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Drivers of Inequality in Education During the COVID-19 Pandemic in Jordan

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DRIVERS OF INEQUALITY IN EDUCATION DURING THE COVID-19 PANDEMIC IN JORDAN[1]

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Abstract

The interaction between the pandemic, school closures, and the digital divide further contributed to inequality in education in Jordan by making it harder for children belonging to poor families to break the intergenerational transmission of inequality. This paper makes use of the ERF COVID-19 Monitor Survey for Jordan to assess the prevalence of the various learning methods used during school closures and the difference in the characteristics of individuals using each method (gender, place of residence, parents' education and employment, and household income) using a probit model. The paper finds that low household wealth and parents' education are more likely to limit students' ability to use online education, books, and written materials, or receive any family help. In-person education is more common among Jordanians, the unemployed or those out of the labor force, and those with less educated parents. The COVID-19 outbreak shed light on the importance of tackling the issue of the digital divide. Government efforts should be directed toward investing more in information and communications technology (ICT) infrastructure to be conducive to teaching and learning. In addition, these efforts should also aim to formulate ICT literacy programs to train adults to use the Internet and access children's e-learning platforms to potentially help them with their schoolwork.

Keywords: COVID-19, inequality of opportunities, education, Jordan.
JEL Classifications: O12, I21, C25.

ملخص

ساهم التفاعل بين الوباء وإغلاق المدارس والفجوة الرقمية بشكل أكبر في عدم المساواة في التعليم في الأردن، مما يجعل من الصعب على الأطفال الذين ينتمون إلى أسر فقيرة كسر انتقال عدم المساواة بين الأجيال. وتستفيد الورقة من مسح رصد كوفيد-19 التابع لمنتدى البحوث الاقتصادية في الأردن لتقييم مدى انتشار أساليب التعلم المختلفة المستخدمة أثناء إغلاق المدارس والفرق في خصائص الأفراد الذين يستخدمون كل طريقة وهي الجنس ومكان الإقامة وتعليم الوالدين وتوظيفهما ودخل الأسرة باستخدام نموذج بروبيت. ووجدت الورقة أن انخفاض ثروة الأسرة وتعليم الآباء من المرجح أن يحدا من قدرة الطلاب على استخدام التعليم عبر الإنترنت والكتب والمواد المكتوبة أو تلقي أي مساعدة عائلية. التعليم الشخصي أكثر شيوعا بين الأردنيين والعاطلين عن العمل أو خارج القوى العاملة والآباء الأقل تعليما. وسلطت جائحة كوفيد-19 الضوء على أهمية معالجة مسألة الفجوة الرقمية. وينبغي توجيه الجهود الحكومية لزيادة الاستثمار في الهياكل الأساسية لتكنولوجيا المعلومات والاتصالات لكي تفضي إلى التعليم والتعلم. بالإضافة إلى ذلك، صياغة برامج محو الأمية في مجال تكنولوجيا المعلومات والاتصالات بحيث يتم تدريب البالغين على استخدام الإنترنت والوصول إلى منصات التعلم الإلكتروني لأطفالهم وربما مساعدتهم في واجباتهم المدرسية.

Introduction

Since the outbreak of COVID-19 in early March 2020, Jordan had the lowest number of cumulative deaths per million until the end of September 2020, with a range from 0.8 to 6 (Ritchie et al., 2020).[3] Jordan was credited with being the strictest in regard to initial closures and gathering restrictions that lacked exceptions even for essential trips, thus putting a huge economic and social strain on the economy (Jensehaugen, 2020; Krafft, Assaad, and Marouani, 2021a), where GDP growth contracted to 1.6 percent in 2020 compared to 1.6 percent in 2019 (World Bank, 2021a). In response to the pandemic, Jordan's Ministry of Education advised schools to cease face-to-face learning and moved all educational activities to virtual learning models. The education system responded with distance learning (either online education or online television) as a perfect substitute for classroom instruction (Jordan Strategy Forum, 2021).

