

ERF

Policy Research Report

Is Covid-19 Increasing Inequalities in Jordan?

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Summary

The COVID-19 pandemic poses massive economic challenges on the Jordanian economy, as well as on other economies in the region and worldwide. The COVID-19 pandemic has exacerbated the existing inequalities, economic and non-economic inequalities, between the different socio-economic groups. Hence, understanding the determinants of inequalities and the characteristics of the vulnerable groups are required to provide adequate policies to reduce inequalities, eradicate poverty and leave no one behind. Within this context, the present report overviews the inequality status in Jordan, before and after the outbreak of COVID-19. Based on data availability, the report tackles inequality in expenditure as a proxy of income inequality. While for inequalities in capabilities, the report focuses on inequality in educational outcomes and opportunities. The report summarizes the results of the empirical analysis conducted through research partnership between UNDP Jordan and Economic Research Forum.*

The report sheds the light on the drivers of income inequality and examines inequalities of opportunities and of outcomes in education using the latest rounds of the Jordan Household Income and Expenditure Survey (HIES). COVID-19 raises the renewed concerns about inequality. Leveraging on the second wave of the COVID-19 MENA Monitor data, collected by ERF, we examine the impact on income inequality and education.

The analysis shows that income inequality is mainly driven by differences in the socio-economic characteristics of individuals such as education level, employment status and geographical location, as well as the returns to such characteristics. Geographical inequality is in favor of the urban areas. While the gender wage gap is in favor of men, the gender expenditure gap is in favor of female-headed households.

Inequality of outcomes in education is related to individual effort such as time and effort spent on educational attainment and measured using the highest educational level attained by students over the period from 2008 to 2017. The findings show that overall inequality of educational outcomes has been widening over time in particular with completing secondary education and above compared to basic completion. The main drivers of educational inequality include parental wealth and education. Additionally, girls in Jordan are less likely to complete basic education compared to boys. The results show that inequality of opportunity in education arises from circumstances beyond the individual's control such as parental education and financial resources. Inequality in educational opportunities at the completed primary level for young people is persistently high, with wealth being the most influential factor. Inequality of opportunity at the secondary level of education and higher has worsened over time with household wealth being the most important determinant.

Assessing the impact of COVID-19 on income, by examining the impacts of the individuals' and households' characteristics on the vulnerability of losing income, show that the economic drawback of the pandemic has disproportionate impacts on individuals according to their economic activity, education level, nationality, gender, income group and age. Women, youth, Syrians and individuals living in urban areas are more likely to have lost income during the crisis. Moreover, employment is a key determinant. Informal

Summary

employees, those working in hard-hit sectors and those who were suspended or had a decline in their wage payment, are more vulnerable to decreasing household income. The report pursues answering the questions of how children's education are influenced by school closures as a response to COVID-19 outbreak. We examine the socioeconomic status of households using different educational tools during the COVID-19 school closure. The main drivers of inequality for education are families' education and financial resources. Families play a very important role in helping their children in using online platforms and books. The usage of online education and receiving parents' help contribute to unequal opportunities for kids in school. Moreover, educated parents can assist their kids in schoolwork and measure their performance over time.

Several policy lessons can be concluded from the analysis. Fiscal reforms are required, with removal of subsidies for richer households, poverty reduction programs targeting the poorest and vulnerable segment and improve targeting of social protection schemes. More measures are needed to support jobs and workers. For instance, temporary cash transfers for the lay-offs and self-employed. For education, the government needs to take additional actions to guarantee basic schooling for children, reduce school dropout rates, and improve the quality of education. Other policy options include awareness campaigns, offering conditional cash assistance targeting the least advantaged families to help their children progress at school. As parents' education is one of the main drivers of inequality of outcomes in education; the government can design programs to reduce illiteracy rates and to formulate ICT literacy programs, particularly for adults.

Finally, it is worth noting that the presented analysis is limited by data availability and by the different variants of the COVID-19 that may continue affecting the labor market and the economy.

1. Introduction

Inequality is a complex and multidimensional phenomenon. The inequality story may change based on the dimension tackled and the indicator used, so tackling only one dimension of inequality or using only one measure may be misleading. Hence, achieving the sustainable development goals (SDGs) and ensuring that no one is left behind necessitates moving beyond income and average indicators. Reducing inequality (SDG 10) requires addressing income and non-income inequalities as well as inequalities in opportunities.

Non-income inequalities include inequalities in capabilities such as education, health, and access to technology. These dimensions are key factors for achieving human development (Stewart, 2016; Conconi and Viollaz, 2017; UN-ESCWA and ERF, 2019; Human Development Report, 2019). According to the Human Development Report (2019), addressing inequalities in capabilities should follow a life cycle approach. More precisely, basic capabilities and enhanced capabilities both need to be addressed, as basic capabilities are necessary to achieve advanced capabilities and to access more opportunities in the future. With the spread of COVID-19, advanced capabilities such as access to technology became a basic capability in a context where e-schooling and remote-work are the new normal (UNDP, 2020).

Several indicators are used to measure basic and enhanced capabilities. For instance, in health, basic capabilities may be measured by early childhood survival and life expectancy at birth, while enhanced capabilities are measured by life expectancy at age 70 and access to quality health at all levels. As for education, basic capabilities can be measured by the population with primary education, while enhanced capabilities can be measured by the population with tertiary education and by high-quality education at all levels.

The ongoing COVID-19 pandemic poses massive economic challenges with the economic slowdown and the widespread losses of employment and income. It has become clear that the COVID-19 outbreak would result in increasing levels of inequality, with long-term consequences. The pandemic has exacerbated the existing inequalities between different socio-economic groups. Youth, women, refugees, individuals working in the informal sector, and individuals living in rural areas with limited access to the Internet and digital assets are the most affected by the negative impacts of

COVID-19. Low-wage workers with limited access to social protection are the ones who bear the cost of the economic contraction. Moreover, with distance learning and online education, poor children and children living in rural areas with limited or no access to the Internet have fewer opportunities to complete their education. This may increase inequality in educational opportunities and affect their future job opportunities and income level.

Like other economies in the region, Jordan has been strongly affected by the outbreak of COVID-19. With the latest available national poverty rate reaching 15.7 percent in 2017/18, the contraction of the economy, and the deterioration of the labor market with an unemployment rate of 23.2 percent in the third quarter of 2021 (World Bank, April 2022), the welfare of households, mainly for vulnerable groups, is threatened, and inequalities are aggravated. Therefore, understanding the drivers of the different types of inequalities and the characteristics of the vulnerable groups is required to adequately reduce inequalities and protect vulnerable groups (FAO, 2020; Olinto et al., 2014; UNDP, 2020). Within this context, the present report provides an overview of the inequality status in Jordan before and after the outbreak of COVID-19. Based on data availability, the report tackles inequality in expenditure as a proxy of income inequality. For inequalities in capabilities, the report focuses on inequality in educational outcomes and educational opportunities. The report summarizes the results of the empirical analysis conducted through a research partnership between UNDP Jordan and the Economic Research Forum (ERF). For more details regarding the methodologies and data used, see Hendy and Ben Mimoune (2021), Ramadan (2021), Rizk and Rostom, (2021), Ramadan (2022), and Rizk (2022).

The policy report is structured as follows. Section one provides an overview of the economic situation in Jordan, while section two presents the main findings regarding the different dimensions of inequalities. Section three presents the main socio-economic characteristics of the vulnerable groups most affected by the pandemic. Section four reviews the government response that addresses inequalities in the context of the pandemic. Section five concludes, and section six provides policy recommendations. Finally, it is worth noting that the presented analysis is limited by data availability and the different variants of COVID-19 that may continue affecting the labor market and the structure of the economy. Section seven includes more discussions regarding limitations and future research.



2. The Economic and Social Context in Jordan

Jordan, officially known as the Hashemite Kingdom of Jordan, is an upper middle-income country situated in Western Asia and bordered by Iraq, Saudi Arabia, Syria, Israel, and Palestine's West Bank. After gaining its independence from Britain in 1946, Jordan preserved its sovereignty and resilience despite the ongoing turmoil in its region. Yet, the surrounding political instability remains a key driver for the Kingdom's vulnerabilities, in addition to its few economic resources compared to its oil-rich neighbors.

The influx of refugees over the years is one of the main challenges with which Jordan is struggling, making its demographic structure unique. Registered refugees alone represent nearly one-third of the country's 10 million population (World Bank, 2022; Anera, 2022). Other sources estimate that the number of non-Jordanians, including Palestinian refugees, is closer to half the population (Singh, 2020). With limited resources, and with many refugees being unregistered and not served by aid agencies, Jordan struggles to meet the needs of its inhabitants. Nearly 80 percent of Syrian refugees fall below the poverty line, with 60 percent of the families in extreme poverty. The COVID-19 pandemic had made things worse for both Jordanians and refugees and reversed some of the progress Jordan had accomplished over the years. For instance, according to the United Nations High Commissioner for Refugees (UNHCR), only two percent of refugee families can meet basic food needs following the pandemic, which is the same food insecurity level of 2014 (Karasapan, 2022).

Furthermore, and like most countries of the Middle East and North Africa (MENA) region, children and youth aged 15 to 24 represent the majority of the population (33 percent and 18 percent, respectively), which drives up the total dependency ratio to nearly 60 percent (CIA, 2022; World Bank, 2020). In the fourth quarter of 2021, youth unemployment was as high as 52.1 percent for the 15 to 24 age group (47.9 percent for males versus 70.2 percent for females) and has been increasing since 2014 (Department of Statistics of the Hashemite Kingdom of Jordan, 2022).

