

INTRODUCTION

I. BACKGROUND AND RELEVANCE OF THE TOPIC

Education is a critical input into the economic development process (Psacharopoulos and Woodhall, 1985; Ogawa, Jones, and Williamson, 1993; World Bank, 1993). Nowadays, schooling is particularly important when complex new technologies and market options become available (Behrman and Knowles, 1999, p.211). So it is not surprising that many developing countries have made great strides in expanding enrollments at all levels. Countries that postpone this task will fall behind those that commit themselves aggressively.

Recognizing these benefits, Vietnam has given the first priority to education in the process of pursuing the Industrialization and Modernization strategy. During the past recent years, Vietnam has reach many significant achievements in education sector.

I chose the lower secondary level for the subject of my research because the completion of this level of schooling impacts an individual's future opportunities. As the World Bank explains, "It was necessary to be educated beyond lower secondary level to stand a chance of securing stable employment" (World Bank, 2000, p.22)). I focus on the period 1993-1998 because in this period the Vietnamese economy changed significantly.

In order to formulate and implement policies designed to increase enrollment rates in general and to improve poor people's access to education, it is necessary to find out why some children don't attend or drop out from lower secondary school.

So, this research seeks to make three contributions. First, it investigates the situation of enrollments in general, and situation of enrollments of lower secondary in rural Vietnam in particular. Second, it investigates the major determinants affecting enrollment in lower secondary in rural Vietnam. Third, it recommends some policy implications that could help to increase enrollment in lower secondary in rural Vietnam.

II. FOCUS AND SCOPE OF THE THESIS

This study focuses on:

- Reviewing empirical issues relating to factors affecting child enrollment.
- Identifying determinants of and quantify their effects on child enrollment in lower secondary level in rural Vietnam based on data from Vietnam Living Standard Surveys.
- Recommending some policies to increase enrollment in lower secondary schools in rural Vietnam.

The scope of this thesis is to examine factors related to households and children of the 11-14 age group who are expected to attend lower secondary level..

III. RESEARCH QUESTIONS

The central questions of the thesis will be “What are the major determinants of enrollment in the lower secondary level in rural Vietnam”.

Sub-questions:

- How much have enrollment rates at lower secondary level in rural improved in the period 1993-1998?
- What factors have caused them to change?
- What are the causes of gaps between enrolment rates of the majority and the minority?
- Can we achieve the MOET’s target of lower secondary level universalization by the year 2010?

IV. METHODS OF ANALYSIS

Descriptive and regression method will be used in my research.

V. DATA SOURCES AND LIMITATIONS

V.1. Data sources

I use some sources of secondary data:

- Data for running regression models: these data were obtained from two Vietnam Living Standard Surveys (VLSS) conducted in 1992/1993 and 1997/1998.
- Secondary data for description: this kind of data sources I collect from UNDP, WB, MOET and other sources.

V.2. Limitations

The research only focus on studying education in terms of quantity but not quality since the main data source, two Vietnam Living Standard Surveys, did not collect information relating to the education’s quality individually. The limitation calls for further studies on the quality of schooling by using other sources of data.

CHAPTER I: ANALYTICAL FRAMEWORK

I. CONCEPTS AND DEFINITIONS

I.1. Education

Gillis at al (1996) defined education broadly as all forms of human learning or, more narrowly, as the process that occurs in specialized institutions called “schools”. Education includes all channels through which a person can accumulate knowledge and skills in order

to enhance his own human capital and productivity. And Gillis et al (1996) classified education into three types: Formal education, non-formal education and informal education.

Formal education consists of basic or general education and tertiary, university or higher education. Basic education in most countries means primary and secondary education whose duration ranges from ten to thirteen years.

Higher education includes undergraduate and postgraduate courses at universities, colleges as well as vocational or technical training.

I.2 Concepts of enrollment ratios

There are three popular indicators measuring the development of education in terms of quantity: Gross enrollment ratio, net enrollment ratio, age specific enrollment ratio.

Gross enrollment ration (GER) for a certain level of education is the ratio of total enrollment, regardless of age, attending that level to the population of the age group that officially corresponds to that level of schooling (World Bank, 1996, p.26).

Net enrollment ratio (NER) for an education level is the ratio of the number of pupils of the official school-level age who are enrolled in this level to the population of the corresponding official school age as defined by the national education system.

Age specific enrollment ratio is the ratio of the number of pupils of a certain school age are going to any school to the population of that age group.

Since the quality of schooling is beyond the scope of my study, I will focus on researching lower secondary education in terms of quantity using net enrollment ratio and age specific enrollment ratio.

III. LITERATURE REVIEW

Ridker (1997) states that factors influencing school achievement and participation include household, school, and other community characteristics and contextual factors.

This diagram includes factors occurring at both school and social factors and micro level children and household factors.

Among the five factor groups: household characteristics, child characteristics, community characteristics, school characteristics, and other external factors, the first three groups directly determine school attainment and achievement. The others indirectly determine school attainment and achievement.