Several arguments are associated with distance learning. Some argue that distance learning exacerbates exclusion and inequality; increasing students' social isolation due to school closures and interrupting the support mechanisms from which marginalized and at-risk students could benefit lead these students to further disengage from education and leave school early (UNESCO, 2020; Areba, 2020). Another problem with switching to online e-learning is the digital divide, where disadvantaged students who experience barriers in accessing education are more likely to not have access to the Internet, computers, or the necessary information and communications technology (ICT) skills (UNCHR, 2020; World Bank, 2021b). The inequality in enhanced capabilities, such as access to basic technology, might increase children's dropout rates, particularly among disadvantaged groups, and exacerbate the intergenerational transmission of inequality (UNDP, 2020). Others argue that online learning is easily accessible and can reach remote and rural areas (Dhawan, 2020).

There is a dearth of research on the development of online learning and the characteristics of individuals using them compared to other learning methods in the case of Jordan. However, it could be a driver for children's withdrawal from school.

This paper aims to assess the impact of the COVID-19 pandemic on the prevalence of the various learning methods used and the difference in the characteristics of individuals using each method. A probit model is used to estimate the likelihood of using different learning methods while controlling for the sociodemographic characteristics of the individuals and household characteristics using the fourth wave of the Economic Research Forum's (ERF) COVID-19 Monitor Survey.

The paper's findings are consistent with those previously reported for inequality in education in Jordan (Rizk and Rostom, 2021; Assaad, Salehi-Isfahani, and Hendy, 2019; Assaad and Krafft, 2015; Hendy and Mimoune, 2021). The paper shows that parents' education and wealth increase the likelihood of using online education, which implies more means of support provided to children during school closures. On the other hand, in-person education is more

[3] https://ourworldindata.org/coronavirus

common among Jordanians and respondents who are unemployed, out of the labor force, or less educated.

The paper is organized as follows. Section 1 reviews the literature discussing the impact of COVID-19 on education. Section 2 presents the methodology, and section 3 discusses the data used. Section 4 discusses the estimated results and section 5 concludes.

1. Literature review

Global evidence shows major progress in achieving universal primary enrollment and completion rates. However, new forms of inequality in education related to the quality of education and learning outcomes exist, such as test scores and higher educational attainment (Dorius, 2013). Inequalities in education persist in the majority of middle- to low-income countries and are largely attributed to gender, ethnicity, region, and families' financial resources (Antoninis et al., 2020; Rama et al., 2014; Graetz et al., 2018; Psaki et al., 2018; UNESCO, 2020). At the same time, Arab countries ranked the third highest region in inequality in education worldwide, with the least developed countries bearing the heaviest weight (ESCWA-ERF, 2019). The majority of studies show that families' socioeconomic background and community characteristics are the main drivers of inequality (Assaad, Salehi-Isfahani, and Hendy, 2014; Ibourk and Amaghouss, 2015; Jalbout, 2015; Elbadawy, 2015; Bouhlila, 2017; Krafft and Alawode, 2018; Assaad, Hendy, and Salehi-Isfahani, 2019).

This is alarming in the context of Jordan as well as other Arab countries where the outbreak of COVID-19 had a detrimental effect on school-age children. Inequality in enhanced capabilities, such as lack of Internet access at home, deprived many children of schooling and increased out-of-school rates in 2020 (UNDP, 2020); school closures and moving school systems to online learning at home required more parental intervention and Internet accessibility. The outbreak of the pandemic and the school disruptions further contributed to inequality of opportunities and deprivations in the means of support provided to vulnerable and at-risk children, which makes it harder for children belonging to poor families to break the intergenerational transmission of inequality (UNDP, 2019 and 2020).

