Gender Inequality Index (GII)**

Gender inequality index (GII) is a measurement tool used to assess the disparity between men and women in different areas of their lives, including health, empowerment, and labor force participation. It provides valuable insights into the gender-based discrimination and inequalities prevalent in societies around the world. The GII is a vital instrument in identifying and addressing these disparities, aiming towards creating societies that are fair and just for all its members. The GII measures gender inequality by analyzing three dimensions: reproductive health, empowerment, and labor force participation. Within each dimension, various indicators are considered, such as maternal mortality ratio, adolescent birth rate,

the percentage of seats held by women in national parliaments, and the percentage of women with at least some secondary education.

Reproductive health is one dimension of the GII, focusing on women's health and well-being. It includes indicators like maternal mortality ratio, which measures the number of maternal deaths per 100,000 live births. Another indicator is the adolescent birth rate, which signifies the number of births per 1,000 women aged 15-19. These indicators shed light on the quality of healthcare services available to women, highlighting any gender-based disparities.

The empowerment dimension of the GII focuses on women's participation in decision-making processes and their access to resources and opportunities. It includes indicators such as the percentage of seats held by women in national parliaments and the percentage of women aged 25 years and older with at least some secondary education. These indicators reflect the level of gender equality in political and educational spaces. Labor force participation is the final dimension of the GII, which assesses women's economic engagement. It takes into account the percentage of women aged 15 years and older participating in the labor force. This indicator reflects the equality of opportunities and economic empowerment for women. The GII combines these dimensions and indicators to generate an overall maximum value of one, where higher values indicate higher levels of gender inequality. Additionally, the index is categorized into four levels: low, medium, high, and very high, based on the values obtained.

The importance of the GII lies in its ability to pinpoint areas where gender inequality persists, allowing policymakers and stakeholders to direct their efforts towards achieving gender parity. By identifying and measuring the specific areas requiring improvement, the index serves as a valuable tool in designing targeted interventions and policies that address gender disparities effectively. Moreover, the GII enables comparisons between countries and regions, facilitating both awareness and accountability. It provides a basis for tracking progress over time, highlighting successes, and identifying shortcomings. This comparative aspect of the index encourages countries to strive for improvement, enabling them to learn from one another and collaborate in tackling these global issues.

In conclusion, gender inequality index serves as an important tool in measuring and addressing gender disparities globally. It breaks down gender inequality into measurable dimensions, allowing for targeted interventions and policies. By shining a light on the areas where inequality persists, the GII encourages dialogue, cooperation, and ultimately progress towards achieving gender equality. It is crucial for societies to recognize the value of this index and utilize it as a compass for creating a fair and just world for everyone.

## **6.2 Mean Years of Schooling (MYS)**

Mean years of schooling is a statistical measurement that provides valuable insights into the education level of a population. It measures the average number of years that individuals in a given population have spent in formal education. This concept plays a crucial role in determining the educational development and opportunities available within a society. By understanding mean years of schooling, policymakers can make informed decisions to improve education systems and enhance social and economic outcomes.

The calculation of mean years of schooling requires data on the number of years of education completed by individuals within a population. It takes into account both the quality and quantity of education, providing a comprehensive measure of educational attainment. This metric helps to assess the progress of education systems over time, compare different populations, and identify areas requiring attention. Researchers and policymakers can examine the mean years of schooling across different groups, such as gender, age, or socioeconomic status, to understand disparities in educational access and attainment. By analyzing mean years of schooling, governments can identify gaps in education and implement targeted interventions. If the mean years of schooling are low, it indicates that a significant proportion of the population has limited access to education or fails to complete the basic educational requirements. In such cases, policymakers can focus on increasing enrolment rates, reducing dropout rates, and enhancing educational infrastructure to promote educational development.

