COVID-19 vs. UPG: Evidence From the 2007 Cohort in Bangladesh

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1 Introduction

The COVID-19 pandemic has had far-reaching economic consequences beyond the spread of the disease itself, leading to a huge increase in poverty around the world. While most people have been affected by the disruption in social and economic activities, the poorest and the most vulnerable households in low-income countries have experienced the hardest hit. According to the World Bank (2021), COVID-19 pushed between 119 and 124 million people into extreme poverty in 2020 and 154 million by 2021, the largest share (about 50%) of whom resides in South Asia. The effect of COVID-19 on extreme poverty is two-pronged—the pandemic made it more difficult for the extreme poor to come out of the poverty trap while pushing some of the vulnerable non-poor below the extreme poverty line. This is particularly pronounced in countries like Bangladesh, where an additional 22.9% of the population fell below the poverty line (Rahman et al., 2020).

In normal condition, BRAC's flagship graduation approach aiming to alleviate poverty was proven to be highly successful at giving the poorest women in some of the poorest areas of Bangladesh the tools to escape the poverty trap (Balboni et al., 2021; Bandiera et al., 2017). Pilots of the UPG program have shown that its effectiveness can be replicated in diverse settings (Banerjee et al., 2015; Banerjee et al., 2018). The question we tackle here is whether these improvements are robust to systemic shocks such as COVID-19. Our paper investigates the impact of the pandemic on the 2007 cohort of beneficiaries of BRAC's Ultra-Poor Graduation (UPG) program in rural areas of Bangladesh.

Though contact numbers were available only for the beneficiaries, we used the findings of Balboni et al. (2020) to compare two groups—above the poverty threshold and below the poverty threshold—that benefited to a different extent.[1]

Balboni et al. (2020) show that the program allows about two-thirds of the beneficiaries to escape the poverty trap. Indeed, due to increasing returns to scale at low levels of productive assets, only beneficiaries who had sufficient assets at baseline managed to start and maintain successful businesses. This gave us an ideal comparison group; namely, we compared individuals who start out above the threshold and escape the trap to those who start out below and return to poverty.

Secondly, we compared the resilience of the younger participants to the older group. Evidence shows that younger participants are more likely to utilize the asset more efficiently, while the older participants face difficulties to nurture the productive asset and generate profits.[2] Balboni et al. (2020) also show evidence of a life cycle so that beneficiaries start liquidating assets after their 45th birthday. Since they were treated 13 years ago, those older than 32 years at the treatment date would have started decumulating assets.

In this paper, the outcomes of interest are occupation and migration. We categorize the occupations into five groups: salaried labour, agricultural business, non-agricultural business, casual labour, and other jobs. We report salaried labour, agricultural business, and non-agricultural business as good jobs, while casual labour and other jobs are considered as a comparison group for good jobs. We find that the

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[1] Balboni et al. (2020) identify this threshold and show that the households with a starting level of productive assets below that threshold are trapped in poverty.

[2] Researchers at the BRAC Institute of Governance and Development (BIGD) show that the program's impact on income is significantly lower for participants who are 50+ years old compared to those who are below 50. These findings were internally presented to BRAC's UPG program team.

participants above the poverty threshold are more likely to have good jobs and productive assets, including land, livestock, poultry, and goats, at the beginning of the pandemic. Interestingly, the participants above the threshold are more likely to keep good jobs during the contemporary economic crisis. The graduation approach helps to move from casual labour to self-employment in livestock rearing and land cultivation (Lohnert and Sabarwal, 2020).

Evidence also shows that agricultural activities are least affected by the COVID-19 pandemic. Particularly, COVID-induced income loss in the agriculture sector is lower compared to other sectors, such as transport, service, etc. (Rahman et al., 2020).

Likewise, we find that the younger participants are more likely to keep their good jobs during COVID-19, which is in line with the interaction between the program and lifecycle documented above.