Education changed dramatically during the COVID-19 pandemic with the distinctive rise of e-learning methods, whereby teaching is undertaken virtually and on digital platforms. Despite the benefits of e-learning, some countries were not able to benefit from the online education shift due to huge challenges such as Internet access, login problems, and installation errors (Dhawan, 2020). The pandemic is not only expected to increase inequality among countries but also within countries, where the stock of skills and learning outcomes of children is formed by their individual characteristics, family, and schooling inputs (Reimers et al., 2021). For example, a seven-month closure plan was applied for schools in Chile, and children belonging to the lowest income quintile families lost up to 95 percent of what they had learned in an academic year compared to 64 percent of children from the highest income quintile (World Bank, 2021).

Among the scant body of evidence assessing the impact of COVID-19 on learning outcomes across the globe, the findings were nearly similar across developed and developing countries. In Switzerland, Tomasik et al. (2021) show that the heterogeneity of learning outcomes was significant for primary students, with higher learning outcomes achieved during face-to-face learning compared to online learning, and that it was insignificant for secondary students.

In Germany, Grewenig et al. (2021) attempt to compare the impact of COVID-19 among low- and high-achieving students. The findings show that low achievers are 13 percent less likely to attend their online lessons compared to high achievers and 10 percent less likely to have direct contact with their teachers. The parents of low achievers spend 0.3 hours less with them per day in learning activities compared to high achievers. Moreover, students' access to the new online learning system is subjected to inequality of opportunity, where students with no university-educated parents are 12 percent less likely to attend their online classes more than once a week and 15 percent less likely to have contact with their teachers. Boys spend 0.5 hours less per day learning compared to girls, which may lead to a "boy crisis" in the future. In Georgia, Basilaia and Kvavadze (2020) show that computer ownership in rural areas is less than 50 percent, which may increase inequality in education among rural and urban areas. Drane et al. (2020) show that children suffer from unequal access to education due to their parents' vulnerable economic situation in Austria. During the lockdown, parents were facing another challenge, as expenses on Internet access reached 30 percent of the incomes of the lowest income quintile of families, and 10 percent of families lost their jobs due to economic instability. In Poland, Rizun and Strzelecki (2020) attempt to examine the factors influencing students' use of a new online education system using the partial least squares method. The findings show that students' attitudes toward the use of technology are the strongest factor in determining their intention to commit to online learning. Integrating students on the usage of online platforms depends largely on their ICT skills and their perceived ease of their ability to employ different technological tools. Thus, self-efficacy plays a major role in encouraging students to use technology in their educational path.

As for developing countries, the literature shows that most of the students in low- and middle-income countries suffer from anxiety related to their incapacity to use ICT skills. In India, Dutta (2020) shows that 80 percent of students suffered from stress and depression after switching to online learning. As for Pakistan, Qazi et al. (2021) attempt to investigate students' readiness to use online learning. The findings show their readiness to use e-learning if Internet access is easier and if they are trained to use the new platforms to increase their experience. Self-efficacy and enjoyment of technology use positively affect engagement with online learning in Vietnam (Bui et al., 2020). In examining the readiness of teachers, Azhari and Fajri (2020) confirm that teachers need urgent technical training and the ICT skills required for the online learning process. Moreover, online learning is a function of students' awareness, parents' help, household income, and access to the Internet.

To our knowledge, there is scant work on the impact of COVID-19 on educational outcomes in the Arab region using national representative data. El Refae et al. (2021) find that the

academic performance of students in the face-to-face learning process is lower compared to online learning in the United Arab Emirates.

Focusing on our case study, Jordan already suffered from high education inequality prior to COVID-19 (Rizk and Rostom, 2021; Assaad, Hendy, and Salehi-Isfahani, 2019; Assaad and Krafft, 2015; Krafft and Alawode, 2018; Hendy and Mimoune, 2021). In exploring the COVID-19 effect on education in Jordan, mixed results are found. Alsoud and Harasis (2021) report low accessibility to online classes due to several reasons, including anxiety, poor Internet connection, and no separate rooms for attending classes. AlSalman and Haider (2021) confirm that the challenges of using e-learning differ according to the field of university specialization. On the other hand, Jaradat and Ajlouni (2021) reveal that students preferred online courses rather than face-to-face classes. According to AlOkaily et al. (2020), students tend to accept more e-learning to avoid the risk of getting infected with COVID-19.

