

COVID-19 crisis, school closures and schooling perceptions in Cambodia

Esther Gehrke * Friederike Lenel † Claudia Schupp ‡

October 1, 2020

PRELIMINARY DRAFT. PLEASE DO NOT CITE OR CIRCULATE.

Abstract

We investigate the implications of the COVID-19 induced school closure for grade nine students in Cambodia. Evidence from a phone survey conducted with 2,252 students in July and August of 2020 reveals that most students would like to return to school once they reopen and that most students reportedly kept studying during the crisis. Yet, students also seem to be working for a substantial part of the day, and only 25% of students report that studying was their main activity over the past 7 days. When exploring the determinants of students' vulnerability to stop studying during the crisis, we find that age, gender, parental education, paternal job security and the engagement of the teacher are particularly strong predictors of continued learning. We then analyze how these variables influence the students' perception of their future schooling and career path. Our results show that students who are more exposed to the COVID-19 crisis tend to look at the crisis more negatively and to evaluate their future schooling more pessimistically.

*Wageningen University, The Netherlands. E-mail: esther.gehrke@wur.nl

†University of Göttingen, Germany. E-mail: friederike.lenel@uni-goettingen.de

‡Corresponding author. Leibniz University Hannover, Germany, E-mail: schupp@glad.uni-hannover.de

1 Introduction

In March 2020 schooling was put to an abrupt halt in almost every country of the world. The rapid expansion of COVID-19 had forced countries around the globe to adopt severe measures to slow down the spread of the disease. When and how to reopen schools has been one of the many (hotly) debated questions associated with the pandemic. While schools in some countries have reopened slowly, they remain closed until today in many parts of the world. What implications this has, and will have in the future remains unclear for millions of children currently out of school.

Cambodia, the context of our study, has very soon set up a system of remote learning that was intended to give children the possibility of learning continuously throughout the period of school closures. This system consists of educational programs on television targeted to individual grades, complemented by a system of remote learning in which teachers are responsible for delivering new content and assignments regularly to their students.

At the same time, the government of Cambodia has been highly reluctant to reopen schools. Until July the main communication was that schools would remain closed for the entire calendar year of 2020, with the exception of administering the final exams of the students in grades 9 and 12 (scheduled for December 2020). On August 10, then, the government issued a notification that it would reopen schools for grade 9 and grade 12 students in September 2020 in order to allow these students to prepare for the final exam, which – if passed – allows ninth-graders to transition to High School and twelfth-graders to university.

In this paper, we document the implications of the COVID-19 related school closure for students of grade 9 in Northwest Cambodia. We use survey data to analyze three questions: 1) Is there a continuity in learning among grade 9 students? 2) Which factors predict a student’s vulnerability to interrupt studying during the crisis? 3) How does this vulnerability affect students’ perceptions about schooling and the future?

We find that most students in our sample report to be studying for school and hope to return to school once they reopen. Yet, 57% of all students reported to have worked in the last 7 days, and 50% of those for more than 6 hours per day. In line with this, only 25% of students report that studying was their main activity during the last 7 days, while 71% report to work for pay, for the family or in the household as their main activity. In terms of remote learning, our results suggest that by far most of the learning activities are guided by the teacher. We also find that parental education, paternal occupation and teacher engagement are strong predictors of continued learning. If, for example, the father is occupied in a sector that is particularly vulnerable to job or income losses, the student is less likely to report to have studied in the last week, and less likely to agree to the statement “During the COVID-19 school closure I keep studying for school”. Likewise, if teacher engagement is low (measured by the share of students per class that have not been in touch with the teacher in the past 7 days), students are more likely to interrupt learning activities. In terms of perceptions, we find that students more exposed to the COVID-19 crisis tend to look at the crisis more negatively, and to evaluate their future schooling more pessimistically. This also translates into a more pessimistic view on whether they will be able to achieve their educational

goals.

Our findings contribute to an emerging literature that seeks to understand the impact of the COVID-19 crisis on children. We are among the first studies to document the effect of the COVID-19 crisis on students in a developing country context, where the economic effects of the crisis are particularly severe and the pandemic threatens to push between 71 and 117 million people into extreme poverty (Lakner et al. 2020). At the same time, like many other developing countries, Cambodia is ill equipped to facilitate online learning, while large class sizes and insufficient equipment make returning to in-person teaching particularly challenging.

2 Background and Data

During Cambodia’s long period of internal conflict, the educational sector suffered considerably: schools and universities were closed, educated people fled the country or were systematically persecuted. As a consequence, education levels of adults are extremely low today – particularly in rural areas. This has severe repercussions on younger generations: students lack information and guidance about career paths, and educational aspirations are often set very low. Many students drop out during lower secondary school (grade 7-9) and do not manage the transition to High School (grade 10-12), which is typically farther away and more expensive in terms of transportation and schooling material. This scenario is particularly alarming when putting it in the context of a pilot study conducted in July 2019 during which we found that students’ professional goals map into jobs requiring (at least) a High School diploma.