According to the latest International Labour Organization estimates (ILO, 2021), young women's labor force participation stood at a low nine percent and total female participation was below 16 percent, compared to the 21 percent MENA average. This comes despite the educational progress women have achieved. For instance, the share of women above 25 years of age with at least a bachelor's degree has climbed from less than 0.5 percent in 2003 to 22 percent in 2020 (World Bank, 2022).

Unfortunately, this progress is not fully transmitted into the labor market, indicating a major undercapitalization problem. Currently, around 70 percent of young women are unemployed. Once they find an acceptable job within limited sectors, women in Jordan earn 15 percent less than men for similar positions (Winkler and Alvaro, 2019).

The issue of high unemployment rates in Jordan, especially among youth and refugees, is mainly a structural issue heightened by external shocks, such as increases in the number of refugees or the COVID-19 pandemic and its lockdowns. Even during periods of high economic growth, such as 2000-2009, which recorded an average real growth of 6.5 percent, unemployment remained higher than 14 percent for the total population and above 30 percent for youth, on average (World Bank, 2022). Additionally, the labor market suffers from multi-level segmentation, which includes gender (as explained above), but also covers other dimensions, such as the form of employment and age, among others. Employment in the informal sector is on the rise, as the formal economy is unable to create enough jobs, especially among refugees who need special permits to secure formal and protected employment. Non-Jordanians (including migrants) tend to dominate low-skill/low-paid sectors, such as agriculture and construction. Meanwhile, despite efforts to reduce the public sector wage bill, the sector still employs nearly half of Jordanian workers and offers wage premiums, compared to the private sector, which have grown by 300 percent over the past decade (Winkler and Alvaro, 2019). Jordan also depends on a significant number of citizens working abroad and sending remittances, especially in the Gulf. Following the pandemic, many of these workers lost their jobs and returned home, exerting additional pressure to provide employment opportunities and replace the forgone remittance revenues (Ben Mimoune, 2020).

Following years of public sector and government spending expansions, Jordan has been suffering from one of the highest debt levels in the region, exceeding 100 percent of GDP until the late 1990s. With pressures from lending agencies such as the International Monetary Fund (IMF) and the World Bank to control its spending, the Jordanian government successfully decreased debt levels to a low 55 percent of GDP in 2008. However, following the 2008 recession, the Arab Spring, and the recent pandemic, the debt-to-GDP ratio rose to reach 100 percent of GDP in 2020 and continued to rise to reach 109 percent in the first quarter of 2021 (World Bank, 2021 and 2022). The Jordanian government had to depend heavily on foreign aid to cover its expenses, with direct grants amounting to 12 percent of its budget (Fishman and al-Omari, 2018).



In December 2021, the executive board of the International Monetary Fund completed the third review of Jordan's program, supported by the Extended Fund Facility (EFF). According to an IMF press release, "The completion of the review will make about US\$335.2 million immediately available. This brings total IMF disbursements to Jordan since the start of 2020 to the equivalent of about US\$1.230 billion including a purchase of the equivalent of about US\$407 million) in May 2020 under the Rapid Financing Instrument" (IMF, 2022).

3. Main Findings

a. Income inequality

Income inequality in Jordan has been stagnant when measured by the common inequality measure, with a Gini index of 34 since 2006. This is considered a low level of income inequality compared to other countries with the same level of GDP per capita. However, other income inequality measures show a higher level of inequality. For instance, the pre-tax national income share of the highest 10 percent was around 50 percent in 2021, while the share of the bottom 50 percent was 14 percent (World Inequality Database, 2021). Guiding policy discussion and providing evidence-based recommendations to decision makers require moving beyond the average and conventional measures of inequality.

Evidence-based analysis shows that monetary inequality, commonly measured by expenditure when income data are not available, is mainly driven by differences in the socio-economic characteristics of individuals, such as gender, education level, employment status, and geographical location (Hassine Belhaj, 2014; Ramadan et al., 2018; Al Sharafat, 2019).

The expenditure gap between any two groups may differ along the expenditure distribution. For instance, the geographical expenditure gap at the poorest deciles may differ from the expenditure gap in the highest deciles. Hence, it is recommended to move beyond the average and tackle inequality along the different deciles of the expenditure distribution. Moreover, the expenditure gap between any two groups may be decomposed into what is known as the *endowment* effect and the *returns* effect. The endowment effect, known as the *explained* effect, allows for understanding the difference in the characteristics of the two groups of interest. Such differences in characteristics, such as education level or employment status, may explain the expenditure inequality between the two groups. Meanwhile the returns effect, or the unexplained effect, may be considered discrimination be-

tween the two groups. In other words, this effect is related to the difference in expenditure between the two groups even if they have the same characteristics, but the returns to these characteristics are different. Such a decomposition is relevant from a policy perspective to understand the drivers of inequality and implement adequate policies to reduce monetary inequality (Hassine Belhaj, 2014; Ramadan et al.; 2018; Ramadan, 2021).

According to the literature tackling monetary inequality in Jordan, expenditure per capita is higher in urban households compared to rural households. In regard to the gender gap, while the average monthly wage for males is higher than that of females, female-headed households (FHHs) have higher expenditure per capita compared to male-headed households (MHHs) (Ramadan et al., 2018; Doruk and Pastore, 2020).

Using Jordan's Household Expenditure and Income Survey (HEIS) (2017/18), the present section tackles monetary inequality in Jordan. Following the literature, total expenditure per capita is used as a proxy to measure monetary inequality, as income data are not available. Using unconditional quantile regression (UQR),¹ the expenditure per capita was found to be higher in urban areas compared to rural areas for all the expenditure deciles. This is consistent with what was found in the literature for the previous surveys. For the gender expenditure gap, FHHs in Jordan have higher expenditure per capita compared to MHHs (Table 1), which is in line with what was found in the literature tackling Jordan and other countries in the MENA region (Ramadan et al., 2018). This expenditure gap in favor of FHHs may be explained by the availability of different sources of income for female heads of households. In addition to labor income, female heads of households are recipients of remittances and have access to social protection programs that provide income transfers and services. This result confirms the complexity of inequality and how different indicators tell different stories about inequality.

Decomposing the expenditure gap between urban and rural households and between FHHs and MHHs using a UQR shows that there are four key drivers. These determinants include education of household heads, the governorate in which they live, access to the Internet, and access to social protection. First, education level and returns to education are key factors in explaining the expenditure gap. This corresponds to what was found in the literature, as education is a key driver for human development and the main driver for employment and income (Hassine Belhaj, 2014; UNDP, 2021) The results of the

¹ For more details about the methodology used, see Ramadan (2021).



Table 1. Estimated expenditure per capita gap between rural/urban households and FHH/MHH for the different deciles

Decile	Overlap Geographical Gap	Overlap Gender Gap
1	0.0987*** (-0.0319)	0.0996*** (-0.0338)
2	0.0745*** (-0.0206)	0.150*** (-0.0286)
3	0.114*** (-0.0198)	0.218*** (-0.0284)
4	0.131*** (-0.0201)	0.242*** (-0.0251)
5	0.137*** (-0.0199)	0.272*** (-0.0243)
6	0.172*** (-0.02)	0.285*** (-0.0254)
7	0.191*** (-0.0227)	0.287*** (-0.0271)
8	0.255*** (-0.0252)	0.298*** (-0.0284)
9	0.255*** (-0.0363)	0.321*** (-0.047)

Standard errors between brackets

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Note: Results of the Unconditional Quantile Regression. For more details, see Ramadan (2021).

analysis show that the higher the level of education, the lower the expenditure gap between FHHs and MHHs, especially at the higher income deciles. For the geographical gap, however, the higher the education level, the higher the expenditure gap between urban households and rural households. Returns to higher education levels increase the gender gap. This means that an additional year of education would affect the expenditure per capita differently based on the sex of the head of the household. Similarly, the returns to education differ between urban and rural households, yielding a higher expenditure gap.

Second, the geographical expenditure gap is higher in the north and south governorates compared to the central ones. Living in the southern governorates increases the gender expenditure gap compared to living in the central ones. This may be explained by the centralization of services and economic opportunities in central governorates.

According to HEIS (2017/18), the prevalence of urban household heads who access the Internet is 1.2 times the prevalence among rural household heads. Similarly, the prevalence of male household heads who access the Internet is 1.6 times the prevalence among female household heads. This digital divide is a significant contributor to the geographical and gender expenditures gaps. Access to the Internet increases the urban-rural

expenditure gap at all income deciles. For the gender gap, accessing the Internet reduces the expenditure gap between FHHs and MHHs. This is expected, as using the Internet allows both female and male household heads to access information and economic opportunities. The difference in access to the Internet is expected to exacerbate income inequality with COVID-19. With the spread of the pandemic, access to the Internet has become a necessity for e-learning and remote work. Hence, technology and Internet access are no longer considered an enhanced capability; they are a basic capability in the new era.