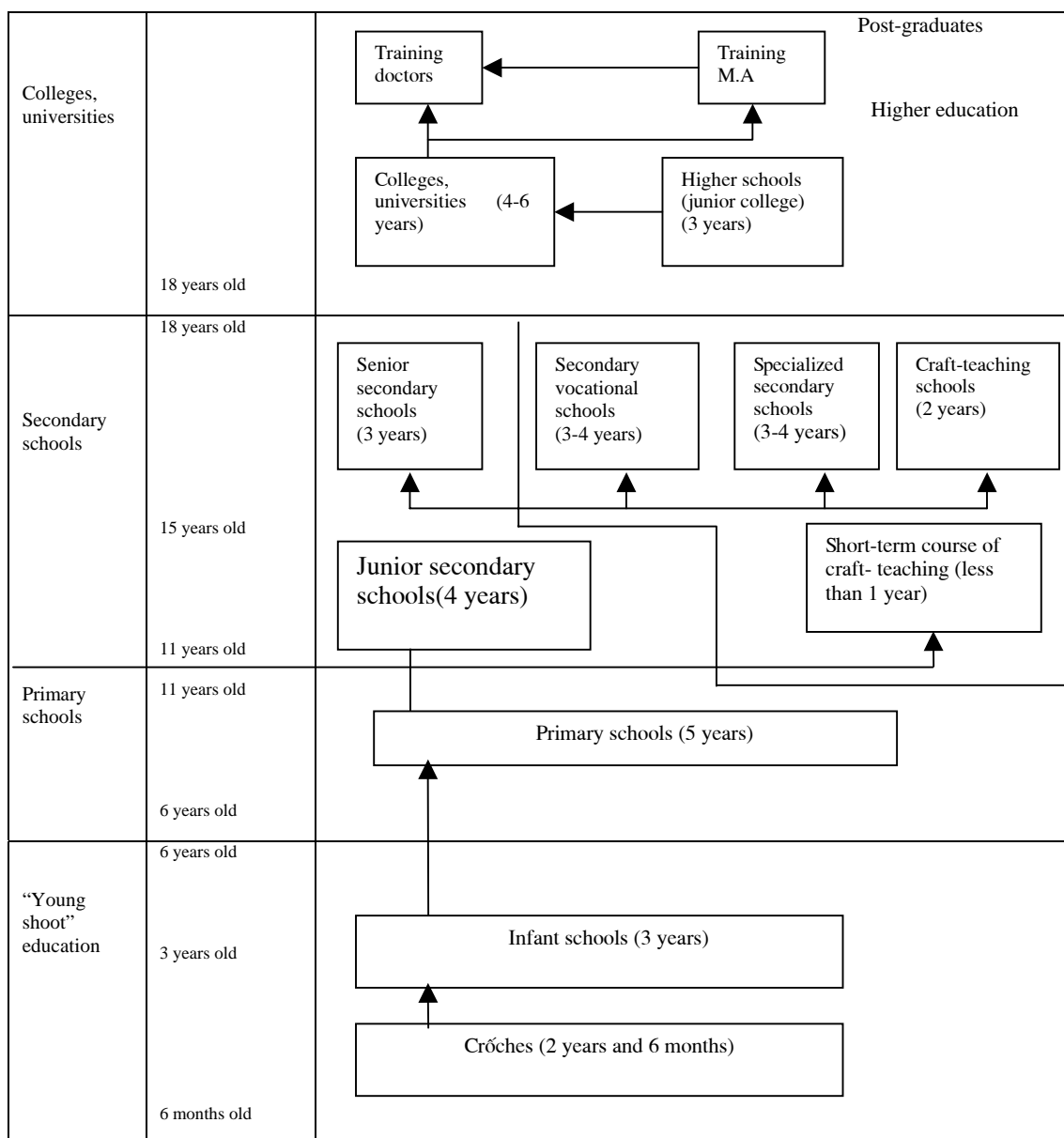
CHAPTER II: REVIEW OF VIETNAM'S EDUCATION SYSTEM

I. STRUCTURE OF VIETNAM'S EDUCATIONAL SYSTEM

Figure belows illustrates the structure of the national education system under Decree 90/CP dated November 24, 1993.

Vietnam's education system has a 5-4-3-4 structure.

Vietnam's education system



Source: Pham Minh Hac, 1998, p.46

II. PAST OUTCOMES OF THE VIETNAMESE EDUCATION SYSTEM

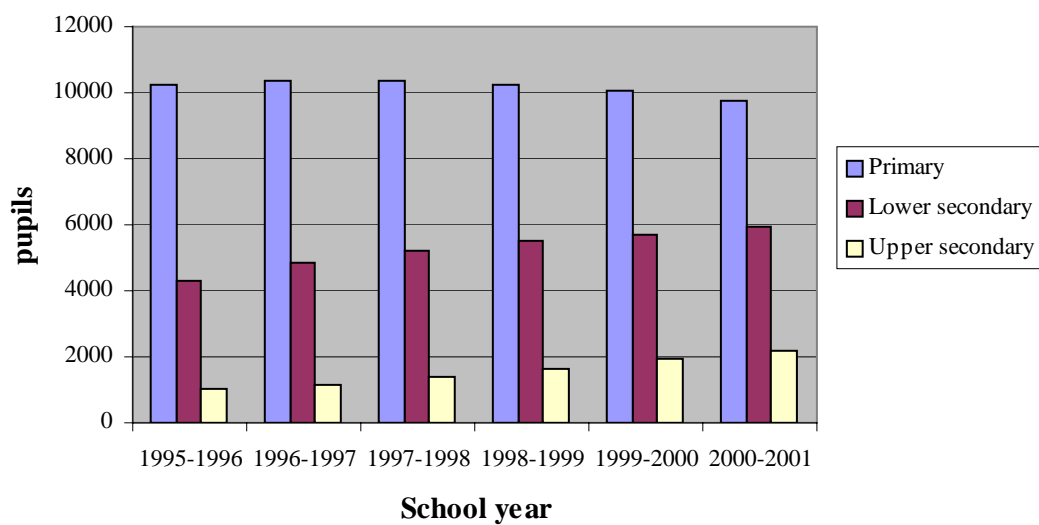
During the past ten years, Vietnam has made significant educational achievements.

