CONSULTING PROJECT

School dropouts among Vietnamese children

—How to ensure financial resources for education—¹

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or the funders.

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Abstract

Education is one of the best effective investment methods to develop the economy of any country. However, especially in developing countries, income inequality has led to the inequality in education access between poor and wealthier children. After an overview on current situation of Vietnamese education in Section 2, the data of an international research program on child poverty called Young Lives will be used in Section 3 to analyze the significance of poverty on the decision of school dropouts. Section 4 analyzes the impacts of the financial support policies implemented by Vietnamese government and non-government organizations on children's school attendance. Based on the analysis results and after taking account of international experience on cash transfer program, this study would offer proposals to the policy planners and the government of Vietnam on how to ensure the finance for poor children to go to school with effective support policies.

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Abbreviations

ADB Asian Development Bank

CCT Conditional Cash Transfer

GER Gross enrolment rate

GIR Gross intake rate

GSO General Statistics Office of Vietnam

MOET Ministry of Education and Training

MPI Ministry of Planning and Investment

NER Net enrolment rate

NGO Non-government organization

NIR Net intake rate

ODA Official development assistance

UNDP United Nations Development Program

United Nations Educational, Scientific and Cultural

UNESCO Organization

UNICEF United Nations Children's Fund

VHLSS Vietnam Household Living Standard Survey

WB World Bank

Glossary

Early Childhood care and education (**ECCE**): Services and programs that support children's survival, growth, development and learning – including health, nutrition and hygiene, and cognitive, social, emotional and physical development – from birth to entry into primary school.

Gross enrolment rate (GER). Total enrolment in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education. The GER can exceed 100% because of early or late entry and/or grade repetition.

Gross intake rate (GIR). Total number of new entrants to a given grade of primary education, regardless of age, expressed as a percentage of the population at the official school entrance age for that grade.

Net enrolment rate (NER). Enrolment of the official age group for a given level of education, expressed as a percentage of the population in that age group.

Net intake rate (NIR). New entrants to the first grade of primary education who are of the official primary school entrance age, expressed as a percentage of the population of that age.

Direct aid to education: Aid to education reported as direct allocations to the education sector. It is the total of direct aid to basic education (covering primary education, basic life, skills for youth and adults, and early childhood education); secondary education (including both general secondary education and vocational training).

1. Introduction

Education of children is a big issue in any country in the world. It is a human right and the most effective way against poverty. According to UNICEF (2015), education is one of the best economic investment methods, which results in an increase of 0.37% in GDP, rising to 1.0% with improved learning outcomes in each additional year of schooling. However, in low and middle income countries, a large number of children leave school before they finish their primary or low secondary education. This phenomenon is called "school dropout". There are few studies that clearly define the "dropout" problem. In general, dropout is a social phenomenon in which a person stops going to school or college before completing their studies. In fact, there are two concepts, "school dropout" and "out of school", which have a little bit difference. "School drop-out" is an action that a person has gone to school, but stopped before finishing that education level, while "out of school" has wider meaning, that includes person who has gone to school, then dropped out and person who never has started schooling. The issue of "school drop-out" will be focused in this consulting project.

In order to have a comprehensive look at childhood poverty in Vietnam, a long-term international research study called Young Lives, has been implemented during the period of 15 years, involving 3000 children from five provinces in Vietnam. By analyzing data obtained from Young Lives' surveys, Nguyen and Nguyen (2013) indicated five key factors related to the incidence of school dropout: test performance, the household's financial condition, parents' level of education, the distance from the children's home to school and ethnic minority status of the child and their household members. In the other research, Le and Tran (2013) considered three reasons to the question why a child dropped out of school, which are the lack of interest in school, the child work and the high direct cost of education. Finance seems to be an important factor on the school dropout problem. However, there is still little information or research on the link between dropping out of school and financial issues. Financial issues can be understood to include macro and micro financing. Macro financing refers to government expenditure and budget allocation and includes some financial support programs such as tuition exemption, the food aid program, and the school construction

program, while micro financing, in this case, refers to individual expenditure on education and the financial situation of the children's household.

This study sets a hypothesis that the poverty and the financial situation of the households are important factors to the problem of school drop-out. Utilizing the dataset of Young Lives research program collected through three rounds of survey, this study focuses on analyzing the significance of financial issues on the decision whether to keep on going to school or not, and the effect of government's support policies on that decision of the children. Finally, policy recommendations on how to ensure effective financial support policies of Vietnamese government and other non-government organizations will also be presented in the last section of the report.

2. Vietnam's education situation.

The national education system of Vietnam is based on Article 4 of the Law on Education established in 2005 and amended in 2009. The education system includes early childhood education (kindergarten and pre-school), basic education including primary education (Grade 1 to Grade 5) and lower secondary education (Grade 6 to Grade 9), upper secondary education (Grade 10 to Grade 12), vocational training, and higher education (college, university: bachelor, master, doctor). 9 years of primary and lower secondary education is compulsory and school is free for the first 5 years of primary education. In recent year, Vietnamese government has made a lot of efforts in education development that made the significant rise in the number of students in each education level. Some highlights on the situation of education in Vietnam from early childhood education level to upper secondary education level are summarized as below.