We survey students of grade 9 from 56 schools in Northwest Cambodia. The schools are distributed across four provinces: Banteay Meanchey, Battambang, Oddar Meanchey, and Siem Reap, provinces that experience particularly high drop-out rates. Because we rely on the collaboration with the principal to receive access to students, we initially sampled 39 schools that had a partnership with Child’s Dream, one of our partner NGOs, and which had more than 30 students in grade 9. We additionally sampled 21 lower secondary schools from other districts in the same provinces that are similar in characteristics to the partner schools of Child’s Dream. Finally, we had to drop 4 schools that were not cooperating.

The selected schools are a non-random sub-sample of the universe of all school in Northwest Cambodia. The schools that are in the sample are slightly smaller than the average in rural Cambodia. On average there are about 1.95 grade 9 classes (88 grade 9 students) per school in rural Cambodia, while there are about 1.66 (76) in our sample.

Our data consists of a baseline survey conducted between February and March 2020, and a follow-up survey conducted via the phone between July and August 2020. The baseline survey was administered in 18 schools (20 classes) as part of an educational RCT, and had to be interrupted as schools were closed on March 16 due to the COVID-19 pandemic.¹ The survey was carried out with 782 students, and was largely self-administered on tablets.

¹More information about the RCT is available here: <https://www.socialscisceregistry.org/trials/5460>.

Table 1: Student, family & school characteristics (phone survey)

	mean	sd	min	max	N
Student and family characteristics					
Female	0.55	0.49	0	1	2,252
Age	15.66	1.13	13	21	2,252
Smartphone	0.85	0.36	0	1	2,252
Mother or father education < primary	0.63	0.48	0	1	2,252
School characteristics					
Teacher engagement (share of class reporting little contact)	0.29	0.13	0.06	0.68	2,252
Visits of parents to school (baseline only)	1.06	0.94	0	3	615
Distance to district town in km	12.46	9.53	0.07	41.16	53
Distance to border in km	31.76	34.67	0.46	102.29	53

The follow-up survey was conducted with students from 56 schools (78 classes of grade 9). Depending on class sizes, we either included all ninth-graders of one school or randomly selected one to two classes.² We conducted interviews via phone, and attempted to reach all students that were enrolled in grade 9 at the beginning of the school year (November 2019). Interviewers called students and guided them through the questionnaire, while recording answers on a tablet using Open Data Kit software. Questions are organized in five categories: 1) background information on student and family; 2) educational and career aspirations considering general constraints; 3) time use; 4) questions targeting the COVID-19 crisis and its impact on first two categories; and 5) lottery with the choice between one educational and one non-educational prize.

In order to minimize concerns about limited representativity of our phone-survey data, we restrict our data to 2,252 students from 53 schools (72 classes) with a class-wise response rate above 40%. The final response rate is 69% (44 - 92% per class). In the phone survey, we are able to reach 615 students from the baseline survey (attrition rate = 21%).

Table 1 shows summary statistics for student, family and school characteristics. Our sample has slightly more female than male students which are on average around 15 years old and of which 85% own a smartphone. For almost two thirds of the students, neither parent completed primary school. Regarding the students' own learning during the crisis, roughly 29% of the students per class report not having been in contact with the teacher in the last 7 days. For a subsample of students we observe how many times the parents visited the school in the last year: the average is 1.06, with a minimum of 0 and a maximum of three visits. It is, however, unclear if this measures parental engagement or signals a problematic student. It shows that parents come one time to the school during a regular school year. Average distances to the next district town are roughly 12km and to the border with Thailand 32km. The distribution of sample schools can also be seen in Figure 1.

The most prominent occupations of the parents are depicted in Table 2. Farmer, construction worker and business owner are by far the most popular jobs for both the father and the mother.

²We selected up to two classes instead of just one class in a sub-sample of 37 schools in which we intend to evaluate the outcomes of the RCT mentioned above.

Figure 1: Locations of schools in Northwest Cambodia

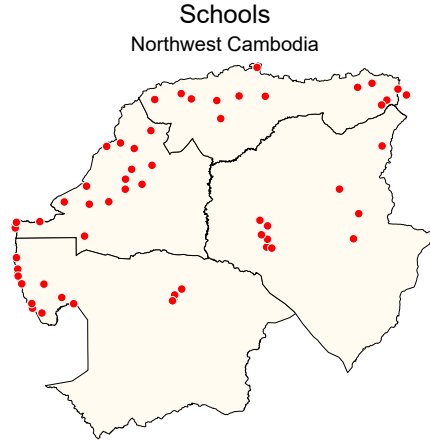


Table 2: Parental occupation before C-19 crisis

	Father		Mother		inc. at risk	job at risk
	N	pct.	N	pct.		
Farmer	1,147	54.72	1,153	58.47	0.63	0.04
Construction worker	295	14.07	160	8.11	0.76	0.29
Own business	181	8.64	400	20.28	0.78	0.09
Military/ Soldier	93	4.44	2	0.10	0.40	0.0
Government employee	55	2.62	11	0.56	0.54	0.03
Driver	50	2.39	2	0.10	0.87	0.36
Teacher	43	2.05	24	1.22	0.51	0.01
Garment factory worker	42	2.00	62	3.14	0.73	0.25
Agricult. laborer	40	1.91	39	1.98	0.81	0.43
Other	150	7.16	119	6.03		
Total	2,096		1972			