Enrollment rates, school year 1997-1998

	Primary school age	Lower secondary school age	Upper secondary school age	College, university age
Gross	114.68	77.73	36.25	9.76
Male	119.12	79.25	40.07	10.46
Female	110.11	76.12	32.59	9.03
Age-specific	95.15	85.48	52.05	14.56
Male	95.74	88.30	58.01	16.87
Female	94.55	82.47	46.32	12.17
Net	92.60	61.59	28.79	9.25
Male	93.46	61.05	30.29	9.95
Female	91.72	62.16	27.35	8.52

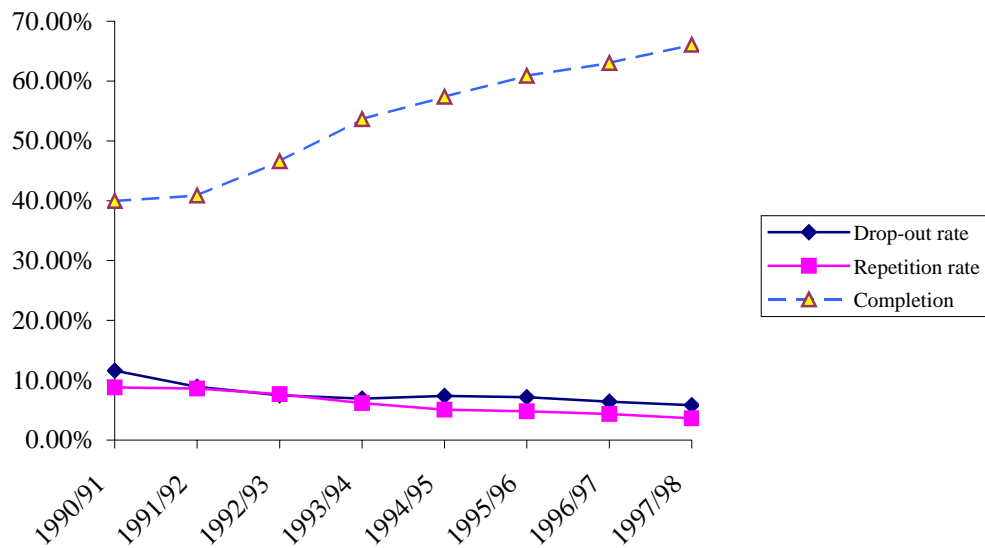
Source: VLSS (1999,p.50)

Pupils of education levels by year



Source: Based on Vietnam Statistical Yearbook 2001, GSO (2001)

Drop-out, repetition and completion rates of pupils by years



Source: GSO (2000)

III. TRENDS OF THE LOWER SECONDARY EDUCATION IN VIETNAM

In this part, some outstanding points about the lower secondary education in Vietnam in the past years will be showed.

In the 1998/1999 school year, there were nearly 5.6 million children enrolled in lower secondary school, up from 5.2 in 1997/1998 and 4.9 million in 1996/97

Enrollment rates of age range 11-14 increase significantly in the period 1993-1998.

Despite the significant increase in lower secondary school enrollments, drop-out rates at this level are highest relative to primary and upper secondary schooling.

Drop-out rates of lower secondary school by grade and region, 1998/99 school year

	Grade 6	Grade 7	Grade 8	Grade 9
Total	8.8	8.5	7.6	10.0
North	5.6	6.5	5.9	7.9
South	12.3	10.9	9.6	12.9

Source: MOET (1999)

IV. THE SITUATION OF THE LOWER SECONDARY EDUCATION IN RURAL, VIETNAM

I have some descriptions about the situation of the lower secondary education in rural, Vietnam as follows.

Enrollment rates.

Enrollment rates of lower secondary level in rural by year and ethnicity

	Minority		Majority		All rural	
	1993	1998	1993	1998	1993	1998
Age specific	65.7%	70%	75.9%	89.2%	74.5%	85%
Net	9.5%	29.7%	33.5%	56.2%	27.9%	55.1%