Moreover, mean years of schooling is not only crucial in assessing the quantity of education but also the quality of education received. It highlights the importance of improving educational systems to enhance

the learning outcomes and skills acquired by individuals. By investing in teacher training, curriculum development, and educational technologies, policymakers can strive to offer a high-quality education that prepares individuals for future challenges and opportunities. In addition to its significance in the education sector, mean years of schooling is also closely linked to broader social and economic development. Research consistently shows a positive correlation between higher levels of education and improved health outcomes, increased employment opportunities, and higher income levels. Individuals with a higher mean years of schooling tend to have better cognitive abilities, critical thinking skills, and are more likely to engage in productive and innovative activities. Therefore, increasing mean years of schooling becomes an essential component in fostering overall societal development.

Despite its usefulness, mean years of schooling has its limitations. It fails to capture the quality of education in its entirety and may not consider informal learning experiences or vocational training. Furthermore, it does not account for factors such as educational inequality, regional disparities, or the availability of educational resources. Nevertheless, it remains a valuable indicator to gauge the education level within a population and serves as a starting point for policymakers to address these limitations and refine their strategies.

In conclusion, mean years of schooling provides a comprehensive measure of educational attainment within a population. It helps policymakers identify gaps in education, implement targeted interventions, and promote social and economic development. By understanding the concept of mean years of schooling, policymakers can work towards creating equal educational opportunities and improving the quality of education. It is an essential tool in shaping the future of societies by equipping individuals with the knowledge and skills needed to thrive in an ever-changing world.

## **7. REVIEW OF LITERATURE**

Education is considered a fundamental right for every individual, regardless of their gender. However, throughout history, gender disparity has been a persistent issue within the educational system. Numerous research studies have been conducted to explore the relationship between education and gender disparity, providing valuable insights and shedding light on the causes and consequences of this societal problem.

One significant research study conducted by the United Nations Educational, Scientific and Cultural Organization (UNESCO) investigated the gender disparity in education worldwide. This study revealed that girls are disproportionately affected by limited access to education, particularly in developing countries. It highlighted that cultural and social factors contribute to such disparities, with early marriages, traditional gender roles, and societal expectations acting as barriers to girls' education.

Another notable research study, conducted by economists Emmanuel Saez and Thomas Piketty, examined the impact of educational gender disparities on economic growth. Their findings demonstrated a strong positive relationship between closing the gender gap in education and economic development. The study revealed that a more equitable access to education for girls significantly boosts a nation's economic growth, reducing poverty and inequality. Thus, promoting equal educational opportunities for all genders is not only a matter of social justice but also has substantial economic benefits.

Furthermore, a research study conducted by the World Bank explored the long-term consequences of gender disparities in education. The study found that unequal access to education perpetuates gender inequality in the labor market, leading to lower earnings and limited career opportunities for women. This can affect both individual women as well as hinder the overall economic development of the country. The study emphasized the crucial role of education in breaking the cycle of gender disparity and promoting social mobility.

Additionally, a research study conducted by UNESCO Institute for Statistics analyzed the impact of gender disparities in educational achievement. The study revealed that while girls tend to outperform boys in many subjects, they are significantly underrepresented in science, technology, engineering, and mathematics (STEM) fields. This underrepresentation limits girls' career opportunities and perpetuates gender stereotypes. The study emphasized the importance of tackling gender disparities in educational choices to promote diversity and inclusivity in these fields.

Thus, research studies exploring the relationship between education and gender disparity provide valuable insights into the causes and consequences of this societal issue. These studies highlight the detrimental effects of gender disparities in education on economic growth, individual opportunities, and social mobility. They emphasize the need for policymakers and stakeholders to address this issue by promoting equal access to education for all genders and challenging traditional gender roles and expectations. Achieving gender parity in education is not only a matter of social justice but also vital for creating a more equitable and prosperous society.