2. Methodology

The paper attempts to answer questions about how children's education is influenced by school closures implemented due to the COVID-19 outbreak. To estimate the drivers of children's probability of using different learning methods during the pandemic lockdown, the probit model for binary outcomes is adopted. With regard to the outcome variables to be evaluated (represented by five alternative variables: online television, online education, books, family help, or in-person education), each outcome variable takes the value of one if the child is using the learning method and zero otherwise.

The specification of the model is as follows:

$$Pr(Y_{it} = 1|X_{it}) = Pr\left(\varepsilon_{ijt} < \beta X_{it}\right) = F(\cdot) \quad (1)$$

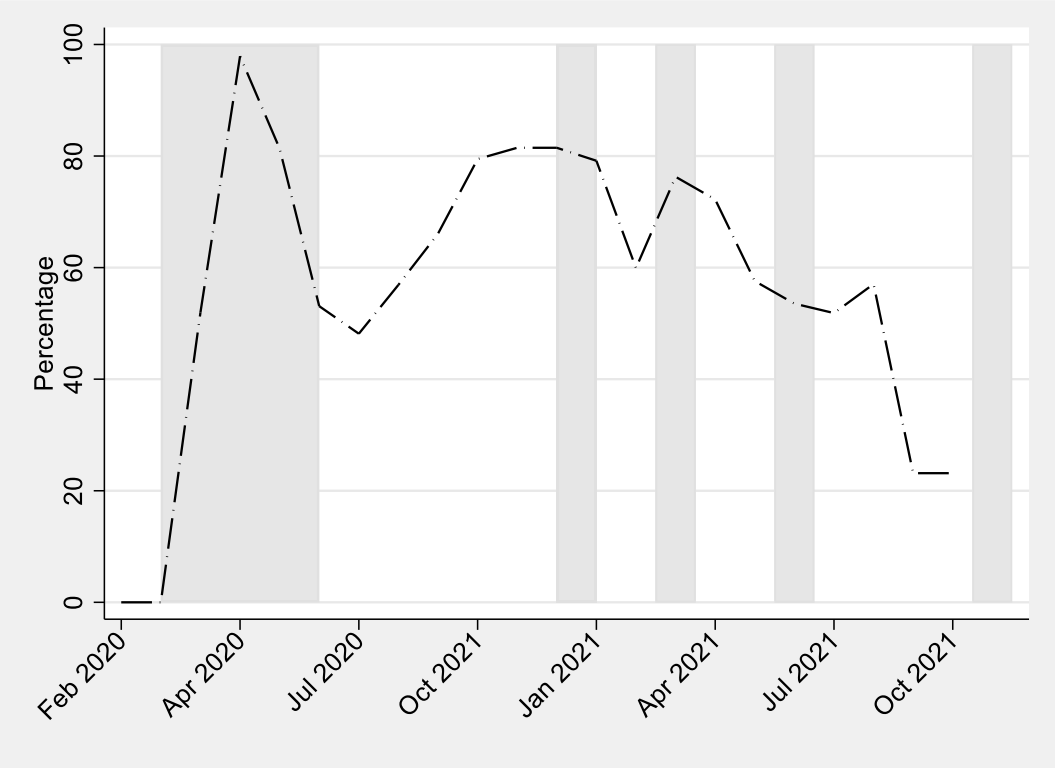
Here, $F(\cdot)$ stands for the standard normal cumulative distribution function of model errors ε_{it}. X_{it} is the set of independent variables included in the model namely nationality, region, sex, income of household, and both the education and employment status of the respondents.

