

## HIGHER EDUCATION AND EMPLOYMENT TRENDS IN PAKISTAN AND COMPARATIVE IMBALANCE BETWEEN MALES AND FEMALES

Adbul Qadeer<sup>1\*</sup>, Muhammad Hammad Sarwar<sup>2</sup>

<sup>1</sup>Department of Education, University of Karachi, Sindh, Pakistan.

<sup>2</sup>Department of Education, National University of Modern Languages (NUML) Islamabad.

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### ABSTRACT

This study aims to assess the impact of educational mismatch on income inequality in Pakistan. The research utilizes secondary data spanning around period of twenty years period, from 2000 to date the present. Statistical analysis is conducted on income inequality and, educational attainment, educational attainment of females, and educational expenditure used, in order to evaluate educational mismatch. The findings indicate that both educational attainment and educational expenditure have a positively a effect, suggesting that they contribute to educational mismatch in developing countries. Conversely, the results also demonstrate that the educational attainment of females has a negative impact on h. Higher levels of education among women can enhance income equality in Pakistan. These findings have significant implications for policymakers and governments, who should prioritize efforts to increase female education levels in order to promote greater income equality.

**Keywords:** Education, Employment, Imbalance, Trend in Pakistan.

\*Corresponding Author. E-mail: [qadeersial16@gmail.com](mailto:qadeersial16@gmail.com)

### INTRODUCTION

Education plays a critical role in creating employment opportunities worldwide. The primary objective of education is to impart literacy and equip individuals with the necessary skills to earn a livelihood. However, a major issue arises when the education system fails to secure suitable jobs for individuals, resulting in what is known as educational mismatch [1]. This occurs when a person's education does not align with the skills required for a specific job [2]. Developing economies often prioritize vocational training to provide the essential

skills to their workforce. However, many countries tend to focus more on education as a trend rather than on skill development. Nonetheless, it has been found that educational mismatch contributes to income inequality, especially in developing countries [3]. Therefore, optimizing education is crucial for increasing income levels. This study aims to evaluate educational mismatch, income equality, and their correlation with the education frameworks implemented by developing countries. The root of the problem lies in misunderstanding the

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necessary skills for different jobs. For instance, educational institutions may not be teaching the behavioral and cognitive skills essential for marketers [4]. Educational mismatch often leads to income inequality, as foreign graduates are often preferred over local graduates [5]. However, there is limited research on the specific aspects of educational mismatch that result in unemployment.

In recent decades, low to middle-income and developing countries have heavily invested in their educational systems. They have made significant progress in terms of increasing literacy rates, expanding curriculum offerings, and enhancing enrolment in primary, secondary, and tertiary levels. However, university graduates, in particular, often struggle to find jobs that match their level of education and field of study. This is referred to as vertical and horizontal mismatch. In theory, job seekers may face the dilemma of accepting a job that does not align with their degree or remaining unemployed while waiting for a better-suited job, especially if they have limited access to information about available job opportunities. Conversely, in situations where there are more workers than available job opportunities, certain individuals may find it challenging to secure a suitable position and remain unemployed for an extended period [6, 7]. This paper aims to explore the relationship between educational mismatch and income inequality in developing countries. It will provide an overview of the theoretical concepts, identify the specific factors contributing to income inequality, and bridge the gap between required and imparted skills in education and the job market. The analysis will also examine skill-based education, experiential learning, vocational training, and income inequality through the lens of literacy gaps [8].

While existing studies have touched on this

topic, there is a lack of literature specifically on educational mismatch. Education is known to increase employment and productivity, but it can also create gaps in the labor market and income inequality [9]. To study this in developing countries, we must consider the history and evolution of education, which was once only accessible to the wealthy and upper classes.

## **METHODOLOGY**

The methodology of this study is quantitative, using secondary data from sources like the World Bank and Central Bank. A positivist research philosophy and deductive approach are employed to quantify variables and collect numerical data for statistical analysis [10, 11]. The data collected covers a twenty-year period from 2001 to 2020, and secondary studies are used to compare and validate the findings.