Source: Author's calculations based on VLSS93 and VLSS98

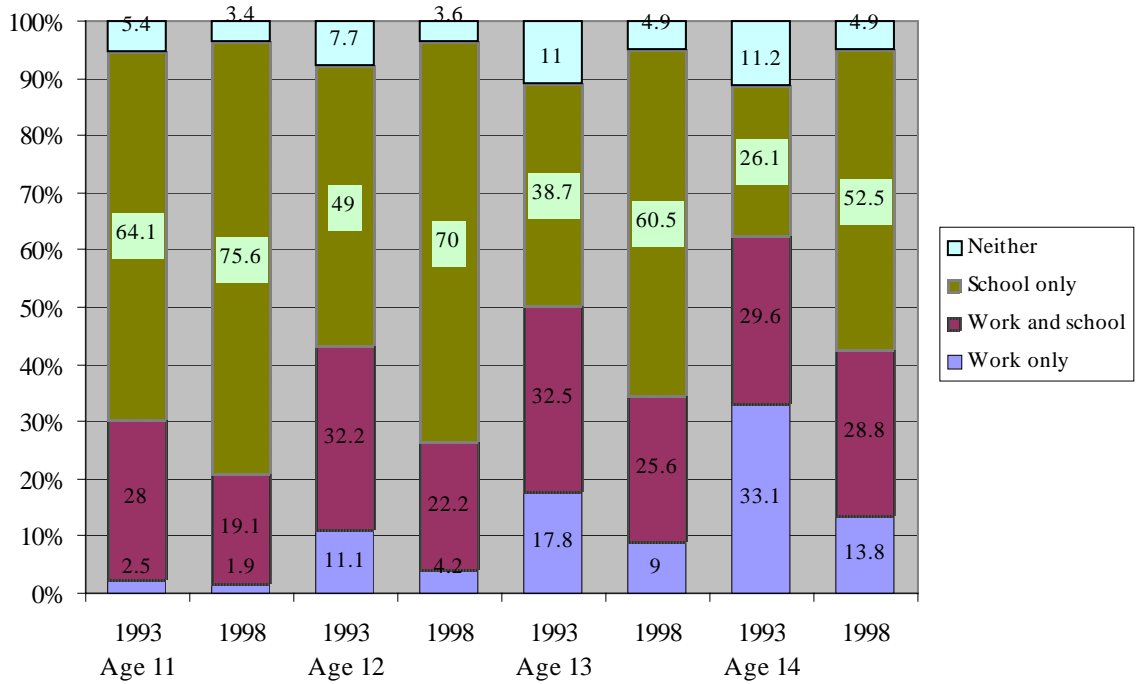
Net enrollment rates of lower secondary education in rural Vietnam by quintile, region and gender

	1993	1998
All rural	27.9	55.1
Quintile 1	15.9	27.7
Quintile 2	19.4	44.5
Quintile 3	32.3	54.9
Quintile 4	37.5	61
Quintile 5	49	74
Region		
Northern Uplands	23.4	39.1
Red River Delta	42.6	74.5
North Central Coast	29.7	52.7
Central Coast	32	50.5
Central Highlands	21.5	38.2
Southeast	33.5	53.4
Mekong Delta	18.8	34.9
Gender		
Males	32.3	53.5
Females	26.7	57.8

Source: Author's calculations based on VLSS 1992/1993 and Living Standard Survey 1997/1998

Education and work

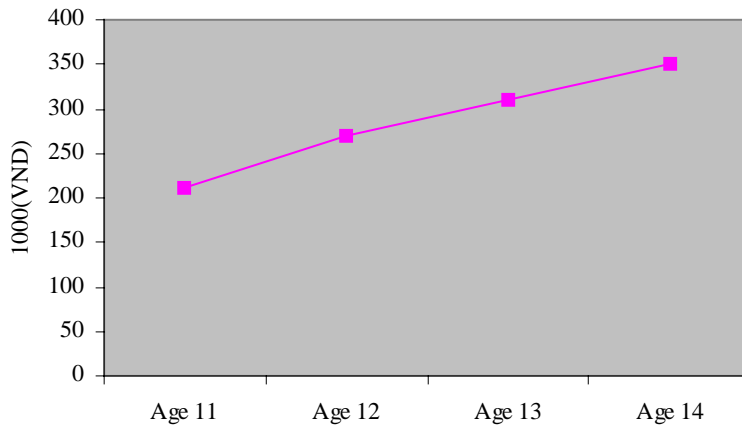
Children's work and school by year



Source: Author's calculations based on VLSS93 and VLSS98

Schooling cost:

School fees per year in rural by age of pupils, 1998



Source: Author's calculations based on VLSS93 and VLSS98

Note: The school fees per pupil is calculated for those who attend school only

CHAPTER III: DETERMINANTS OF ENROLMENT IN A LOWER SECONDARY SCHOOL IN RURAL, VIETNAM

I. MODEL SPECIFICATION

I.1. Logistic model

In this chapter, the estimation techniques are used for analysis of child enrollment.

The logit, L_i , is assumed to be a linear function of these explanatory variables:

$$L_i = a_1 + a_2X_{2i} + \dots + a_kX_{ki} \quad (3.6)$$

I.2. Oaxaca decomposition:

The difference between the mean values of the outcome of two groups can be written as follows:

$$\begin{aligned} \overline{Y_i^A} - \overline{Y_i^B} &= (\beta_0^A + \beta_1^A \overline{X_{1i}^A} + \beta_2^A \overline{X_{2i}^A} + \dots + \beta_k^A \overline{X_{ki}^A}) - (\beta_0^B + \beta_1^B \overline{X_{1i}^B} + \beta_2^B \overline{X_{2i}^B} + \dots + \beta_k^B \overline{X_{ki}^B}) \\ &= [(\beta_1^A \overline{X_{1i}^A} - \beta_1^B \overline{X_{1i}^B}) + \dots + (\beta_k^A \overline{X_{ki}^A} - \beta_k^B \overline{X_{ki}^B})] + [(\beta_0^A - \beta_0^B) + (\beta_1^A - \beta_1^B) \overline{X_{1i}^B} + \dots + (\beta_k^A - \beta_k^B) \overline{X_{ki}^B}] \\ &= [\beta_1^A (\overline{X_{1i}^A} - \overline{X_{1i}^B}) + \dots + \beta_k^A (\overline{X_{ki}^A} - \overline{X_{ki}^B})] + [(\beta_0^A - \beta_0^B) + (\beta_1^A - \beta_1^B) \overline{X_{1i}^B} + \dots + (\beta_k^A - \beta_k^B) \overline{X_{ki}^B}] \quad (3.13) \end{aligned}$$

The difference between the mean value of the outcome of groups A and B due to difference between mean values of explanatory variables and difference in the estimated coefficients between two groups. The first component is called the difference due to “characteristics” (factors that we can explain), and the second component as the difference due to “structure” (unexplained factors).