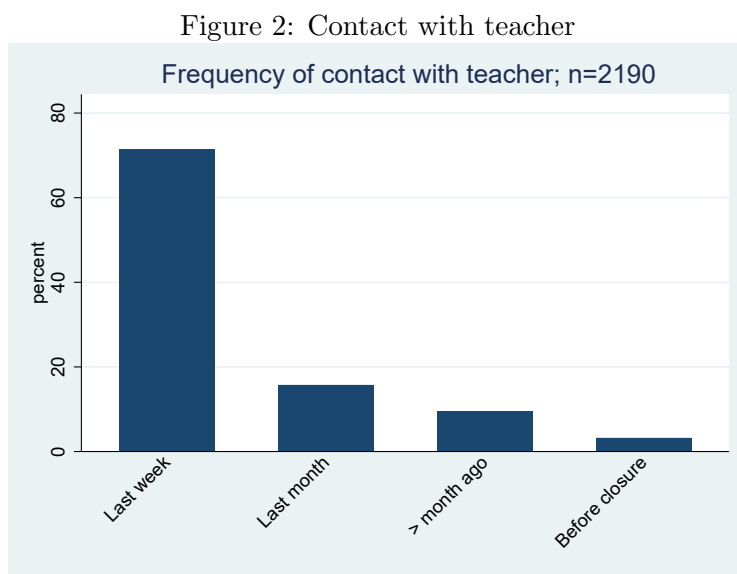
The last two columns of the table show the probability that children reported income or job losses by their parent depending on the job category. It can be seen that most occupations are at risk of income losses, but that this share is slightly lower among public sector employees (military, government, teacher). Agricultural laborers, drivers, construction workers and garment factory workers are at highest risk of losing their job.

3 Empirical approach and results

3.1 Learning during COVID-19 school closure

In order to assess if learning activities continued during the period of school closure, we asked students a number of learning related questions. First, we asked when students had been last in contact with their teacher. As depicted in Figure 2, most students were contacted within the last

seven days although there is a detectable share of students with much less or no contact at all since the school closure.



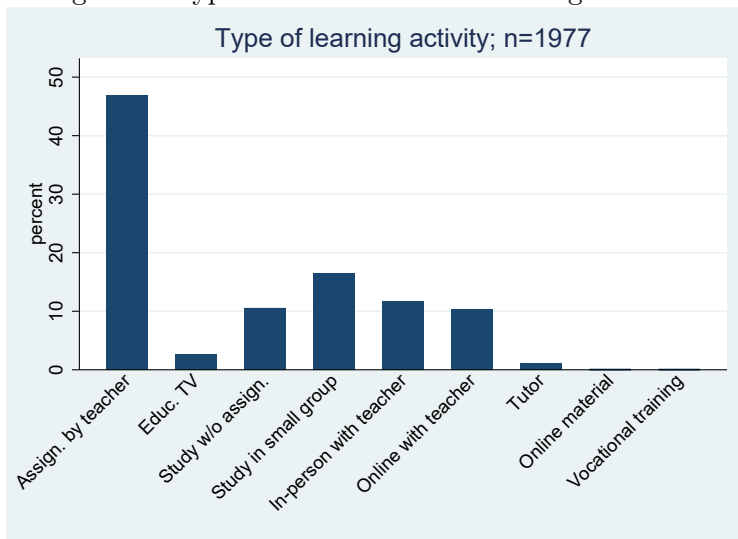
We then asked students if they had engaged in learning activities in the past seven days (90% reported yes), and if yes, in what types of education or learning activities they had been engaged in. The question was open ended, and the answers then categorized. The first choice is depicted in Figure 3. There are only three options that reflect digitized learning (educational TV, online session/meeting with teacher and online material in general). These options are only used by a minor share of students while almost half of the students learn from physical assignments that are provided by the teacher. These assignments could be distributed by the teacher individually, by class leaders, or through online messengers such as Telegram, Facebook or WhatsApp.

Thus at first glance, learning activities seem to continue even months after schools were closed. Yet, these students seem to be subject to severe time constraints too, with 57% of all students reporting to have worked in the last 7 days, and 50% of those for more than 6 hours per day. In line with this, only 25% of students report that studying was their main activity during the last 7 days, while 71% report work for pay, for the family or in the household as their main activity.