3. Data

The data derived from the COVID-19 MENA Monitor are provided by the ERF[4] for Jordan. The paper will consider the last wave (4) for Jordan, and it includes 2,503 respondents. The survey provides detailed information on household demographic characteristics, employment status, education, and social safety nets. This is in addition to information on the schooling methods used by children during school closures, which are the principal outcomes of the paper to examine the consequences of COVID-19 on educational inequalities. For the purpose of the paper, the sample is restricted to 1,592 households who reported having children enrolled in school to examine children's educational attainment through innovative and traditional learning methods in Jordan. Out of 1,592 respondents, 49 percent are women, 80 percent are living in urban areas, 75 percent are Jordanians, and 23 percent are Syrians.

[4] http://www.erfdataportal.com/index.php/catalog/222

Figure 1. Stringency index and school closures in Jordan



Source: Author's calculations.

Note: The shaded areas show times of school closures in Jordan. The stringency index is represented by the line.[5] Each point on the graph represents the mean of the monthly stringency index collected daily.

Figure 1 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. Jordan was among the countries adopting the most stringent full-scale lockdown measures in the Arab region. The stringency index reached almost 100 percent since the government restricted people's movement and allowed them to leave the house only during specific times to 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 fast. 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. 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. However, over the year, the government gradually loosened its stringency measures. Compared to other countries, Jordan had the highest frequency of school closures in

[5] Data 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, and 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.

2021, particularly because the government was able to bring schools home. The Ministry of Education established an online platform ("Darsak") to allow students from grade 1 to grade 12 to follow their classes virtually. Moreover, the ministry also broadcast the classes on TV for 148 days after school closures (World Bank, 2021). Jordan subsidized Internet costs and institutionalized the transfer of online learning through television channels with free access (Alshoubaki and Harris, 2021). In the data, there are five categories for the methods of learning: educational TV, online education, books and written materials, help from parents (or any other person in the family), and in-person education. One of the limitations is that the sample size is small.

Table 1 in the Appendix illustrates the household characteristics and how they are related to learning tools during the pandemic. It is noticeable that 79.5 percent of households reported using online education for their children, while 23.7 percent reported using online television. On the other hand, 77.6 percent of the households reported receiving help, 56.3 percent reported using books and written materials, and only 11 percent reported in-person education. Online education, offering help, and using books are the most common tools among highest income quartile families with respondents who are wage workers with secondary education and above.

On the other hand, online TV and in-person education are more common for the lowest income quartile families located in rural areas. In regard to online TV, respondents are more likely to be self-employed and have secondary education, with the greatest share going to the migrants. For in-person education, respondents are more likely to be Jordanian with less than basic education or out of the labor force.

4. Empirical results

The education model discusses the net effects of various factors on the usage of different learning methods adopted during the COVID-19 school closure in Jordan based on the multivariate regressions represented in Table 2. For both online education and books, there is a large impact on both household income and respondents' education level. Households belonging to the highest income quartiles are more likely to use online education and books during school closures. Compared to Jordanian respondents, Syrians are more likely to use online education. Moreover, having a secondary-educated respondent in the household significantly increases the probability of using online education and books during school closures. It is also noteworthy that as the education levels of respondents increase, families are more likely to provide additional help for their children during the school closure. Respondents who reported to have helped their children are more likely to be Palestinian.

Compared to urban areas, households located in camps are less likely to use television education with their children during the school closure, and respondents are less likely to be females and less likely to be out of the labor force. In-person education is more common among Jordanians and respondents are more likely to be unemployed or out of the labor force.

Families play a very crucial role in assisting their children with accessing online platforms, reading written materials, or with schoolwork. This sheds light on the unequal assistance received by children based on their family background. There is clear evidence that a family's socioeconomic background is an important factor in performing at school during the pandemic. Low household wealth and parents' education are more likely to limit students' ability to use online education, books and written materials, or receive any family help.

