

Private Tutoring in Vietnam

A Review of Current Issues and Its Major Correlates

Hai-Anh H. Dang

The World Bank
Development Research Group
Poverty and Inequality Team
September 2013



Abstract

Building on the earlier work, this paper provides an updated review of the private tutoring phenomenon in Vietnam in several aspects, including the reasons, scale, intensity, form, cost, and legality of these classes. In particular, the paper offers a comparative analysis of the trends in private tutoring between 1998 and 2006 where data are available. Several (micro-) correlates are

examined that are found to be strongly correlated with student attendance at tutoring, including household income, household head education and residence area, student current grade level, ethnicity, and household size. In particular, the analysis focuses on the last three variables, which have received little attention in the previous literature on the determinants of tutoring.

This paper is a product of the Poverty and Inequality Team, Development Research Group. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The author may be contacted at hdang@worldbank.org.

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

Private Tutoring in Vietnam: A Review of Current Issues and Its Major Correlates

Hai-Anh H. Dang^{*}

World Bank

JEL: I2, O1

Keywords: private tutoring, supplementary education, ethnicity, household size, Vietnam

Sector Board: POV

^{*} Dang (hdang@worldbank.org) is Economist with the Poverty and Inequality Unit, Development Research Group, World Bank. I would like to thank Janice Aurini, Kim Goyette, and Peter Lanjouw for helpful comments on earlier drafts of this paper, which is a forthcoming book chapter in Janice Aurini, Julian Dierkes and Scott Davis. (Eds.) *"Out of the Shadows: The Global Intensification of Supplementary Education."* Emerald Press. All errors are mine. The findings and interpretations in this paper do not necessarily reflect the views of the World Bank, its affiliated institutions, or its Executive Directors.

Introduction

Starting with the “doi moi” (renovation) process in 1986, Vietnam’s economy has made impressive progress in recent years. Between 1986 and 2011, the average annual growth rate per capita for Vietnam was 5.4 percent (World Bank, 2013); and poverty rates have been steadily falling from 58 percent in 1993 to 37 percent in 1998, and 15 percent in 2008¹ (World Bank, 2003 and 2012). Together with recent economic growth, the total number of schools in the country rose from around 21,000 in the 1995-1996 school year to around 28,593 in the 2010-2011 school year, amounting to a growth rate of 36 percent (GSO, 2003 and 2012). The education system has also undergone major institutional changes, with new laws and regulations being issued.

One recent and growing feature of the Vietnamese education system is the “shadow” education system. Shadow education exists alongside the mainstream education system, and includes providing students with extra classes (“*di hoc them*”) to acquire the knowledge that they do not appear to obtain during their hours at school. These extra classes or private tutoring sessions have become widespread throughout Vietnam and account for a considerable share of the amount of household budgets spent on education. To be consistent with the terminology, in this paper I will mostly use the term “supplementary education” in addition to the term “private tutoring” to refer to these extra classes; however, note that in the context of Vietnam (or in my other studies on this topic) these two terms are interchangeable.²

There has been much public debate about supplementary education in Vietnam.³ While some policymakers and parents think that supplementary education negatively affects students, in terms of their academic performance and their childhood, others believe that supplementary

¹ A household is considered to be poor if they cannot afford a consumption basket consisting of food and non-food items, where the food can secure 2100 calories per person per day (World Bank, 2003).

² Private tutoring is defined in this paper as any private lesson purchased by households to provide supplementary instruction to children in subjects that they study in the mainstream education system, which is also the definition used by many other researchers. While this definition is straightforward and functional, it has much room for improvement. Dang (2013) argues that defining private tutoring in different ways can lead to potentially vastly different policy implications.

³ Supplementary education exists not only in Vietnam but can be found in countries as diverse economically and geographically as Cambodia, the Arab Republic of Egypt, Japan, Kenya, Morocco, Romania, Singapore, the United States, and the United Kingdom (Bray, 1999, 2009, 2012). In a recent survey of the prevalence of tutoring in 22 developed and developing countries, Dang and Rogers (2008) find that in most of these countries, 25–90 percent of students at various levels of education are receiving or recently received supplementary education. In some countries, such as the Republic of Korea and Turkey, spending by households on supplementary education even rivals public sector education expenditures. Dang and Rogers also find ample evidence suggesting that supplementary education can enhance student academic performance in various ways in a number of countries, including Vietnam

education can improve the quality of education.⁴ Therefore, while some argue that supplementary education should be banned altogether, others think that supplementary education should be encouraged, at least to some extent. The debates on supplementary education have been ongoing and heated, and they have been heard not just in the media, including newspapers and television, but also during the Minister of Education's presentations to the National Assembly.⁵

The contribution of this paper is twofold. First, building on my earlier work (Dang, 2007 and 2008), this paper provides an updated review of the major current issues on tutoring facing policy makers in Vietnam. In particular, this paper offers a comparative analysis of the trends in supplementary education between 1998 and 2006 wherever data are available. Second, this paper examines several (micro-) correlates that are found to be strongly correlated with student attendance at tutoring but have received little attention in the literature. These correlates include the current grade attended by students, student ethnicity, and household size and composition.

As discussed later, this paper is limited to investigating the correlational, rather than causal, relationship between individual and household characteristics and student attendance at tutoring. In most cases, it is not easy to correctly identify a causal relationship, partly because of the lack of reliable instruments in available data. Still, while such instruments are yet to be found, it is arguably useful to examine this correlational relationship for two main reasons: first, we should aim to push the limits of what we know about the determinants of tutoring attendance, and second, taken with the appropriate caution, this correlational relationship can also offer some useful guidelines to policy makers.

The paper begins by briefly reviewing the education system in Vietnam, both past and present, and in Section 2, I discuss its connection to supplementary education. Section 3 describes the data. Section 4 investigates the different aspects of supplementary education in

⁴ These measures of student academic performance include student test scores in India (Banerjee et al., 2007), mean pass rates on the baccalaureate exams in Israel (Lavy and Schlosser, 2005), the quality of universities students attend in Japan (Ono, 2007), mathematics test scores in Taiwan, China (Kuan, 2011), Scholastic Aptitude Test (SAT) and ACT test scores and academic performance in the United States (Becker, 1990; Briggs, 2001; Jacob and Lefgren, 2004; Powers and Rock, 1999), and student grade point averages (GPA) ranking in Vietnam (Dang, 2007, 2008). However, Zhang (2013) finds mixed impacts for students in the province of Jinan, China. See also Dang and Rogers (2008) for a discussion of other studies that do not find statistically significant impacts of private tutoring on student performance, and Dang (2008) for a discussion of other undesirable effects of tutoring.

⁵ It is our observation that supplementary education has become such an integrated part of the education system in Vietnam that local newspapers regularly print stories on various aspects of supplementary education to attract a larger readership.

Vietnam, further quantitative analysis of supplementary education is provided in Section 5, and Section 6 concludes.

Vietnam's Education Structure and Private Tutoring

This section discusses both the historical and modern factors underlying the growth of supplementary education in Vietnam, with the former including cultural influence and rigidity of the tertiary sector, and the latter the imbalance between demand and supply in education, most noticeably at higher education levels.

A Brief Sketch of History

While Vietnam's education system has been exposed to diverse cultural influences,⁶ there are still some common threads that can shed light on the supplementary education sector. First, in the distant past, for almost one millennium under the Chinese occupation and almost one hundred years under the French occupation, the education system had been mostly an elitist system where only a privileged minority was given the opportunity to access education.⁷ Once in the education system, advancement was determined by high-stakes exams, where a student's success or failure depended on their examination performance. This cultural heritage seems to have clearly left its mark on today's current attitudes and aspirations towards good performance on examinations in Vietnam.

Second, the education system was modeled after the 'inflexible system' created by the former Soviet Union. Until very recently, for example, only a few universities were multi-disciplinary, while the majority was devoted to a single discipline (Tran et al., 1995). Once admitted to a university, it was not easy for students to transfer to another school or even to change majors within the same school. Thus, practically speaking, students had limited choice. In combination, the culture of high stakes exams and rigidity of the tertiary system has contributed to the popularity of supplementary education lessons; they are seen as a way to enhance students' scores on university entrance examinations and improve their chances of getting into their preferred schools and programs.

⁶ See Dang (2008) for more details on different periods of these cultural influences.