3.2 Determinants of vulnerability

In the next step, we explore which characteristics explain if students continued to study during the COVID-19 crisis, or not. We define two categorical variables that indicate if a student is not learning. The first variable is an indicator equal to one if the student does not agree to the statement "During the COVID-19 school closure I kept studying for school" (equal to one for 15% of students). The second variable is an indicator equal to one if the student reports not to have studied during the past 7 days (equal to one for 12% of students). Both variables are also

Figure 3: Types of education and learning activities



coded as one if either the student or teacher report that this student has already dropped out of school (during the period of school closure). The correlation coefficient between both variables is 0.36. We explore a range of explanatory variables at the student level (age, gender, ownership of a smart phone), household level (parental education, parental occupation, migration experiences in family), and school level (teacher engagement, distance to district town, province town, border to Thailand). For a subsample of the students (baseline only) we also observe teacher assessment of student literacy, academic ability, family wealth, and how many times the parents visited the school in the past year, and how many times the teacher visited the family in the past year. For brevity, we only report significant results here.

As can be seen in Table 3, older students and boys are more likely to interrupt learning, as well as students who do not own a smartphone. Whether the latter is due to the fact that assignments are easier to be send to students who own a smartphone or whether this is reflective of family wealth is difficult to say.

We also explore school characteristics and find evidence that students with less engaged teachers are more at risk of interrupting their learning (c.f. Table 4). Border distance does not seem to matter much (the estimates are only significant in the subsample that was observed both at baseline and follow-up and go in opposite directions depending on which vulnerability indicator is considered). In contrast we find some evidence that distance to the district town is relevant, with students from more remote schools being more vulnerable (only for the second vulnerability indicator).

Parental characteristics seem to matter a lot too, with children from more educated parents being less likely to interrupt their studies. We also explore the importance of parental occupations. While maternal occupations do not withstand the check of contributing to vulnerability, the probability that the father’s occupation faces income losses and job losses both seem to increase the

Table 3: Student characteristics

	Did not study during COVID			Not studying in last 7 days		
	(1)	(2)	(3)	(4)	(5)	(6)
PANEL A:						
Age	0.042*** (0.007)	0.042*** (0.007)	0.025** (0.011)	0.036*** (0.006)	0.033*** (0.006)	0.027*** (0.009)
PANEL B:						
Female student (=1)	-0.069*** (0.017)	-0.069*** (0.018)	-0.073** (0.033)	-0.074*** (0.015)	-0.078*** (0.016)	-0.061** (0.022)
PANEL C:						
Owns smartphone (=1)	-0.040* (0.023)	-0.027 (0.025)	-0.007 (0.026)	-0.058*** (0.021)	-0.056** (0.022)	-0.066** (0.027)
District FE	✓	✓	✓	✓	✓	✓
School FE		✓	✓		✓	✓
Observations	2252	2252	615	2252	2252	615

Standard errors (clustered at the level of the school) in parentheses. Columns (3) and (6) restrict sample to students observed at baseline and follow-up. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: School characteristics

	Did not study during COVID			Not studying in last 7 days		
	(1)	(2)	(3)	(4)	(5)	(6)
PANEL A:						
Teacher engagement (share of class reporting little contact)	0.143*** (0.052)	0.143** (0.052)	0.015 (0.099)	0.296*** (0.046)	0.246*** (0.049)	0.337*** (0.108)
PANEL B:						
Border distance	0.000 (0.000)	0.002 (0.001)	0.001* (0.000)	-0.000 (0.000)	-0.002 (0.001)	-0.001** (0.000)
PANEL C:						
District town distance	0.001 (0.001)	-0.000 (0.001)	-0.001 (0.002)	0.002* (0.001)	0.003** (0.001)	0.004* (0.002)
Age & gender FE	✓	✓	✓	✓	✓	✓
District FE		✓	✓		✓	✓
Observations	2251	2251	614	2251	2251	614

Standard errors (clustered at the level of the school) in parentheses. Columns (3) and (6) restrict sample to students observed at baseline and follow-up. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5: Parental characteristics

	Did not study during COVID			Not studying in last 7 days		
	(1)	(2)	(3)	(4)	(5)	(6)
PANEL A:						
Father's job faces job loss (probability)	-0.005 (0.067)	0.019 (0.074)	-0.019 (0.153)	0.113** (0.050)	0.138*** (0.051)	0.045 (0.089)
PANEL B:						
Father's job faces income loss (probability)	-0.019 (0.086)	0.012 (0.098)	-0.098 (0.175)	0.128** (0.056)	0.158*** (0.054)	0.022 (0.088)
PANEL C:						
Father education < primary	0.044*** (0.015)	0.038** (0.016)	0.017 (0.033)	0.042*** (0.014)	0.042*** (0.014)	0.029** (0.013)
PANEL D:						
Mother education < primary	0.031* (0.018)	0.021 (0.015)	0.035 (0.032)	0.049*** (0.015)	0.050*** (0.017)	0.057*** (0.017)
Age & gender FE	✓	✓	✓	✓	✓	✓
District FE		✓	✓		✓	✓
Observations	2250	2250	614	2250	2250	614

Standard errors (clustered at the level of the school) in parentheses. Columns (3) and (6) restrict sample to students observed at baseline and follow-up. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

probability that students interrupt their studies (see Table 5).