2.1. Early childhood care and education

Due to the awareness of the importance of early childhood care and education (ECCE) to the children, Vietnamese government has made a huge effort expanding school provision and encouraging children to go to preschools. Then, the average gross enrolment rate for pre-primary education has been increased, ranging around $30 \sim 40\%$, from 31.58% in 2000 - 2001 school year to 41.39% in 2012 - 2013 (Ministry of

Education and Training 2014). However, in fact, the system of public preschools, especially in urban areas, is so overloaded for both permanent residents and migrant households, while school fee in private preschools is so high that the households cannot afford their children the chance to attend pre-primary schools. Therefore, instead of going to preschools, as the local customs, the children will be raised by their grandparents until they start Grade 1 (VinaCapital Foundation 2014). The ECCE aims to give the children the emotional and physical preparedness for primary school, and hence, it still needs the continuous involvement of the government and the changes in parents' awareness of the importance of preschool education as well as the customs in educating their children.

2.2. Basic education (Primary education and lower secondary education)

The government's efforts to improve the education access and to ensure the school enrolment at the right age of children entering Grade 1(with primary school) and Grade 6 (with lower secondary school) have been seen in recent years. Based on the data of Ministry of Education and Training (2014), the net enrolment rate (NER) of primary education increased by 2.35%, from 95.95% in school year 2006 – 2007 to 98.31% in 2012 – 2013. Moreover, the enrolment rate of children aged 11-14 into lower-secondary education has also increased from 81.04% in school year 2006 – 2007 to 88.04% in 2012 – 2013.

Thanks to effective government policies for ethnic minorities and socio-economic development policies for mountainous areas, many ethnic minority students can go to school these years. The enrolment rate of ethnic minority children in primary education and lower secondary education in school year 2012 – 2013 was 17.56% and 15.90% respectively. Some preferential policies such as the policies of developing ethnic minority semi-boarding and boarding school network, supplying textbooks, school supplies and computers for ethnic minority students have contributed on narrowing the gap between ethnic minority group and more advantaged group in the recent years.

2.3. Upper secondary education

After 9 years of compulsory education, students are required to take high school entrance exam for 3 years of upper secondary education. However, the current public high school system can only accommodate about 70 to 80 percent of the students graduating from lower secondary schools. Those who failed in the exam have to go to private schools, which are generally more expensive and beyond the affordability of many poor students (World Bank 2014). For that reason, many of them have no choice other than dropping out of high schools or going to vocation schools. Besides the public vocation schools, a large number of private vocation and training schools have been established in the cities, industrial areas, even in the employment service centers of youth association unions in the districts. It is likely that non-public vocation schools with flexible enrolment period, various learning programs and different length of courses could meet the diverse needs of students on vocational training and financial affordability.

3. Relationship between school dropout and financial issues

3.1. Expense for education

Besides the good results in raising the enrollment rate in each education level, keeping the children studying continuously in schools still remains a serious issue, particularly in lower secondary and upper secondary education. This is due to the reason that after 5 years of free primary education, students must pay for tuition fees. However, despite the fact that school is free for 5 years of primary education, the households have to pay for more items apart from the school fees in order to send their children to school. Indirect costs including expense for school construction, uniforms, textbooks, extra classes, meals and transportation which are set differently between schools and areas can be considered as insurmountable barriers for many poor families. Table 1 indicates monthly income and average monthly expense on education per person by five income quintiles in 2012. These data were collected by the Vietnam Household Living Standard Survey (VHLSS), which has been implemented every two years by the General Statistics Office of Vietnam (GSO).

Table 1: Monthly income and Average monthly expense on education per person by income quintiles (2012)

Unit: 1000VND

	36 (1)	Average	Rate of	By expenditure item					
Quintile	Monthly income per person	expense for education/ 1 person/ 1 month	expense on education on monthly income (%)	School fees	School fund	Uni- form	Text- book	Extra class	Others
Quintile 1 (Poorest)	512	119	23.3	28	13	9	11	10	29
Quintile 2 (Lower average)	984	217	22.1	53	19	14	17	24	62
Quintile 3 (Average)	1500	316	21.1	89	24	17	22	42	84
Quintile 4 (Medium)	2223	397	17.9	122	28	19	24	45	107
Quintile 5 (Richest)	4785	706	14.8	231	44	22	32	74	163

Adapted from "Result of the Vietnam household living standards survey 2012", by General Statistics Office of Vietnam, 2012, p. 93, pp. 207 - 209.

As it is described in Table 1, the expense on education of the household of richest quintile is 706.000 VND for one month, which is nearly 6 times more than the poorest quintile (119.000 VND). However, based on the column showing the rate of expense on education in monthly income, it can be seen that the rate of the poorest quintile is the highest in comparison with other quintiles due to their low monthly income.

Moreover, as revealed by the data in Table 1, school fees and extra classes could be supposed to be the main expense items that make expenditures on education become burdens on the households and the children. The basic education that children usually attend is on a half-day at school basis. Therefore, after formal classes, they take the extra classes organized by their teachers for further private tutoring. The extra class for primary students and full-day schooling students has been banned by the Ministry of Education and Training since 2012, but it has been still popular at the secondary level because the students want to have better academic performance and more practice in order to pass the entrance exams into high school and university (VinaCapital

Foundation 2014). It becomes unfair to the poor children when they cannot afford to go to extra classes, which may lead to the poor performance at school. At the same time, poor performance at school has been identified as a strong predictor of school drop-out. In the research of Le and Tran (2013) on the children of Young Lives survey, the children who had poor or very bad test performance have a probability over 40% higher of dropping out of school before completing lower secondary education than those who performed well or excellently. Not to mention whether extra classes have an influence on the test scores or not, expense for extra classes along with other indirect expenditures have become financial burdens to poor children in order to go to school.