Finally, being enrolled in the social security or retirement system plays a significant role in decreasing the geographical expenditure gap, especially among the poorest six deciles. Similarly, having social security decreases the expenditure gap between FHHs and MHHs. However, this negative effect is significant for the middle expenditure deciles. It is worth noting that most of the household heads who are included in the social security or retirement system are male and have elementary education or higher.

b. Inequality in education outcomes in Jordan

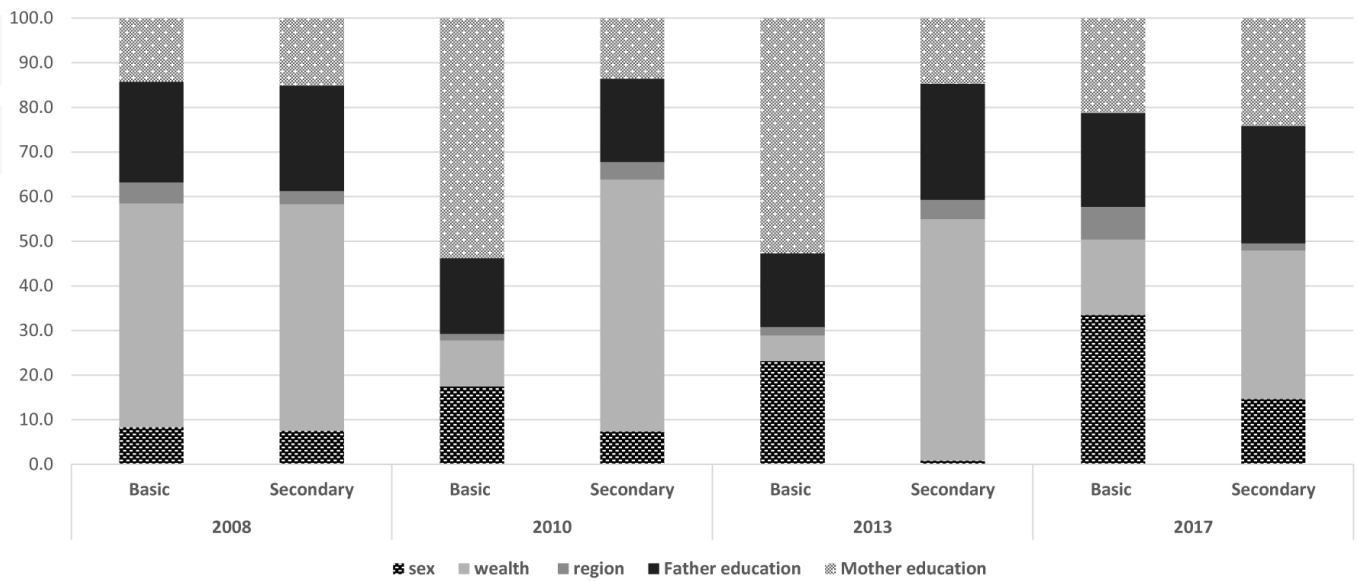
Substantial inequality has been observed in attaining education in Jordan. Inequality is composed of two main types: inequality of opportunities, which arises from factors beyond the individual's control, such as parents' education and financial resources, and inequality of outcomes, which is related to individuals, such as effort and time allocated for studying (Peragine et al., 2015; Roemer, 1998).

Inequality in education outcomes is still a major concern for Jordan and the MENA region, as it is the worst among all aspects of human development (Abu-Ismaïl, 2019). In the literature, the drivers of inequality in education are attributed to three main groups: either fathers' and mothers' education (Krafft and Alawode, 2018; Rizk and Hawash, 2020); type of school and level of schooling (Assaad, Hendy, and Salehi-Isfahani, 2019; Bouhlila, 2017); parents' financial background (Salehi-Isfahani, Hassine, and Assaad, 2014); and place of residence and gender gap (Ibourk and Amaghous, 2015; Shahateet, 2006).

This policy brief attempts to analyze the determinants of inequality using the highest educational level attained by Jordanian students from 2008 to 2017 using four cross-sectional waves of the HIES. We focus on children aged six to 25 living with their parents and exclude those who do not live with their parents or are in their late 20s and are not in school as they might differ in important characteristics from those living with their parents (Assaad, Hendy,



Figure 1. Shapely decomposition for basic and secondary education completion rates or higher, aged 6-25 (percentages)



Source: Rizk and Rostom (2021) using Jordanian HIECS for 2008, 2010, 2013, and 2017.

and Salehi-Isfahani, 2019). First, we highlight the most important drivers of inequality at each education level over time.² Figure 1 further illustrates the main drivers of inequality in educational outcomes and shows how it varied over time.

The inequality in education outcomes for basic education is primarily related to family background (education and wealth), recording a fairly gender gap in the completion rates since 2008 (Assaad, Hendy, and Salehi-Isfahani, 2019). However, a wider gender gap is recorded in 2017, indicating lower completion rates for girls compared to boys in basic education (ESCWA and ERF, 2019). By examining the secondary completion rates, fathers' and mothers' education are the main contributors to inequality in education (Krafft and Alawode, 2018) and in 2017, inequality is mainly driven by wealth as the main contributor, in addition to parents' education.

Second, we disentangle the different sources and weights of inequality that may affect the transition from one education level to the other (Buis, 2017). We define educational transition through two transitions: from no certificate to basic education and from basic education to secondary education or higher. We observe that children with educated fathers are more likely to complete basic and secondary education or higher. Mothers' education

becomes significant and positive using the 2017 HIES, pointing out that children with educated mothers (secondary and above) are more likely to complete their education compared to those with illiterate mothers. Compared to the poorest families, children who belong to the richest wealth quintiles are more likely to progress in school, particularly from basic to secondary education or higher. It is also noteworthy that girls have the highest share of completing secondary education or above compared to boys, which is commonly explained by boys having to work and earn income to support their families. Compared to boys, girls have lower basic completion rates, as they may be vulnerable to child marriage or family favoritism to invest more in boys' education.

c. Inequality in education opportunities in Jordan

The education sector in Jordan has witnessed remarkable development during the past two decades, with the government giving special importance to the sector and annually allocating 13 percent of the government budget to the Ministry of Education since 2015 (UNESCO, 2019). For Jordanians in 2019, the country has successfully achieved universal basic education for both boys and girls, and the rates of expected years of schooling are high and almost equitable (13.4 years for girls versus 12.9 years for boys). This is considerable progress given that Jordan had only 5,526 schools and around 77 thousand teachers supplying educational services to 1.5 million students in 2004 (Ministry of Education, 2004).

² We use the Dissimilarity index (D-index), complemented by the shapely decomposition, to highlight the most important drivers of inequality at each educational level. For further details, see Rizk and Rostom (2021).



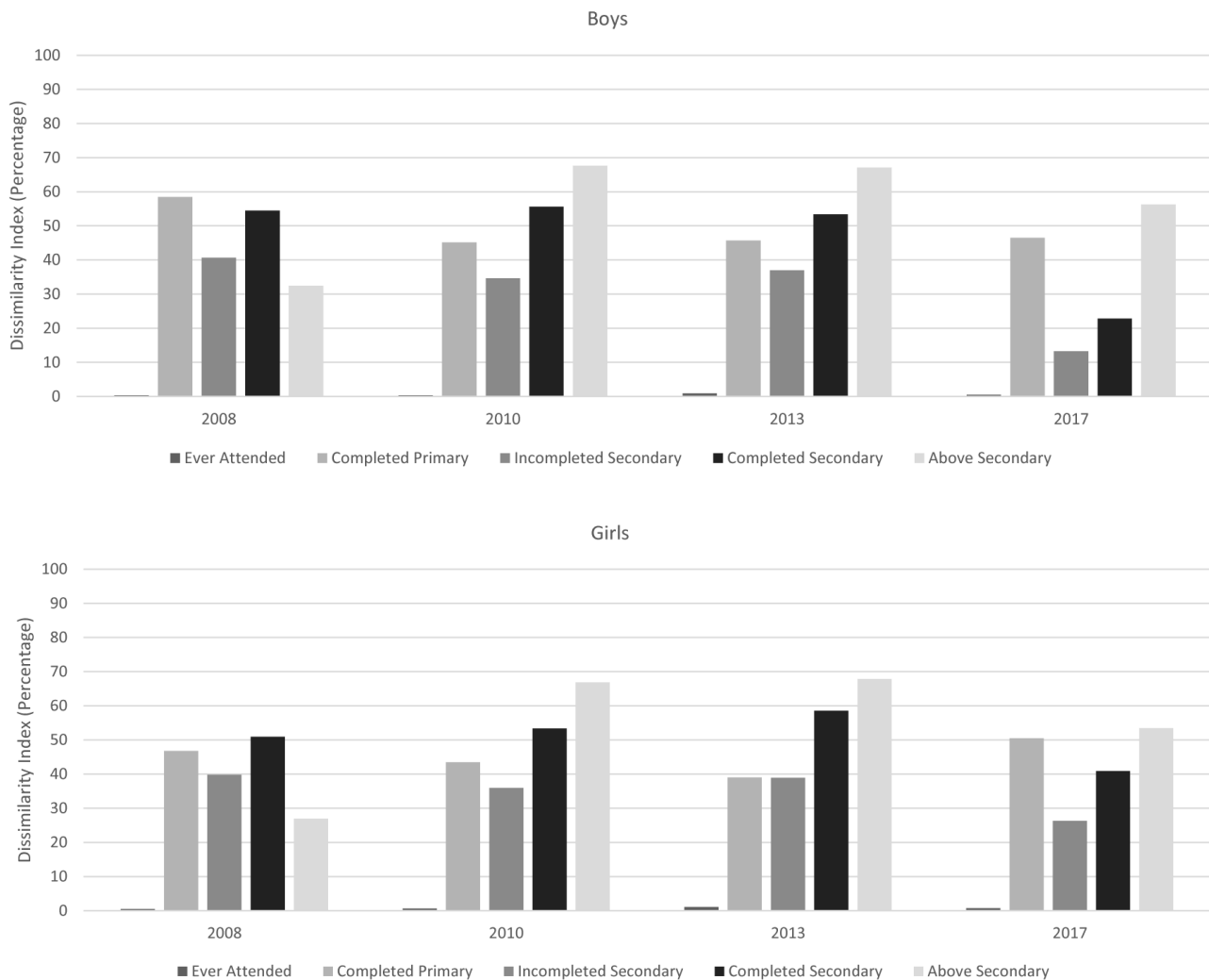
Jordan has also successfully reduced inequality of outcomes in education (mainly the gender gap in education) over the past decade (Dandan, 2017). Yet, it is equally important to examine inequalities of opportunities in education. Reducing the inequalities of opportunities is crucial to achieving social and economic justice and avoiding the intergenerational poverty trap (UN-ESCWA and ERF, 2019; Hashemi and Intini, 2015).