II. DATA COLLECTION AND PROCESSING

All of the data that will be used to calculate the specified logit regression coefficients come from the 1997-1998 Viet Nam Living Standard Survey (VLSS).

III. VARIABLES DEFINED

III.1. Dependent variable

In the age-specific model, this is a dummy variable, taking 1 if a child aged 10-14 is enrolling and 0 if otherwise.

In the net enrollment ratio model, this is a dummy variable, taking 1 if the child aged 10-14 is enrolling in a lower secondary school and 0 if otherwise.

III.2 Independent variable

Age of child. In this study I considered only children in the 11-14 age group (formal age for lower secondary school).

Gender of child. Most aggregate data suggest that there are pronounced gender differences in child school enrollment in Vietnam.

Work of child. Time used for working should reduce the potential time to education and leisure.

Schooling costs. Schooling costs include direct costs and indirect costs (opportunity costs). Because it is impossible to measure opportunity cost so in this research I only consider direct costs of schooling. For children who do not go to school, the value of schooling cost is not known. However, it is assumed that their expenditure on education in case of attending school should be the average of the spending actually incurred by pupils in the same age range and the same village.

Expenditure per capita. In this study monthly per capita household expenditure, which is readjusted by price indexes of regions and months, is used in the estimations as a proxy for income.

Parents' education. The level of education parents attain does play an important role in sending their children to school since it affects investment in education in a variety ways.

Place of residence. Regions are expected to differ with respect to the probability of child enrollment.

In short, the econometric model can be demonstrated with the following equation:

$$Y_i = F(X_{1i}, X_{2i}, X_{3i}, X_{4i}, X_{5i}, X_{6i}, u_i) \quad (3.15)$$

Where u_i is a random error term.

This model will be estimated by maximum likelihood technique in the STATA software. Data that be used is of Vietnam Living Standard Survey being discussed earlier.

IV. ESTIMATION RESULTS OF DETERMINANTS OF ENROLLMENT OF THE LOWER SECONDARY AGE CHILDREN IN RURAL, VIETNAM

IV.1 Model 1

Model 1 called age-specific enrollment rate.

a. Estimation result for the year 1997-1998

The estimation result of this model for schooling year 1997-1998 in rural, Vietnam is shown in.

Logistic Model of Age-specific Enrollment ¹

Coefficient	P-values	Estimated probability that child aged 11-14 goes to school, when independent variable changes by one unit and initial probability is:			
		(percent)			
		50	70	90	
<i>Dependent variable:</i>					
Does child aged 11-14 go to school? (Y=1)					
<i>Independent variables:</i>					
Age of child (years)	-0.396	0.000	40.2	61.1	85.8
Gender(M=1)	0.706	0.000	66.9	82.5	94.8
Ethnic(K&C=1)	-0.847	0.000	30.0	50.0	79.4
Is child working?(Y=1)	-2.031	0.000	11.6	23.4	54.1
Log schooling cost	-0.162	0.042	45.9	66.5	88.4
Log expenditure per capita	1.278	0.000	78.2	89.3	96.9
Mother's education (years)	0.162	0.000	54.0	73.3	91.4
Father's education (years)	0.091	0.001	52.3	71.9	90.8
<i>Regional effects:</i>					
North Central Coast	0.980	0.001	72.7	86.1	96.0
Mekong Delta	-0.874	0.000	29.4	49.3	78.9

Source: Author's calculation based on VLSS 97-98

Note: Based on 2181 observations. Pseudo R²= 0.29. The effect of a change in per capita expenditure and schooling cost, shown in the last three columns, assumes a 2.72-fold rise in expenditure and schooling cost.

All variables are statistically significant. If one child has probability of enrolling in school is 50 percent, another child who is 1 year older that that child will have only enrolling probability of 40.2 percent, *ceteris parabus*.

Coefficient of gender has positive sign, hence boys have higher chance of enrolling in school than girls.

With negative sign, ethnic variable has negative influence on enrollment probability.

Children who work have much lower chance of enrolling in school compared to other children, holding other constant.

Regarding schooling cost, this determinant has negative influence as expected.

Per capita household expenditure has relatively strong influence. Children born in richer family are more likely to be sent to school as expected.

The coefficient estimates on mother's and father's education are all positive and highly significant.

Children who live in Mekong Delta are less likely to enroll in school, and children who live in North Central Coast are more likely to enroll in school.

b. Comparison for the schooling year 1992-1993 and 1997-1998

The improvement during the period 1993-1998 of age-specific enrolment rate of lower secondary level in rural was caused by changes in mean values of factors that are used as explanatory variables in the model.

Mean values of explanatory variables in rural

	1992-1993		1997-1998	
	Mean	Std.Dev	Mean	Std.Dev
Age (years)	12.4	1.1	12.6	1.1
Male	0.48	0.5	0.53	0.49
Kinh & Chines	0.86	0.35	0.81	0.39
Work	0.46	0.49	0.31	0.46
per capital expenditure (1000 VND)	1693.3	1013.1	2147	1375.3
Schooling cost (1000 VND)	141.4	135.6	295.8	361.1
Mother's education (years)	4.98	3.57	5.81	3.79
Father's education (years)	6.84	4.11	7.33	3.85
Region 3	0.15	0.35	0.14	0.34
Region 7	0.25	0.43	0.20	0.40

Source: Author's calculation based on Vietnam Living Standard Surveys

Note: Unless noted, the table gives proportions of children with each characteristic. For example, in 1993 46% of children aged 11-14 work versus only 31% in 1998.