Aside from those expenses, both direct and indirect costs for education increase when the children go to higher grades, which are illustrated by Table 2 hereafter.

Table 2: Average expense on education per person in one month by level of schools

Unit: 1000VND

	Level of schools					
Year	Kindergarten/p	Primary	Lower	Upper	Vocational	College,
	reschool		secondary	secondary	education	university and
						upper
2004	47	26	46	88	139	308
2006	63	40	60	117	254	359
2008	93	65	89	162	372	499
2010	119	94	127	240	498	845
2012	183	123	197	322	633	1111

Adapted from "Result of the Vietnam household living standards survey 2012", by General Statistics Office of Vietnam, 2012, p. 93.

The expense for primary school is found to be the lowest in the comparison with other levels of school due to the free tuition fee, and the education costs are increasing in every level of education. Turning to the type of schools, for children who enrolled in non-public or semi-public schools, fees can be several times higher than for those attending public schools. Table 3 below shows the monthly average expense on education per person sorting by type of school. It can be seen that there is a significant difference in expense on education between public and non – public schools.

Table 3: Average expense on education per person in one month by type of schools

Unit: 1000VND

	Type of schools					
Year	Public	Semi-public	People-founded	Private	Others	
2006	94	127	230	214	279	
2008	140	163	447	344	321	
2010	204	-	716	1,027	612	
2012	285	-	1,454	865	1,186	

Adapted from "Result of the Vietnam household living standards survey 2012", by General Statistics Office of Vietnam, 2012, p. 100.

In Vietnam, there are some different types of school that are regulated by the government which are public school, semi-public school, people-founded school and private school. Public schools are schools which are established and invested by the State including the construction of facilities and the budget for recurrent expenditure while semi – public schools are schools, of which the budget for construction and other expenditure are shared by not only the State but the private as well. People-founded schools are schools which are founded and invested for the construction and operational expenditure by the communities; and private schools are school which are established and operated by individual or social organizations (non-government organizations) and non-government's fund. In fact, People-funded schools and private schools are more prevalent at the upper level, while the primary schools are almost public. The expense of non – public schools is higher than public schools, so the results of Table 2 that the average expense for education of students in primary level is lower than higher level of education are understandable.

In summary, the costs of sending children to schools are heavy burdens for many poor parents. The lower the household income is, the greater the effect that direct and indirect costs of education will have on household's ability to ensure the education of their children.

3.2. Analysis of the link between school dropout and financial issues

3.2.1. Description of the hypothesis, variables and the model

Henceforth, this paper examines the hypothesis that financial condition of the household has enormous impacts on the school dropout decision of the children, using the data of Older Cohort from round 2 and round 3 of Young Lives survey program. Young Lives is a long-term international research study investigating the changing in poverty situation of children. This research study has been taken to 12,000 children in four developing countries - Ethiopia, Peru, India and Vietnam for over 15 years. Through interviews, group work and case studies with the children, their parents, teachers, community representatives, information about children's social circumstances, their perspectives on their lives (including health, education, feeling, social capital...) have been collected. The research is following two groups of children in each country including 2000 children who were aged between 6 and 18 months when the first survey round was carried out in 2002 (called Younger Cohort) and 1000 children aged between 7.5 and 8.5 years (called Older Cohort). The first round (round 1) of survey took place in 2002, the second round (round 2) in 2006 – 2007, and the third round (round 3) in 2009 – 2010. For the Older Cohort, in general, they were in Grade 3 (primary school) in round 1, Grade 7 (lower secondary school) in round 2 and Grade 10 (upper secondary school) in round 3.

In Vietnam, five provinces from five regions were selected for the survey consisting of Lao Cai (Northeast region), Hung Yen (Red River Delta), Da Nang (Central Cities), Phu Yen (South Central Coast) and Ben Tre (Mekong River Delta). Five provinces are thought to be representative of five regions about the characteristic on nature, economic - social situation and poverty situation.

In this study, a probit model, one of the econometric analysis models has been used to analyze how the financial condition of the household effects children's school attendance. The model is shown as below:

$$y_i = x_i \beta + e_i$$

y is a dummy dependent variable which equals 1 if the child is currently enrolled in school, and zero otherwise. x is the vector including some personal information of the

children, the financial situation of the children's household and several additional expenses for education. β is the coefficient of each independent variable x, e is the error terms and \hat{t} represents the observation values. Independent variables x consist of the variables below.

- 1. Children's gender (1 = Female, 0 = Male)
- 2. Age of children
- 3. Living areas (1 = Rural, 0 = Urban)
- 4. Father's education level
- 5. Mother's education level
- 6. Household size
- 7. Poor condition (1 = Included in the list of poor household made by Commune Committee, 0 = otherwise)
- 8. Wealth index
- 9. Having loans (1 = The household has loans in the last 12 months, 0 = otherwise)
- 10. Attendance in extra class (1 = Yes, 0 = No).

3.2.2. Results of regression

Table 4 shows the results of probit regression for the data of Older Cohort from round 2 and round 3 of Young Lives survey program. Regarding the children's gender, in round 2, girls are 1.22% less likely to attend school than boys. However, turning to round 3, the probability of girls going to school is 3.58% greater than boys. This result is consistent with the statement about gender disparity problem which has been mentioned in the report "All children in school by 2015. Global initiative on out-of-school children: Vietnam country study" (2013).