Since the outbreak of the COVID-19 pandemic and its implications on the education sector in general and on e-learning in particular, the status of inequality of opportunity in education has been particularly affected and may have worsened. Equal access to both basic and digital services has now become (more than ever before) a necessary condition for education and knowledge.

We have conducted research to analyze the trends in inequality of opportunity in Jordan. In this study, we examine the effects of circumstance factors (that individuals cannot control), such as gender, parental education, household wealth, and area of residence on their educational outcomes. For this, we use data from the HIES for the years 2008, 2010, 2013, and 2017. Our findings confirm that the gender gap in Jordan is fairly low when it comes to enrollment rates and incomplete primary level of education (see Figure 2).

The findings also show that family wealth is the dominant determinant for the opportunity to ever-attend school in Jordan in all years except for 2008 (see Figure 3). Also, mothers' education was found to have an important role in children's school attendance, whereas fathers' education

Figure 2. Dissimilarity index (D-index) by educational level, ages six to 25 years old, 2008 to 2017 (Percentages)



Source: Hendy and Ben Mimoune (2021).

Inequality of opportunity means the inequalities caused by external factors (circumstances) beyond the control of individuals. To measure this type of inequality, we first use the dissimilarity index (D-index) by different educational levels for individuals aged six to 25 over different survey rounds for the whole sample and by gender. The D-index calculates how boys and girls differ in terms of accessing a certain opportunity. Here, we present different opportunities (ever-attending, completed primary, uncompleted secondary, completed secondary, and above secondary).



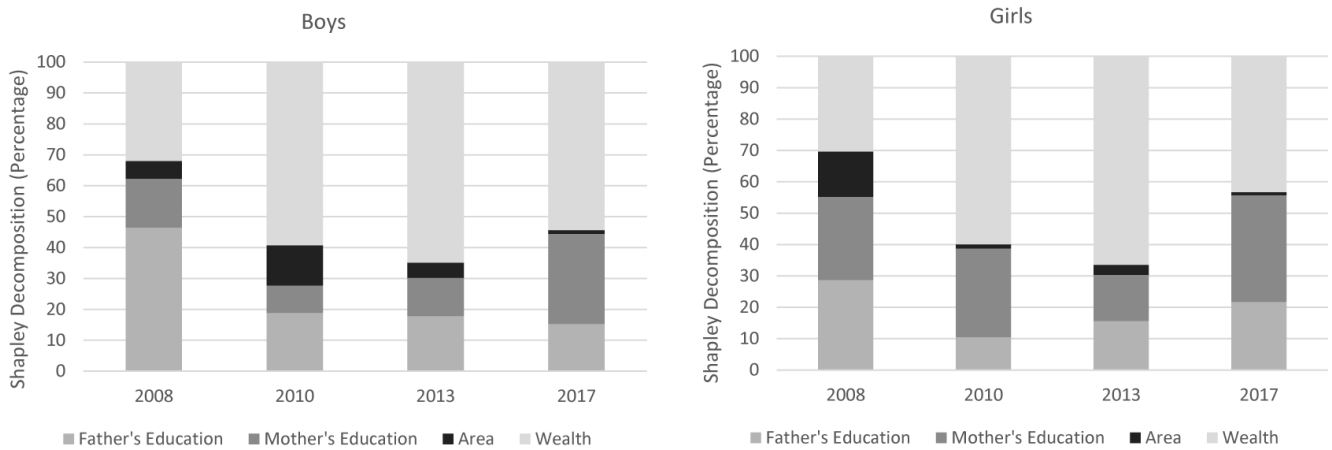
had a major impact in 2008 but decreased over time in favor of family wealth.

As for the factors affecting the opportunity of completing secondary education, mothers' education and wealth continued to be the primary contributor for 2008 and 2010, but the parents' level of education combined became the main determinants of secondary education completion starting 2013 and through 2017. For females, mothers' education continues to be the main contributor to girls'

secondary education progression followed by fathers' education in the 2010 and 2013 rounds, only to decline again in 2017 (see Figure 4).

To conclude, we find that family wealth is among the most important determinants of the opportunity of attending or completing an educational level over time, followed by the parents' level of education – specifically mothers' education.

Figure 3. Shapley decomposition for ever-attending school by circumstances, ages six to 25 years old, 2008 to 2017 (Percentages)



Source: Hendy and Ben Mimoune (2021).

Figure 4. Shapley decomposition for completing secondary education by circumstances, ages six to 25 years old, 2008 to 2017 (Percentages)

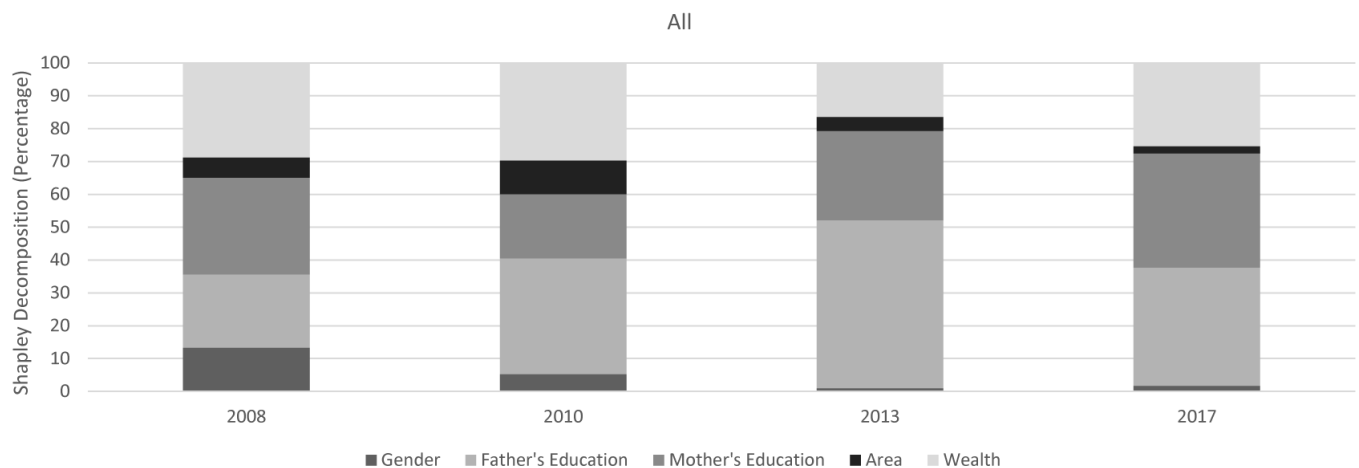
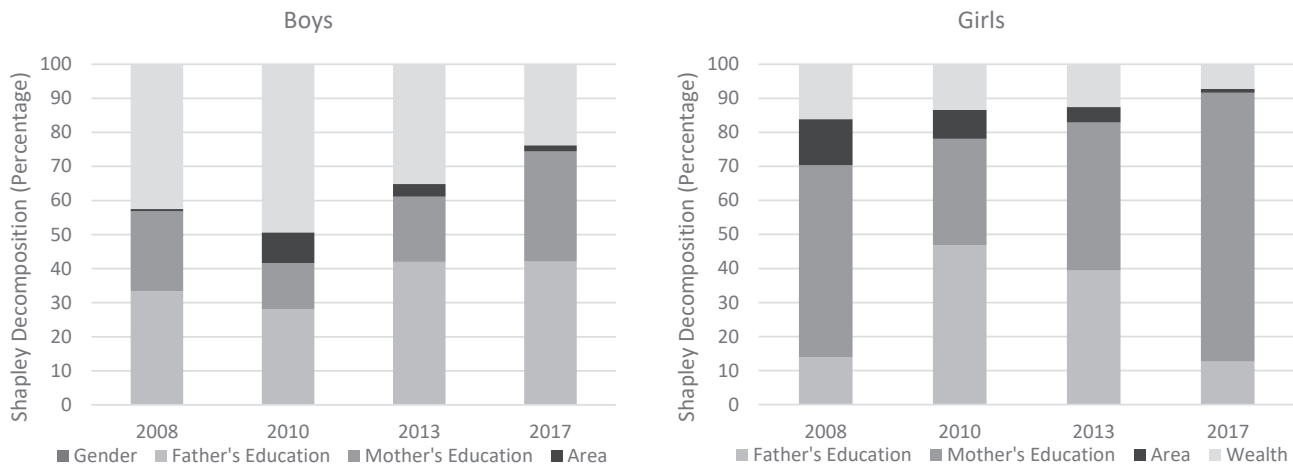


Figure 4. Continued



Source: Hendy and Ben Mimoune (2021).

4. Characteristics of the groups most vulnerable to the socio-economic impact of COVID-19

Since the outbreak of COVID-19 in early March 2020, Jordan reached 14,066 deaths and 1,695,970 confirmed cases, according to the latest WHO statistics.³ Jordan was credited with being the strictest with regard to initial closures and gathering restrictions that lacked exceptions, even for essential trips. Thus, this put major economic and social pressure on the economy (Jensehaugen, 2020; Krafft, Assaad, and Marouani, 2021a), where GDP growth contracted to 1.8 percent in 2020 compared to two percent in 2019, which is considered a small contraction compared to Egypt, Tunisia, and Morocco (World Bank, 2021). During the first nine months of 2021, Jordan's economic growth reached 2.1 percent. This economic growth was mainly led by the recovery of the services and industrial sectors. However, unemployment remains high, especially among the youth (World Bank, April 2022).