⁷ For example, under the French rule, only 3% of the population enjoyed access to schooling. The major purpose of the education system was to train foremen, secretaries and low-level officials for the French colonist regime (Pham, 1998). With such a small part of the population educated, it is understandable that in this period, more education was strongly associated with better economic opportunities and social status.

Current Structure and Policy Context

The current education system in Vietnam has three levels: primary, secondary, and tertiary (post-secondary). Primary education consists of grade 1 to grade 5, which is for children age 6 to 10. Secondary education is divided into lower secondary education, which consists of grades 6 to 9 (for children age 11 to 14), and upper secondary education, which consists of grades 10 to 12 (for children age 15 to 17). Tertiary education is divided into undergraduate education and graduate education. The two major legal documents governing education in Vietnam are the Law on Universalization of Primary Education (1991) and the Education Law (2005 and 2009). Current Vietnamese law (in particular, the first article of the Law on Universalization of Primary Education) stipulates that the government ensure that all Vietnamese children complete grades 1 to 5. Indeed, estimates from the 2006 Vietnam Household Living Standards Survey data indicate that 94 percent of Vietnamese children age 15-19 have completed primary education.

Vietnam's education system is administered by the Ministry of Education and Training (MOET). Under MOET, each province and district has a Department of Education and Training (DOET)⁸. Each district level DOET manages preschools, primary schools and lower secondary schools, while each provincial DOET is in charge of upper secondary schools, secondary teacher-training schools and some vocational schools. For these schools to run at the district and provincial levels, the Ministry of Education and Training (MOET) provides only guidelines and general programs to be carried out by provincial and district DOETs. MOET also directly manages some teacher-training schools and some colleges and universities.

Relative to its low income level, Vietnam has achieved remarkable success in terms of its basic education outcomes. While its GDP per capita in 2004 was US\$ 502, less than one-half the average of East Asian and Pacific countries and one-fourth the average of middle-income countries, it has similar literacy rates to these two groups of countries (see Dang, 2008, for details). The primary school completion rate for Vietnam is 92 percent, even slightly higher than those for the above-mentioned groups of countries; gross enrolment rates in 2006 were 90

⁸ There are now 63 provinces, 47 urban districts and 548 rural districts in Vietnam (GSO, 2012).

percent, 76 percent and 16 percent at the primary, secondary and tertiary levels, respectively (World Bank, 2010).⁹

Government support for education in Vietnam has increased in recent years. The share of education in the national budget grew from 7 percent in 1986 (Pham and Sloper, 1995) to 15 percent in 2010 (GSO, 2012). The vast majority of Vietnam's schools are public (government operated) schools. The most privatized area of Vietnam's education system is at the tertiary level, yet even at this level the public system accounts for about 80 percent of the schools and 85 percent of the students (GSO, 2012).

At the end of the upper secondary level (grade 12), students must obtain a satisfactory score on an examination to receive the upper secondary (high school) degree. Examinations are also used to gain admission to some specialized upper secondary schools and to universities and other post-secondary educational institutions. The exam to gain entrance into colleges and universities is of particular importance to many Vietnamese students and their parents. Until 1987, there was a single national entrance examination for colleges and universities operated by MOET. Starting in 1988, each higher education institution implemented its own admission process (Tran et al, 1995). However, the single national entrance examination was reintroduced in 2002 (MOET, 2002).

The education system in Vietnam currently appears typical of those in developing countries in two respects. First, the public education system can fail to satisfy the needs of many students.¹⁰ Indeed, the demand for education appears to exceed the supply in Vietnam: between 1991 and 2004, gross enrollment rates more than doubled from 32 percent to 73 percent at the secondary level, and increased fivefold from 2 percent to 10 percent at the tertiary level (World Bank, 2006), while the growth rate of schools averaged only 3 percent during this same period. While increasing enrollment rates at all levels is still one of Vietnam's goals, there is particularly heavy demand for higher education in Vietnam, and the current education system appears unable to effectively meet that demand. Thus there is strict rationing at the tertiary level: over the school years 1993-1994 to 2000-2001, only about 1 in 6 students who took the university/college entrance examinations was admitted (MOET, 2006a).

⁹ The school enrolment rate at the tertiary level is for 2005.

¹⁰ But note this is the case not just in most developing countries (Glewwe and Kremer, 2006) but in some other developed countries as well (see, for example, Kim and Lee, 2010 or Davies, 2004)

Although the number of private institutions in higher education has increased in recent years, they are subject to close government control and must abide by rigid regulations. The government still decides the enrollment numbers at private universities. This results in some cases to disequilibrium in the education market. For example, the government decided to limit enrollment at private universities to between 800 and 1500 students per year per university; yet at Van Lang University, the largest private university in Vietnam, the number of students wanting to matriculate reached 20,000. Other private universities, however, struggle to meet their quota (Pham and Fry, 2004, p. 320). The quality of Vietnam's private universities is also generally viewed as lower than that of public universities. This imbalance between demand and supply can be argued to drive the demand for supplementary education among parents to provide their children with stronger competitive advantage to further advance their education at the best universities.

Second, a weak monitoring system has given rise to corruption. Teachers, for example, can force tutoring lessons on their own students to supplement their income. Anecdotal evidence indicates that students—even first graders—can suffer from low exam scores if they refuse to attend these ‘compulsory’ tutoring lessons (VnExpress, 2008, 2011a).

Data

To examine the characteristics associated with supplementary education use in Vietnam, I use data from four sources i) the 2006 Vietnam Household Living Standards Measurement Survey (VHLSS), ii) the 1997- 1998 Vietnam Living Standards Measurement Survey (VLSS), iii) the 2008 Vietnam Household Testing Survey, and iv) local press in Vietnam.

The first two data sources are among the LSMS-type (Living Standards Measurement Survey) surveys which are implemented with technical assistance from the World Bank in a number of developing countries. These surveys provide rich information on student individual, household, school and community characteristics and are nationally representative. While the 1997-1998 VLSS covers 6,000 households, the 2006 VHLSS covers 9,189 households across Vietnam.

In addition to providing information regarding each individual's schooling, the education section in the household questionnaire provides detailed and separate components of expenditure on education such as tuition fees, contribution to parent associations, cost of books,

transportation costs, and supplementary education expenditure for each student in the past 12 months. Compared to other rounds of the VHLSSs, the 2006 round has an expanded module on supplementary education and collects data on the different types of tutoring classes such as tutoring during school year time or tutoring during school breaks or one-on-one tutoring. Data on the time students spent on tutoring are also collected by the 2006 VHLSS. The commune and school questionnaires in both surveys collect information such as community infrastructure, school facilities, and school finances and fees including fees for the tutoring classes organized by schools.¹¹

The third source of data, the 2008 Household Testing Survey (VHTS) is a follow-up survey that collects mathematics and reading test scores for a subsample of household members in the 2006 VHLSS. This survey interviews in total 1,384 households and 3,533 individuals. In this survey, several questions were asked concerning supplementary education classes, including the reasons for taking these classes.¹²

Supplementary Education in Vietnam: General Description

Using the most recent survey data available, this section provides an updated discussion of some major issues related to supplementary education in Vietnam. These include the reasons for attendance at supplementary education as perceived by students themselves, the scale, cost, form, intensity, and legality of supplementary education. Interested readers are referred to Dang (2008) for a more detailed discussion, which is however based on data for previous years.

Reasons for Supplementary Education

Results from a recent survey by Mac (2002) (cited by Dang, 2008) indicates that the top three reasons (40 percent to 70 percent of the responses) that parents, teachers, and students offer to explain why students take supplementary education classes are: i) making up for poor ability and keeping up with the class, ii) studying to pass the examinations and bettering one's education, and iii) not understanding the lessons. Other reasons for tutoring include gaining knowledge not taught at school, and even daycare for students when parents are busy. And it is worrisome that

¹¹ See Vietnam Living Standards Survey 1997-1998 (World Bank, 2000) and Vietnam Household Living Standards Measurement Survey 2006 (GSO, 2006) for further details.