"Gender disparity is small or non-existent in primary school age, except in Mong ethnic group and in the group of children with disabilities. It starts to show once children reach secondary school age, especially among ethnic minority groups where boy out-of-school and boy drop-out ratesare higher than those of girls, except in Mong ethnic group, children with disabilities and migrant children. This may indicate the quality issue which involves for example the relevance of education in terms of skills development and gender responsiveness from an employment perspective".

Regarding the significant results of "age of children" variable in both rounds, along with the increase in the child's age, the probability of dropping out of school becomes greater. The data in the above mentioned report has also indicated that at the age of 14, almost 16% of the age group population has dropped out of lower secondary school while the figure raised to more than 39% at the end year of upper secondary school, when the children are 17 years old.

Children living in rural area are 4.52% more likely to drop out of school than children in urban area in round 3. This result is flagrant due to the lower income of households in rural area than households in urban area, the lack of schools and the popularity of child work in the rural.

Education level of the parents also has effect on the decision of children on going to school in round 2. The effect of the father's education level is not significant whereas that of the mother slightly increased. The children whose mothers have high education level are more likely to keep on going to school by 0.52%.

The negative sign in the coefficient of the household size indicates that the children from big household are 1.02% (in round 2) and 1.12% (in round 3) less likely to keep on going to school than from the smaller family. It means the more siblings the children have, the more difficulties their parents face to afford their continuing education.

The statistical significance of the poor condition in the estimation for round 3 is consistent with the expectation that the poorer the household is, the less probability the children continue going to school. The household in list of poor households created by Commune Committee is the one that meets the criteria for Hunger Eradication & Poverty Reduction Program stipulated by the Ministry of Labor, Invalids and Social Affairs (MOLISA). The criteria consist of population size, remoteness, poverty rate, existing basic infrastructure, education and health indicators (enrolment rate, child and maternal mortality rates). Based on these criteria, local governments conducted assessments and selected the most impoverished and disadvantaged ethnic minorities and mountainous communes to become the targeted beneficiaries of the Government's Hunger Eradication & Poverty Reduction Programs (Ha Viet Quan 2009).

Table 4: Probit model: Factors effect on the probability of Children's school attendance

	The probability of children's school attendance		
	Round 2	Round 3	
Children's gender (female)	-0.0122	0.0358*	
	(0.0168)	(0.0216)	
Age of children	-0.00778***	-0.0112***	
	(0.00228)	(0.00411)	
Living areas (Rural)		-0.0452	
		(0.0527)	
Father's education level	-0.000407		
	(0.000429)		
Mother 's education level	0.00524*		
	(0.00273)		
Household size	-0.0102*	-0.0112	
	(0.00567)	(0.0106)	
Poor condition		-0.130***	
		(0.0460)	
Wealth index	0.137**	0.334***	
	(0.0587)	(0.0991)	
Having loans	-0.0109	-0.0721***	
	(0.0167)	(0.0244)	
Attendance in extra class		0.332***	
		(0.0403)	
Observations	474	931	
LR chi2	31.23	260.04	
Prob> chi2	0.0001	0.0000	
Pseudo R2	0.1364	0.2730	

Note: dF/dx is for discrete change of dummy variable from 0 to 1

z and P>|z| correspond to the test of the underlying coefficient being 0

With significant estimation results of wealth index variable in both round 2 and 3, it is highly likely that the prosperity is an important factor in the probability of children's school attendance. The probability of keeping them in school increases by 13.7% in round 2 and 33.4% in round 3 for one unit of increase in wealth index.

Having loans, including both formal loans from banks and informal loans from other individuals has become financial burdens for poor households. Due to this financial

^(*) Robust standard errors in parentheses

^{***} p<0.01, ** p<0.05, * p<0.1

reason, children from these household have 1.09% of school dropout probability in round 2, and 7.21% of the probability in round 3.

Finally, regarding the expense for the education, from data of survey round 3, children who attend extra class have 33.2% of higher probability to continue schooling than other children. In round 3, 64% of 960 children participated in extra classes. For the reason of not attending extra class,15% of the children answered that the extra classes are very costly, while the two biggest reasons were that children were not interested in schooling (21%) and they think extra classes are not necessary for their knowledge (16%). These results coincide with the findings of Section 3.1 that extra classes are popular in school attending children or wealthier children, and high expense for extra class is one of the main reasons that made the children leave school early.

To summarize, the financial condition (poverty and prosperity) of the household could be considered as a key determinant that affects the decision of children on whether to keep studying in school or not. The affordability of education costs has become an economic barrier to children's school attendance. Once the families cannot afford to pay for education costs, their children will be at risk for dropping out of school. Therefore, if the education program is not interesting enough to attract the children, and if the parents as well as the children do not still understand the benefit of education, it is easy to understand the reason why they drop out of school.

4. Solutions to the school dropout problem

4.1. Financial support policies of government

In order to address the financial barriers of households, the government has adopted policies to eliminate school fees and other costs, or introduced cash transfer programs, food aid programs, school construction programs together with other international organizations. Some main support policies on education for poor children and minority children stipulated by Vietnamese government are summarized in Table 5 below.

Table 5: Some support policies on education of poor children

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Adapted from "All children in school by 2015.Global initiative on out-of-school children: Vietnam country study", by Ministry of Education and Training, 2013, pp. 100 -102, pp. 121 - 122.

Moreover, there are many international organizations such as UNESCO, UNICEF, UNDP, WB, ADB, Save the Children and other international agencies of countries such as Japan, Australia, Canada, France, Germany, the UK supporting for the improvement and development of education and training of Vietnam. Table 6 shows some information about the general aid to education in Vietnam in 2011 – 2012.

