

INEQUALITIES IN EDUCATION AND SUSTAINABLE DEVELOPMENT GOALS: A CASE STUDY OF PALESTINE

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Abstract

Inclusive and equitable access to education – one of the sustainable development goals (SDGs) – is crucial for the other 16 SDGs. The goal of the current study is, therefore, to investigate the impact of unequal opportunities, especially in education on the SDGs using the annual repeated cross-sectional Labor Force Survey (LFS) from 2010 to 2020 in the context of Palestine. To find out how the inequality in education can impede the process of achieving SDGs, the study incorporates different qualitative and quantitative analysis techniques such as trend analysis, graphical illustrations, tabulated summaries, and linear and logistics regressions. Moreover, it also focuses on the differences and inequalities across regional i.e., rural vs urban, gender, and income level i.e., rich vs poor. Besides, the relationship of education with the incidence of poverty.

Keywords: Sustainable Development Goals; Inequality of Opportunity; Palestine; Inclusive Quality Education

Introduction

The 21st century is witnessing remarkable progress in the field of science and technology with inevitable usages. It is profoundly affecting the nature of our work and leisure. Apart from such revolutions, there is a downside attached with the three broad human activities i.e. government along with society, economy, and technology. The recent pandemic has pushed millions into extreme poverty and worsened the already distressed education system around the globe.

With such transformations, the United Nations in its resolution (A/RES/70/1) adopted 17 sustainable development goals (SDGs) to achieve the needs of today without compromising the needs of the future generation. In its 15-year plan of action, the UN called on actions to save the earth and improve the lives of all. To the successful implementations of the SDGs, education is not only a core target but also plays a pivotal role as a key enabler of all the remaining 16 goals. Without an inclusive and equitable education for sustainability, the 2030 agenda is hard to foresee. Like all other countries, the State of Palestine has also pledged to adhere to all these goals and tasks.

Inequality of opportunity is the notion of not being equivalent, particularly in rank, rights, or privileges. It captures the part of inequality that is deemed illegitimate. The concept of social justice is interlinked with sustainability and exerts a large influence on development. Inequality of opportunity is perceived as a share of typical imbalance derived from situations out of a person's control (including color, place of delivery, gender, religion, parental schooling, caste, etc.) and is accordingly seemed as discrimination toward the meritocratic values of a society. This study focuses on the inequalities of opportunity in education and its impact on the achievement of sustainable development goals.

Research Objectives

The current study investigates how unequal opportunities specifically in education affects the SDGs in the Palestinian context. It includes these objectives:

How these unequal opportunities impede the overall process of achieving the SDGs and especially the process to achieve inclusive, equitable, and quality education (SDG-4).

To estimate the causal link between incidence of poverty and years of education.

2.1 Significance of the Study

The State of Palestine's commitment to implement the 2030-agenda of SDGs faces many political and economic challenges. One of these is the continuous Israeli occupation, which hinders the development process. Besides, the insufficient availability of resources for the implementation of SDGs and higher population growth and tracking data are other such challenges.

Although on the surface the literacy rate among males and females is above 95%, which shows a positive picture, however, such statistics are misleading without realizing the true and broad picture of the society as a whole. There are growing disparities exist in education, the labor market, and the political landscape. The opportunities are not equally available when it comes to more aspects of education instead of just enrollment. This study is focusing on such unequal opportunities in education and the way these can impede the process of achieving the SDGs.

The Literature

Inequality is a common occurrence that can be found in any community. As a result, over the last few decades, a body of literature on inequality and development has emerged. Although previous studies indicated inequality to be favorable to growth, it contradicts the earlier consensus (Bourguignon et al., 2007). Inequality is a threat to progress, according to (Alesina & Rodrik, 1994). In a cross-sectional setting, they argued that inequality is inversely connected to growth. The current levels of global inequality have been extensively proved to be untenable (Mezzadri, 2015). Unlike most of these articles which deal with income or wealth inequality, the current study will focus on the concept of inequality of opportunity. The former measures inequality in the final outcome while the latter focuses on the underlying factors that are out of one's control. "Material inequality (money and wealth) simply depicts the set outcome of far more rooted oppressive processes," according to (Paes de Barros et al., 2009). According to (Ferreira & Walton, 2005), international inequality is now more about disparities in opportunity than disparities in earnings, which are directly linked to education, gender, and social inequality. Unequal chances societies are characterized by factors beyond individual control, resulting in intergenerational inequality and poverty, with serious consequences throughout development (Tuters, 2012). Alternatively, equality of opportunity offers a level playing field in which factors such as a person's birthplace, ethnicity, religion, gender, or family background have no bearing on their life outcomes. People's ability to progress in life should be determined by their talents, efforts, and choices, not by their birth circumstances (Piketty, 2018). Inequality of opportunity is the first stage; inequality of consequence is the last, and unequal opportunities frequently result in unequal outcomes (Stiglitz, 2012). It is also linked to inefficiencies, missed economic opportunities, and inept resource allocation.