IV.2. Model 2:

Model 2 is called net enrollment model.

The estimation result for this model is shown in table.

Logistic model of net enrollment rate, 1998

	Coefficient	P- values	Estimated probability that child aged 11-14 goes to school, when independent variable changes by one unit and initial probability is:		
			(percent)		
			40	60	80
<i>Dependent variable:</i>					
Does child aged 11-14 go to a lower secondary school? (Y=1)					
<i>Independent variables:</i>					
Age of child (years)	0.935	0.000	62.9	79.3	91.1
Gender(M=1)	-0.147	0.100	36.5	56.4	77.6
Ethnic(K&C=1)	0.560	0.001	53.8	72.4	87.5
Is child working?(Y=1)	-0.402	0.001	30.8	50.1	72.8
Log schooling cost	0.551	0.000	53.6	72.2	87.4
Log expenditure per capita	0.713	0.000	57.6	75.4	89.1
Mother's education (years)	0.134	0.000	43.2	63.2	82.1
Father's education (years)	0.098	0.000	42.4	62.3	81.5
North Central Coast	-0.433	0.009	30.2	49.3	72.2
Mekong Delta	-0.726	0.000	24.4	42.0	65.9

Source: Author's calculation based on VLSS 1997-1998

Note: Based on 2181 observations. Pseudo $R^2 = 0.3$. The effect of a change in per capita expenditure and schooling cost, shown in the last three columns, assumes a 2.72-fold rise in expenditure and schooling cost.

The negative sign of variable gender shows that girls are more likely to enroll in lower secondary school than boys are.

Ethnic majority children (Kinh and Chines) more likely enroll in lower secondary level at the right age than ethnic minority children. Children who work are less likely to enroll in a lower secondary school.

Schooling cost variable has positive influence on probability of enrolling in lower secondary school of children in rural.

As expected, the children born in richer families have higher chance of enrolling in lower secondary school. Mother's and father's education has positive influence. But for both models, mother's education has much stronger influence on children's enrollment probability than father's education does.

Children living in North Central Coast and Mekong Delta are less likely to enroll in lower secondary level at the right age, although living in the North Central Coast areas has positive impact on any school enrollment.

IV.3. Factors causing inequality in school enrollment rate of the lower secondary level between the ethnic minority and the ethnic majority in rural, Vietnam

Apply Oaxaca decomposition equation, we have:

$$\begin{aligned} \overline{Y_i^{K\&C}} - \overline{Y_i^E} = & -0.396 * (\overline{age_i^{K\&C}} - \overline{age_i^E}) + 0.706 * (\overline{gender_i^{K\&C}} - \overline{gender_i^E}) - 2.031 * (\overline{work_i^{K\&C}} - \overline{work_i^E}) \\ & - 0.162 * (\overline{\ln fee_i^{K\&C}} - \overline{\ln fee_i^E}) + 1.278 * (\overline{\ln exp_i^{K\&C}} - \overline{\ln exp_i^E}) + 0.162 * (\overline{moedu_i^{K\&C}} - \overline{moedu_i^E}) \\ & + 0.091 * (\overline{faedu_i^{K\&C}} - \overline{faedu_i^E}) + 0.98 * (\overline{region3_i^{K\&C}} - \overline{region3_i^E}) - 0.874 * (\overline{region7_i^{K\&C}} - \overline{region7_i^E}) - 0.847 \end{aligned}$$

(In this research, I assume that there is no structure difference between the minority and the majority, it means that the minority and the majority have the same coefficients)

From definition of logistic function, we have:

$$Odds = P_i / (1 - P_i), \text{ and } \ln(odds) = \ln[P_i / (1 - P_i)] = Y_i$$

In order to know how much the difference of mean value of each explanatory variables between the ethnic majority and the ethnic minority cause the difference between the predicted mean of ln(odds) of two groups, I have below table:

Mean values of the determinants by ethnicity

	Ethnic majority group		Ethnic minority group	
	Mean	Std.Dev	Mean	Std.Dev
Age (years)	12.574	1.13	12.500	1.14
Male	0.533	0.50	0.537	0.50
Work	0.292	0.46	0.422	0.49
Per capital expenditure (1000 VND)	2314.625	1441.06	1422.883	668.23
Schooling cost (1000 VND)	334.389	384.10	129.312	148.51
Mother's education (years)	6.205	3.49	4.112	4.06
Father's education (years)	7.698	3.64	5.744	4.34
Region 3	0.166	0.37	0.010	0.10
Region 7	0.219	0.41	0.112	0.32