Table 6: General aid to education in Vietnam

Year	Direct aid to education (million USD)	Direct aid to basic education (million USD)	Direct aid to secondary education (million USD)	Share of direct aid to education in total ODA (%)	Share of basic education in total aid to education (%)
2011	270	36	50	7	29
2012	235	36	54	5	26

Adapted from "EFA Global Monitoring Report: Education for All, Achievements and Challenges", by UNESCO, 2015, pp. 402-403.

The international assistance projects using ODA budget usually set the priorities on the construction of school facilities, training of local teachers, training foreign language and information technology at the upper secondary schools and vocational training. Meanwhile, directly financial assistance projects or food aid programs to targeted beneficiaries are usually implemented by international and local non-profit organizations and non-government organizations (hereinafter referred to as "non-government organizations"). Although there are few general reports or statistic data on the implementation of the projects funded by non-government organizations, it is undeniable that thanks to these support programs of government and non-government organizations, poor children in communes with difficult socio-economic conditions have had more opportunities to access education and maintain schooling.

However, besides the positive impacts, the Ministry of Education and Training (2013) has also pointed out some constraints of these policies, which are summarized as three main problems as below.

Firstly, the support amounts are much lower than the expenses that children have to pay for to go to school. Subsidy for meals is so low that the adequate nutrition for children cannot be ensured. Moreover, the schools have no kitchens to prepare for the

lunch, that makes the children go home for lunch and refuse to come back schools in the afternoon.

Secondly, the existence of many different policies causes the overlapping and confusion not only to the implementing organizations but also to the beneficiaries. One child and one household could receive the supports from more than one policy. Several ministries and agencies take the responsibilities of implementing and monitoring the same policy, which leads to the ineffective coordination between those agencies as well as the delay in planning the implementation, preparing budget and the delay in the disbursement of subsidies.

Finally, the lack of sharing information about the policies has caused the incomplete understanding about the purposes, objectives, rules, targeted beneficiaries and procedures of the policies. This has resulted in two problems: one is the misuse of subsidies and the other is the doubt of being unfairly treated among people.

Furthermore, there was one more important problem reported by UNICEF and Ministry of Planning and Investment (2013) that the amount of cash transfer has been leaked during the process of transfer. The amount that children and households received has been reported to be 9% to 31% lower than the official allocation. The households said that they have paid informal commission to local officials and school officials in order to receive their subsidies. Table 7 hereafter illustrated the percentage of transferred amounts in one time of disbursement.

Table 7: Percentage of transferred amounts in one time of disbursement

Process of transfer	Percentage of transfer amounts
From Central Government to Provincial Government	100%
From Provincial Government to District Government	100%
From District Government to Schools	92% ~ 100%
From Schools to Households	69% ~ 91%

Adapted from "Policy brief: Increasing efficiency and effectiveness of cash transfer schemes for improving school attendance", by UNICEF and Ministry of Planning and Investment, 2013, pg.5.

The above shortcomings of current support policies should be taken into consideration so that those policies can help reduce the number of children who drop out of school due to financial pressure.

4.2. Analysis for the effectiveness of the financial support policies

To see how the support policies of government and non-government organizations impact on the school attendance of children, another probit regression was run with the dataset of children from Older Cohort in two surveys (round 2 and round 3) of Young Lives program. The model is shown as below:

$$y_i = x_i \alpha + \varepsilon_i$$

y is still a dummy dependent variable which equals 1 if the child is currently enrolled in school, and zero otherwise. α is the coefficient of each independent variable x, ε is the error terms and $\hat{\iota}$ represents the observation values. In this model, x consists of 8 independent variables, which are explained hereafter.

- 1. Household size
- 2. Living areas (1 = Rural, 0 = Urban)
- 3. Poor condition (1 = Included in the list of poor household made by Commune Committee, 0 = otherwise)
- 4. Beneficiaries of support/cash transfer for schooling (1 = If the household received support in cash or in kind from government or educational organizations including tuition exemption for their children's schooling, 0 = if otherwise).
- 5. Beneficiaries of transfers from food aid programs (1 = If the household received transfers from food aid programs, 0 = otherwise)
- 6. Beneficiaries of transfers from charity groups/ NGOs (1 = If the household received transfers from charity groups or NGOs, 0 = otherwise)
- 7. Beneficiaries of transfers from other government benefits (1 = If the household received transfers from other type of government benefit, 0 = otherwise)
- 8. Beneficiaries of transfers from social security/ social subsidy (1 = If the household received transfers from social security/ social subsidy, <math>0 = otherwise)

Table 8: Probit model: Impact of support programs to the probability of Children's school attendance

	The probability of children' school attendance	
	Round 2	Round 3
Household size	-0.0139***	-0.0335***
	(0.00327)	(0.00970)
Living areas (Rural)		-0.171***
		(0.0264)
Poor condition		-0.232***
		(0.0501)
Beneficiaries of support/cash transfer for schooling	0.0262***	0.0973***
	(0.00880)	(0.0303)
Beneficiaries of transfers from food aid programs	-0.0396	-0.159***
	(0.0310)	(0.0540)
Beneficiaries of transfers from charity groups or NGOs	0.0255**	0.116**
	(0.0120)	(0.0548)
Beneficiaries of transfers from other government benefits	-0.0119	-0.0369
	(0.0283)	(0.0372)
Beneficiaries of transfers from social security/social subsidy		0.0357
		(0.0449)
Observations	791	960
LR chi2	21.95	94.37
Prob> chi2	0.0005	0.0000
Pseudo R2	0.0862	0.0909

Note: dF/dx is for discrete change of dummy variable from 0 to 1

Table 8 represents the results of this probit regression. The household size has shown the statistical significance in both rounds. Children with more siblings are less likely to keep in school than the children from the smaller family by 1.39% (in round 2) and 3.35% (in round 3).