On migration, we find that UPG beneficiaries who successfully escaped the poverty trap are less likely to suffer from COVID-induced migration—one of the responses to an increase in job loss. Members of households above the poverty threshold are less likely to migrate in and out of their villages during this pandemic. In this situation, the graduation approach seems to be effective to ensure job security for their household members. It may be because the members of the participants households have good jobs at their designation; hence, they did not need to come back to their villages. On the other hand, the current members of the participant households, even in this economic crisis, can afford to stay in villages because of the economic solvency and job security in their villages brought by the program support.

Our paper complements the results of a handful of studies that aim to assess whether this graduation program can protect the ultra-poor households to cope with this novel shock (Lohnert and Sabarwal, 2020; Schelzig and Jilani, 2021). While evaluating this graduation program in Bihar, Lohnert and Sabarwal (2020) show that its self-employment approach plays a vital role in dealing with economic shocks. Moreover, because of the community engagement feature of this program, its participants are also more likely to access government and other societal and community institutions to seek help to meet their needs in any crisis period. The graduation approach provides a holistic support package to help households build resilience even during economic crises. Schelzig and Jilani (2021) also show that the graduation program in the Philippines strengthened the participants' resilience in several dimensions, including financial security, food security, and mental health. They also show that the graduation program's support, coupled with government cash support, enhances the participants' resilience compared to those who only receive the government cash transfer.

The rest of the paper is organized as follows: In Section 2, we discuss the data and context, followed by the overview of the BRAC's UPG program in Section 3. Our findings on the graduate participants' resilience in terms of occupations and migration are presented in Sections 4 and 5, respectively. Finally, Section 6 includes the concluding remarks of this report.

2 Data and Context

2.1 COVID-19 Response Survey

In 2007, a randomized controlled trial (RCT) was designed for the 2007 cohort of BRAC's UPG program to assess the impact of this multifaceted graduation program on the livelihoods of the poorest community. Till now, this RCT's samples have been surveyed five times in 2007, 2009, 2011, 2014, and 2018. After the global pandemic broke out, we, in collaboration with BRAC's UPG program team, planned to reach out to the 2007 cohort's beneficiaries, who were also part of the RCT, to understand the resilience of the UPG program's graduate households to cope with this unprecedented crisis. The BRAC team was able to collect mobile phone numbers of 3,347 out of 3,514 beneficiaries who were successfully revisited in the last follow-up survey in 2018. Then, from 17 October to 6 November 2020, we carried out a telephone-based survey on these 3,347 participants to collect the required information.

As reported in Table 1, the attrition rate was 15%. What is key is that only 2% did not give consent to participate in the survey; the remaining 13% could not be surveyed because of technical issues with their phones.

Table 1: Attrition and Reason for Attrition

	Mean	SD
Found the correct household and responded (% of participants)	84.55	36.14
Not the original household/wrong number (% of participants)	2.66	16.09
Did not answer the phone (% of participants)	1.91	13.70
Did not find the respondent (% of participants)	1.02	10.03
Phone switched off/sim off (% of participants)	7.95	27.05
Did not give consent (% of participants)	1.91	13.70
Observations	3,347	

Based on our earlier surveys dedicated to measuring the impact of COVID-19, we expect this to impact the following aspects: jobs; productive assets, including land, livestock, and poultry; welfare (consumption expenditures); and migration. Thus, we collected information on household and beneficiaries' employment and earnings, households' productive assets, food consumption, consumption expenditures, migration, and the household members' demographic profile. We also collected recall information on the occupation and assets to understand their economic conditions at the beginning of the COVID-19 pandemic.

2.2 The Ultra-Poor Graduation Program

Previously known as Targeting the Ultra-Poor (TUP), BRAC designed and implemented the UPG program to reach the very poorest women in rural Bangladesh who are not targeted by other forms of assistance.