The contraction of economic growth in Jordan resulted in large and immediate losses in both income and employment (UNHCR, 2020). In Jordan, as in other Arab countries, the loss of earnings was greater for specific groups compared to others. Thus, Jordan may witness higher income inequality due to the deterioration of the status of the most vulnerable groups (UN, 2020; Cefala et al., 2020).

The economic drawback of the pandemic has disproportionate impacts on individuals according to their eco-

nomics activity, education level, nationality, gender, income group, and age. This may increase horizontal inequalities between the different socio-economic groups. Assessing the impact of the COVID-19 crisis on income inequality entails examining the key determinants of vulnerability to income loss.

Within this context, the COVID-19 MENA Monitor Household Survey, conducted by the ERF, is used to examine the impacts of socio-demographic characteristics and changes in employment status on the likelihood of experiencing declining income, as a result of the spread of COVID-19. The analysis shows that women, youth, Syrians, and individuals living in urban areas are more likely to face a decline in income because of the spread of COVID-19. Figure 5 shows that around 53 percent of women have experienced a decline in their households' income because of the pandemic and the precautionary measures. This share is around 50 percent among men. Likewise, being Syrian increases the likelihood of being vulnerable to a decrease in income, with 71 percent of Syrians experiencing a decline in their households' income (Figure 6).

Urban areas are the epicenter of the spread of COVID-19, and they are the areas where precautionary measures and lockdowns were strictly applied. As a result, individuals living in urban areas are more likely to report a decrease in their households' income. Figure 7 shows that around 53 percent of individuals living in urban areas experienced a decrease in their income. This rate is less than 40 percent among individuals living in rural areas or refugee camps.

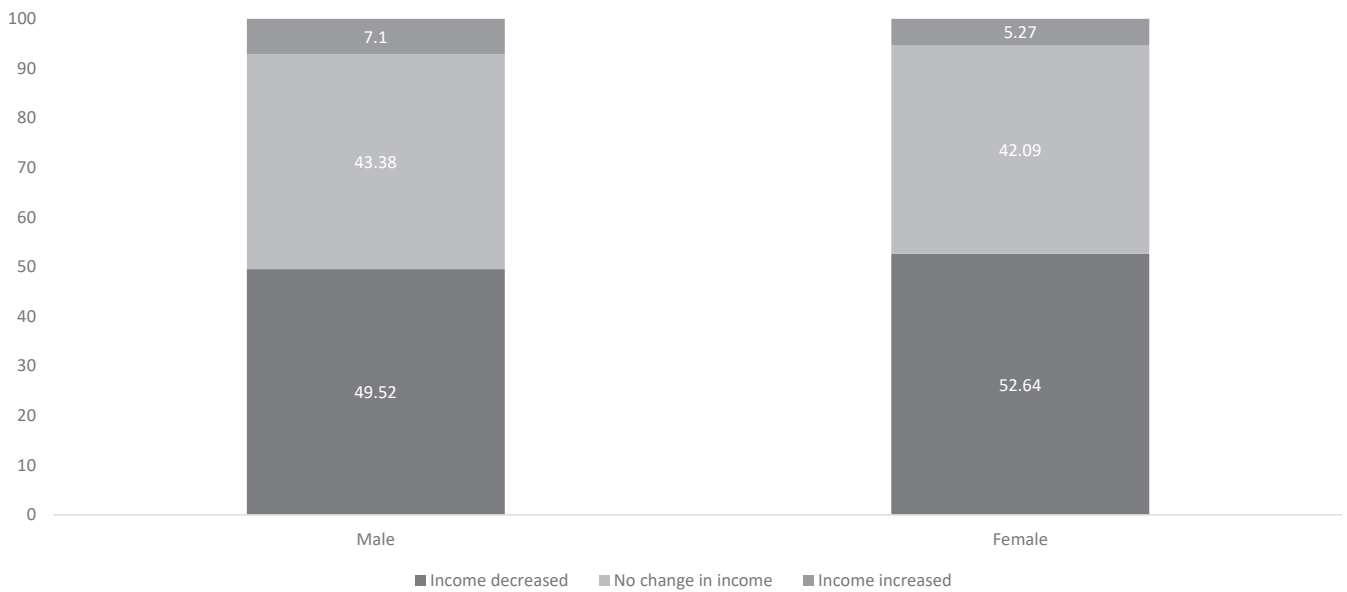
Employment and wage payment constitute an important source of income. Hence, it is crucial to understand the impact of employment status and changes in employment

³ <https://covid19.who.int>

and wage payment on the likelihood of experiencing a decline in household income. According to the COVID-19 MENA Monitor Household Survey, informal employees and those working in hard-hit sectors, such as construction, retail and wholesale, transportation, accommodation, and food services, are vulnerable to income loss. Additionally, individuals employed in February 2021 who were suspended or had a decline in their wage payments are more likely to experience a decline in their household income (Figure 8).

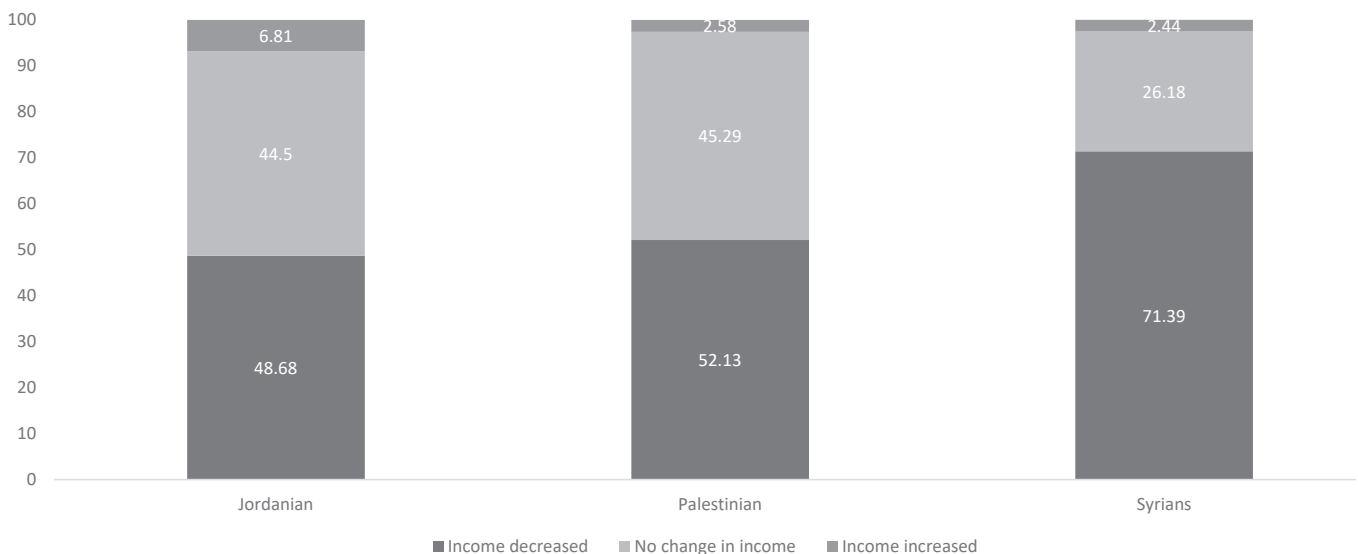
For inequality in educational opportunities and outcomes, it was found that in the initial stages of the outbreak of the pandemic, the impact on school children had been unprecedented in MENA countries in general and Jordan in specific (Krafft, Assaad, and Marouani, 2021a). Jordan has implemented strict lockdown and curfew measures where its stringency index reached 100 percent with the highest frequency of school closures in 2021 (Rizk, 2022).

Figure 5. Change in households' income by respondent's gender



Source: Ramadan (2022).

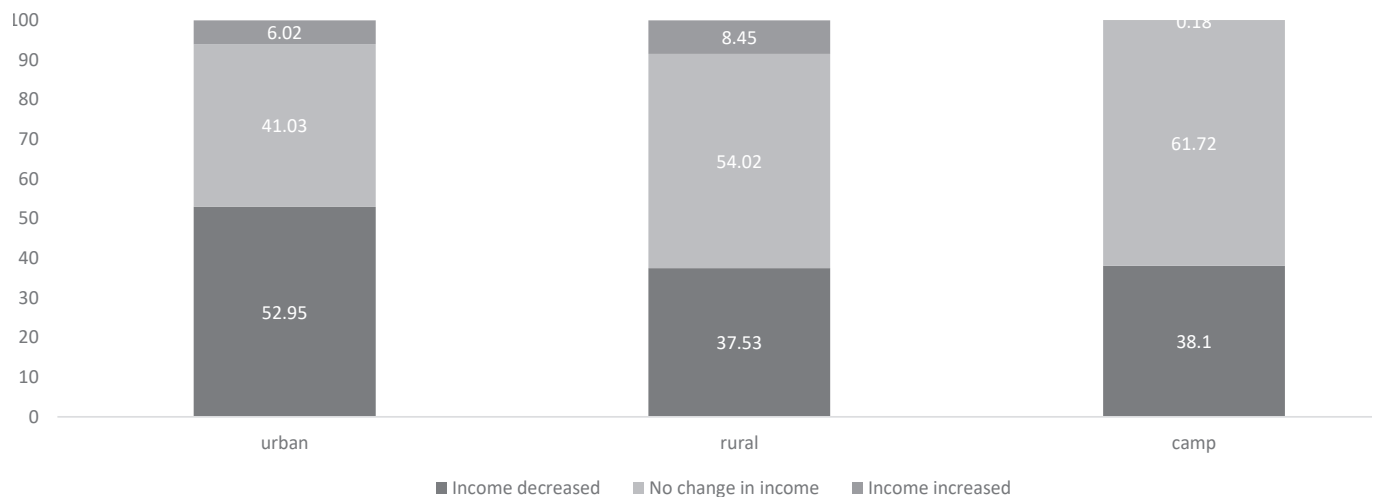
Figure 6. Change in households' income by respondent's nationality