In round 3, children living in rural area are estimated to drop out of school by 17.1% more than children in urban area. Moreover, the children from household in the list of poor household have the probability over 23% higher of dropping out of school than other children. From the results of three above independent variables, poverty remains

z and P>|z| correspond to the test of the underlying coefficient being 0

^(*) Robust standard errors in parentheses

^{***} p<0.01, ** p<0.05, * p<0.1

an important reason that caused the school dropout of children. Therefore, it is expected that financial support programs would help keep children in school.

First of all, children from the household that received the support in cash or in kind from government or educational organizations for their schooling is more likely to continue studying by 2.6% in round 2 and 9.73% in round 3. This type of support also includes tuition exemption and tuition reduction policies. Additionally, children who were transferred from charity groups or non-government organizations were also more likely to go to school in both rounds, by 2.55% and 11.6% respectively.

On the other hand, with respect to the support from the food aid programs, the effect of the program was statistically significant in round 3, but by the negative tendency in both rounds. It means children who received transfers from food aid programs were more likely to leave school early than the other children, with the estimation of 3.96% in round 2 and 15.9% in round 3. This result conflicts with the expectation that support programs would affect positive changes in children's school attendance. The negative tendency could be explained by the prediction that, although the household in very poor condition received support from the food aid programs, it is still highly unlikely that the parents have enough money to keep their children in school due to the high cost of education that was described in Section 3.1. In this case, giving food or meals to the household or the children could improve the nutritional status of children, but in some circumstances, the support program seems to be ineffective in solving the school dropout problem with some specific beneficiaries.

The estimation of the school dropout probability of children who received support from other government benefits was in the same tendency with that of children supported by food aid programs. Those children have 1.19% in round 2 and 3.69% in round 3 of probability to drop out of school. In contrast, children who were the beneficiaries of transfers from social security and social subsidy were less likely to leave school early than the other children.

Based on the analysis results in Table 8, it has been found that many points at issue still remain in the implementation of these support policies besides some constraints summarized in section 4.1 above.

Firstly, there are many supporting programs towards poor children and ethnic minority children, however those programs are still incoherent and incomprehensive. Children are exempt from paying tuition fees but pay for other indirect costs, which probably acts as financial burdens for poor families. Children received the financial support but the distance from their home to the school, the difficulty in accessing the school, or the content of curriculum have become barriers that make children leave school early. In addition, many policies focus on improving access to education such as building new schools and boarding classes than improving the quality of education and quality of teachers. New schools were built but there were still lack of facilities, textbooks and stationeries for children, and especially lack of trained teachers in the schools.

Secondly, the misuse of subsidies is also an issue that needs the concern. Due to the delay in disbursement, some children who already graduated from lower secondary school still received cash transfer, while some dropped out of school before receiving the transfer. This caused the situation that the money was not used for children's education, but for their parents to buy television, cattle or clothes (Gia Lai online newspaper). Another example is about the food aid programs. In the recent years, more children who live far from schools can stay in the boarding schools after the classes, which are thought to reduce effectively the rate of school dropout children due to the difficulty of accessing school. However, there is one more advantage of boarding schools. One child living in a boarding school said "I like to stay in boarding school because I can have full belly here". According to To To Tam from Save the Children Vietnam (2013), in the poor household, most of the food is provided to small babies and adults who do hard work in the field. "Parents often think that children are just playing and therefore do not need much to eat. In boarding schools, children can have three meals per day instead of one or two per day at home". Therefore, it can be seen that, by many reasons, the subsidies could not go directly to the children and could not be used for their education, which resulted in the ineffective implementation of supporting policies.

The third problem is about the selection of targeted beneficiaries and the forms of financial support. The financial resources are limited, but the targeted beneficiaries

scattered and were not categorized by the level of poor condition, which leads to the difficulty in monitoring the implementation and achievement of the expected results. For example, there are some households who are extremely difficult to escape the poverty. In some circumstances, the "wrong way of support" of government could cause the problem called "moral hazard", which can be understood that these poor households do not try to get out of the poverty and continue to receive the support from the government. For these households, despite receiving the support in cash or in kind, or provision of food, the probability of their children to attend school is very low. Many people said that they want their children to leave school and work to help their families because even if their children go to school, they have not enough money to buy books and pay for other expenses (Tuoitre online newspaper)

However, the results of the probit regression should be interpreted with caution. Except for the first three variables, the other variables are at risk of being endogenous. The problem is about the relevance between the variables about the beneficiaries, for examples, some people can be the beneficiaries of some programs that make them have enough conditions to go to school. In this case, the analysis results cannot show exactly the efficiencies of each support program to the decision of school continuation of students. Dealing with the problem of endogeneity is reasonably considered as beyond the objectives of this paper, and it needs a further study.

To summary, it can be seen clearly that further consideration should be taken into account in order to increase the effectiveness of financial support policies and other types of supporting programs in the solution to the school dropout problem in Vietnam.