5. Concluding remarks and policy recommendations

In the initial stages of the outbreak of the pandemic, the impact on school children was unprecedented in Middle East and North Africa (MENA) countries. All countries adopted very restrictive regimes with respect to closures and gathering restrictions, with Jordan having the most stringent regime (Krafft, Assaad, and Marouani, 2021b). School closures and moving classes and teaching to be online required more family support and Internet accessibility, which further contributed to the vicious circle of inequality of opportunities and outcomes that children might face. The lack of enhanced capabilities, such as access to the Internet at home in addition to parental support that shapes children's learning might make it harder for millions of children to break the intergenerational transmission of inequality (UNDP, 2020 and 2019). In addition, income inequality in Jordan might witness a huge increase due to the deterioration of vulnerable groups (UN, 2020; Cefala et al., 2020).

This paper examines the socioeconomic status of households using different educational tools during the COVID-19 school closures. Families play a very important role in helping their children use online platforms and books. The usage of online education and receiving parental help contributes 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.

Government efforts should be directed toward formulating ICT literacy programs so that adults are trained to use the Internet and access their children's e-learning platforms to potentially help them with their schoolwork. Moreover, schools need to offer clear guidelines for the use of the Internet and online platforms for teachers and design training programs on high-quality ICT skill practices (Toquero, 2020). Schools and universities should also provide online mental health services for students experiencing stress and anxiety.

One of the limitations of this paper is the inability 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.

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Appendix

Table 1. Education methods during the COVID-19 lockdown (percentages), Jordan

	Online TV			Online education			Books			Help			In person		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Region															
Urban	27	19.4	23.7	80.6	80.4	80.5	56	55.9	56.1	79.5	72.4	76.2	10.1	11.3	10.7
Rural	38	10.7	25.5	64.9	80.2	72	58	58.3	58.4	79	61.5	70.9	8.2	18.5	13
Camp	17	8.7	11.6	72.1	79.4	76.7	16	68.3	49.3	98.3	67.8	78.8	0	10.2	6.5
Nationality															
Jordanians	28	15.8	22.6	77.7	80.5	79	55	57.2	56.2	78.7	73.1	76.1	11.2	12.7	11.9
Palestinians	32	33.7	32.7	82.7	61.9	76.8	56	90	65.5	97.3	90	95.3	0	14.3	4.1
Syrians	28	27.9	28	84.4	82.5	83.4	63	47.3	54.2	77.8	57.5	66.3	3.5	8.8	6.5
Income															
< 260 JOD	33	24.8	28.4	72.1	74.3	73.4	50	50.7	50.5	78.2	63.7	69.8	13.5	13	13.2
260-less than 420 JOD	30	16.9	24.5	77.3	81	78.9	55	54.4	54.9	74.9	73.2	74.2	7.6	11	9.1
420-less than 660 JOD	22	10.3	17.5	80	82.3	80.9	60	57.2	58.7	86.9	77.1	83.1	13.5	11.6	12.8
660 or more JOD	26	6.2	18.9	91.9	95.7	93.3	65	73.9	68.3	89.2	77.5	84.9	7.4	15.2	10.3
Don't know/ refused	21	26.7	25	63.2	78.2	73.6	36	69	58.9	52.8	74.6	67.9	2	9.4	7.1
Respondent's education															
Less than basic	23	29.4	26.4	76.9	70.1	73.4	49	45.1	46.8	74	46.6	59.6	11.7	14.3	13
Basic	30	18.8	25.6	75.5	73.2	74.6	57	52.9	55.6	76.5	75.2	76	7.6	11.4	9.1
Secondary	40	16	28.2	83.5	88.1	85.8	69	66.1	67.8	84.2	80.2	82.2	8.7	12.3	10.5
Higher education	22	8.6	15.6	81	90.6	85.8	50	63.3	56.6	85.2	83.3	84.2	12.2	10.5	11.4
Respondent's emp. stat.															
Self-employed	47	45.4	47	79.8	62.3	77.6	56	38.9	54	88.7	52	84.1	1.6	10.5	2.7
Wage worker	28	5.5	23	81.1	84.3	81.8	56	82.4	62	80.2	88.4	81.9	4.6	14.6	6.8
Unemployed	33	22.1	29.1	60.2	76.3	66.2	50	58.7	53.2	75.5	66	71.9	12.2	10.7	11.7
OLF	25	18.8	20.4	81.3	80	80.3	68	52.6	56.1	71.3	68.8	69.4	19.7	12.1	13.9
Total	29	18.1	23.7	78.7	80.3	79.5	56	56.5	56.3	79.6	71.1	75.6	9.8	12.1	10.9
N	814	778	1,592	814	778	1,592	814	778	1,592	814	778	1,592	814	778	1,592