Pre-randomized, eligible households are selected by BRAC officers from the list of poor households produced by a village participatory wealth ranking.[3]

The UPG program has gone through many iterations and modifications over the years, as it has continued to gain a better understanding of the ultra-poor and their changing surroundings. Our report focuses on the 2007 cohort. At that time, to qualify for the program, the household needed to have an able adult woman present, not be borrowing from a microfinance organization or receiving transfers from government anti-poverty programs, and meet three out of five inclusion criteria. Eligibility is not conditional on participating in other BRAC activities. The program targeted the leading woman in eligible ultra-poor households. It offered the women a menu of assets, each of which can be used in an income-generating activity. These assets include livestock and those relevant for small-scale retail operations, tree nurseries, and vegetable growing. Each asset is offered with a package of complementary training and support.

All the offered asset bundles are similarly valued at USD 560 in purchasing power parity (PPP) terms. The scale of asset transfers corresponds to a near doubling of baseline wealth for the ultra-poor, values that are far higher than households could borrow through informal credit markets. All eligible women chose one of the six available livestock asset bundles from the asset menu and 91% of them chose an asset bundle containing at least one cow. Before the intervention, the value of livestock owned by 47% of the ultra-poor households with either a cow or a goat at baseline was just USD 49.70.

Assets were typically transferred one month after choices were first made. Eligible households were encouraged by BRAC to retain the transferred asset for two years, after which they could liquidate it. The associated support and training package were also valued at around USD 560 per beneficiary. This component comprises initial classroom training at BRAC regional headquarters, followed by regular assistance through home visits. A livestock specialist visited eligible households every one to two months for the first year of the program, and BRAC program officers provided weekly visits for two years after the transfer. As the ultra-poor have limited experience with large livestock (particularly cows), this assistance was designed to cover the life cycle of livestock. Ultimately, this training component is intended to mitigate earning risks from working with livestock and to increase the overall return to livestock rearing.[4]

To empower ultra-poor women along non-economic dimensions, the program also provided health support and training on legal, social, and political rights. The program set up committees made up of village elites to support the program recipients and deal with any conflicts and problems the recipients encounter. Finally, the program encouraged the recipients to save with BRAC during the program and

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[3] For the participatory wealth-ranking exercise, villages were asked to rank all households into wealth bins and reach a consensus on the wealth class of each household. People who own sufficient amounts of land; have a salaried job; live in a tin or paddy sheaf house; own cows, goats, or other livestock; or own a power tiller, rice mill, and so on, were considered wealthy. People who are landless and own nothing outside their homestead; work as casual labourers, small traders, or beg; do not own any livestock or assets; and live in straw houses were considered to be poor (BRAC, 2004). Alatas et al. (2012) show that compared to proxy means tests, participatory methods result in higher satisfaction and greater legitimacy.

[4] Training is designed to help women maintain the animals' health, maximize the animals' productivity through best practices relating to food and water, learn how to best inseminate animals to produce offspring and milk, rear calves, and bring produce to the market. The training is sufficiently long-lasting to enable women learn how to rear livestock through their calving cycle and across seasons.

borrowing from BRAC Microfinance at the end of the program, but neither was a precondition to obtaining the asset-training bundle.

The evaluation for the 2007's cohort includes labour markets in 1,309 villages in Bangladesh's 13 poorest districts. These districts were chosen by BRAC to implement the UPG program based on food security maps of the World Food Programme (WFP). The sample is drawn from two randomly selected sub-districts in each district, containing 40 BRAC branches that serve the 1,309 villages where the evaluation takes place.[5]

To select the sample for the evaluation, Bandiera et al. (2017) conducted a census of the 99,775 households in the 1,309 villages. To draw a sample for the baseline survey, we combined these data with information on household wealth, derived from a participatory wealth ranking organized by BRAC in each village. This exercise places all households into one of several wealth bins corresponding to the poor, middle, and upper classes. Before randomization, BRAC officers used inclusion and exclusion criteria to further subdivide the poorer households into the ultra-poor, who are eligible for the UPG program, and the near-poor, who are not. The four wealth classes account for 6%, 22%, 59%, and 14% of the village populations, respectively (Bandiera et al., 2017). Overall the sample, excluding the COVID survey wave, covers over 21,000 households in 1,309 villages, of which over 6,700 are ultra-poor.[6]