Source: Ramadan (2022)

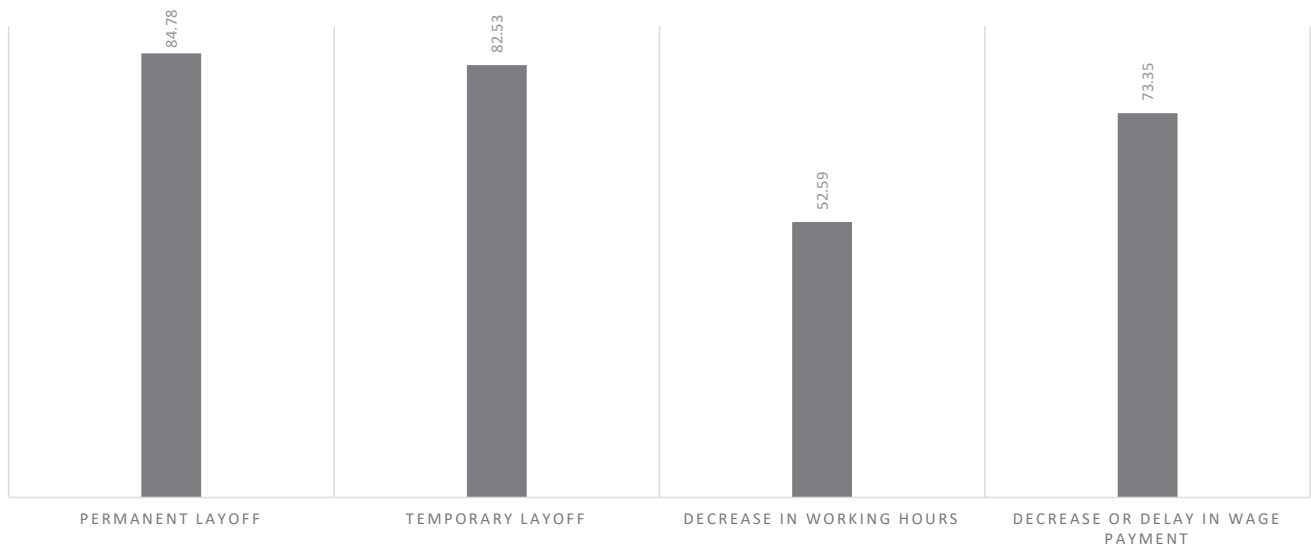


Figure 7. Change in households' income by geographical location



Source: Ramadan (2022).

Figure 8. Prevalence of respondents whose household income decreased according to changes in their employment and payment



Source: Ramadan (2022).

All countries adopted very restrictive regimes with respect to closures and gatherings, with Jordan having the most stringent regime. School closures, along with moving classes and teaching to be online, required more family support and Internet accessibility, which contributed further to the vicious circle of inequality of opportunities and outcomes children might face. The lack of enhanced capabilities, such as access to the Internet at home and parental support that shapes children's learning, might make it harder for millions of children to break the intergenerational transmission of inequality (UNDP, 2019 and 2020).

The main drivers of inequality in education are families' education and financial resources. Families play a very important role in helping their children use online platforms and books. The usage of online education and receiving parents' help contribute to unequal opportunities for children in school. Moreover, educated parents can assist their children with schoolwork and measure their performance over time.



5. COVID-19 and government response addressing inequalities

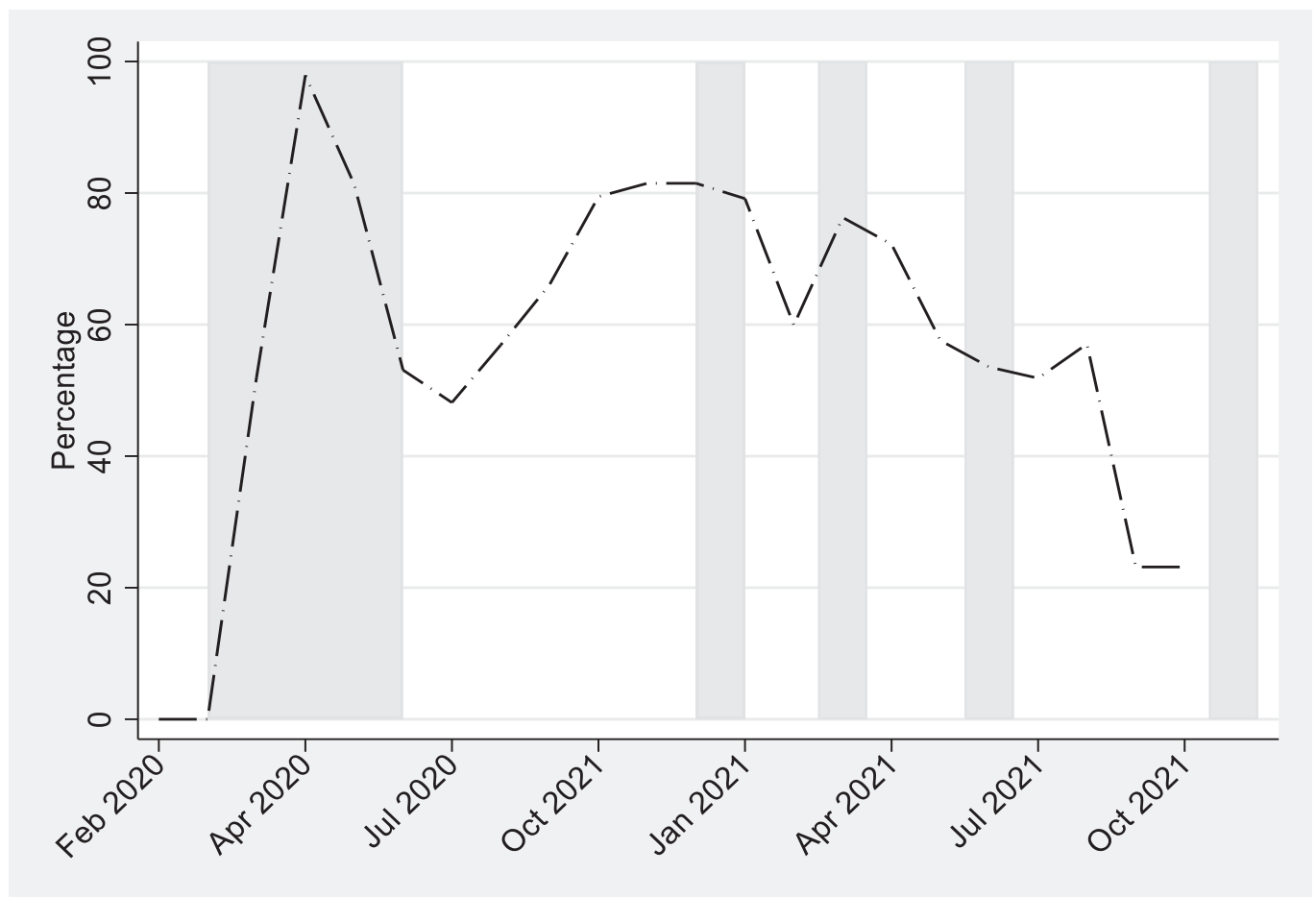
Jordan was among the countries adopting the most stringent full-scale lockdown measures in the Arab region. Figure 10 shows the stringency index over the different periods of the pandemic. In the early phase of the pandemic, Jordan implemented strict lockdown and curfew measures. The stringency index reached almost 100 percent since the government restricted people's movement and allowed them to leave the house only at specific times to buy and fulfill their essential needs. Individuals violating these measures were penalized according to the defense law. Schools were closed until mid-June 2020.

As the first wave of the pandemic gradually came to an end, restrictions began to relax. Jordan was among the countries that eased restrictions quickly. Its stringency index fell from 100 percent to

almost 50 percent by July 2020. With the second wave in August 2020, Jordan gradually re-imposed restrictive measures. These measures reached the peak of their stringency by December 2020. In 2021, the government was more responsive to the changes in the number of COVID-19 cases occurring in each period, by changing the stringency of its policy or by closing schools temporarily. Compared to other countries, Jordan had the highest frequency of school closures in 2021, particularly because the government was able to shift to remote learning.

Jordan adopted a set of economic and social policies to mitigate the effects of the pandemic on the hard-hit sectors and the vulnerable groups. The country announced new stimulus packages amounting to 5.5 percent of GDP, including the establishment of a relief fund called "Himmat Watan" of USD 162 million

Figure 9. The stringency index from February 2020 to October 2021



Source: Rizk (2022), based on data from the stringency index and school closure measures (Hale et al., 2021).

Note: The shaded areas show times of school closure in Jordan. The stringency index is represented by the line. Data is retrieved from <https://ourworldindata.org/grapher/covid-stringency-index>. The stringency index is a composite measure based on nine response indicators, including school closure, workplace closure, travel bans, rescaled to a value from 0 to 100 (100=strictest). If policies vary at the subnational level, the index shows the response level of the strictest subregion.