4.3. Policy recommendations

4.3.1. Recommendation –Lessons from Mexico's experience

In order to solve the school dropout problem among Vietnamese children, policy recommendation should be given towards children, their families, schools, teachers and the management agencies. Furthermore, recommendation for the policies and the current education system may be necessary for the more effective education development. However, the recommendations in this study focus on the solutions to

some of the constraints mentioned above, for the purpose of improving the efficiency and effectiveness of financial support programs to poor families and poor children.

To extend the coverage of targeted beneficiaries and expenditure for schooling of children, as well as to ensure the subsidies to be used directly for the children's education, this study recommends the "conditional cash transfer program". Actually, most current cash transfer programs of Vietnam have their objectives to mitigate the financial burdens of poor families to ensure school attendance of their children. For example, one of the meaningful policies in these years is the Decision No.112/QD-TTg dated on 20/07/2007 by the Prime Minister to support school attendance of poor and minority children in kindergarten school and children in boarding schools in other education levels. However, in the report about the implementation of this policy, it was mentioned that although the policy had very clear objectives, when it comes into implementation, it is likely that there was no link between cash transfer and school attendance. The cash transfer was unconditional to school attendance, which was different from the official guidelines (Ministry of Planning and Investment 2013). Thus, a program with specific objectives and monitoring system should be designed clearly and carefully in the framework of these support policies.

In Mexico, a conditional cash transfer program called PROGRESA has been very successful in reducing childhood poverty along with improving children's nutritional status and school attendance. The idea of this program was that poor families who cannot pay for their children's education had to have their children drop out of school and send them to work to have money for buying food and other consumption of the family. Therefore, the program provided families with the money as "opportunity costs" to send the children to school instead of having them go to work. The children participating in this program were under 22 years old, and enrolled in school between the third grade of primary school and the third grade of high school. The program began in 1997 in poor rural areas and then expanded to urban areas. In 2002, the name was changed to Oportunidades. The number of beneficiaries of this program was over 4 million families and covered nearly all the poor families in the population.

According to Huyn (2008), there are several key characteristics of Mexico's conditional cash transfer. Firstly, the targets of the program were poor or extremely poor

families who had gender bias, and the cash was usually transferred directly to the mothers. Second, this program also included a nutrition and health component that provided cash transfers and opportunities of visiting health clinics in local areas to children, pregnant and lactating women. Third, the transfers for girls were higher than for boys due to the purpose of encouragement of school attendance for girls who have higher drop-out rate than boys. Finally, the grants increased when children went to higher grades, because children in secondary school and high school were expected to have higher opportunity costs than those in primary school. The monthly amounts of money that primary school children supported was about \$10.50 and increased to about \$58 for boys and \$66 for girls in the third year of high school.

Regarding the operation of the program, UNDP (2011) has summarized the basic one as follows. First of all, the federal administrative group determined targeted families. The families participating in this program must register family members with the school and the health clinic where they were assigned. Local health and school officials recorded the household's attendance in school and clinics and sent this information to the administrative group every two months. The payment were calculated by the administrative group based on gender, age and grade of children in school, along with the frequency of school attendance of children and clinics attendance of mothers. After that, the payment was sent to payment center where mothers could go directly to collect the money. The procedure and the payment were implemented every two months, and the information of school and clinic enrolment must be updated every year. In the program, children received payments for buying school supplies and food also. After a couple years of implementation, poor children in the Progresa program have increased in their school attendance, received healthier diets and health care. Participating children have less working time than the others, especially in rural areas. The following table illustrates the impact of this program on school enrollment and school attendance of poor children in rural and urban areas, which was reported by LaVonda (2011).

Table 9: Impact of Progresa program on Mexico's education

School level	Impacts			
Primary	•Increase in primary education completion rate and decrease in drop-out rate			
school	after primary school			
Secondary	●12% increase in secondary school enrollment (1977 – 2000)			
school	•23% increase in secondary school completion (2010)			
	Included:			
	42% increase in school enrollment of 12 years old children (2004)			
	35% increase in school enrollment of 14 years old children (2004)			
	28.7% increase in girls enrollment to secondary school (1997 – 2007)			
High school ●23% increase in high school enrollment (2002)				
	●Decrease in drop-out rates of high school students			
	Included:			
	23% decrease in drop-out rates of 16 – 19 years old children			
Overall	•Increase in school attendance and school activities of all targeted children			
	●Decrease in child work (1998 – 2000)			
	●10% points higher of mathematics test performance (1998 – 2003)			
	•Increase in average length of time in school by 0.85 year for girls and 0.65 year			
	for boys (1997 – 2007)			

Adapted from "PROGRESA/Oportunidades Mexico's conditional cash transfer program: Promises, Predictions and Realities", by LaVonda Harrington, 2011, pg.55.

For the effectiveness in reducing poverty, increasing school enrolment and school attendance, health and nutritional conditions of family members, especially of children, as well as the cost effectiveness, it has been said that "Progresa/ Oportunidades has brought to the CCT approach to poverty alleviation, it has proven important not only for Mexicans but for poor people around the world" (Beryl 2010).

4.3.2. Policy implications for Vietnam

Based on the importance and the problem of lacking the linkage between cash transfer and school attendance of the Decision No.112 mentioned above, this study recommends that it would be advisable for the Vietnamese policy planners to expand or

to improve some contents so that current cash transfer policies including Decision No.112 could become trial "conditional cash transfer programs" in Vietnam.