Finally, the assessment by the teacher about literacy, wealth and parental visits to school reveals that the former and the latter are relevant for the second vulnerability measure. A lower level of literacy and fewer visits to school by their parents put students more at risk regarding continuous learning activities over the last seven days.

Table 6: Teacher assessment

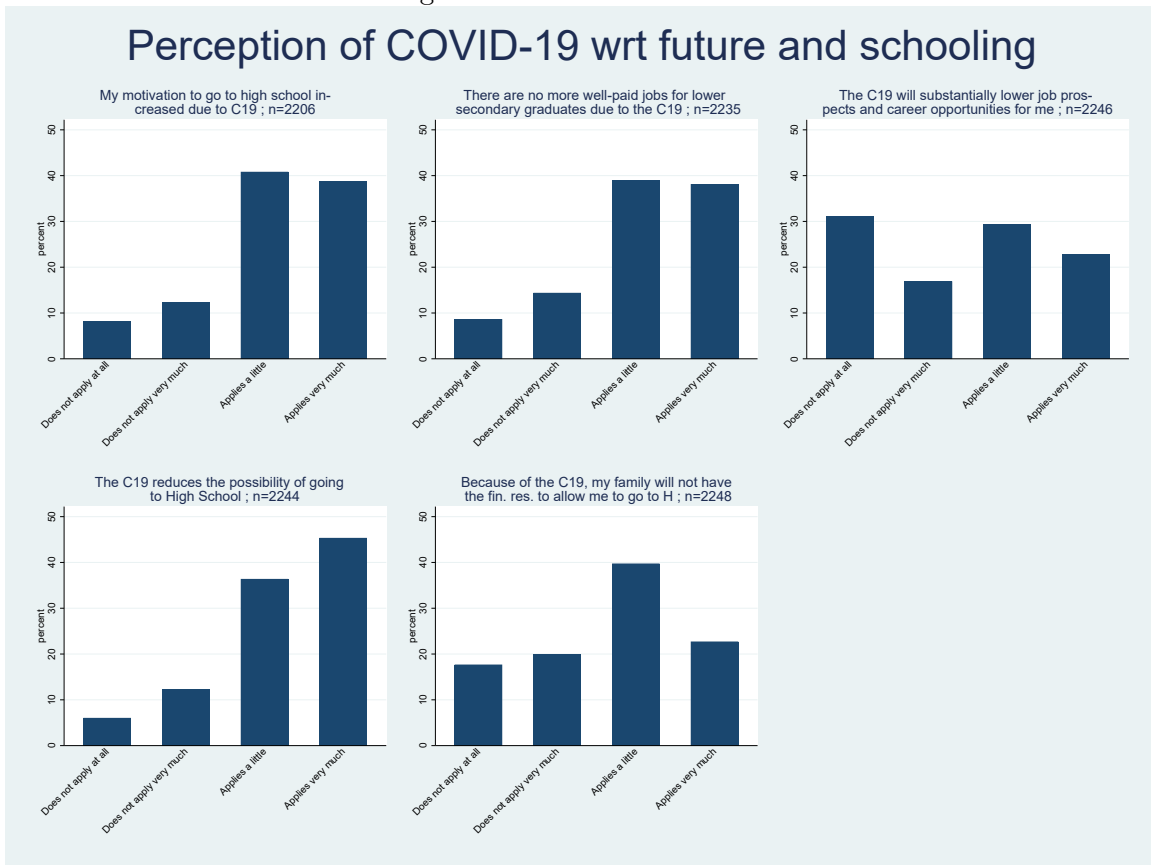
	Did not study during COVID (1)	Not studying in last 7 days (2)
PANEL A:		
Literacy level (standardized)	-0.027 (0.016)	-0.028** (0.013)
PANEL B:		
High school ability (standardized)	-0.019 (0.015)	-0.016 (0.012)
PANEL C:		
Parents visited school (no of times in last year)	-0.061 (0.039)	-0.084*** (0.025)
Age & gender FE	✓	✓
Teacher FE	✓	✓
Observations	614	614

Standard errors (clustered at the level of the school) in parentheses. Columns (3) and (6) restrict sample to students observed at baseline and follow-up. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

3.3 Perception of schooling and future

At the end of our survey, we let students reflect on their perception of their future schooling and career path in relation to the COVID-19 crisis. Students were asked to indicate how much they agreed with a number of statements on a four-point likert scale, ranging from “does not apply at all” to “applies very much”. These statements relate to schooling in the nearby future and to career options in the longer run: 1) My motivation to go to High School increased due to COVID-19, 2) There are no more well-paid jobs for lower secondary graduates due to the COVID-19 crisis, 3) The COVID-19 crisis will substantially lower job prospects and career opportunities for me, 4) The COVID-19 crisis reduces the possibility of going to High School, 5) Because of the COVID-19 crisis, my family will not have the financial resources to allow me to go to High School. Figure 4 shows the distribution of agreement for each statement in the precise order.