Table 2. Regression for the probability of attaining education during the COVID-19 pandemic

	TV (1)	**Online** (2)	**Books** (3)	**Help** (4)	**In person** (5)
Sex (male omit.)					
Female	-0.099*	0.026	0.009	-0.023	-0.009
	(0.044)	(0.047)	(0.055)	(0.051)	(0.037)
Region (urban omit)					
Rural	-0.001	-0.078	0.007	-0.031	0.025
	(0.055)	(0.055)	(0.060)	(0.053)	(0.044)
Camp	-0.201***	-0.003	-0.050	0.031	0.003
	(0.039)	(0.129)	(0.156)	(0.116)	(0.081)
Nationality (Jordanian omit.)					
Palestinians	0.261	-0.168	-0.028	0.190**	-0.081*
	(0.171)	(0.126)	(0.174)	(0.060)	(0.041)
Syrians	0.029	0.112**	0.085	0.041	-0.071*
	(0.059)	(0.042)	(0.063)	(0.055)	(0.036)
Income (< 260 JOD omit.)					
260-less than 420 JOD	-0.022	0.000	0.014	-0.041	-0.058
	(0.052)	(0.051)	(0.059)	(0.048)	(0.037)
420-less than 660 JOD	-0.090	0.036	0.096	-0.009	0.014
	(0.055)	(0.061)	(0.070)	(0.058)	(0.048)
660 or more JOD	-0.073	0.158**	0.202**	-0.029	-0.001
	(0.076)	(0.056)	(0.075)	(0.070)	(0.057)
Don't know/ refused	0.012	-0.021	0.072	-0.052	-0.076
	(0.113)	(0.107)	(0.112)	(0.099)	(0.052)
Respondent's education (< basic omit.)					
Basic	-0.015	0.054	0.134	0.198**	-0.022
	(0.067)	(0.070)	(0.075)	(0.073)	(0.051)
Secondary	0.008	0.154*	0.231**	0.267***	-0.025
	(0.074)	(0.071)	(0.076)	(0.074)	(0.051)
Higher education	-0.106	0.132	0.077	0.259**	-0.006
	(0.076)	(0.077)	(0.091)	(0.084)	(0.052)
Respondent's emp. stat. (self emp. omit.)					
Wage worker	-0.174	0.022	0.051	-0.048	0.030
	(0.090)	(0.078)	(0.089)	(0.073)	(0.023)
Unemployed	-0.147	-0.082	0.013	-0.107	0.088*
	(0.091)	(0.079)	(0.091)	(0.074)	(0.042)
OLF	-0.182*	0.018	0.021	-0.131	0.117***
	(0.089)	(0.076)	(0.088)	(0.075)	(0.033)
N (Observations)	**1325**	**1325**	**1325**	**1325**	**1325**

Source: Author's calculations based on the ERF COVID-19 Monitor Survey for Jordan, June 2021.

Notes: Regressions for probability are based on probit models. Marginal effects are presented here.

Reference values are the probability when all categorical covariates are set to the reference, omitted category.

* p<0.05

** p < 0.01.

*** p <0.001.