Principles:

It is highly likely that conditioning plays an important role in cash transfer program. Cash transfer itself could not create the children's incentive of going to school. In the U.S., the New York conditional cash transfer program has changed the conditions for the cash transfers in order to create the incentive for children to obtain better achievement, in addition to increase school's participation. Children attending school more than 95% of the time received 25\$ - 50\$ per month. Those who passed the standard tests was given 300\$ - 600\$, and those earning enough credits to graduate from high school on time received 600\$ (Brett and Luciana, 2010). Therefore, the framework in which the beneficiaries of cash program could receive payments in return for taking some basic services including school participation and health care to improve their educational level and health condition seems to be an effective way of investing in human capital of the poor.

Selection of beneficiaries:

The selection of targeted families and children should be implemented clearly and should cover all the poor who really need the assistance. In Vietnam, most of the financial support programs aim to poor children or ethnic minority children living in the rural, mountainous areas with very poor economic – social condition. However, there are still some differences in the targeted children of each program that make the confusion in the administrators and the families. For example, in one family in Yen Bai province, the younger child was a beneficiary of one support program, but her brother was not supported (Yen Bai online newspaper). In order to avoid this kind of confusion, the program planners should use a clear and detailed targeting mechanism to select the beneficiaries. The Progresa program selected the participants through a three step process including identifying targeted villages in the first stage, identifying targeted households in the second stage, and then announcing the eligible families into public in the final stage. The purpose of the final step is to get the community and families' reaction and to give a chance for excluded families to apply for reconsideration. This

stage has not been implemented in Vietnam, but it has huge meaning in targeting truly poor people of the community. Moreover, thanks to this careful selection process, a full dataset of the household and the children could be collected for the results evaluation in the upcoming time.

Regular report and timely cash payments:

The procedures for selecting, approving eligible families and children, planning budget as well as submitting the report on children's school attendance should be stipulated and the administrators have to exactly comply with the deadline. Because the complex procedure leads to the delay in disbursements, and as a result, the untimely disbursements have weakened the meaning of "the condition" and the effectiveness of the support policies. For instances, in Decision No. 112, the cash is promised to be transferred to the children in 9 months of a school year. But, many children received the grants after the first half of the school year, which caused difficulties for them to buy school supplies and pay for other expenses. Therefore, it should be required for the school officials to report to local officials about children's school attendance every month or every two months. The local officials, after confirming the report, should give the payment immediately and timely for the children. The simplification of the report and the payment procedures should be considered in order to not only manage the impact of the program, but also ensure the timely assistance to poor families and poor children.

Monitoring system:

Information, monitoring and evaluation are key factors in the implementation of the program. In Vietnam, data collection at the school and local level about children's school attendance and household's financial condition is still weak, which makes it difficult to set a target mechanism and evaluate the impact of the policy. Turning to Progresa program, the full dataset of all the families before and after the intervention has provided the government, academic institutions and researchers variety of information to analyze and identify the causal linkages and the estimation about quantitative and qualitative impacts of the program. The researches of different stakeholders have contributed on the improvement of the program over the years. Therefore, a monitoring

system including information collecting and tracking mechanism as well as evaluation mechanism is recommended to be established and integrated in the policy design

Transparency in budget administration and policy's information:

Transparency is another important factor of cash transfer program. First of all, information about the policies, targeted beneficiaries, amounts of grants and especially about the condition should be announced to the public, especially to the ethnic minority families. The announcement could be implemented by local or school officials. Many parents from minority community said that they had no information about the support programs. Due to lack of information about their benefit and their duty, they had no idea about what the cash transfer would be used for or what they have to do for their children, which resulted in the misuse and ineffectiveness of the cash transfer along with the frustration and the distrust among the community.

Secondly, the good governance and the transparency on budget management are really important. It is suggested that a transparent and simplified budget management system should be established within center and provincial authorities which is expected to ensure the accuracy and effectiveness of the budget allocation. Furthermore, for the convenience of the users including government, policy planners and the administrators, this budget management system should be combined with the reporting, monitoring and evaluating system. In the other words, a development of a database system for the management of cash transfer program which integrates regularly updated information of beneficiaries before and after the support, time and amount of the cash transfers, situation of children's school attendance, as well as the information of the process implemented by local and schools would become useful for the monitoring and evaluation of the policy's impacts.

5. Conclusion

The efforts of the Vietnamese government in education development in recent years have made the significant changes in education. However, the number of children dropping out of school is still increasing every year. The analysis in this study has proven that poverty is not the most, but is really an important factor that makes children

drop out of school. Not only the low income of the household, but the high education cost have been financial barriers to the families to afford their children's education.

The government has addressed the financial difficulties of poor and ethnic minority households by variety of support policies. By the quantitative analysis using data of Young Lives Vietnam, it was found that while direct support for schooling including tuition exemption and support of charities and non-government organizations have had positive impacts on children's school attendance, the food provision had not significant impact. The delay disbursements, the misusing of subsidies, the lack of comprehensive policies and some other constraints have been thought to be the reasons of this ineffectiveness of those financial support policies.

Therefore, the cash transfer program conditioned on the behavior of beneficiaries is recommended as a solution to ensure the effectiveness and to increase the impact of support policies. Learning from Mexico's experience –Progresa Condition cash transfer program, Vietnamese government should strengthen the linkage between cash transfer and school attendance by setting the condition towards the beneficiaries, planning the targeting groups carefully and strengthening the reporting, monitoring and evaluating system.

Finally, only the implementation of the condition cash transfer policy is not enough for the solution of school dropouts. It is needed to coordinate with other social policies to ensure its success including the improvement of school quality and the access to school as well as the capacity development of local and school officials in implementing and monitoring the policies in local areas.

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