Overall, this study aims to expand our understanding of educational mismatches in developing countries and contribute to the existing knowledge on this topic. By examining the relationship between educational mismatch and income inequality, we can shed light on the factors at play and work towards a more inclusive and equitable education and labor market. The purpose of this study is to examine how educational mismatch affects income inequality in developing countries. Income inequality is the dependent variable, while educational mismatch is the independent variable. To measure income inequality, the GINI index is used, and various indicators are used to assess educational mismatch in developing countries. The study also discusses the different variables used in the research and how they are measured using various proxies. In terms of data analysis techniques, this study utilizes statistical panel data analysis. This involves analyzing quantitative secondary data from different cross-sections over varying periods, which is why panel data is used. To conduct this analysis, the

researchers employ STATA software. They begin by examining the data using descriptive statistics, which summarize the data by providing the mean and standard deviation. This helps to understand the average value and variation in the dataset. The researchers also perform correlation analysis to determine the strength of the relationship between the variables. They use the Pearson correlation coefficient for pairwise correlation, as it provides a better evaluation of the relationship. Finally, the study estimates a panel data regression to assess the impact of income inequality on educational mismatch.

## RESULTS AND DISCUSSION

### Educational Institutes

Pakistan's education system comprises of 236,492 institutions, out of which 144,977 (61%) are primary level, 47,182 (20%) are middle-level, 34,210 (14%) are high, 7,102 (3%) are higher-secondary and 3,223 (1%) are inter-degree colleges/universities. Higher Education Commission (HEC) has recognizes 91 Public and 50 Private sector Universities/Degree Awarding Institutes [12].

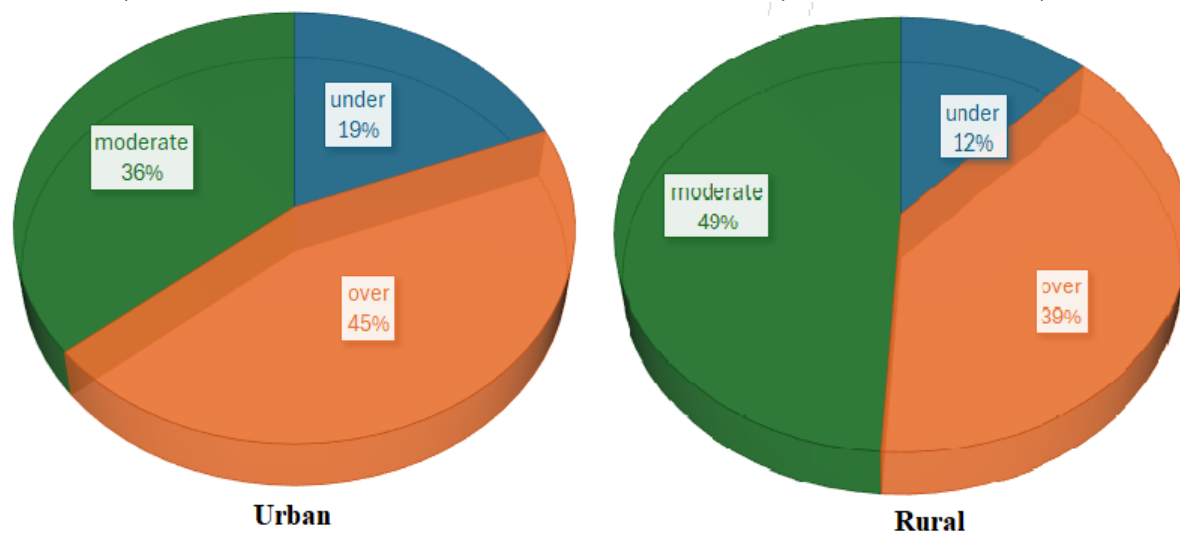
### Educational Levels in Various Areas

The results suggest that overeducation negatively affects economic growth. Moreover, both overeducated and