### 8. DATA ANALYSIS & INTERPRETATION

The following table and the line graphs show Female Mean Years of Schooling (MYS) And Gender Inequality Index (GII) of 40 Selected Countries

**TABLE-1: Female Mean Years of Schooling (MYS) And Gender Inequality Index (GII) of 40 Selected Countries**

COUNTRIES	FEMALE MEAN YEARS OF SCHOOLING (MYS)	GENDER INEQUALITY INDEX (GII)
<b>DATA SET-1</b>		
Panama	11.2	0.407
Bahamas	11.7	0.341
Barbados	11	0.252
Oman	10.6	0.306
Georgia	13.2	0.331
Costa Rica	8.9	0.288
Malaysia	10.3	0.253
Kuwait	8	0.242
Serbia	10.8	0.132
Mauritius	9.4	0.347
<b>DATA SET-2</b>		
Uzbekistan	11.6	0.288
Bolivia	8.3	0.417
Indonesia	7.8	0.48
Philippines	9.6	0.43
Belize	9.9	0.415
Venezuela	10.6	0.479
South Africa	8.9	0.406
Egypt	6.8	0.449
Viet Nam	8	0.296
Gabon	7.8	0.525
<b>DATA SET-3</b>		
Cambodia	4.2	0.474
Zambia	6.3	0.539
Myanmar	5	0.478
Angola	4	0.536
Congo	6.1	0.57
Zimbabwe	8.1	0.527
Syrian Arab Republic	4.6	0.482
Cameroon	4.7	0.56
Pakistan	3.8	0.538
Papua New Guinea	4	0.725
<b>DATA SET-4</b>		
Liberia	3.5	0.65

Yemen	2.9	0.795
Mozambique	2.7	0.523
Burkina Faso	1.1	0.594
Sierra Leone	2.9	0.644
Mali	1.7	0.671
Burundi	2.6	0.504
Chad	1.3	0.71
Central African Republic	3	0.68
Niger	1.4	0.642

Source: Human Development Report, 2020 (UNDP)

In the table-1, four data sets have been sources from the UNDP’s human Development Report, 2020. The first data set consists of bottom 10 countries from the group of “Very High HDI Countries”, the second data set consists of bottom 10 countries from the group of “High HDI Countries”, The third data set consists of bottom 10 countries from the group of “Medium HDI Countries” and finally the last data set consists of bottom 10 countries from the group of “low HDI Countries. The data contained in the Table-1 have been represented separately by the Fig-1 and Fig-2.