It is also reported that inequality in asset holdings across the village wealth distribution is much more marked than inequality in consumption. The upper classes in the villages are distinguished mainly by owning more assets, particularly agricultural land. The ultra-poor, in contrast, have negligible asset holdings. These characteristics of ultra-poor women, combined with the fact that they have a median age of 40 and an average of one dependent child below the age of 10, imply that they are likely to be captive in these village labour markets. Migration to other labour markets in towns and cities is unlikely to be a possibility for the majority of the ultra-poor women. In common with many ultra-poor women around the world, they have to choose from the work activities on offer within the villages where they currently reside.

Bandiera et al. (2017) find that the UPG program is effective in helping ultra-poor women and their households in escaping extreme poverty. The extreme poor have almost no productive endowment except their labour with low returns and irregular demand for their labour. As the program provides productive assets, predominantly livestock, to these households, the women labour supply of the households increases significantly, mainly because of their work with the productive asset. Consequently, their employment becomes more regular. After four years, the working hour increases by 17% and the annual working day increases by 22% compared to the control group. This suggests that the poor had idle labour capacity, which they were able to successfully combine with the bundled asset-

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[5] There is a concentration of study sites in the northern part of the country. This is because this is the poorest and most vulnerable region, often referred to as the *monga* or famine region (Bryan, Chowdhury, and Mobarak, 2014). Our evaluation is representative of the areas in which the nationwide UPG program was scaled up after 2007.

[6] Bandiera et al. (2017) confirmed that the participatory-ranking exercise was successful in identifying the poorest households: 53% of the households identified as ultra-poor are below the USD 1.25 a day poverty line, and the corresponding figures for the near-poor, middle, and upper classes are 49%, 37%, and 12%, respectively. Due to BRAC's targeting strategy, the primary woman is the sole-earner in 41% of the ultra-poor households, whereas this only occurs in 25%, 14%, and 12% of near-poor, middle, and upper-class households, respectively. Illiteracy is also much higher for ultra-poor women; they are largely assetless and are much less likely to own land than wealthier households, i.e. near-poor, middle-class, and upper-class households.

skills transferred by the program. Consequently, they experience a 21% increase in earnings after four years; this allows them to accumulate further productive assets and set off on a sustainable trajectory out of poverty.

3 Poverty Thresholds

The UPG program's evaluation shows that the program is very effective for the average beneficiary but not every beneficiary gains to the same extent. In particular, Balboni et al. (2021) discovered a link between pre-intervention/baseline's poverty threshold and probability of escaping poverty, such that households with a starting level of productive assets below that threshold are trapped in poverty, and those who are able to cross the threshold accumulate capital and eventually escape poverty. The one-off transfer of the productive asset, such as livestock, pushes the ultra-poor households beyond the threshold and allows them to employ more labour in productive activities. Exploiting small variation in initial endowments, the researchers estimate that if the program pushes individuals above a threshold level of initial assets, then they escape poverty, but if it does not, they slide back into it. In the 2007 cohort, the transfer was sufficient to push 2/3 of the beneficiaries above the threshold, while 1/3 slid back into poverty. Table 2 shows that 13 years after the transfer, these two groups still differ: beneficiaries above the threshold are more productive assets, especially land and livestock. They are more likely to run small businesses or hold a salaried job rather than a casual job. In what follows, we will use the group of beneficiaries below the threshold as "control" and those above as "treated" because, effectively, the program benefits the latter but not the former.

4 Jobs

The UPG program aims at ensuring sustainable livelihood through promoting self-employment. Exploring whether the poverty threshold affects the economic conditions, such as job quality, productive asset accumulation, we find that the participants above the poverty threshold are more likely to get good jobs at the beginning of COVID-19. We categorized salaried, agricultural, and non-agricultural activities as good jobs. Table 2 also shows that the participants above the poverty threshold are also more likely to accumulate productive assets, including land, livestock, poultry, and goats, at the beginning of this pandemic.