¹² This is joint work with Halsey Rogers (World Bank), Paul Glewwe (University of Minnesota), Seema Jayachandran (Stanford University), and Jeffrey Waite (World Bank). The survey was administered by Vietnam's Government Statistics Office, using funding from the World Bank's Research Support Budget and the Hewlett Foundation. For more details on the 2008 VHTS, see Dang and Glewwe (2009).

as high as 26 percent of the teachers and administrators think that students *have* to attend extra lessons to please teachers, and even a higher number (36 percent) say that teachers create demand for supplementary education because of their low salary. While very informative, this survey has a small sample size and collects data from three major cities in Vietnam (and only one city for students); thus results may not be nationally representative.

More recent and nationally representative data (VHTS) on the reasons student take supplementary education classes is provided in Table 1. Tutoring classes are divided into two categories based on their types of organization, the first category for tutoring classes organized by students' own school and the second category for other tutoring classes. Results are in fact not very different from the figures provided by Mac (2002). Across the two types of tutoring, the most important reason for taking tutoring is to prepare for examinations, which accounts for almost half of all responses (42 percent- 47 percent). This is then followed by catching up with the class (about 13 percent), acquiring better skills for future employment (13 percent) and enjoying the subject matter (6 percent- 11 percent). Other reasons such as childcare, poor quality lessons in school, or subjects not taught in mainstream classes account for only less than 3 percent of all responses for tutoring classes organized by schools. But understandably, a higher percentage of students (6 percent) go to tutoring classes that are not organized by schools to make up for the poor quality of lessons taught in schools.

The large difference between taking tutoring classes to prepare for examinations and other reasons indicates again the importance of examinations in the school system in Vietnam, as discussed earlier in Section 2.

Scale of Supplementary Education

The percentage of students taking tutoring classes at different levels of schooling is provided in Table 2. An increasing number of students attend supplementary education classes at higher school levels. In 2006, the proportion of students in supplementary education steadily increases from 32 percent at primary schools to 46 percent at lower secondary schools and 63 percent at upper secondary schools. There is a large difference in supplementary education attendance for students in urban and rural areas, with the gaps ranging from 4 percent at the preschool level to 23 percent at the primary level.

Compared to 1998, the proportion of students in supplementary education increases slightly (by 3 percent) at the preschool level, and remains practically unchanged at the primary level, but

decreases considerably (by 10 percent or more) at the secondary level. While this may appear contradictory, the slight increase at the preschool level is in fact consistent with anecdotal evidence about the recent trend to send children to tutoring classes from an early age.¹³ And the decrease at the secondary level can be associated with the recent education reforms in Vietnam, which include, among other things, the abolition of end-of-school-level graduation examinations for primary students in 2005 (NASRV, 2005) and lower secondary students in 2006 (MOET, 2006b), and the (re)introduction of a single national university entrance examination in 2002 (MOET, 2002).

Intensity of Supplementary Education

Richer households in Vietnam spend more on supplementary education than do poorer households as seen in Table 3. Currently about 27 percent (= 100 percent- 73 percent) of households in Vietnam send their children to private lessons and the majority of them (90 percent) spend between 1 percent and 5 percent of household expenditure on supplementary education. The percentage of households with positive expenditures on supplementary education is only 15 percent in the poorest (1st) consumption quintile, but nearly doubles to 27 percent in the next richer quintile (2nd) and hovers around 30 percent in the remaining richer consumption quintile (3rd to 5th). In terms of actual expenditure, the mean expenditure on supplementary education for the wealthiest 20 percent of households is almost 14 times higher than that for the poorest 20 percent of households. While this difference is most striking, it represents a dramatic decrease from the 30-times difference in average expenditure on tutoring between the wealthiest quintile and the poorest quintile in 1998.

Figure 1 provides another look at the intensity of supplementary education in terms of numbers of hours spent on this form of education, broken down by schooling levels and urban-rural areas. On average, students across Vietnam spend 89 hours attending supplementary education classes—which is represented by the dashed line in Figure 1—and students spend more time at higher schooling levels. There is a large urban-rural divide in the numbers of hours attending tutoring classes, with urban students spending around twice more than rural students do at all levels of schooling. In particular, while rural students at all schooling levels spend less than the national average except for the upper secondary school level, urban students at all schooling

¹³ See Dang (2008) for more details.

levels spend more than this amount. I will come back to more discussion of this issue in Section 5.

Forms of Supplementary Education

There are many forms of supplementary education in Vietnam. Supplementary education can be organized by students' parents, by teachers, by schools or by supplementary education centers. Supplementary education can range from selective classes of just one student at either the student's or the teacher's home to very large classes of 200-300 students in supplementary education centers (Chu and An, 2001a). Teachers teach such large classes by using a microphone in large theaters (Nguyen, 2002). This model of supplementary education classes resembles college classes.

Our calculation using data from the 2006 VHLSS shows that across the country, most students attend tutoring classes organized at their own schools. During the school year, as many as 70 percent of all tutees attend these classes at school, 26 percent attend these classes at the tutors' homes, with the rest attending these classes at their own homes or other places. During the break, the share of students who attend tutoring classes at school is lower while the share of students who attend tutoring classes at the tutors' home is higher. The former group still accounts for the majority of tutees at 53 percent, and the latter 42 percent.

In major cities in Vietnam, however, a very popular form of supplementary education seems to be supplementary education centers, which are usually concentrated in neighborhoods near universities. Bach (1999) reports that there were around 50 such centers in 1999 in just one district in Hanoi where a large university is located. One possible reason there are so many of these centers is that it is easy to set up the infrastructure for these centers. Bach (1999) observes that:

“Investing in establishing supplementary education centers is becoming a lucrative business for business owners; with a room 18-25m², and about US\$75 for blackboard and desks, it is possible to set up a supplementary education center, which can accommodate dozens of students.”¹⁴

¹⁴ In this paper, all figures in Vietnamese Dong are converted to US currency using the exchange rates of US\$ 1 for D 13268, D 14725 and D 15994 respectively for 1998, 2001, and 2006 (World Bank, 2010).

At some centers, the number of students in a class is rarely under 100 (Phi, 1999).¹⁵ However, students are still attracted to these centers. One extreme case was reported that because the classroom was too crowded, a group of seven female students agreed to pay half of that session fee and sit on the classroom verandah; one student had her ear to the window to listen to the lessons then she repeated what she heard for the other six students to write down (Nam Viet, 2002).

Cost of Supplementary Education

Table 4 shows the weekly fees for tutoring classes organized by schools across Vietnam,¹⁶ which are divided into two categories, one for tutoring classes taken during the school year and the other for tutoring classes taken during the school break/ holiday. On average, primary students have to pay US\$ 0.34 per week to attend tutoring classes during the school year, and the corresponding figures for lower secondary and upper secondary schools are respectively \$0.4 and \$0.73. The fees sharply increase with the level of education: they increase by 20 percent from primary school to lower secondary school and by 80 percent from lower secondary school to upper secondary school. Fees for tutoring classes during the break/ holiday are higher than those for tutoring classes during the school year and range from 5 percent to 38 percent higher respectively at the primary and lower (or upper) secondary level.

At supplementary education centers, students can pay for supplementary education either by session or by month. The supplementary education fees at supplementary education centers in Hanoi are usually from \$0.27 to \$0.48 per session, of which teachers receive 65 percent-70 percent (Chu and An, 2001a). However, when there is more demand, the fee can increase to \$0.54- \$0.68 per session (Chu, 2002). A crash supplementary education course for one subject for one month costs from around \$24 to \$136 in Ho Chi Minh City (Dinh, 2001).

The fees for individual supplementary education sessions at either the students' or the teachers' home may vary depending on the specific circumstances. This is perhaps the most expensive form of supplementary education because of the personalized attention received by

¹⁵ It is reported that some students were even hospitalized because of lack of space in these overcrowded classrooms (Bach, 1999).

¹⁶ Most of (96%) these schools are public schools.

students. On average, the fees for such classes are between \$60 and \$75 per student per course (Dinh, 1999).¹⁷

Legality of Supplementary Education and Public Opinions

There has been much public debate about the high prevalence of supplementary education in Vietnam. The topic has come up not just in the media, including television broadcasts, newspapers and journals, but also in the National Assembly's question and answer sessions for the Minister of Education. Indeed, supplementary education has become so serious a concern that the Vietnamese government has issued several legal documents at the ministerial levels prohibiting compulsory and mass-scale extra classes at school (Decree No. 242/Prime Minister, 1993), and stipulating the ranges for extra class fees that schools can charge students (Circular No. 16/Prime Minister-Interministerial, 1993). However, after the promulgation of these regulations, supplementary education classes still developed so much so that the Ministry of Education had to issue more legal documents regulating it. Most notably among them was Circular No. 15/MOET, a document that outlined urgent measures to be taken to control supplementary education. Punishments for breaking these regulations can be severe; three lower secondary school principals were even fired because of supplementary education (MOET, 2001).