(Benner & Pastor, 2015) have discovered several negative consequences of inequality that affect both wealthy

and disadvantaged people. For starters, it creates a knowledge gap between those at the top, who believe they got there through their work, and those below the benefits string, who are unsure when their efforts will pay off (IBRD) (2011). Second, while people are less concerned about a yacht and a raft when everything is going well when an economy appears to be hampered— as it did during the Great Depression and the global economic catastrophe in 2008—a country might become trapped in a vicious cycle (Lewin, 2007). Third, while many people believe that increased production benefits everyone, no legislation states that technical advancements benefit everyone or even the majority. Production may likely rise and the economic pie will get larger; nevertheless, the majority will not benefit from this achievement (Filmer & Pritchett, 2001). “If we fail to grow equitably,” Harvard economist Benjamin Friedman warned, “we may find ourselves in a vicious equilibrium in which our lack of development presents political indifference, and political immobility defends the economic deficit” (Mujeri, 2010).

Furthermore, the current unequal development process has a major social and human cost, particularly for the lower and working classes. It wreaks havoc on social, political, and economic stability. Individuals in every society must endure economic reversals, uncertainty, and unfairness for some time, often a long time, as long as they believe the system. Nonetheless, chronic, widespread inequality in access to various fundamental human necessities breeds mistrust among citizens and leads to a dysfunctional, interwoven economic, social, and political system (Stiglitz, 2012). As a result, the lowest social strata in a society develop the impression that the system and those in charge are self-serving and will not confront it. As a result, for many countries, particularly the developing ones, the goal of balanced growth remains a pipe dream. Inequality also exists in practically all other SDGs, such as poverty, zero hunger, gender equality, and the goal of promoting a peaceful, just, and inclusive society. The importance of sustainability in achieving these goals and targets cannot be overstated. These reciprocities provide an opportunity to reconsider the relationship between development and inequality in the context of sustainability. This crosscutting relationship is matched by LeBlanc’s (2015) ranking of “inequality” as second among 17 SDGs in terms of relational quality, emphasizing its tight relationship with other development goals.

Non-income aspects such as health, education, availability of critical services, and human development status are frequently used to determine the degree of uneven chances. Individual circumstances, which are beyond a person’s control, are critical in examining inequality of opportunity. Despite developing countries’ remarkable accomplishments in expanding educational access, significant educational inequities in attainment remain the key concern in guaranteeing educational equity (Bradstock, 2010). Diverse fundamental education indices have improved because of various governmental initiatives; nevertheless, these increases have not always resulted in systematic improvements in inequality and quality conditions (Porter, 2015). Home income has a significant impact on educational access (Milanovic, 2017). Primary education is free and compulsory in most developing countries; however, it comes with significant additional private fees that guardians must fund for their children’s tuition. In the upper classes, these costs include examination fees, private tuition, notebooks, and other accessories. Despite strong quantitative growth, data from development implies that prior achievements in rapid enrollment growth have come at the expense of quality (Bowles, 1972). In Palestine, there appear to be growing geographical, gender-based, and group-based inequalities, as well as an upward tendency in economic inequality. Cities and rural areas have unbalanced educational facilities that ignore the need for remote places. Furthermore, disparities in educational quality are a severe setback in all spheres or

tiers of the educational system.