Table 2: Job Quality and Assets Before COVID-19

	Good job	Log assets	Land	Livestock	Poultry	Goats
Above poverty threshold	0.074	0.51	0.66	0.23	0.60	0.10
	(0.018)	(0.075)	(0.27)	(0.042)	(0.30)	(0.051)
Constant	0.27	3.58	3.76	0.58	4.63	0.61
	(0.013)	(0.053)	(0.19)	(0.030)	(0.22)	(0.037)
Observations	2,488	2,512	2,511	2,511	2,509	2,512

Note: Standard errors in parentheses. Land is measured in decimal. Salaried labour, agricultural, and non-agricultural businesses are categorized as good jobs.

In our sample, about 10% of the program participants reported losing their job during this pandemic.[7] To assess the importance of having good jobs, we estimate the correlation between good jobs and consumption expenditure, including food and non-food expenditures (Table 3). We also look at the correlation between job quality and productive assets in Table 4. The results show that losing a good job is significantly associated with lower consumption and lower asset accumulation, while losing other jobs, such as casual labour, is not significantly associated with consumption and asset accumulation.

Table 3: Job Quality and Consumption After COVID-19

		Vegetables	Meat	Eggs	Fish	Pulses	Milk	Fruit
Panel A: Good jobs	Job loss	-0.062	-0.21	-0.33	-0.45	0.18	-0.34	0.055
		(0.20)	(0.095)	(0.20)	(0.25)	(0.23)	(0.22)	(0.16)
	Constant	5.28	0.62	1.40	3.06	2.67	0.83	0.69
		(0.067)	(0.032)	(0.066)	(0.086)	(0.079)	(0.074)	(0.055)
	Observations	771	771	771	771	771	771	771
Panel B: Other jobs	Job loss	-0.15	0.034	0.035	-0.039	0.32	0.14	0.017
		(0.16)	(0.066)	(0.13)	(0.18)	(0.17)	(0.13)	(0.11)
	Constant	5.03	0.50	1.20	2.54	2.46	0.52	0.55
		(0.046)	(0.020)	(0.038)	(0.052)	(0.049)	(0.037)	(0.032)
	Observations	1,717	1,717	1,717	1,717	1,717	1,717	1,717

Note: Standard errors in parentheses. Salaried labour, agricultural, and non-agricultural businesses are categorized as good jobs. Other jobs include casual labour.

Table 4: Job Quality and Assets After COVID-19

		Log assets	Land	Livestock	Poultry	Goats
Panel A: Good jobs	Job loss	-0.96	-2.50	-0.61	-2.12	-0.48
		(0.18)	(0.79)	(0.10)	(0.56)	(0.13)
	Constant	4.34	4.99	0.85	3.98	0.67
		(0.062)	(0.27)	(0.036)	(0.19)	(0.043)
	Observations	771	771	771	771	771
Panel B: Other jobs	Job loss	-0.10	-0.11	-0.12	-0.091	-0.15
		(0.17)	(0.54)	(0.072)	(0.31)	(0.072)
	Constant	3.69	3.83	0.45	2.35	0.39

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[7] This statistics have not been reported in the table.

		(0.049)	(0.16)	(0.021)	(0.091)	(0.021)
	Observations	1,717	1,716	1,717	1,716	1,717

Note: Standard errors in parentheses. Salaried labour, agricultural, and non-agricultural businesses are categorized as good jobs. Other jobs include casual labour.

4.1 Comparison 1: Above and Below the Poverty Threshold

In Table 2, we report that being above the poverty threshold increases the probability of having good jobs. In this subsection, we document that the participants above the poverty threshold are significantly less likely to lose their jobs, especially good jobs, indicating that the resilience in terms of job-keeping comes from the state of being above the poverty threshold and having good jobs simultaneously. Table 5 shows that the probability of job loss is 50% higher for good jobs but this effect is completely offset by the program. In light of the findings above on the correlation between good jobs and assets, this implies that the program is successful in pulling people out of the poverty trap and, despite major shocks, keep them out.