The latest regulation at the ministerial level on supplementary education was issued by the MOET in mid-2012. This document appears to be stricter and provide more specific guidelines than an earlier one drafted in early 2007. According to this legal document, organizations and individuals can provide supplementary education only if they are granted a permit by the local authority, and it is forbidden to teach supplementary education to students who already study two sessions (two shifts) of formal schooling per day. Private tutoring is banned at the primary school level, and teachers are forbidden either to cut the materials in regular school hours to teach in their private tutoring sessions or to teach these materials in their private tutoring sessions in advance of the regular school hours. Teachers are also forbidden to provide tutoring sessions to their own students except where they are allowed to do so by their supervisors. Most remarkably, it is also stipulated that violators of the regulation can be prosecuted (MOET, 2007, 2012). These actions show the Vietnamese government's determination to control supplementary education. It can be seen that the Vietnamese government does not completely ban supplementary education,

¹⁷ The length of a private tutoring course varies, but it usually lasts from at least three months to one full year.

but it does not encourage supplementary education either. The Vietnamese government seems to recognize that supplementary education can have both beneficial and undesirable impacts, thus the government prefers to control and manage supplementary education as much as it can.

At the provincial level, measures to control supplementary education vary. Before the stipulation of the regulations on supplementary education discussed above, some provinces were reported to come up with their own guidelines which includes making teachers promise not to teach supplementary education classes (Huynh, 2005).

While the efforts at regulating supplementary education by the government enjoy popular support, they are not satisfactory to all stakeholders. Some school administrators believe that the government is doing too much by micro-managing teachers with these too specific regulations; some government officials and parents think that it is inappropriate to ban supplementary education at the primary school level despite the current existing demands, and that a ban is not an effective regulatory measure (Hoai Nam, 2013). Concerns were also raised by teachers and school administrators that the causes of tutoring run deep (and are due to, for example, demanding school curricula and low teacher salaries); without addressing these underlying factors, a ban on tutoring may only be skin-deep (Khanh Binh, 2013). It thus appears that a public opinion poll or nationally representation survey on all stakeholders' viewpoints on supplementary education is much called for and would provide useful inputs into the government's development of regulations on tutoring.¹⁸

Further Quantitative Analysis

In a recent review of the literature on the determinants of supplementary education, Dang and Rogers (2008) find that standard economic theory predicts that certain factors play an important role in determining household expenditure on tutoring, which are supported by empirical evidence from a number of different countries at different income levels and in different geographical locations (e.g., Egypt, South Korea, Turkey, Vietnam). These factors include household income, parental education, and urban location. In addition, other factors that may matter across countries are student current grade level and household size. While the former is found to be positively correlated with spending on tutoring the closer students are to the last

¹⁸ Silova, Budiene and Bray (2006) provide an informative review of student attitudes toward supplementary education in several countries in Central Asia. Similar work can perhaps be developed to look at parents', teachers', and school administrator's viewpoints on supplementary education.

grade in their current school level, the latter is negatively correlated with tutoring expenditure. These same results are found for Vietnam using data in 1998 in my earlier studies (Dang, 2007, 2008).

In this section I will examine the correlation between these factors and household investment in tutoring using more recent data from Vietnam. I pay attention to both the common factors (i.e., household income, parental education, and urban location) and the factors that may be particular to Vietnam (i.e., student current grade level, ethnicity, and household size). In particular, I look at the impacts of ethnicity on tutoring attendance and expenditure, which appears to have received little attention in the literature.¹⁹ Even though their living standards are increasing with the country's economic growth, ethnic minority households are still lagging behind their ethnic majority peers on a multitude of welfare outcomes including consumption, education and health.²⁰

I begin first by examining in a graphical format the bivariate relationship between tutoring expenditure and some major correlates such as student grade level, ethnicity, and household size.

Some Major Correlates

Figure 2 plots yearly tutoring expenditure against student current grade level using both data in 1998 and 2006 for Vietnam. Three remarks are in order for this figure. First, it can be seen that expenditure on tutoring steadily rises with the grade level children are enrolled in. For example, in 2006 an average urban household spends around \$19 on tutoring if their child is in the 2nd grade, but spends twice more at \$41 and more than three times more at \$67 if their child is in the 5th grade and the 12th grade, respectively.

Second, there is, again, a noticeably large gap between tutoring expenditure for urban and rural areas, with urban households spending much more than their rural counterparts. This confirms the similar results I discussed on Figure 1 in an earlier section. Third, despite the shrinking relative gaps in spending between urban and rural households—which are calculated to

¹⁹ Notable exceptions are Buchmann, Condron, and Roscigno (2010) and Byun and Park (2012) who analyze data from the US. The former finds that Asian and black students are more likely to take private tutoring classes than their white peers, and the latter finds that East Asian American students are most likely to take a commercial SAT test preparation course for enrichment purposes, while black students were most likely to utilize private tutoring for remedial purposes.

²⁰ See, Baulch et al. (2010) and Dang (2012) for more details on the welfare between different ethnic groups in Vietnam. The ethnic gaps in living standards and human development outcomes do not exist in Vietnam alone, but are also found in other countries across the world. See, for example, Hall and Patrinos (2012) for a recent study.

range from 2.4 to 56.4 times in 1998, but range from 1.9 to 4.5 times in 2006—the absolute gaps in spending in fact widen over time. For example, this absolute urban-rural difference in spending for a 9th-grader increases from \$27 in 1998 to \$44 in 2006.²¹

The disparities between ethnic minority and majority groups in attendance at tutoring classes have been observed in my earlier study (Dang, 2007). Figure 3 provides an update by plotting supplementary education attendance rates for the two ethnic groups by schooling levels for 1998 and 2006. As discussed earlier, overall supplementary education attendance for the whole country decreased from 1998 to 2006 for both groups, which is confirmed by the decreases for both ethnic groups in Figure 3. However, it is worrisome that the gaps in attendance rates for the two groups become larger over time, especially at higher schooling levels. For example, during 1998- 2006 while the ethnic gap increases from 2 percent to 5 percent at the primary school level, it jumps from 22 percent to 41 percent at the upper secondary school level. Even more worrisome is that this happens despite the fact that the ethnic minority group mostly live in rural areas and that the gaps between urban and rural areas converge at higher levels of schooling (Table 2). A possible explanation for this reverse trend may be due to the widening disparities in living standards between the different ethnic groups in Vietnam in recent years.

Another factor that was found to be negatively correlated with household expenditure on tutoring is household sizes or the number of children in the household.²² This same result holds for Vietnam in 2006. Household sizes are negatively correlated with both expenditure and hours spent on tutoring as depicted in Figure 4, which are steadily lower for children as their sibsize grows larger. One more sibling is associated with decreases in annual spending on tutoring ranging from \$3 to \$5; the corresponding decreases in annual hours spent on tutoring ranges from 6 hours to 33 hours. In addition, tutoring expenditures in 2006 are generally lower than

²¹ The deflator for the Vietnamese currency between 1998 and 2006 can be calculated to be around 36% (World Bank, 2010). Even after applying this deflator, the urban-rural absolute gap in spending still increases significantly over this period.

²² It is a well-known empirical fact that larger household sizes are negatively correlated with the household investment in their children, which is supported by the economic theory developed by the Nobel prize winner Becker and his colleagues (Becker, 1993; Becker and Lewis, 1973). According to this theory, parents make the simultaneous choice of how many children to bear and how much to invest in their children. Thus, more children would mean fewer resources invested per child and vice versa, which is usually referred to in the economic literature as the “quantity-quality” trade-off issue. One important implication from this theory is that the simple (bivariate) relationship between household sizes and household investment in children should be considered as correlational rather than causal. Further analysis of the causal relationship between household sizes and investment in children tutoring is provided in Dang and Rogers (2013).

those in 1998 at any given number of siblings, which is consistent with the trend discussed earlier that fewer children attend tutoring in 2006 compared with 1998.