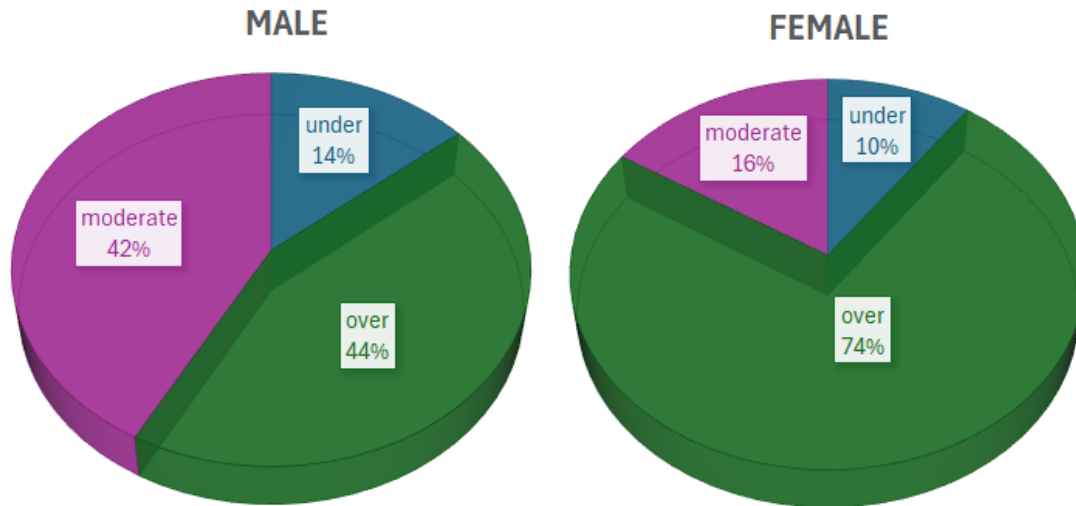
undereducated workers who are not properly matched with their jobs tend to earn significantly lower salaries compared to well-matched employees [13]. Furthermore, overeducated workers may feel dissatisfied with their jobs, which can lead to counterproductive behaviors like increased rates of absenteeism and turnover. These behaviors are harmful to business growth [14]. It has also been found that increasing female educational attainment can contribute to reducing income inequality in developing countries. In summary, this research emphasizes the significance of addressing educational mismatch as a means to promote income equality in developing countries.

### Gender Comparison

According to the Pakistan Education statistics (2013-14), there are a total of 1.595 million students enrolled in post-graduate universities. Out of this total, around 86% (1.365 million) are enrolled in public universities, while approximately 14% (0.230 million) are studying in private universities in Pakistan. Recent statistics indicate a significant rise in the enrollment rate of female students in higher education, surpassing that of males. Females are now gaining admission to fields such as Engineering, Law, Economics, Management Sciences, and Commerce, which were



**Figure 1:** Comparison of education level in different regions.



**Figure 2:** Comparison of education level by gender.

previously dominated by males. The increasing enrolment trends and the growing number of females in various fields suggest that females will soon outnumber males in university attendance in Pakistan. This high level of educational attainment among females has the potential to contribute to improved rates of income equality in the country.

#### **Employment Comparison**

The statistics clearly show that women have a higher enrolment rate in universities compared to men, but they still face lower employment rates. In organizations, there are significantly more men than women, especially in higher management positions [15]. Cultural norms, societal expectations, and biological differences limit the full benefits of women's educational achievements.

In approximately 62% of the occupations studied, men are paid more than women. Additionally, less than 40% of the companies in our sample provide separate toilet facilities for women, despite being willing to hire female employees.

In recent years, the educational mismatch has emerged as a major challenge in labor market policy. This study's findings reveal that both over-education and under-education persist in Pakistan's labor market. Under-education

carries a more significant earning penalty compared to over-education. While years of experience can compensate for educational mismatch, it is not a perfect substitute for the required level of education. Overall, the unemployment rates have remained high (6–10%).