Figure 4: Assessment of crisis



Although the majority of the students agree to all these statements, students report different attitudes particularly when it comes job prospects and career options. We explore this and all other variation in the following. In particular, we estimate if any of the predictors of student vulnerability to interrupt learning also affect student’s perceptions of the crisis. This exercise is purely descriptive by nature, and intended to shed light on the extent to which perceptions of the COVID-19 crisis vary in the sample.

Panel A of Table 7 correlates student literacy (as assessed by the teacher at baseline) with COVID-19 perceptions, and finds that more literate students are more likely to agree to statement 1 “My motivation to go to High School increased due to COVID-19”. Panel B, then, explores the role of the teacher. It can clearly be seen how important teachers are during this period: Students from unengaged teachers are more likely to agree to the statements “The COVID-19 crisis reduces the possibility of going to High School” and “Because of the COVID-19 crisis, my family will not have the financial resources to allow me to go to High School”. In particular the latter statement is interesting, because the teacher has little to do with the financial situation of the family. Yet, students with more engaged teachers seem to view the future and their studies somewhat more optimistically. Panel C explores parental education; students from low-education background are less likely to agree to statement 1 (motivation for High School increased), and more likely to be concerned about the feasibility of High School (statement 4) and the financial possibilities of their parents (statement 5). This points to the fact the parental support might have become more important during the school closure.

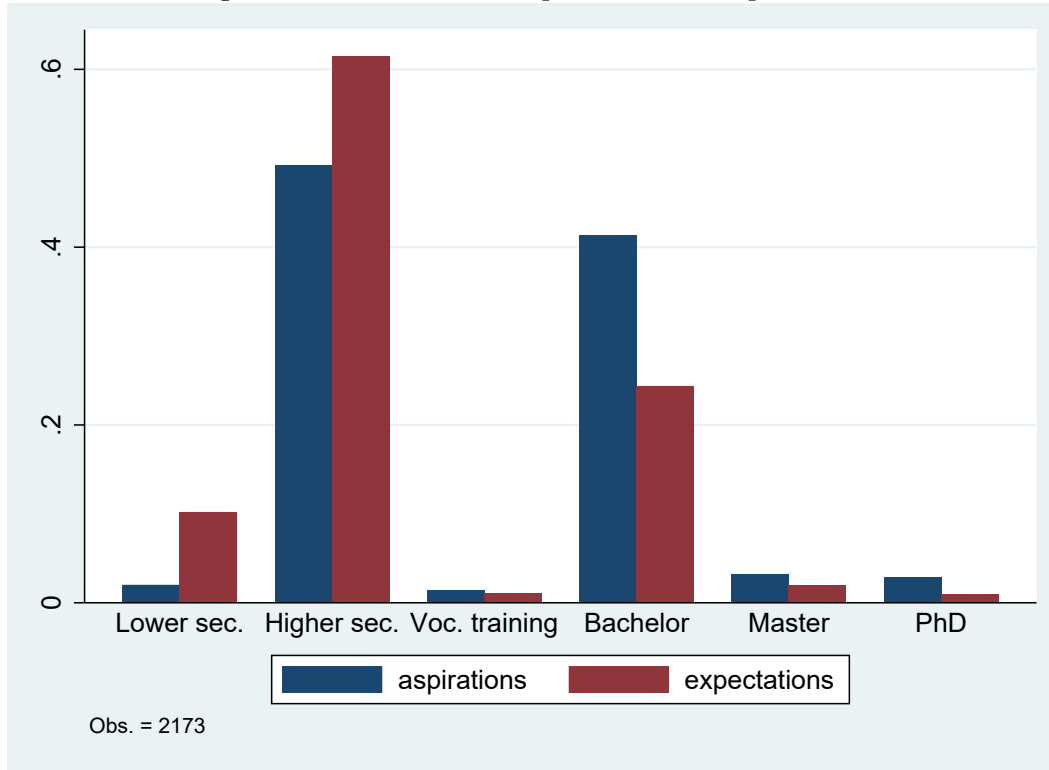
That parental experiences and support matter for students’ perceptions of the crisis is also supported by the strong correlation between paternal occupation and perceptions. Panels D and E show the results for the risk of paternal income losses and job losses, respectively. If the father’s job is more likely to be affected by COVID-related income losses, the student agrees to a larger extent to the statement that his/her parents will lack the financial resources for the student to go to High School. Perceptions seem to be even more strongly influenced by the experience of paternal job losses. Almost all variables considered here show at least marginally significant results. Students whose father is more likely to be forced to give up (one of) his occupation(s) agree less to the statement that the crisis increased their motivation to go to High School, despite evaluating the availability of jobs that require only a lower secondary diploma more negatively. This puzzling contrast can potentially be solved by looking at the last two significant coefficients within Panel E. Having a father at risk of losing his job makes students less optimistic about the possibilities to go to High School. They are also more affirmative that their family will not have the necessary resources to support their higher education. In sum, students whose father’s are more at risk of losing their jobs seem to be less likely to continue with High School even though they perceive less jobs being available for students without a High School degree. The last panel of Table 7 again presents the results for the subsample for which we have information about parental school visits. The higher the frequency of visits at baseline, the higher is the motivation of students to go to High School. This would support the interpretation that parental visits relate to higher parental involvement rather than their children being problematic. Students with more engaged parents also agree to a larger extent to the statement that the COVID-19 crisis reduced the availability of jobs for lower secondary graduates, which could suggest that more engaged parents do discuss the necessity of higher education actively with their children, also in times of COVID-19.