Multivariate Regression Analysis

Since household expenditures on tutoring can be regarded as the observed level of their unobserved propensity to spend on tutoring, and we do not observe negative values of household expenditures, household expenditures are a left-censored variable. Thus the appropriate model to evaluate the determinants of household expenditure on tutoring is a Tobit model.²³ I will then estimate a Tobit model where the dependent variable is log of household expenditures on tutoring²⁴ and the explanatory variables include several sets of variables. These variables are added in a sequential manner to highlight the differential impacts of model specification. The estimated (marginal) impacts are presented in Table 5, and the full estimated coefficients with t-statistics are presented in Table 1.1 in the Appendix.

It should be noted that there are two main ways to interpret the marginal impacts of the explanatory variables in a Tobit model depending on the outcomes of interest. If we are interested in looking at the marginal impacts of the explanatory variables on household *propensity* to spend on tutoring classes, we can just look at the estimated coefficients in Table 1.1 in the Appendix. However, if we want to know the marginal impacts on households' *observed* spending, we should look at the coefficients in Table 5.²⁵ In other words, while the first way of interpretation offers a look at household *potential* spending on tutoring, the second way provides estimates on household *actual* spending. Perhaps both ways would be of interest to policy makers who may want to design educational intervention programs not just for the present (i.e., based on actual spending) but for the future (i.e., based on potential spending) as well. For

²³ This is a popular statistical model invented by another Nobel prize-winning economist, James Tobin. Consider the latent variable y_i^* that represents household potential spending on tutoring. We only observe household tutoring spending y_i when this potential spending is larger than 0, and observe zero spending when this potential spending is negative. The Tobit model has this general form $y_i^* = x_i' \beta + \varepsilon_i$ where $y_i = 0$ if $y_i^* \leq 0$ and $y_i = y_i^*$ if $y_i^* > 0$. x_i' represents the explanatory variables, and ε_i the error terms. For more details on the Tobit model, see Greene (2012) or Long (1997). This model is estimated using the software Stata (StataCorp, 2009). Standard errors are clustered at the household level to account for household heterogeneity. As a robustness check, Tobit estimates using household random-effects (not shown) provide very similar results.

²⁴ To minimize the number of missing values due to this logarithmic transformation, this variable is set to 0 for households with zero expenditure on tutoring.

²⁵ The marginal impacts for household propensity to spend is calculated using the formula $\frac{\partial E(y_i^* | x_i)}{\partial x_i} = \beta$, and the marginal impacts for household actual spending is calculated using the formula $\frac{\partial E(y_i | x_i)}{\partial x_i} = \beta \Phi\left(\frac{x_i' \beta}{\sigma}\right)$. See Greene (2012) or Long (1997) for more details.

our purposes, I will focus on the marginal impacts for household actual spending in Table 5, and similar observations can be made about the estimates in Table 1.1.

I consider the directions of impacts for estimate results using four different sets of explanatory variables sequentially, which corresponds to our above discussion about the major correlates of household spending on tutoring, before discussing the specific impacts of these variables. Children in the age range 6- 17 are considered since this is the school age range.

The first set or the basic set of variables include children's age, gender, and household head's years of schooling completed, household living standards (as measured by household expenditures net of expenditure on tutoring), a dummy variable indicating household residence area (urban or rural), and dummy regional variables.²⁶ As discussed earlier, these are the variables that have been found to be important determinants of expenditure on tutoring across different countries (Dang and Rogers, 2008), thus they are included in all regressions. Estimates using this first set of explanatory variables are provided in Model 1, Table 5.

As expected, estimation results in Model 1 in Table 5 show that household head's years of schooling, household living standards, and residence areas have strong and positive impacts on household expenditure on tutoring. Controlling for other factors, households spend more on older children and girls.

The second set of explanatory variables includes all the variables in the first set and adds a dummy variable indicating children ethnicity. Estimates using the second set of explanatory variables are provided in Model 2, Table 5. All the coefficients in Model 1 are still significant and change very little in magnitude. The coefficient on ethnicity is positive and highly statistically significant, confirming the earlier result that ethnic majority groups spend more on tutoring than ethnic minority groups.

The third set of explanatory variables adds to the second set a count variable for the years before the last grade in students' current school level and two dummy variables indicating lower secondary school and upper secondary school. These variables are supposed to tease out the impacts of schooling levels and end-of-level grades on tutoring expenditures as we see earlier in our descriptive tables and graphs. Estimates using the second set of explanatory variables are

²⁶ These dummy regional variables are for the six regions, North East and West, North Central, South Central Coast, Central Highlands, South East, and Mekong River Delta. The reference region is the Red River Delta (that houses the country's capital Hanoi). These dummy variables are negative in all the regressions, indicating these regions have lower expenditures on tutoring than the Red River Delta.

provided in Model 3, Table 5. All these new variables are strongly significant while all the variables in Model 2 remain significant, except for age. This confirms the pattern of more tutoring expenditure at higher schooling levels, especially as students get closer to the end-of-level grade in their current school level. The variable age now becomes insignificant which shows that the significant impact we saw earlier with this variable is in fact not caused by student age itself but rather student progression to higher grades in school.

Finally, the fourth set of explanatory variables is the most comprehensive and adds each one of three different groups of variables on household sizes to the third set. The first group adds a count variable for the number of siblings in the age range 0- 17, while the second group adds count variables for the number of siblings in the sub-age ranges 0- 5, 6- 10, 11- 14, and 15- 17. These age ranges respectively correspond to the four schooling levels including preschool, primary school, lower secondary school, and upper secondary school. And the third group adds count variables for the number of brothers and sisters in the sub-age ranges 0- 5, 6- 10, 11- 14, and 15- 17. These count variables for the number of siblings are expected to be negative because of the negative association between household sizes and expenditures on tutoring. Estimates using the fourth set of explanatory variables are provided in Models 4, 5, and 6, Table 5. Indeed, most of these variables are negative and highly significant, which confirms the negative association between household sizes and investment in children tutoring as I discussed earlier.

To quantify the impacts of each variable, we can then turn to interpreting the marginal impacts (for observed household tutoring spending) provided in Table 5. I focus on interpreting results from Models 3, 4, 5, and 6 since these Models include the most explanatory variables. Again, estimation results on household size coefficients (Models 4, 5, and 6) should be considered to have a correlational rather than causal relationship with household expenditure on tutoring.

It is rather straightforward to interpret the impacts in Table 5, which are expressed in percentage terms. For example, controlling for other factors, one additional year of schooling completed by the household head will result in a 7- 8 percent increase in household expenditure on tutoring. Ethnic majority households spend 1.7- 1.8 times more on tutoring than ethnic minority households, as do urban households which spend 0.5- 0.6 times more than rural

households. A one percent increase in household expenditures can bring up expenditure on tutoring by around 0.5 percent.

Controlling for other factors, households spend 40 percent more on tutoring when their child progresses from primary school to lower secondary school and 83 percent more when their child progresses to upper secondary school (Model 3). At the same time, one year closer to the end-of-level grade induces households to spend 15 percent more. These increases in spending are rather large compared to the reduction of 23 percent if the household has one more child in the school age range (Model 4). Notably, one more child in the age ranges 11- 14 or 15- 17 has larger negative impact on household spending than one more children in the age ranges 0- 5 or 6- 10, which can reflect household larger investment in their children as they progress further in school. However, the coefficients on the number of brothers and sisters are rather comparable and do not appear to indicate any strong pattern of gender bias (Models 5 and 6).

Conclusion

This paper provides an update of the supplementary education phenomenon in Vietnam using the latest data available from household surveys, government statistics, and the local media. I find that at the macro level, factors that drive the growth of private tutoring in Vietnam include cultural influence, rigidity of the tertiary education level, and the imbalance between demand and supply in education. The three most popular reasons for tutoring attendance are preparing for examinations, catching up the class, and acquiring better skills for future employment. The proportion of students attending private tutoring goes up steadily from 32 percent at the primary school level to 46 percent and 63 percent respectively at the lower secondary level and upper secondary level in 2006. Richer households spend much more than poorer households, with the wealthiest quintile spending 14 times more than the poorest quintiles; however compared to 1998, this gap has narrowed significantly.