Table 5: Job Quality and Job Loss During COVID-19

	(1)	(2) Job loss	(3)
Above poverty threshold	-0.017		-0.0053
	(0.012)		(0.014)
Good job		0.027	0.053
		(0.013)	(0.019)
Good job x Above poverty threshold			-0.044
			(0.026)
Constant	0.10	0.088	0.091
	(0.0084)	(0.0071)	(0.0099)
Observations	2,488	2,488	2,488

Note: Standard errors in parentheses. Salaried labour, agricultural, and non-agricultural businesses are categorized as good jobs.

The next question is what happens to non-food expenditures of the former graduate participants due to the COVID-19 pandemic. Table 6 delineates the association between job quality and consumption expenditures after the pandemic outbreak. The results show that non-food expenditures are not sensitive to the loss of either good jobs or other jobs. It may be because the reported non-food expenditures, for example, rent, medical, education, transport, and utility, are less elastic compared to the food expenditures for economically better-off households. Since our sample covers the program participants who are more likely to be better than any ultra-poor household, their demand for non-food expenditures might be more inelastic than food expenditures.

Table 6: Job Quality and Expenditure After COVID-19

		Food	Rent	Medical	Hospital	Education	Transport	Utility
Panel A: Good jobs	Job loss	-121.0	20.1	-152.2	203.1	-79.9	11.2	-11.2
		(63.8)	(20.2)	(168.1)	(119.2)	(58.4)	(37.1)	(32.6)
	Constant	1117.3	9.12	1137.7	114.9	230.8	178.1	195.4
		(21.7)	(6.85)	(57.1)	(40.5)	(19.8)	(12.6)	(11.1)
	Observations	771	771	771	771	771	771	771
Panel B: Other jobs	Job loss	-44.6	20.6	42.6	4.72	6.87	48.6	-0.42
		(55.6)	(22.3)	(204.3)	(82.2)	(38.6)	(29.9)	(20.6)
	Constant	1021.8	22.5	1117.9	96.6	148.6	161.8	147.6
		(16.5)	(6.62)	(60.6)	(24.4)	(11.4)	(8.86)	(6.12)
	Observations	1,717	1,717	1,717	1,717	1,717	1,717	1,717

Note: Standard errors in parentheses. Salaried labour, agricultural, and non-agricultural businesses are categorized as good jobs. Other jobs include casual labour. We collected data on weekly food expenditures and monthly non-food expenditures.

Looking at the funding sources of food and non-food expenditures disaggregated by job loss and job-keeping, we find that the participants who had jobs were more likely to use their family income for food expenditures, and those who lost jobs were more likely to use their savings. Jobless participants started using their savings to meet their food expenditures (Table 7).

Table 7: Funding Sources for Food Expenditures

	Job loss	keep job	Difference	P-value
Number of funding sources for food expenditures	1.71	1.79	0.0786	0.180
Family income (% of households)	78.33	89.95	11.6133	0.000
Savings (% of households)	16.25	10.19	-6.0632	0.004
Loan (% of households)	13.75	9.30	-4.4528	0.027
Selling asset (% of households)	5.83	6.76	0.9282	0.584
Food consumption reduction (% of households)	8.75	10.77	2.0151	0.335
Government support (% of households)	9.58	11.61	2.0270	0.348
Support from other sources (% of households)	20.42	21.49	1.0691	0.701
Store-credit (% of households)	14.58	14.90	0.3188	0.895
Observations	240	2,248		

Note: Multiple responses were allowed.

Meanwhile, to meet non-food expenditures, the participants who lost jobs were more likely to take loans and those who had a job were more likely to spend family income, as they reported for food expenditures (Table 8). Job loss increases dependency on savings to meet food expenditures and loans to meet non-food expenditures. It is an alarming sign of savings depletion and indebtedness.