Inequality is important in many ways, especially as we work to create a peaceful world where people can flourish via partnerships (UN Agenda-2030). Increasing inequality harms the economy by heightening political and social worries, reducing social adherence, and, in some cases, fostering instability and disputes (Paes de Barros et al., 2009). It also erodes our happiness and causes society to conflict with itself (Goczek et al., 2021). Inequality of opportunity also leads to racial differences, which are now the most dangerous to the class structure (Doyle & Stiglitz, 2014). The larger the disparities, the more we go away from democracy and closer to plutocracy (Lundy & McEvoy, 2009). Similarly, the greater the disparity in opportunity, the greater the society's hunger, which stifles human development and slows progress toward the SDGs. Higher levels of equality, on the other hand, according to (Bourguignon et al., 2007), would promote a complete utilization of human resources by offering vast opportunities and lowering society's expenses. In these circumstances, sustainable development as it relates to the various means and approaches to harmonize eco-friendly, social, and economic components of existence could be a strategy to overcome challenges of uneven opportunity. Furthermore, the fact that nearly everyone believes SDGs are desirable appears to be a stimulus: admittedly, it is not difficult to agree with the concept because the absolute necessity of socioeconomic growth recognizes the inter-connectedness of all life on the planet. Actual progress must be understood in terms of enhancing long-term human well-being rather than simply increasing material consumption (Asadullah & Yalonetzky, 2012). Furthermore, excluding the many becomes economically and socially untenable for the few (Al-Samarrai, 2009). As a result, the fight against the inequity of opportunity must be waged on multiple fronts to achieve sustainable development goals and make society a better place to live.

Methodology

Qualitative Analysis

The qualitative technique presents insights and an in-depth analysis of inequality, poverty and education, as well as other SDGs indicators. For illustrations tabulated summaries and graphical visualizations. The descriptive statistics are drawn from secondary data sources mainly the LFS 2017-2020.

Quantitative Analysis

The quantitative technique uses regression models to investigate the relationship between poverty incidence and education level.

$$\text{poverty incidence} = \alpha_0 + \alpha_1 \text{education level} + \beta Z + \epsilon \quad (1)$$

Where Z captures other control variables. The incidence of poverty is a binary outcome variable with poor and non-poor categories. While, the level of education have two types of outcomes. In one, it is either illiterate or literate. In the second one, it has four categories: 1) with zero years of education (illiterate), 2) primary level education, 3) secondary level, 4) and tertiary level completed.

Both the linear probability model and the binary outcome model, logistic regression used.

Data

The data is a panel and repeated cross-sectional survey available from 2017 to 2020. The sources of the data consist of a wide range of national and international reports, articles, and other secondary and published materials. The main sources are the Palestinian Central Bureau of Statistics (PCBS), The Palestinian Ministry of Education and Higher Education (MOEHE), The World Bank (WB), The International Labor Organization (ILO). The PCBS publishes reports, which cover many aspects like health, education, expenditures, etc.

The micro-data of the Palestinian Labor Force Surveys (LFS) from 2017-2020 which are conducted by the PCBS. LFS provide data on the labor force and their demographic characteristics, employment, and occupation, etc. As the households are not constant across the years in these surveys, therefore, the data is not a panel or longitudinal but repeated cross-sectional data.

Discussion and Conclusion

In Palestine, the literacy rate is high. Both male and female are equally literate while considering the literacy in 10 years and above population. Besides such high literacy rate the poverty incidence is also prevalent in its all dimensions i.e., from low poverty to extreme poverty. In this perspective, numerous studies have found significant and negative relationship between the incidence of poverty and years of education. This study has investigated such causal link using the microdata from labor force surveys and following the methodology of poverty published by the PCBS in its 2017 household and expenditure survey. The rationale for using labor force surveys is the non-availability of continuous household and expenditure surveys since its latest and last publication in 2017. The annual LFS data from 2017 to 2020 have been selected for this analysis. These have information collected at individual and household level from years of education to daily earnings in NIS currency. First income per household is calculated. Then the year of education is categorized in two i.e., literate vs illiterate for one type of analysis. In addition, in four categories i.e., illiterate, with primarily education, with secondary education and with higher education completed.

Table 1— Poverty Lines in NIS in Palestine by Household Size, 2017

| Household Size | Number of Children | | | | | | | | | | | |
|-------------------|--------------------|------|------|------|------|------|------|------|------|------|------|--|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| 1 | 836 | | | | | | | | | | | |
| 2 | 1548 | 1170 | | | | | | | | | | |
| 3 | 2221 | 1862 | 1493 | | | | | | | | | |
| 4 | 2869 | 2522 | 2168 | 1808 | | | | | | | | |
| 5 | 3500 | 3161 | 2818 | 2470 | 2116 | | | | | | | |
| 6 | 4116 | 3785 | 3450 | 3111 | 2767 | 2418 | | | | | | |
| 7 | 4722 | 4396 | 4067 | 3736 | 3400 | 3060 | 2716 | | | | | |
| 8 | 5318 | 4997 | 4674 | 4348 | 4019 | 3686 | 3350 | 3009 | | | | |
| 9 | 5905 | 5589 | 5270 | 4949 | 4626 | 4299 | 3970 | 3637 | 3300 | | | |
| 10 | 6486 | 6173 | 5858 | 5542 | 5223 | 4901 | 4577 | 4250 | 3920 | 3587 | | |
| 11 | 7060 | 6751 | 6440 | 6127 | 5812 | 5495 | 5175 | 4854 | 4529 | 4202 | 3871 | |
| 12 | 7628 | 7322 | 7014 | 6705 | 6393 | 6080 | 5765 | 5447 | 5128 | 4806 | 4481 | |

| | | | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|------|------|
| 13 | 8192 | 7888 | 7583 | 7277 | 6968 | 6659 | 6347 | 6034 | 5718 | 5400 | 5080 |
| 14 | 8750 | 8449 | 8147 | 7843 | 7538 | 7231 | 6923 | 6613 | 6301 | 5987 | 5671 |
| 15 | 9304 | 9006 | 8706 | 8404 | 8102 | 7798 | 7492 | 7185 | 6877 | 6567 | 6254 |

Notes: Poverty line refers to the estimation of poverty line that covers the household basic needs (shelter, clothing, and food), in addition to other needs including health care, education, transportation, personal care, and housekeeping supplies. The poverty lines have been adjusted to reflect the different consumption of families based on their composition (household size and the number of children).

Source: PCBS-Household Expenditure and Consumption Survey (October 2016 – September 2017)

For the poverty incidence variable, the household monthly income is compared with the poverty level as defined in PCBS household and expenditure surveys. See the table below for the complete poverty level while considering the number of kids and household size. Remember the household size also includes all the dependents other than children and parents such as grandparents. Therefore, the poverty line is assigned as per the methodology of PCBS, see Table 1 for these poverty lines.

Table 2—The link between The incidence of poverty and years of education

| | Linear Probability Model ^a | Logistic Model ^b |
|---|---------------------------------------|-----------------------------|
| Education (Literate vs Illiterate Categories) | | |
| Education | -0.229*** (0.008) | - 0.32*** (0.017) |
| Observations | 82,669 | 82,669 |
| R-squared | 0.0059 | |

Notes: All other factors such gender, regions are controlled.

Source: Author calculations. These models are estimated with poverty of incidence is the dependent variable with binary outcome, poor and not poor. The independent variable is the years of education, categorized as literate and illiterate.

a Shows results of the linear probability model.

b The estimated results are the Odds ratios. The marginal effects after logistic regression for education is - 0.228.

*** Significant at the 1 percent level.

** Significant at the 5 percent level.

* Significant at the 10 percent level.

Standard Errors are in parenthesis

Our hypothesis of negative and significant causal link between the level of education and incidence of poverty has been investigated by using both the linear probability model as well the binary outcome, logistics model.

From both model estimation techniques, the hypothesis is significant.

The linear probability model estimated that for an individual the chances of being poor would decrease by 22% if the individual is literate. Similarly, the binary outcome model also suggests that the probability of being poor would decrease by 22% if the education status is changed from being illiterate to literate, see Table 2.

Table 3 presents the linear probability model when the education has four categories: illiterate, primary level, secondary level, and tertiary level. From the estimation results, there is major role number of years of education completed. There is a 20 percent chance that, an individual will not be poor if primary level is completed. Similarly, 23 % less likely if secondary education and 35 percent less likely if tertiary level has been completed.

Table 3—The link between The incidence of poverty and years of education

| Linear Probability Model ^a | |
|---|----------------------|
| Education (Four Categories ^b) | |
| Primary level | -0.196*** (0.008) |
| Secondary level | -0.228*** (0.009) |
| Tertiary level | -0.348*** (0.009) |
| Observations | 82,669 |
| R-squared | 0.019 |

Notes: All other factors such gender, regions are controlled.

Source: Author calculations. These models are estimated taking poverty of incidence as the dependent variable with binary outcome, poor and not poor. The independent variable is the years of education.

a Shows results of the linear probability model.

b Education has four categories: Illiterate, Primary level, Secondary level, and Tertiary level.

*** Significant at the 1 percent level.

** Significant at the 5 percent level.

* Significant at the 10 percent level.

Standard Errors are in parenthesis.

Summary

Each society endeavors for development, but the most significant challenge is how to maintain it, especially in developing nations like Palestine. In this regard, analyzing the relationship between feasible development and disparity of openings in instruction is vital since unequal opportunities create substantial development characteristics in a society with considerable impacts on sustainability. From the discourse over, the nearness of significant unequal openings in Palestinian education division is clearly apparent. Though Palestine has made a surprising advance in reducing destitution after 2000, unequal get to quality instruction remains far-reaching and persistent. The predominance of destitute non-poor, male-female, and rural urban differences is

prominent at all levels of the education system. A comparative sort of imbalance also exists in proficiency rate, dropout proportion, and even in learning capability. Tremendous financing constraints and a rural-urban hole in household instruction use were moreover.