Table 7: COVID-19 perceptions

	Higher motivation	Less jobs for low. sec.	Lower career opp.	Lower possibility	No finan. resources
Panel A:					
Literacy level (std.)	0.056* (0.031) [0.3686]	0.040 (0.039) [0.6533]	-0.094 (0.057) [0.6533]	-0.017 (0.028) [0.3686]	-0.045 (0.044) [0.6533]
Panel B:					
Teacher engagement (% of class with little contact)	-0.049 (0.139) [0.7632]	0.153 (0.179) [0.7003]	0.329 (0.205) [0.4336]	0.263* (0.149) [0.4166]	0.547*** (0.186) [0.1159]
Panel C:					
Mother or father education < primary	-0.101** (0.041) [0.0639]	0.003 (0.036) [0.9311]	0.089 (0.057) [0.2318]	0.094** (0.036) [0.0509]	0.190*** (0.055) [0.0050]
Panel D:					
Father's job faces income loss (probability)	-0.092 (0.187) [0.9421]	0.247 (0.203) [0.6324]	0.069 (0.264) [0.9421]	0.102 (0.220) [0.9421]	0.769*** (0.259) [0.0350]
Panel E:					
Father's job faces job loss (probability)	-0.334* (0.185) [0.1948]	0.441*** (0.155) [0.0270]	0.074 (0.228) [0.7153]	0.231* (0.128) [0.1948]	0.490*** (0.165) [0.0270]
Panel F:					
Visit of parents to school	0.158*** (0.041)	0.122** (0.047)	0.104 (0.093)	0.000 (0.039)	-0.024 (0.082)

Standard errors (clustered at the level of the school) in parentheses. Each cell represents a different regression, all of which control for gender, age, district and Child's Dream partnership fixed effects. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 5: Distribution of aspirations and expectations