I examine the major correlates in the determination of tutoring at the micro level such as household income, household heads' education and residence areas, student current grade level, ethnicity, and household sizes. I focus on the last three variables since they are not often discussed in the previous literature on the determinants of tutoring, and find them to be strongly associated with household expenditure on tutoring. In particular, controlling for other factors, ethnic majority households spend 1.7- 1.8 times more on tutoring than ethnic minority households; households spend 40 percent and 83 percent more on tutoring when their child

progresses respectively from primary school to lower secondary school and from lower secondary school to upper secondary school; households also reduce tutoring expenditure by 23 percent if there is one more child in the school age range.

Supplementary education can be argued to be an educational service that helps enhance student learning and should be well-regulated and encouraged by the government. At the same time, given the disparities in attendance at tutoring classes between rich and poor, urban and rural, and ethnic majority groups and minority groups, the concern about inequalities in access to tutoring seems to be indeed justified. Apart from access issues, the latter groups may suffer compound disadvantages since rural households are also poorer (Nguyen et al., 2007), more likely to belong to ethnic minority groups (Dang, 2012), and live in larger-size households (Dang and Rogers, 2013). Thus, while it is clearly not simple to find the best policies to address these inequalities, these results point to the fact that educational policies should be combined with other, say economic, policies for the most effective and efficient impacts. Seen in this light, there are multiple returns, economic and non-economic, to welfare programs in areas such as poverty reduction or road construction to better serve rural communities.

This paper focuses on the tutee (i.e., students in tutoring classes) and does not discuss the profile of the tutor (i.e., teachers in tutoring classes) in Vietnam. In fact, scanty quantitative evidence currently exists on the supply side of supplementary education for other countries as well. The few existing studies point to the role that incentives—both monetary and non-monetary—play in motivating teachers to provide tutoring to their students in Lao PDR (Dang, King and Waite, 2013), and even suggest that teachers in Nepal may teach less during the regular school day when their school offer tutoring for fees (Jayachandran, 2013). In the context of Vietnam, the diverse forms of supplementary education classes seem to be equally matched by the various types of private tutors, who can include both full-time tutors and part-time tutors such as college students, retired school teachers, university professors, poets, and writers. Understanding these tutors' profiles, motivations, and tutoring methods can be a fruitful topic for further research.

More generally, supplementary education evolves with changing education supply and demand in society. As such, richer data obtained through nationally representative samples can be collected on a periodic basis either in special surveys or as additional modules in household expenditure surveys (for example, with the VHLSSs). This information is always useful for

policymakers to develop guidelines that are relevant to the regulation of supplementary education.

References

- Bach, Ngoc Du. (1999). “Ha Noi: Chan Chinh Cac Co So Luyen Thi Dai Hoc” (Hanoi: Rectifying Supplementary education Centers for University Entrance Examinations). *Education and Times*, vol. 71, p. 5.
- Banerjee, Abhijit V., Shawn Cole, Esther Duflo, and Leigh Linden. 2007. “Remedying Education: Evidence from Two Randomized Experiments in India.” *Quarterly Journal of Economics* 122 (3): 1235–64.
- Baulch, Bob, Hoa Thi Minh Nguyen Phuong Thu Thi Phuong Hung Thai Pham (2010). “ Ethnic minority poverty in Vietnam” . Chronic Poverty Research Center Working paper # 169.
- Becker, Betsy Jane. (1990). “Coaching for the Scholastic Aptitude Test: Further Synthesis and Appraisal.” *Review of Educational Research* 60 (3): 373–417.
- Becker, Gary. (1993). “Human Capital- A Theoretical and Empirical Analysis with Special Reference to Education- 3rd edition”. Chicago: University of Chicago Press.
- Becker, Gary, and H. G. Lewis. (1973). “On the Interaction between the Quantity and Quality of Children.” *Journal of Political Economy* 81: S279-288.
- Bray, Mark (1999). “The Shadow Education System: Supplementary education and Its Implications for Planners.” *Fundamentals of Educational Planning No.61*. Paris: UNESCO International Institute for Educational Planning (IIEP).
- . (2009). “*Confronting the Shadow Education System. What Government Policies for What Supplementary education.*” Paris: United Nations Education, Scientific and Cultural Organization, International Institute for Educational Planning.
- Bray, Mark and Chad Lykins. (2012). *Shadow Education: Private Supplementary Tutoring and Its Implications for Policy Makers in Asia*. Hong Kong: Asian Development Bank and University of Hong Kong.
- Briggs, Derek C. (2001). “The Effect of Admissions Test Preparation: Evidence from NELS: 88.” *Chance* 14 (1): 10–18.
- Buchmann, Claudia, Dennis Condron, and Vincent Roscigno. (2010). “Shadow Education, American Style: Test Preparation, the SAT and College Enrollment.” *Social Forces*, 89(2): 435-61.
- Byun, Soo-yong and Hyunjoon Park. (2012). “The Academic Success of East Asian American Youth: The Role of Shadow Education”. *Sociology of Education*, 85(1) 40–60.
- Chu, Hong Van and An Kien. (2001a). “Thay Gi O Cac Lo Luyen” (What We See in Supplementary education Centers). *Education and Times*, Issue 73, p. 6.
- Chu, Hong Van. (2002). “Luyen Thi Cap Toc O Ha Noi: Nhung Chuyen Chi Co O Thang 6” (Cramming in Hanoi: Things That Only Happen in June). *Education and Times*, Issue 73, p. 2.

- Dang, Hai-Anh. (2007). "The Determinants and Impact of Supplementary education Classes in Vietnam", *Economics of Education Review* 26(6): 684-699.
- . (2008). "*Supplementary education in Vietnam: An Investigation of its Causes and Impacts with Policy Implications*". VDM Verlag Dr. Mueller Publishing House: Saarbrucken, Germany.
- . (2012). "Vietnam: A Widening Poverty Gap for Ethnic Minorities", in Gillette Hall and Harry Patrinos. (Eds.) "*Indigenous Peoples, Poverty and Development*". New York: Cambridge University Press.
- . (2013). Book Review of "Shadow Education: Private Supplementary Tutoring and Its Implications for Policy Makers in Asia" by Mark Bray and Chad Lykins. *Comparative Education Review* 57(2): 334-335.
- Dang, Hai-Anh, and Halsey Rogers. (2008). "The Growing Phenomenon of Supplementary education: Does It Deepen Human Capital, Widen Inequalities, or Waste Resources?" *World Bank Research Observer* 23(2): 161-200.
- . (2013). "The Decision to Invest in Child Quality over Quantity: Household Size and Household Investment in Education in Vietnam." World Bank Policy Research Working Paper 6487.
- Dang, Hai-Anh and Paul Glewwe. (2009). "An Analysis of Learning Outcomes for Vietnam". Report submitted to the World Bank.
- Dang, Hai-Anh, Elizabeth M. King, and Jeffrey Waite. (2013). "Teacher Effort and Responses to Monetary and Non-Monetary Incentives: Evidence from a Low-Income Country". Working paper, World Bank.
- Davies, Scott (2004). "School Choice by Default? Understanding the Demand for Supplementary education in Canada." *American Journal of Education*. 110: 233-255.
- Dinh, Le Yen. (1999). "Chan Chinh Day Them – Hoc Them Viec Lam Can Thiet" (Rectifying the Supplementary education Situation Is Necessary). *Education and Times*, Issue 27, p. 5.
- . (2001). "Luyen Thi Dai Hoc O TP. HCM: Di Tim Tia... Hy Vong" (Cramming for University Entrance Examinations in Ho Chi Minh City: In Search of a Glimpse of Hope). *Education and Times*, Issue 76, p. 2.
- General Statistical Office (GSO). (2003). *Statistical Yearbook of Vietnam 2002*. Hanoi: Statistical Publishing House.
- . (2006). "Vietnam Household Living Standards Survey, 2006". Retrieved from: http://www.gso.gov.vn/default_en.aspx?tabid=515&idmid=5&ItemID=8183
- . (2009). *Statistical Yearbook of Vietnam 2008*. Hanoi: Statistical Publishing House.
- . (2012). *Statistical Yearbook of Vietnam 2011*. Hanoi: Statistical Publishing House.