References

- Alesina, A., & Rodrik, D. (1994). Distributive politics and economic growth. *The Quarterly Journal of Economics*, 109 (2), 465–490.
- Al-Samarrai, S. (2009). The impact of governance on education inequality: Evidence from bangladesh. *Public Administration and Development: The International Journal of Management Research and Practice*, 29 (3), 167–179.
- Asadullah, M. N., & Yalonetzky, G. (2012). Inequality of educational opportunity in india: Changes over time and across states. *World Development*, 40 (6), 1151–1163.
- Benner, C., & Pastor, M. (2015). *Equity, growth, and community: What the nation can learn from america's metro areas*. University of California Press Oakland, CA.
- Bourguignon, F., Ferreira, F. H., & Walton, M. (2007). Equity, efficiency and inequality traps: A research agenda. *The Journal of Economic Inequality*, 5 (2), 235–256.
- Bowles, S. (1972). Schooling and inequality from generation to generation. *Journal of Political Economy*, 80 (3, Part 2), S219–S251.
- Bradstock, A. (2010). 10. Tackling economic inequality. *Why Ethics Matters*, 183.
- Doyle, M. W., & Stiglitz, J. E. (2014). Eliminating extreme inequality: A sustainable development goal, 2015–2030. *Ethics & International Affairs*, 28 (1), 5–13.
- Eidimtas, A., & Juceviciene, P. (2014). Factors influencing school-leavers decision to enrol in higher education. *Procedia-Social and Behavioral Sciences*, 116, 3983–3988.
- Ferreira, F. H., & Walton, M. (2005). *World development report 2006: Equity and development* (Vol. 28). World Bank Publications.
- Filmer, D., & Pritchett, L. H. (2001). Estimating wealth effects without expenditure data—or tears: An application to educational enrollments in states of india. *Demography*, 38 (1), 115–132.
- Flint, T. A. (1992). Parental and planning influences on the formation of student college choice sets. *Research in Higher Education*, 33 (6), 689–708.
- Goczek, Ł., Witkowska, E., & Witkowski, B. (2021). How does education quality affect economic growth? *Sustainability*, 13 (11), 6437.
- (IBRD), W. B. (2011). *Learning for all: Investing in people's knowledge and skills to promote development*.
- Kallio, R. E. (1995). Factors influencing the college choice decisions of graduate students. *Research in Higher Education*, 36 (1), 109–124.
- Lewin, K. M. (2007). *Improving access, equity and transitions in education: Creating a research agenda. Create pathways to access*. Research monograph no. 1. Online Submission.
- Lundy, L., & McEvoy, L. (2009). Developing outcomes for educational services: A children's rights-based approach. *Effective Education*, 1 (1), 43–60.
- Mezzadri, A. (2015). Why inequality matters—for the rich and the poor. *The Conversation UK* [Online].
- Milanovic, B. (2017). The higher the inequality, the more likely we are to move away from democracy. *The*

Guardian, 2.

Moogan, Y. J., Baron, S., & Harris, K. (1999). Decision-making behaviour of potential higher education students. *Higher Education Quarterly*, 53 (3), 211–228.

Mujeri, M. K. (2010). The rights-based approach to education in bangladesh. *The Bangladesh Development Studies*, 139–203.

Paes de Barros, R., Ferreira, F. H., Molinas Vega, J. R., & Saavedra Chanduvi, J. (2009). Measuring inequality of opportunities in latin america and the caribbean.

Piketty, T. (2018). *Capital in the twenty-first century*. Harvard University Press.

Porter, E. (2015). Education gap between rich and poor is growing wider. *The New York Times*, 23.

Stiglitz, J. E. (2012). *The price of inequality: How today's divided society endangers our future*. WW Norton & Company.

Stock, J. H., Watson, M. W.others. (2019). *Introduction to econometrics* (4th ed.). Pearson New York.

Tuters, S. (2012). Wilkinson, r., & pickett, k. (2009). The spirit level: Why more equal societies almost always do better. London: Allen lane. *Leadership and Policy in Schools*, 11 (1), 129–134. <https://doi.org/10.1080/15700763.2011.577928>

Wooldridge, J. M. (2018). *Introductory econometrics: A modern approach* (7th ed.). Cengage learning.