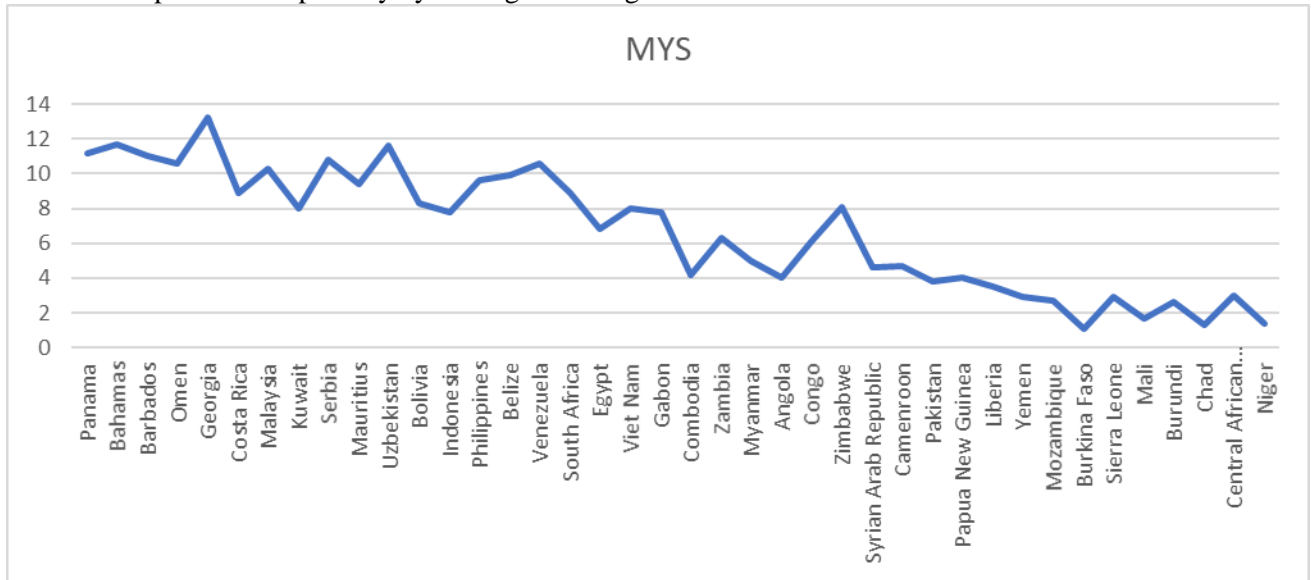


Fig-1: Female Mean Years Of Schooling (MYS) of 40 Selected Countries

The line graph in the Fig-1 shows the MYS of female population in the 40 selected countries. It reveals that the MYS is highest in Georgia and lowest in Burkina Faso.