(IMF, 2021). Jordan launched a temporary cash transfer program for daily workers through the National Aid Fund (NAF) to 250,000 households for three months. The government expanded the existing cash transfer programs to include 30,000 new families and daily workers, and price ceilings were imposed on essential goods (IMF, 2021; Krafft, Assaad, and Marouani, 2021b; National Aid Fund, 2020). In a similar vein, Jordan's social protection system has not only expanded the existing programs, such as Takaful, but it also created new ones, such as Tadamun, Tamkin Iqtisadi, Himaya, and Musanid.

The Tadmun program targets informal enterprises and reduces the social insurance contributions to encourage the formalization of workers and covers 13,685 workers. In Musanid (1), the program targets 74,000 informal workers who lost their jobs due to COVID-19 and offers JD 150-350 over three months. Musanid (2 and 3) allows both Jordanians and non-Jordanians to take social securing savings in advance. The Himaya program targets hard-hit sectors such as tourism, transport, and industry. Finally, the Tamkin Iqtisadi program is designed to cover some of the debt burdens for enterprises and encourage them to expand their social security coverage for their workers through financial incentives (Alijla, 2021).

Despite government efforts to mitigate the effects of the pandemic on vulnerable groups in Jordan, social safety nets remain sparse and poorly targeted (IMF, 2021; Krafft, Assaad, and Marouani, 2021a). In a similar vein, measures directed to firms include the deferral of loan repayment for the tourism sector and the provision of concessionary finance for the agricultural, renewable energy, and information technology sectors (IMF, 2021; Krafft, Assaad, and Marouani, 2021b).

On the education side, the Ministry of Education established an online platform called "Darsak" to allow students from grade 1 to grade 12 to follow their classes virtually. Moreover, the ministry also broadcasted classes on TV after school closures for 148 days (World Bank, 2021). Jordan subsidized Internet costs and institutionalized the transfer of online learning through television channels with

free access (Alshoubaki and Harris, 2021). All these measures amounted to eight percent of the GDP to mitigate the impact of the crisis (Central Bank of Jordan, 2020).

6. Discussion and conclusion

Inequality is one of the broadest economic terminologies; it can be exhibited through inequality in outcomes, inequality in opportunities, and income inequality, which is the traditional measure. This report summarizes a series of working papers tackling the different types of inequality and their dimensions, which is necessary to design effective measures to reduce poverty and achieve inclusive growth.

The report sheds light on the determinants of income inequality and examines inequality of opportunity and outcomes in education at different points in time using the latest HIES data from 2017/18. In addition, the report aims to assess the impact of the COVID-19 pandemic on income inequality and on the prevalence of the various learning methods used and the difference in the characteristics of individuals using each method using the second wave of the COVID-19 MENA Monitor data conducted by the ERF in Jordan.

Dynamics of inequality pre-COVID-19

Income inequality is mainly driven by differences in the socio-economic characteristics of individuals and returns to such characteristics, such as education level, employment status, and geographical location. Geographical inequality is in favor of the urban areas. While the gender wage gap is in favor of men, the gender expenditure gap is in favor of FHHs, as Jordanian FHHs receive more income from the National Aid Fund, the Zakat Fund, the Royal Court, and other transfers. Therefore, women have access to other income sources than wage income that may explain the higher expenditure per capita.

Inequality of outcomes in education is related to individual efforts, such as time and effort spent on educational attainment, and it is measured using the highest educational level attained by students over the period 2008 to 2017. We find that overall inequality in educational outcomes has been widening over time, particularly with completing secondary education and above compared to basic completion. Parental wealth and education are the main drivers of inequality. Girls in Jordan are less likely to complete basic education compared to boys, which sheds light on a negative phenomenon, such as child marriage or family



favoritism to invest more in boys' education rather than girls' education. According to the 2012 DHS, more than one in four children are married before the age of 18, and nearly one in 10 are married before the age of 15. Child marriage observed a declining trend and seems to be on the rise again (UNICEF, 2019).

Inequality of opportunity in education arises from circumstances beyond the individual's control, such as parental education and financial resources. Inequality in educational opportunities at the completed primary level for young people is persistently high, with wealth being the most influential factor. Inequality of opportunity at the secondary level of education and higher has worsened over time, with household wealth being the most important determinant.

Dynamics of inequality during COVID-19

Assessing the impact of COVID-19 on income by examining the impacts of individual and household characteristics on the vulnerability of losing income shows that the economic drawback of the pandemic has disproportionate impacts on individuals according to their economic activity, education level, nationality, gender, income group, and age. Women, youth, Syrians, and individuals living in urban areas are more likely to have lost income during the crisis. Moreover, employment is a key determinant. Informal employees, those working in hard-hit sectors, and those who were suspended or had a decline in their wage payment, are more vulnerable to decreasing household income.

Likewise, we examine the socio-economic status of households using different educational tools during the COVID-19 school closure. Families play a very important role in helping their children use online platforms and books. The usage of online education and receiving parental help contribute to unequal opportunities for children in school. Moreover, educated parents can assist their children with schoolwork and measure their performance over time. The main drivers of inequality in education are families' education and financial resources.

7. Policy lessons

Response and recovery measures encompass fiscal, monetary, health, and business support and social protection aimed to mitigate the effects of the COVID-19 crisis. The fiscal and monetary measures that the government rolled out in support of the economy play a very important role in supporting the liquidity of households

and reducing the risk of insolvencies and layoffs. These measures take various forms in Jordan, including decreasing interest rates for hard-hit sectors, concessionary finance for productive sectors such as information and communications technology (ICT), agriculture, and energy, as well as tax payment deferrals to the tourism sector and subsidized lending schemes for small and medium enterprises (IMF, 2021; Krafft, Assaad, and Marouani, 2021b). In a similar vein, one of the main administrative difficulties facing fiscal measures targeting specific sectors is identifying the eligible recipients for the support schemes. Such measures are based on tax data and records based on the previous fiscal year or even prior, which could lead to the exclusion of eligible beneficiaries. Fiscal policy in Jordan still did not achieve too much in reducing inequality in Jordan; while the poorest decile receives cash transfers worth 26 percent of their income, the contributions of the richest are worth eight percent of their market income (Rodriguez and Wai-poi, 2021). Fiscal reforms are required with more revenues in a regular manner, along with the removal of subsidies for richer households and poverty reduction programs targeting the poorest and most vulnerable segments.

Measures aimed to support jobs and workers have a special role to play in supporting both their business and household income. For instance, temporary cash transfers for those who experienced layoffs and the self-employed are successful in protecting jobs and livelihoods during the lockdown. Nevertheless, the social protection schemes have reached only a small fraction of the eligible beneficiaries, thus remaining poorly targeted (Krafft, Assaad, and Marouani, 2021a). There is an urgent need to improve the social protection scheme for the self-employed and informal workers in Jordan for future economic shocks in terms of targeting and eligibility.

School closures have had a detrimental effect on school-age children due to the COVID-19 crisis. The picture pre- and post-COVID-19 manifested key challenges:

- Although basic education is compulsory and free, the primary dropout rates are high among students from less privileged families. Thus, the government needs to take additional actions to guarantee basic schooling for children, reduce school dropout rates, and improve the quality of education. Some potential mechanisms are awareness campaigns, subsidizing school supplies conditional on parents' income and wealth, and imposing stricter measures to combat child labor.
- Secondary education and above is not compulsory and is subject to passing a state exam, and not fully subsidized by the government – as are lower levels of education. Richer families are therefore more capable of investing in their children's education at those higher levels. This explains why wealth stands as the most



important determinant of inequality at this level; a family's wealth still plays a determining role in the inequality of basic education. One possible policy option is to offer conditional cash assistance targeting the least advantaged families to help their children progress at school. This could be considered a viable short-term solution to overcome the cost-related hurdles that may increase dropout rates for the poorest children.

- Parents' education is one of the main drivers of inequality of outcomes in education; the government can design programs to reduce illiteracy rates, particularly for adults, as they potentially help their children with schoolwork (Krafft and Alawode, 2018).
- Girls in Jordan are less likely to complete their basic education compared to boys. This sheds light on a negative phenomenon, which is family favoritism to invest more in boys' education rather than girls' education or the preference of girls to stay at home and help their mothers with household chores. Finding effective ways to incentivize married women in particular to participate in the labor market is therefore necessary to achieve the most benefit out of the investments in Jordanian human development. The women's participation rate in the Jordanian labor market is considered among the lowest in the world, despite their progression in education (Assaad, Krafft, and Caitlyn Keo, 2019).
- The interaction between the pandemic, school closures, and the digital divide contributed more to the inequality in education in Jordan, making it harder for children belonging to poor families to break the intergenerational transmission of inequality. Government efforts should be directed to formulate ICT literacy programs so that adults can be trained to use the Internet, access their children's e-learning platforms, and potentially help them with their schoolwork. Moreover, schools need to offer special arrangements for children with special needs and those left behind to ensure inclusivity and combat the long-term negative consequences of the pandemic.

8. Limitations and future research

The Jordanian HEIS is a nationally representative source of data collected at the level of individuals and households and covers several issues such as access to basic services, education, ownership of assets, and parental characteristics, among other variables. It is available for researchers up to the 2017/18 survey. Yet, some major challenges related to the availability of this survey prevent researchers from conducting in-depth analyses and research on timely issues such as inequality. For

instance, the version of the data that was made available to researchers is unweighted and only includes 50 percent of the full sample. Having a representative sample of the population is of paramount importance. Weighting is crucial to compensate for sampling biases (either over or under-sampling). Therefore, the absence of population weights has serious implications on the (non) generalization of the findings of any research that uses this source of data.