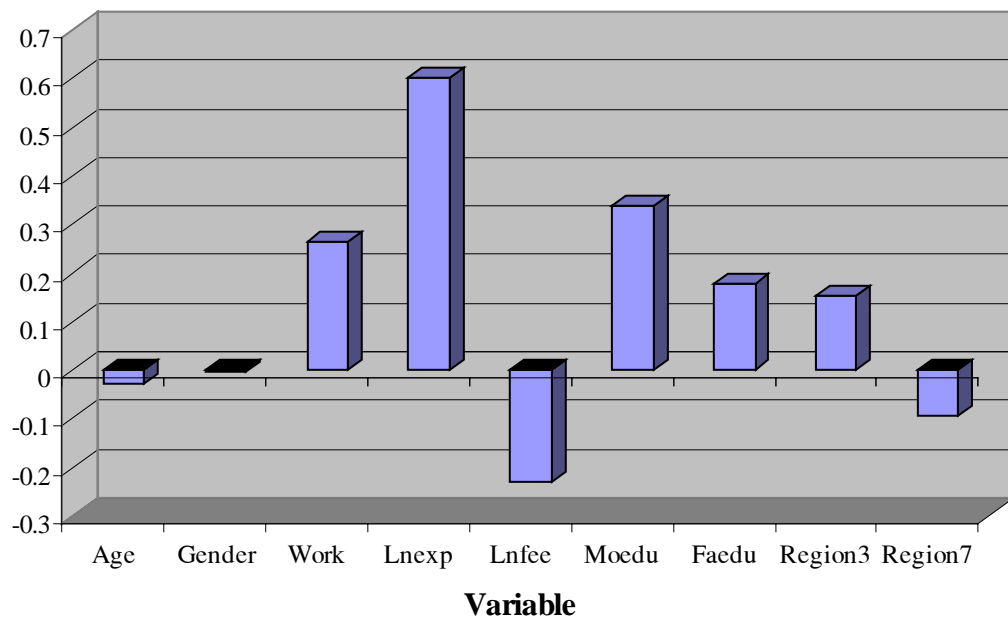
Source: Author's calculation based on VLSS 1997-1998

It is clear that per capital expenditure has the biggest effect on inequality in age-specific enrollment rate between the ethnic majority and the ethnic minority.

Variables mother's education, father's education and work also have relatively strong effect causing the inequality, 28.7%, 15.1% and 22.4% respectively. Besides, in

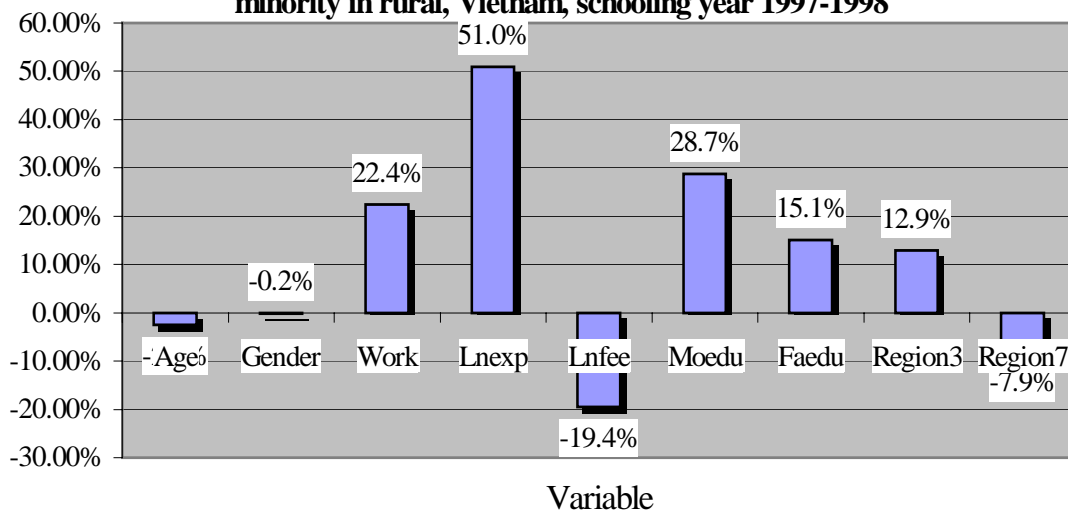
North Central Coast the percentage of the ethnic minority is lower, meanwhile living in North Central Coast make the chance of enrollment is higher, so this thing also widen the gap. In contrary, variables age, gender, region7 especially log schooling cost have reduced the inequality mentioned above.

Difference in age-specific enrollment rate between the majority and the minority caused by each explanatory variable



Source: Author's calculations based on VLSS 1997/1998

Figure 3.2: Percentage of factors causing inequality in age-specific enrollment rate of lower secondary level between the majority and the minority in rural, Vietnam, schooling year 1997-1998



Source: Author's calculations based on VLSS 1997/1998

V. CAN WE IMPLEMENT THE TARGET OF THE LOWER SECONDARY UNIVERSALIZATION BY THE YEAR 2010

Assuming that by the year 2010, there is no change with explanatory variables except per capita expenditure (due to economic growth of Vietnam) and growth rate of expenditure equals to economic growth rate of the country.

The estimated average odds of enrolling in school of children aged 11-14 in rural for the year t is:

$$\text{Odds}_t(\text{enrolling}) = e^{\beta \cdot \ln(1+\Delta) \cdot (r_{t-1}/(1-r_{t-1}))}$$

$$\Rightarrow P_t(\text{enrolling}) = \text{Odds}_t(\text{enrolling}) / (1 + \text{Odds}_t(\text{enrolling}))$$