- Glewwe, Paul and Michael Kremer. (2006). "School, Teachers, and Education Outcomes in Developing Countries." In Eric A. Hanushek and Finis Welch. (Eds). *Handbook of the Economics of Education*, North Holland.
- Greene, William. (2012). "*Econometric Analysis, 7th Edition*". New Jersey: Prentice Hall.
- Hall, Gillette and Harry Patrinos. (2012). (Eds.) "*Indigenous Peoples, Poverty and Development*". New York: Cambridge University Press.
- Hoai Nam. (2013). "Nhà giáo, phụ huynh 'bê' thông tư 17 về dạy thêm học thêm" (Teachers and Parents Picking at Circular 17 on Private Tutoring). Available on the Internet at <http://dantri.com.vn/giao-duc-khuyen-hoc/nha-giao-phu-huynh-be-thong-tu-ve-day-them-hoc-them-688338.htm> (accessed June 16, 2013).
- Huynh, Cong Minh. (2005). "Day Them Hoc Them, Mot Van De Can Phai Thong Nhat Nhan Dinh" (Supplementary education, One Issue That Need a Common Viewpoint). *Teaching and Learning Today*, Issues 1-2, pp. 41-42.
- Jacob, Brian A., and Lars Lefgren. 2004. "Remedial Education and Student Achievement: A Regression-Discontinuity Analysis." *Review of Economics and Statistics* 86 (1): 226–44.
- Jayachandran, Seema. (2013). "Incentives to Teach Badly? After-School Tutoring in Developing Countries". Working paper. Department of Economics, Northwestern University.
- Khanh Binh. (2013). "Quản lý dạy thêm, học thêm: Tăng mức xử phạt, có khả thi hơn?" (Regulating Private Tutoring: Is Increasing Punishment More Feasible?) Available on the Internet at <http://sggp.org.vn/giaoduc/2013/3/313887/> (accessed June 16, 2013).
- Kim, Sunwoong and Ju-Ho Lee. (2010). "Supplementary education and Demand for Education in South Korea." *Economic Development and Cultural Change* 58(2): 259-296.
- Kuan, Ping-Yin. (2011). "Effects of Cram Schooling on Mathematics Performance: Evidence from Junior High Students in Taiwan". *Comparative Education Review*, 55(3): 342-368.
- Lavy, Victor, and Analia Schlosser. (2005). "Targeted Remedial Education for Underperforming Teenagers: Costs and Benefits." *Journal of Labor Economics* 23 (4): 839–74.
- Long, J. Scott. (1997). *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks, California: SAGE Publications, Inc.
- Mac, Van Trang. (2002). "Day Them, Hoc Them- Y Kien Ngoai Trong Cuoc" (Supplementary education- Insider Opinions). *Education Development*, Vol. 5.
- Ministry of Education and Training (MOET). (2001). "Bo GDDT Tra Loi Kien Nghi Cua Cu Tri Ve Day Them Hoc Them" (Ministry of Education and Training's Answers to National Assembly Delegates' Questions on Supplementary education). *Education and Times*, Issue 73, p.4.

- . (2002). “Hoi Nghi Tong Ket Tuyen Sinh Dai Hoc, Cao Dang Nam 2002 Va Trien Khai Cong Tac Tuyen Sinh Nam 2003” (Report on Conference Summarizing University and College Admission Activities 2002 and Implementing University and College Admission Activities 2003). Vinh, Vietnam.
- . (2006a). Education statistics on numbers of students taking university entrance examination and numbers of places available for the years 1993-1998.
- . (2006b). Decision 19/2006/QĐ-BGDĐT. Retrieved from <http://thuvienphapluat.vn/archive/Quy-dinh-19-2006-QD-BGDDT-Quy-che-thi-tot-nghiep-trung-hoc-co-so-pho-thong-sua-doi-17-2002-QD-BGD-DT-13-2004-QD-BGD-DT-06-2005-QD-BGD-DT-vb12051.aspx>
- . (2007). “Quy Định về Dạy Thêm, Học Thêm” (Regulations on Supplementary Education). Retrieved from <http://vanban.moet.gov.vn/?page=1.15&script=viewdoc&view=6521&opt=brpage>
- . (2012). “Thông tư 17 Ban hành Quy Định về Dạy Thêm, Học Thêm” (Circular no 17 Providing Regulations on Supplementary Education). Retrieved from <http://thuvienphapluat.vn/archive/Thong-tu-17-2012-TT-BGDDT-day-hoc-them-vb139414.aspx>
- Nam Viet. (2002). “Cac Ong Chu Lo Luyen” (Owners of Supplementary education Centers). *Education and Times*, Issue 70, p. 2.
- National Assembly of the Socialist Republic of Vietnam. (NASRV). 8th Legislature, 9th Session, 1991. *Law on Universalization of Primary Education 1991*. Retrieved from: <http://www.vietlaw.gov.vn/LAWNET/docView.do?docid=2221&type=html> (accessed August 3, 2013).
- . 11th Legislature, 7th Session, 2005. *Education Law 2005*. Available on the Internet at <http://www.edu.net.vn/> (accessed March 6, 2007).
- Nguyen, Van Dan. (2002). “Day Them, Hoc Them: Mot Van De Con Nhieu Nhuc Nhoi” (Supplementary education: A Thorny Issue). *Education Maganize*, Issue 27, pp. 42-44.
- Nguyen, Binh T., James W. Albretch, Susan B. Vroman and M. Daniel Westbrook. (2007). “A Quantile Regression Decomposition of Urban–Rural Inequality in Vietnam”. *Journal of Development Economics*. 83: 466-490.
- Ono, Hiroshi. 2007. “Does Examination Hell Pay Off? A Cost–Benefit Analysis of ‘Ronin’ and College Education in Japan.” *Economics of Education Review* 26 (3): 271–84.
- Pham, Minh Hac. (1998). *Vietnam’s Education: the Current Position and Future Prospects*. Hanoi, Vietnam: The Gioi Publishers.
- Pham, Quang Sang and David Sloper. (1995). “Funding and Financial Issues”. In David Sloper and Le Thac Can. (Eds). *Higher Education in Vietnam: Change and Response*. New York: St. Martin’s Press.

- Pham, Lan Huong and Gerald W. Fry. (2004). "Universities in Vietnam: Legacies, Challenges, and Prospects". In Philip G. Altbach and Toru Umakoshi. (Eds). *Asian Universities: Historical Perspectives and Contemporary Challenges*. Baltimore: Johns Hopkins University Press.
- Phi, Quoc Thuyen. (1999). "Ha Noi: Mua Luyen Thi" (Hanoi: Cramming Season). *Education and Times*, Issue 31, p. 5.
- Powers, Donald E., and Donald A. Rock. (1999). "Effects of Coaching on SAT I: Reasoning Test Scores." *Journal of Educational Measurement* 36 (2): 93–118.
- Silova, Iveta, Virginija Budiene, and Mark Bray. (2006). *Education in a Hidden Marketplace: Monitoring of Private Tutoring*. Budapest: Education Support Program of the Open Society Institute.
- StataCorp. (2009). *Stata Statistical Software: Release 11*. College Station, TX: StataCorp LP.
- Tran, Chi Dao, Lam Quang Thiep, and David Sloper. (1995). "The Organization and Management of Higher Education in Vietnam: An Overview". In David Sloper and Le Thac Can. (Eds). *Higher Education in Vietnam: Change and Response*. New York: St. Martin's Press.
- VnExpress. (2008). "Trẻ lớp 1 được điểm thấp vì không đến nhà cô học thêm" (First-Graders suffer bad grades for not attending tutoring classes at their teachers'). Accessed (in Vietnamese) on the Internet at <http://vnexpress.net/GL/Ban-doc-viet/Xa-hoi/2008/10/3BA06FE9/> (Accessed January 2011).
- . (2011a). "Đã đến lúc nói không với dạy thêm cưỡng bức". (It is time to say no to compulsory tutoring lessons). Accessed (in Vietnamese) on the Internet at <http://vnexpress.net/gl/xa-hoi/giao-duc/2011/02/da-den-luc-noi-khong-voi-day-them-cuong-buc/> (Accessed June 2013).
- . (2011b). "Hà Nội cấm dạy thêm cho học sinh tiểu học". (Hanoi forbids tutoring lessons for primary students). Accessed (in Vietnamese) on the Internet at <http://vnexpress.net/gl/xa-hoi/2011/04/ha-noi-cam-day-them-cho-hoc-sinh-tieu-hoc-1/> (Accessed June 2013).
- World Bank (2000). *Vietnam Living Standards Survey, 1997-1998: Basic information*. Poverty and Human Resources Division. The World Bank.
- . (2003). *Vietnam Development Report 2004*, Joint Donor Report to the Vietnam Consultative Group Meeting, Hanoi, Vietnam.
- . (2006). *Accelerating Vietnam Rural Development: Growth, Equity and Diversification*, Report by the East Asian and Pacific Region, Rural Development and Natural Resources Sector Unit.
- . (2012). *Vietnam Poverty Assessment Report 2012: Well Begun, Not Yet Done: Vietnam's Remarkable Progress on Poverty Reduction and the Emerging Challenges*. Hanoi, Vietnam.
- . (2013). *World Development Indicators*. Washington DC: World Bank Group. Retrieved from <http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspx?source=world-development-indicators>

Zhang, Yu. (2013). “Does Private Tutoring Improve Students’ National College Entrance Exam Performance?—A Case Study from Jinan, China”. *Economics of Education Review*, 32: 1-28.