#### **Implications of the Study**

The study findings indicate that increasing the educational attainment of females in Pakistan leads to a reduction in income inequality. This has important implications for policymakers, who should take action to improve the education level of females in order to enhance income equality in the country. Governments can promote female education by launching awareness campaigns and providing free education to those in need. As a result, the increased educational attainment among females will lead to a decrease in educational mismatch. Additionally, improving female educational attainment in developing nations can contribute to income equality. Educational mismatch, which occurs when a worker's education does not align with the requirements of their job, remains a significant issue worldwide. Despite the significant increase in enrolment rates in educational institutions in developing countries [16, 17], educational mismatch

remains prevalent, with many employees lacking the necessary qualifications for their positions. This mismatch has been found to have negative consequences for productivity and social welfare. Thus, this study aims to provide evidence that can assist developing countries in addressing educational mismatch and reducing income inequality [18, 19].

## CONCLUSION

The analysis results indicate educational mismatch in Pakistan. However, the findings also show that higher levels of educational attainment among females suggests that increased educational attainment among

females can improve income equality rates in future.

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## REFERENCES

1. Bender, K. A., & Roche, K. (2013). Educational mismatch and self-employment. *Economics of Education Review*, 34, 85-95.
2. Korpi, T., & Tählin, M. (2009). Educational mismatch, wages, and wage growth: Overeducation in Sweden, 1974–2000. *Labour Economics*, 16(2), 183-193.
3. Budría, S., & Moro-Egido, A. I. (2008). Education, educational mismatch, and wage inequality: Evidence for Spain. *Economics of Education Review*, 27(3), 332-341.
4. Rohrbach-Schmidt, D., & Tiemann, M. (2016). Educational (Mis) match and skill utilization in Germany: Assessing the role of worker and job characteristics. *Journal for Labour Market Research*, 49(2), 99-119.
5. Sweetman, A., McDonald, J. T., & Hawthorne, L. (2015). Occupational regulation and foreign qualification recognition: An overview. *Canadian Public Policy*, 41(Supplement 1), S1-S13.
6. Sam, V. (2018). Impacts of educational mismatches in developing countries with a focus on Cambodia. Doctoral Dissertation, Grenoble Alpes University.
7. Chua, K., & Chun, N. (2016). In search of a better match: Qualification mismatches in developing Asia. Asian Development Bank Economics Working Paper Series No. 476.
8. Maier, M. F. (2015). Skill mismatch and wage inequality. Paper presented at the CEDEFOP/IZA Workshop on Skills and Skill Mismatch.
9. Santos, M. S. (2012). Education, educational mismatch, and wage inequality: Evidence for different european countries. Doctoral Dissertation.
10. S Farooq S. Mismatch between education and occupation: A case study of Pakistani graduates. *The Pakistan Development Review*. 2011; 1: 531–52.
11. Sial MH, Sarwar G, Saeed M. Surplus Education and Earnings Differentials in Pakistan: A Quantile Regression Analysis. *The Lahore Journal of Economics*. 2019; 24(2): 93–114.
12. <https://www.hec.gov.pk/english/universities/pages/recognised.aspx>. Accessed on 7<sup>th</sup> August 2024.
13. Cohn E, Ng YC. Incidence and Wage Effects of Overschooling and Underschooling in Hong Kong. *Economics of Education Review*. 2000; 19(2): 159–68.
14. Battu, H., & Bender, K. (2020). Educational mismatch in developing countries: A review of the existing evidence. *The Economics of Education*, 269-289.
15. Bourn, D. (2018). Globalisation, education and skills Understanding global skills for 21st century professions (pp. 17-35). Cham: Springer.
16. Khan, S. A. R., Zhang, Y., Anees, M., Golpîra, H., Lahmar, A., & Qianli, D. (2018). Green supply chain management, economic growth and environment: A GMM based evidence. *Journal of Cleaner Production*, 185, 588-599.
17. Green F, Zhu Y. Overqualification, job dissatisfaction, and increasing dispersion in the returns to graduate education. *Oxford Economic Papers*. 2010; 62(4): 740–63.
18. Chiswick BR, Miller PW. The international transferability of immigrants' human capital. *Economics of Education Review*. 2009; 28(2): 162–9.
19. McGuinness S, Bennett J. Overeducation in the Graduate Labour Market: A Quantile Regression Approach. *Economics of Education Review*. 2007; 26(5): 521–31.