Access to the most updated nationally representative surveys is the only way to guarantee realistic and up-to-date analyses, particularly in a time of external shock such as the COVID-19 era. The latest HEIS available and collected by the Jordan Department of Statistics (DOS) dates from 2017, which blocks researchers from undertaking research that can be beneficial to policymakers in Jordan. There is then an urgent need for more updated datasets, ideally post-COVID-19 ones, to capture the changes in inequality patterns over time and assess the effects of the global pandemic on the different dimensions of inequality. Needless to say, the more information collected and/or made available to researchers, the more realistic and useful research will be to all stakeholders, including policymakers. One major limitation of the HEIS data used here is that they lack information/proxies for the quality of education, which made it impossible for researchers to study issues such as the gaps in enhanced and basic capabilities. This kind of information/data is important to draw policies related to child access to more advanced opportunities for creating further capabilities in life. We therefore call for data collection efforts to fill this research gap.

Similarly, the absence of information on the nationality and refugee (and camps' residency) status of respondents as part of the dataset available to the researchers limits the assessment of welfare and inequality drivers among the Jordanian population. Indeed, Palestinian-origin Jordanians, for instance, are deprived of several benefits and services such as free or low-cost health services. Such exclusions affect household welfare and different individual outcomes. Also, people living in camps (mainly Syrian refugees) do not enjoy the same access to services and opportunities as the rest. For this, researchers need access to data that would allow the study of the impact of camp residency on welfare and inequality.

With respect to the dynamics of inequality during COVID-19 using the data from the ERF COVID-19 MENA monitor survey, there are limitations to be considered. First, the analysis examines the decline in total households' income without investigating what sources of income had been lost or decreased. It would be relevant for future research to consider the impact of the spread of the pandemic on the different sources of income. Second, the different vari-



ants of COVID-19 may continue affecting the labor market and the structure of the economy. Additionally, the progress in vaccination may attenuate the disadvantages of the pandemic. Hence, future research should consider these factors in studying the impact of the pandemic on income inequality. Third, there is no ability to shed light on the weakness of the online teaching infrastructure or examine the exposure of teachers to online teaching and the information gap, in addition to the existence of a non-conducive environment for learning at home due to inequitable academic attainment for parents' education. To conclude, policymakers – more than ever before – need data-evidenced research, which requires extensive, nationally representative, and up-to-date information on issues such as inequality. Given the current global shocks, all dimensions of inequality are at the center of the political debate. Hence, we call on the national and international institutions responsible for data collection to improve the quality and increase the quantity of the data being made available to researchers.

References

- Abu-Ismaïl, K. (2019). "Inequality in Arab States." *IEMed: Mediterranean Yearbook*: 256–261.
- Alijla, Abdalhadi (2021). "Possibilities and Challenges: Social Protection and COVID-19 Crisis in Jordan." *Civil Society Knowledge Centre* 1 (1).
- Alshoubaki, Wa'ed, and Michael Harris (2021). "Jordan's Public Policy Response to COVID-19 Pandemic: Insight and Policy Analysis." *Public Organization Review* (0123456789). Springer US.
- Assaad, Ragui, Rana Hendy, and Djavah Salehi-Isfahani (2019). "Inequality of Opportunity in Educational Attainment in the Middle East and North Africa: Evidence from Household Surveys." *International Journal of Educational Development* 66.
- Bouhlila, Donia Smaali (2017). "Parents' Education and Literacy Skills: Evidence on Inequality of Socioeconomic Status in Arab Countries." *World Development Perspectives* 5.
- Buis, Maarten L (2017). "Not All Transitions Are Equal: The Relationship Between Effects on Passing Steps in a Sequential Process and Effects on the Final Outcome." *Sociological Methods and Research* 46 (3): 649–680.
- Central Bank of Jordan (2020). "Measures Aiming to Contain the Repercussions of Novel Coronavirus (COVID-19) Crisis on the National Economy." Central Bank of Jordan (CBJ).
- ESCWA-ERF (2019). "Rethinking Inequality in Arab Countries." United Nations. Beirut: UN-ESCWA.
- Hale, Thomas, Jessica Anania, Noam Angrist, Thomas Boby, Emily Cameron-Blake, Martina Di Folco, Lucy Ellen, et al. (2021). "Variation in Government Responses to COVID-19, Version 12.0." *BSG Working Paper Series*.
- Ibourk, Aomar, and Jabrane Amaghous (2015). "Inequality in Education in the Mena Region: A Macroeconometric Investigation Using Normative Indicators." *Applied Econometrics and International Development* 15 (2).
- ILO (2021). "Gender Equality and Decent Work in Jordan." (April). https://www.ilo.org/wcmsp5/groups/public/---arabstates/---ro-beirut/documents/publication/wcms_787222.pdf
- IMF (2021). "Policy Responses to COVID-19: Policy Tracker."
- Hashemi, Ali, and Vito Intini (2015). "Inequality of Opportunity in Education in the Arab Region." *UNESCWA E/ESCWA/OES/2015/WP3*
- Jensehaugen, Jørgen (2020). "Jensehaugen-Jordan and COVID-19 Effective Response at a High Cost." *MidEast Policy Brief*.
- Krafft, Caroline, and Halimat Alawode (2018). "Inequality of Opportunity in Higher Education in the Middle East and North Africa." *International Journal of Educational Development* 62.
- Krafft, Caroline, Ragui Assaad, and Mohamed Marouani (2021a). "The Impact of COVID-19 on Middle Eastern and North African Labor Markets: Glimmers of Progress but Persistent Problems for Vulnerable Workers a Year into the Pandemic." *ERF Policy Brief* (57).
- Krafft, Caroline, Ragui Assaad, and Mohamed Ali Marouani (2021b). "The Impact of COVID-19 on Middle Eastern and North African Labor Markets: Vulnerable Workers, Small Entrepreneurs, and Farmers Bear the Brunt of the Pandemic in Morocco and Tunisia." *Economic Research Forum Policy Brief* Policy Brief 1 (May): 14.
- National Aid Fund (2020). "National Aid Fund." *Annual Report 2020*. Amman.
- Peragine, V., R. Lagravinese, F. Palmisano, and V. Intini (2015). "Inequality of Opportunity for Educational Achievement in Arab Region: Evidence from PISA 2006–2009–2012." *UN-ESCWA Working Paper*.
- Ritchie, Hannah, Edouard Mathieu, Lucas Rodés-Guirao, Cameron Appel, Charlie Giattino, Esteban Ortiz-Ospina, Joe Hasell, Bobbie Macdonald, Diana Beltekian, and Max Roser (2020). "Coronavirus Pandemic (COVID-19)." *Online at OurWorldInData.Org*.
- Rizk, Reham (2022). "Drivers of Inequality of Education during COVID-19 Pandemic in Jordan." *ERF Working Paper Series* Forthcoming.
- Rizk, Reham, and Ronia Hawash (2020). "Education Gap and Youth: A Growing Challenge in the MENA Region." *Luxembourg Income Study (LIS)*.
- Rizk, Reham and Nada Rostom (2021). "Inequality of Education Attainment in Jordan: Patterns and Trends." *ERF Policy Perspective* (No.1491).
- Rodriguez, Laura, and Matthew Wai-poi (2021). "Fiscal Policy, Poverty and Inequality in Jordan: The Role of Taxes and Public Spending - POLICY SUMMARY." *World Bank, Poverty and Equity Global Practice*: 1–26.
- Roemer, J. E. (1998). "Theories of Distributive Justice." *Harvard University Press*.
- Salehi-Isfahani, Djavah, Nadia Belhaj Hassine, and Ragui Assaad (2014). "Equality of Opportunity in Educational Achievement in the Middle East and North Africa." *Journal of Economic Inequality* 12 (4): 489–515.
- Shahateet, Mohammed Issa (2006). "How Serious Regional Economic Inequality in Jordan? Evidence from Two National Household Surveys." *American Journal of Applied Sciences* 3 (2).
- UNCHR (2020). "Socio-Economic Framework for COVID-19 Response."
- UNDP (2019). "Development Choices Will Define The Future." *UNDP Annual Report*.



- (2020). “COVID-19 and Human Development: Assessing the Crisis, Envisioning the Recovery.” Human Development Perspectives.
- UNICEF (2019). “A Qualitative Study on the Underlying Social Norms and Economic Causes That Lead to Child Marriage in Jordan.”
- World Bank (2021). “Jordan’s Economic Update April 2021.”
- US Department of Labor (2019). “Child Labor and Forced Labor Reports.” Retrieved from <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/jordan>.
- Department of Statistics in Jordan. <http://dosweb.dos.gov.jo/economic/expenditures-income/>
- World Bank (2021). “Jordan’s Economic Update, October 2021” <https://thedocs.worldbank.org/en/doc/222b8edb65c7bfc3f5afc05ad892a-0280012021/original/Jordan-Economic-Update-October-2021.pdf>
- World Bank (2021). “Jordan’s Economic Update - April 2021.” Available at: <https://www.worldbank.org/en/country/jordan/publication/economic-update-april-2021>. Accessed on January 2022.
- Singh, Manjari (2020). “Jordan after COVID-19: From Crisis Adjustment to Crisis Management”. Fikra Forum, Policy Analysis. <https://www.washingtoninstitute.org/policy-analysis/jordan-after-covid-19-crisis-adjustment-crisis-management>
- UNDP (2021). “Potential Impact of Covid-19 on Poverty and Food Insecurity in the Arab Region.” RBAS Working Paper Series.
- World Bank Jordan Economic Outlook (April 2022).





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