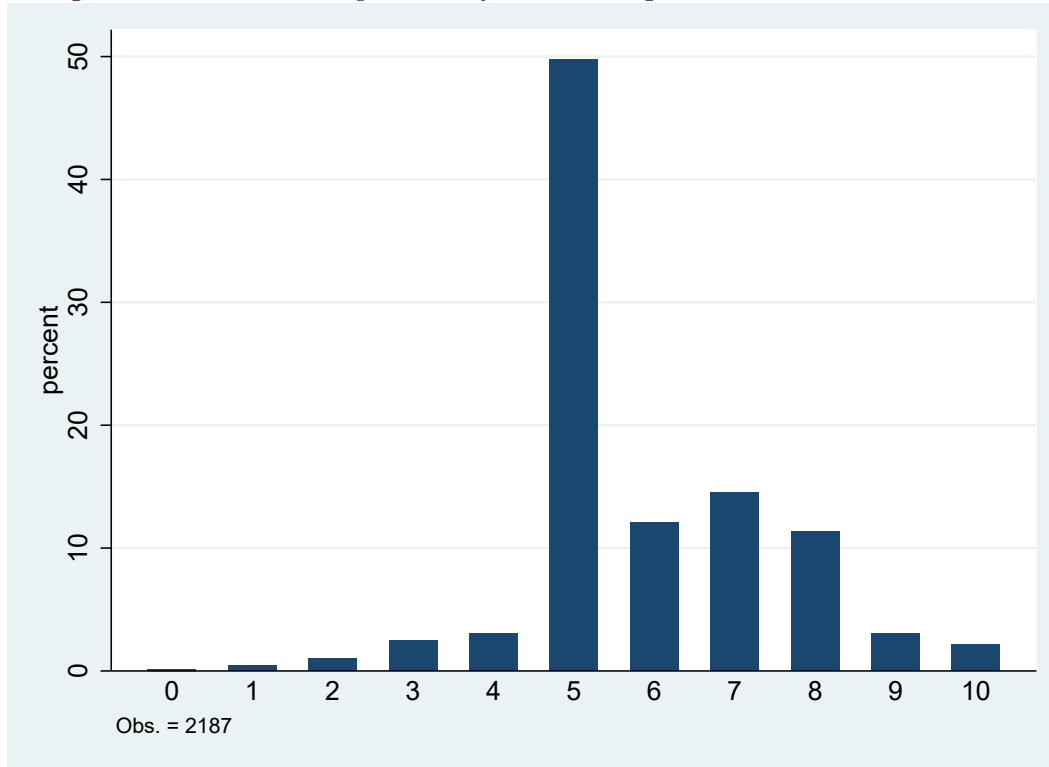
3.4 Educational aspirations

As a second exercise, we look into the differences across students in terms of educational aspirations, and explore if the variables that predict vulnerability are related to these differences. Educational aspirations are categorized into six different educational levels: lower secondary school, High School, vocational training, Bachelor’s degree, Master’s degree or a PhD. Figure 5 shows the distribution of what students aspire to, and contrasts aspirations with the level of education that students expect to complete given their own and their families’ situation. Almost half of the students want to complete High School and a substantial share of over 40% would like to receive a Bachelor’s degree. In terms of expectations about the level of education they will most likely achieve, the share of students expecting to achieve a Bachelor’s degree declines by roughly 15% percentage points. By far most students expect to achieve a High School degree or less.

To assess the differences between aspirations and expectations in more detail we also asked students to rate the probability of achieving the level of education they aspire on a scale from 0 to 10. The distribution is shown in Figure 6. Roughly half of the students chose the middle value (5). The other students largely seem to be somewhat optimistic about achieving the level of education they want.

In Table 8 we repeat the exercise of Table 7 but with the six different aspiration levels as well as the probability of achieving the aspired level of education as dependent variables. We caution against interpreting Panels A, C and F in terms of COVID-19 crisis vulnerability as it seems very

Figure 6: Assessment of probability in achieving the desired educational level



likely that more able students, students with more highly educated parents and students with more engaged parents also have higher educational aspirations. Panel B indicates that students whose teacher lack engagement during the school closures also have lower educational aspirations on average, and have less confidence in achieving the level of education they aspire to. It remains to be said that it is again highly likely that a similar correlation could also be observed in normal times. Finally students whose father is at risk of loosing his job or loosing (part of) his income, do not seem to have different aspirations than students whose fathers experience higher job and income security. Yet, these students evaluate the probability of achieving this level of education a lot more negatively. This indicates that students' aspirations are relatively stable and are not adjusted despite of the negative experiences during the COVID-19 crisis. The expectations, in contrast, seem to have responded already.

4 Discussion and conclusions

We analyze phone survey data for 2,252 student in rural Northwest Cambodia. There are several characteristics of the students which are crucial for the explanation of their vulnerability regarding their interrupted studying activities. These characteristics relate to the students' literacy level, their parents' education and occupation as well as their teachers' commitment. Students more exposed to the COVID-19 crisis – because their teachers are unengaged or their fathers experience income

Table 8: Educational aspirations

	Lower sec.	Higher sec.	Voc. training	Bachelor	Master	PhD	Prob. achieve
Panel A:							
Literacy level (std.)	-0.017** (0.008)	-0.056** (0.022)	-0.004 (0.004)	0.040* (0.020)	0.020 (0.013)	0.016* (0.009)	0.065 (0.060)
Panel B:							
Teacher engagement (% of class with little contact)	0.054** (0.022)	0.039 (0.105)	-0.010 (0.018)	0.029 (0.106)	-0.049* (0.029)	-0.062*** (0.018)	-0.892*** (0.315)
Panel C:							
Mother or father education < primary	0.001 (0.008)	0.066** (0.025)	-0.014** (0.006)	-0.024 (0.023)	-0.016** (0.008)	-0.013* (0.007)	-0.083 (0.064)
Panel D:							
Father's job faces income loss probability	0.043 (0.030)	0.103 (0.091)	-0.028 (0.024)	-0.055 (0.107)	-0.020 (0.052)	-0.042 (0.039)	-0.665* (0.344)
Panel E:							
Father's job faces job loss probability	0.027 (0.029)	0.054 (0.095)	-0.029 (0.024)	0.020 (0.110)	-0.030 (0.041)	-0.043 (0.030)	-0.643** (0.296)
Panel F:							
Visit of parents to school	0.007 (0.016)	0.015 (0.019)	-0.003 (0.007)	-0.015 (0.024)	0.007 (0.011)	-0.011 (0.014)	0.132 (0.089)

Standard errors (clustered at the level of the school) in parentheses. All columns control for district and Child's Dream partnership fixed effects. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

or job losses – tend to look at the crisis more negatively, and to evaluate their future schooling more pessimistically. These students also seem to have more pessimistic views on whether they can achieve their educational goals. Future analyses will focus on the variance decomposition of these two factors and put it into relation of other potentially important aspects. It will also be discussed more in-depth how important individual factors are during the crisis situation relative to the non-crisis situation.