Table 8: Funding Sources for Non-Food Expenditures

	Job loss	Keep job	Difference	P-value
Number of funding sources for non-food expenditures	1.67	1.68	0.0104	0.842
Household income (% of households)	74.58	87.50	12.9167	0.000
Savings (% of households)	15.83	12.28	-3.5558	0.115
Loan (% of households)	22.92	15.70	-7.2138	0.004
Selling assets (% of households)	9.58	8.14	-1.4428	0.441
Food consumption reduction (% of households)	5.42	5.69	0.2773	0.860
Government support (% of households)	7.50	9.88	2.3754	0.236
Support from other sources (% of households)	27.50	24.56	-2.9448	0.316
Other (% of households)	0.00	0.36	0.3559	0.355
Observations	240	2,248		

Note: Multiple responses were allowed.

4.2 Comparison 2: Above and Below Median Age

Physical strength is one of the vital factors in being economically active. Age appears to be a good instrumental variable to capture physical condition. The ability to do physical activities decreases with age. Particularly, the poorest women's physical strength depletes at a higher rate with age because of nutritional deficiency due to financial scarcity. As a result, they can not actively engage in any income-generating activities, such as livestock rearing, running shops, agricultural work, etc. Thus, it is worth exploring whether age can influence the probability of keeping the graduation program participants' good jobs.

Table 9 shows that younger program participants are less likely to lose their good jobs. Suppose the participant is younger than the median age of the program participants[8] and has a good job. In that case, they are more likely to keep their jobs during the pandemic. It also upholds the inclusion of age criteria as one of the pre-requisites for participant selection for the UPG program in Bangladesh.[9]

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[8] The median age of the program participants was 45 years during our survey.
[9] To be selected for the graduation program, the household income must be maximum USD 1.90 at PPP exchange rate and must have at least one member aged between 16 and 50 years. If the household does not meet the age criteria, the program verifies its eligibility for another group, referred to as Group 1. The asset transfer component includes livestock which demand less physical engagement.

Table 9: Quality Job Loss and Beneficiaries' Age During COVID

	(1)	(2) Job loss	(3)
Below 45 years old participants	0.021		0.037
	(0.012)		(0.015)
Good job		0.027	0.047
		(0.013)	(0.017)
Good job x Below 45 years old participants			-0.055
			(0.026)
Constant	0.089	0.088	0.076
	(0.0074)	(0.0071)	(0.0087)
Observations	2,488	2,488	2,488

Note: Standard errors in parentheses. Salaried labour, agricultural, and non-agricultural businesses are categorized as good jobs.

5 Migration

Migration is a big story in the COVID-19 context; both return and out-migration are taking place. Workers are losing their jobs in the cities and going back to the villages. Meanwhile, more people are leaving their native villages in search of jobs.

We find that 23% of the program participant households had at least one member who left the village since February 2020, while this rate is 15% for return migration. Female members are less likely to migrate in and out. The proportion of households with male out-migrants is about three times that of female out-migrants. Similarly, the ratio of households with male return migrants is about four times that of female return migrants (Table 10).

Table 10: Households With in- and Return Migrants

	Mean	SD
Households with at least one member leaving village since February (%)	22.93	42.05
Households with at least one male member leaving village since February (%)	16.08	36.64
Households with at least one female member leaving village since February (%)	5.20	22.15
Observations	2,512	
Households with at least one member returning village since February (%)	15.45	36.15
Households with at least one male member returning village since February (%)	12.35	32.84
Households with at least one female member returning village since February (%)	2.35	15.15
Observations	2,512	

Looking at the reasons for the return and out-migration, we find that 80% of the return migrants went back to their villages because of job loss (Table 11). Meanwhile, 82% of the out-migrants left the village for work purposes (Table 12). Economic activity appears to be a significant driving factor for migration.