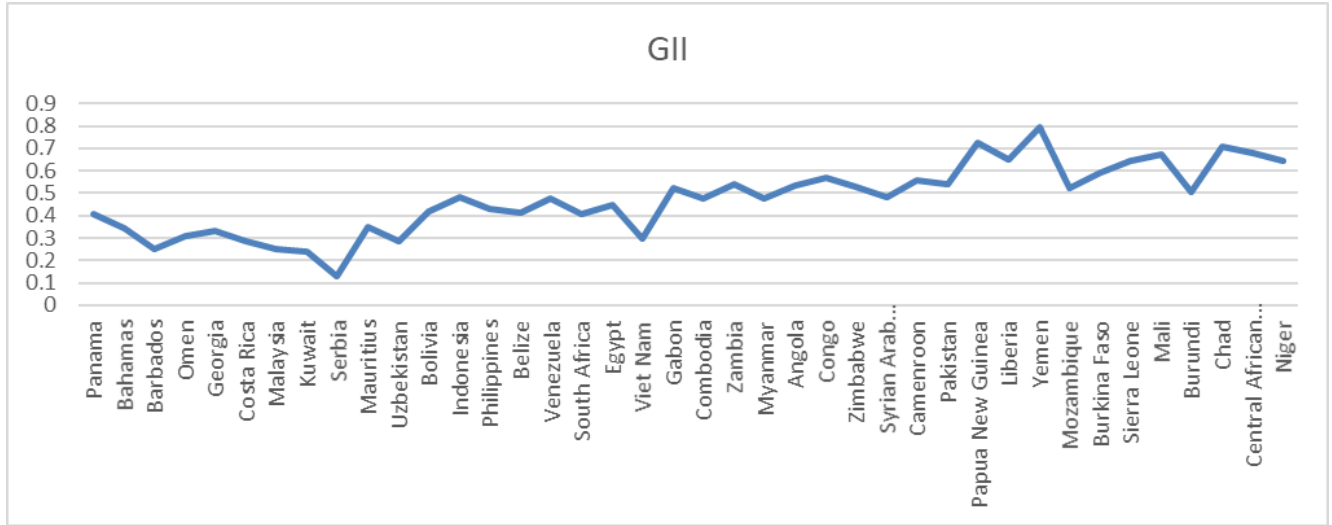


Fig-2: Gender Inequality Index (GII) of 40 Selected Countries

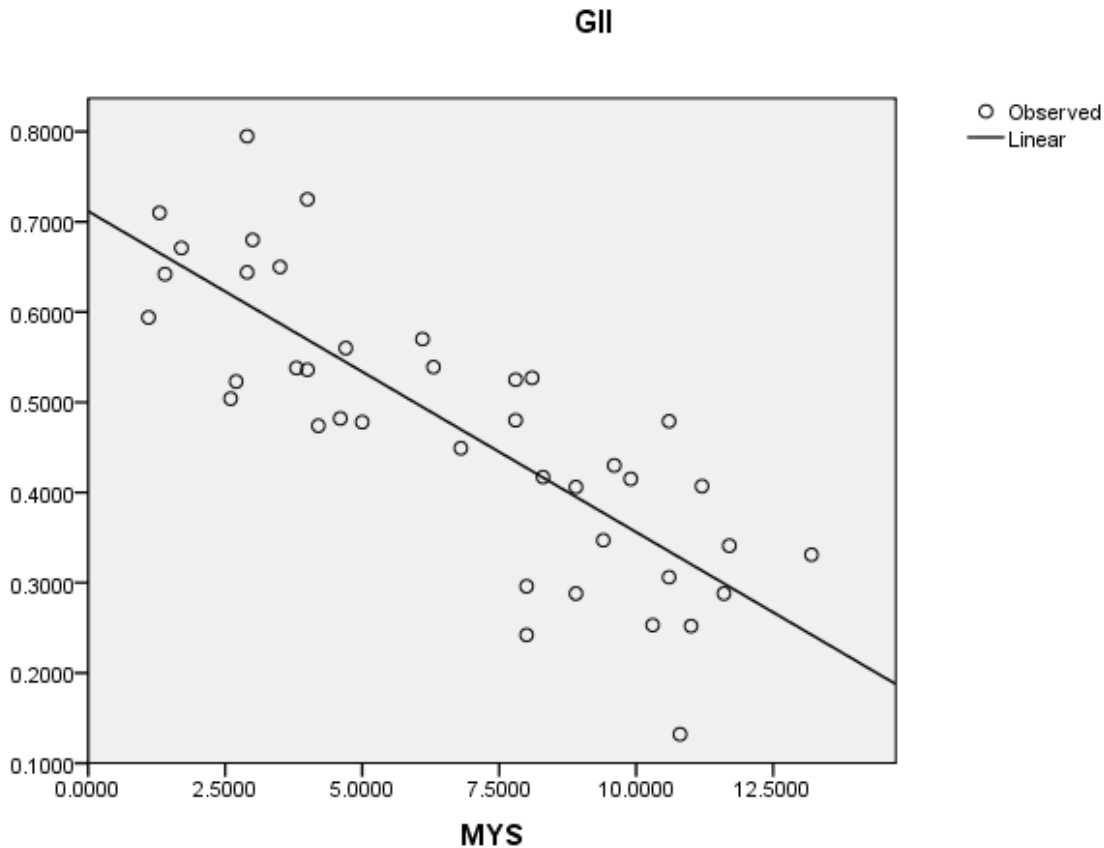
Similarly, the line graph in the Fig-2 shows the gender inequality in the 40 selected countries. It reveals that the gender disparity is highest in Yemen and lowest in Serbia.

As mentioned in the methodology section, the SPSS software has been used to run a regression line. The results obtained have been shown in the following box.

**BOX-1: MODEL SUMMARY AND ANOVA**

Dependent Variable	Independent Variable	R	R <sup>2</sup>	$\alpha$	$\beta$	F	t
GII	MYS	-0.8124	0.6600	0.712	-.036	73.620	-8.580*

\* At 1% level of significance



**Fig-3: Scatter plots showing negative correlation between MYS of female population and the GII**

The Box-1 reveals the following results:

- The Person's coefficient of correlation between the MYS of female population and the GII is found -0.8124 which indicates that there is high negative correlation between the two variables. Diagrammatically, it has been shown with the help of Fig-3.
  - The value of the coefficient of determination in the BOX-1 is indicating that approximately 67% of the variation in the gender disparity is explained by the MYS of the female population in the sample selected countries.
  - The estimated  $t$  value in the BOX-1 is significant at 1 percent which implies that the predictor has significant effect on the gender disparity.
  - The  $F$  value has been found to be 73.620 which is significant at  $p < 0.001$ . This result implies that there is less than 1% probability that such a big value will emerge by chance alone. Therefore, it can be finally asserted that the regression model efficiently predicts the change in gender inequality.
  - Therefore, the null hypothesis "Gender inequality is unaffected by the educational attainment of the female population" is rejected.
  - Finally, the estimated regression model is-
- GII = 0.712 - 0.036 MYS**



## 9. CONCLUSION

Thus, it can be concluded that women's education is vital for reducing gender inequality and creating a fairer and more inclusive society. It is imperative that governments, policymakers and societies invest in women's education, ensuring that all women have access to quality education and the opportunity to achieve their full potential. Only, through such efforts we can truly achieve gender equality and build a better world for all.

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