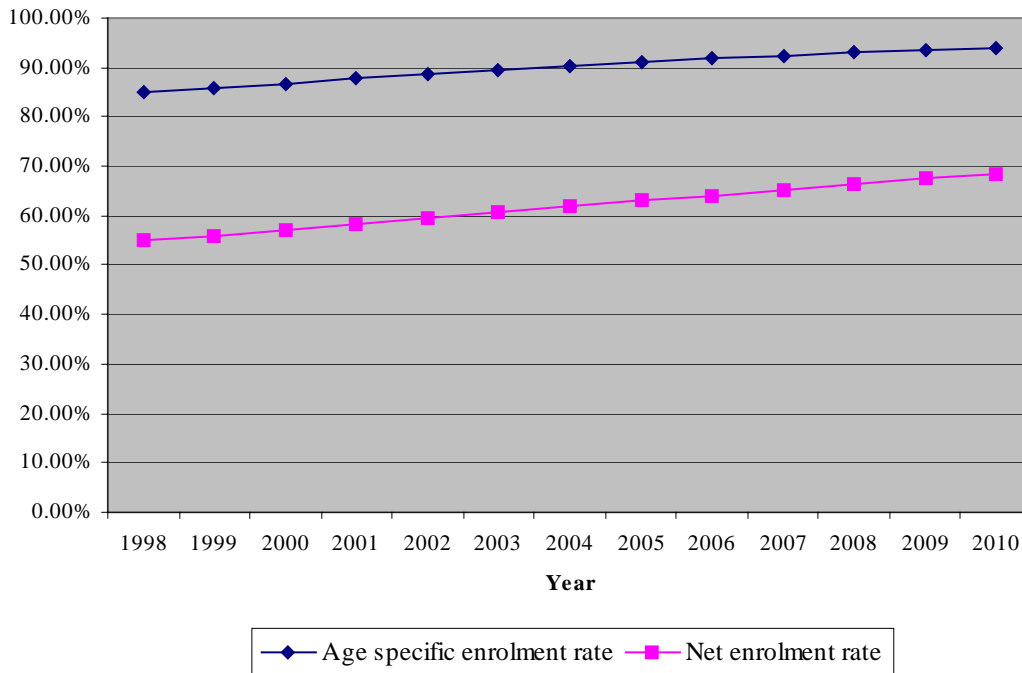
Predictions for the enrollment rates of the lower secondary level in rural by year.

Year	Growth rate	Prediction of the enrollment rates for the lower secondary level in rural	
		Age specific enrolment rate	Net enrolment rate
1998	6.5%*	85.00%	55.00%
1999	4.77%*	85.74%	55.82%
2000	6.75%*	86.73%	56.97%
2001	6.84%*	87.68%	58.12%
2002	7.5%	88.64%	59.37%
2003	7.5%	89.54%	60.61%
2004	7.5%	90.37%	61.83%
2005	7.5%	91.15%	63.04%
2006	7%	91.82%	64.16%
2007	7%	92.45%	65.26%
2008	7%	93.03%	66.34%
2009	7%	93.57%	67.41%
2010	7%	94.07%	68.46%

Source: Author's calculations based on Vietnam Living Survey 1997/1998 and "Van kien dai hoi Dang lan thu 9" and "Vietnam Economic Times, December, 2001".

Note: *: These figures are actual ones

Prediction for the lower secondary level in rural by year



Hence, by the year 2010 the expected age-specific and net enrollment rate of the lower secondary level in rural would be 94.1% and 68.5% respectively.

In short, during the period 19SSSS99-2010, if only rural household's incomes are improved, other factors influencing the school enrollment probability of children of age range 11-14 (factors that mentioned in the study) unchanged. We need more time to have standards of implementing lower secondary universalization since the net enrollment rate of lower secondary level is still low with only 68.5% in rural.

CHAPTER IV: CONCLUSIONS AND POLICY RECOMMENDATIONS

I. CONCLUSIONS

In chapter III, a multivariate approach is used to examine the determinants of children's school enrollment in the lower secondary level in rural. It was found that the enrollment probability of a child was positively strongly correlated with per capita household expenditure, and the magnitude of per capita expenditure was largest among those of other determinants.

Older children were found to have the lower probability of attending schools but have the higher probability of enrolling in a lower secondary school.

As expected, variable child's work had a negative relation with the probability of attending school. The probabilities of enrolling varied over different regions, children living in Mekong Delta had lower chance of attending school.

Variable ethnic had two different effects. There was a surprising finding is that the ethnic minority children had higher chance of attending school (at any level) than the ethnic majority children.

Children's enrollment probability was found to have a strong positive correlation with parent's education.

Schooling cost had different effects on the age-specific and net enrollment rate. This variable had a negative positive effect on the probability of going to school (at any level) of a child. But it had a positive effect on the probability of enrolling in the lower secondary level of a child.

Gender had significant effects on the enrollment probability of children at the age range 11-14. This variable also had different effects on the probability of attending school and the probability of attending a lower secondary school in terms of both sign and magnitude. Boys had higher chance of attending school (at any level) than girls with the same other characteristics. But schooling cost negatively correlated with the probability of enrolling in a lower secondary school.

There were some factors helping the enrollment rates of the lower secondary level in rural areas improve from the year 1993 to 1998. Working children rate decreased from 46% in 1993 to 31% in 1998, the mean values of the mother's education and the father's education also went down significantly. And especially, variable per capita expenditure which had strongest effect on the enrollment probability increased sharply, the mean value of this variable increased about 27% in rural.

There was a large inequality in the school enrollment rates between the minority and majority children. In the study, I try to examine factors causing that inequality. Per capita expenditure was the most important factor. High working children rate of the minority was also the main factor. Besides, the mother's education, father's education contributed significantly to the inequality in the enrollment rate between the minority and the majority.

II. POLICY RECOMMENDATIONS

The analysis suggests certain policy recommendations to improve enrollment rates of children in rural areas as follows:

- Improving household income and particularly poverty reduction may permit children to attend school by agricultural diversification and liberalization and land productivity improvement,...
- Expanding the fee subsidies provide to the poor.
- Government and relevant bodies need to have proper measures to encourage parents to send their children to go to school at the right age.
- Mekong Delta area where had lower enrollment rates than others should be paid attention to solve this problem. For example, more land transporting roads to school should be built.
- By the ways of increasing household's incomes, children's work will less important so that they can spend more time and effort for schooling.