Table 11: Reasons for Return Migration

	Mean	SD
Got fired from work (% of return migrants)	80.20	39.89
Came on break/leave (% of return migrants)	13.94	34.67
Did not have any work (% of return migrants)	5.86	23.51
Observations	495	

Table 12: Reasons for Out-Migration

	Mean	SD
Went to grandma or grandmothers house (% of out-migrants)	10.35	30.48
Work (% of out-migrants)	82.20	38.28
Separated household (% of out-migrants)	3.41	18.16
Went with husband (% of out-migrants)	0.38	6.15
To study (% of out-migrants)	0.88	9.37
To treatment (% of out-migrants)	0.25	5.02
To find work (% of out-migrants)	0.13	3.55
Went with parents (% of out-migrants)	1.89	13.64
Divorce (% of out-migrants)	0.13	3.55
To travel (% of out-migrants)	0.25	5.02
Due to pregnant (% of out-migrants)	0.13	3.55
Observations	792	

Table 13 shows that return and out-migration are negatively correlated with the poverty threshold. Members of participant households above the poverty threshold are less likely to migrate in and out. The effect comes from the male migrants who constitute the majority of migrants.

Table 13: Migration in and out (at Household level) and Above Poverty Threshold

Variables	(1) Household with out-migrants	(2) Household with male out-migrants	(3) Household with female out-migrants	(4) Household with return migrants	(5) Household with male return migrants	(6) Household with female return migrants
Above poverty threshold	-0.038	-0.049	-0.011	-0.027	-0.034	-0.002
	(0.017)	(0.021)	(0.013)	(0.014)	(0.018)	(0.007)
Constant	0.249	0.264	0.082	0.168	0.188	0.027
	(0.012)	(0.015)	(0.009)	(0.010)	(0.013)	(0.005)
Observations	2,512	2,512	2,512	2,512	2,512	2,512

Note: Standard errors in parentheses.

6 Conclusion

The success of BRAC's flagship UPG program in the eradication of extreme poverty is well-established. The specially designed graduation model that BRAC has been implementing since 2002 has been proven to lead to improvements in the targeted ultra-poor households' various dimensions with many sustained long-term effects. But considering the widespread and deep impact of COVID-19 on the economy and poverty, there is a valid concern that the pandemic may have reversed, if not completely wiped away, these achievements and that many graduated ultra-poor households have slipped back into extreme poverty.

Therefore, to understand the graduated UPG program participants' experience of the COVID-19 shock and recommend effective means of helping them cope with the crisis, we propose a survey on the 2007 cohort of the program. BRAC Institute of Governance and Development (BIGD) and the London School of Economics (LSE) have a long-standing research collaboration on the UPG program and have collected several rounds of panel data on the 2007 cohort spanning more than a decade (2007–2018). Through the current research, the joint research team from BIGD and LSE aim to i) understand how COVID-19 has affected the employment, earning, expenditure of the successful former UPG program participants' and their access to relief as well as needs and expectations to survive the economic crisis among other factors; and ii) recommend effective intervention design that BRAC and other organizations working with the ultra-poor population can implement for sustainable economic recovery.

Occupation and migration are the focus of our paper. We find that the participants, who successfully escaped the poverty threshold, identified by Balboni et al. (2020), are more likely to have good jobs, including salaried, agricultural, and non-agricultural work, and productive assets at the beginning of the COVID-19 pandemic. They are also more likely to keep good jobs during these unprecedented times. This is because of the graduation model's agenda to help the poorest community shift from casual labour to self-employment through livestock rearing and land cultivation, which are the least affected income-sources.

We also find that the younger participants are more likely to keep their good jobs during COVID-19, complementing the evidence on the program's lower impact on older participants.

Another intriguing finding is that job loss compels people to use their savings to meet food expenditures and take loans to meet the other expenditures. If continues, it will result in massive savings depletion and indebtedness in the near future.

Exploring the migration status of the former UPG program participant households, we find that those who successfully escaped the poverty trap are less likely to experience the agony of the COVID-induced migration, which is taking place worldwide as a desperate response to an increase in job loss. In this economic crisis, the graduation approach seems to be effective to ensure job security for their household members to stay back in their living places.

The former participants have better resilience if they can escape the poverty threshold and either has good jobs or are relatively younger. The graduation approach provides the strength to fight against the economic crisis; however, the participants need a big push in terms of wealth to avail the resilience power to cope with any financial uncertainty.

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