Table 1: Reasons for attending supplementary education classes for students age 9- 20 (percent), Vietnam 2006

	Tutoring organized by school	Tutoring not organized by school
Prepare for examinations	47.2	41.7
Do not catch up with the class	12.9	14.4
Acquire skills for future employment	12.2	12.7
Like this subject	6.4	11.3
Parents too busy to take care	2.7	1.6
Poor quality lessons in school	2.7	6.0
Subjects not taught in mainstream classes	0.5	1.5
Others	15.4	10.9
Total	100	100
N	376	301
Source: Household and Tutoring Survey 2007- 2008.		

Table 2: Percentage of students attending tutoring classes by school level, Vietnam 1998-2006

Year	Level	Rural	Urban	All Vietnam
1998	Preschool	0.9	2.9	1.4
	Primary	27.4	54.7	31.1
	Lower secondary	50.6	76.1	55.9
	Upper secondary	73.7	82.3	76.7
2006	Preschool	3.3	6.7	4.4
	Primary	27.0	49.6	32.0
	Lower secondary	41.9	60.9	46.0
	Upper secondary	60.7	69.1	62.9
Source: VLSS 1997-1998 and VHLSS 2006.				

Table 3: Household expenditure on supplementary education classes by consumption quintiles, Vietnam 1998- 2006

	Poorest	Quintile 2	Quintile 3	Quintile 4	Richest	All Vietnam
Average household expenditure on tutoring in 1998 (US\$)	1.2	3.5	5.2	11.5	33.7	10.4
Average household expenditure on tutoring in 2006 (US\$)	2.4	5.5	9.5	13.9	32.7	13.6
<i>Distribution of hh. with exp. on private tutoring as percent of total expenditure</i>						
0%	85.3	73.4	69.6	70.0	69.6	73.1
1% - 5%	13.9	25.3	28.2	26.6	24.9	24.1
5% - 10%	0.7*	1.1	2.1	3.0	4.5	2.4
10% or higher	0.1*	0.2*	0.2*	0.4*	1.0*	0.4
Total	100	100	100	100	100	100
No. of households	1,800	1,815	1,864	1,867	1,843	9,189
Note: * less than 20 observations.						
Source: VLSS 1997-1998 and VHLSS 2006.						

Table 4: Tutoring fees per week charged by schools, Vietnam 2006 (VND)

Level	During school year	During break/ holiday
Primary	0.32	0.33
Lower secondary	0.37	0.51
Upper secondary	0.67	0.92
Source: VHLSS 2006.		

Table 5: Determinants of household (per child) investment in tutoring classes, children age 6- 17, Vietnam 2006 (marginal effects)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
No of siblings, age 0- 17				-0.225***		
No of siblings, age 0- 5					-0.163**	
No of siblings, age 6- 10					-0.137**	
No of siblings, age 11- 14					-0.275***	
No of siblings, age 15- 17					-0.334***	
No of brothers, age 0- 5						-0.178**
No of brothers, age 6- 10						-0.156**
No of brothers, age 11- 14						-0.341***
No of brothers, age 15- 17						-0.329***
No of sisters, age 0- 5						-0.158*
No of sisters, age 6- 10						-0.128*
No of sisters, age 11- 14						-0.224***
No of sisters, age 15- 17						-0.343***
Years before last grade			-0.146***	-0.144***	-0.147***	-0.147***
Lower secondary school			0.396***	0.375***	0.376***	0.379***
Upper secondary school			0.828***	0.748***	0.741***	0.745***
Ethnic majority (1= majority, 0= minority)		1.855***	1.814***	1.725***	1.723***	1.720***
Age	0.133***	0.136***	0.019	0.017	0.020	0.020
Sex (1= Male, 0= Female)	-0.114**	-0.116**	-0.108**	-0.148***	-0.135***	-0.137***
Head's years of schooling	0.109***	0.080***	0.076***	0.067***	0.067***	0.067***
Log of household expenditure	0.572***	0.468***	0.450***	0.485***	0.500***	0.499***
Urban (1= Urban, 0= Rural)	0.683***	0.594***	0.592***	0.519***	0.505***	0.507***
No of children	8373	8373	8373	8373	8373	8373
No of left-censored observations	5046	5046	5046	5046	5046	5046

Note: Marginal effects are calculated based on the estimates in Table 5.

Figure 1: Average number of hours spent on supplementary education classes by schooling level and urban-rural area in the past year, Vietnam 2006

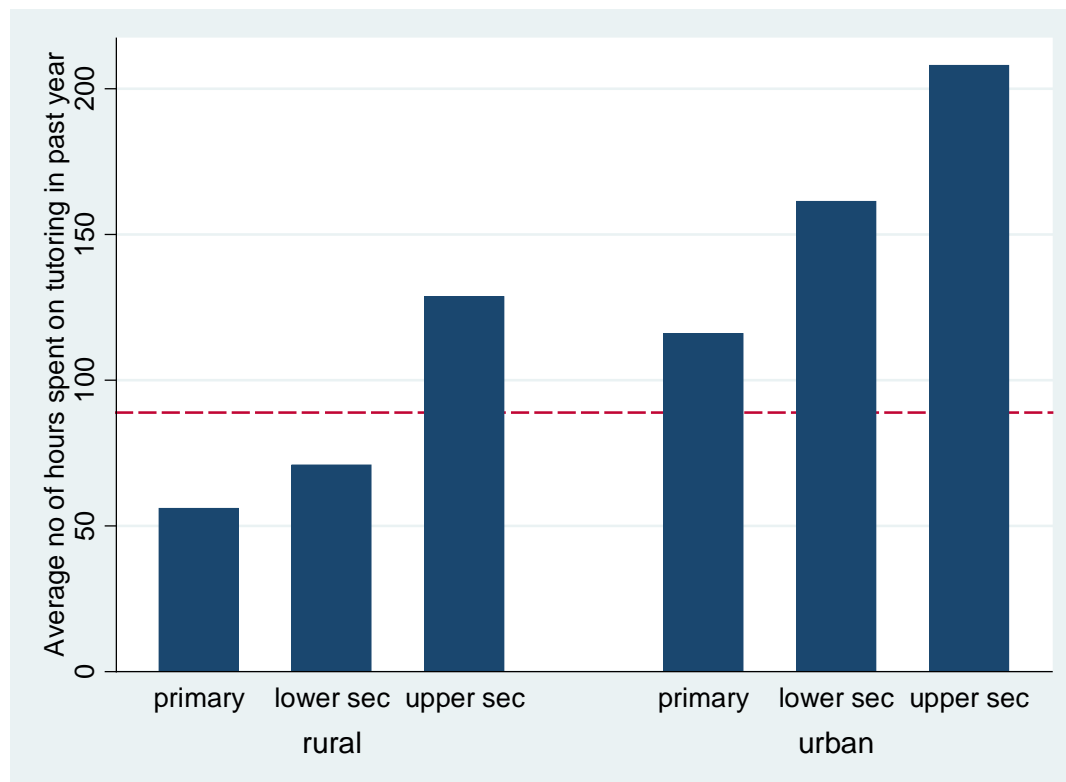


Figure 2: Average expenditure on supplementary education classes by grade and urban-rural area in the past year, Vietnam 1998- 2006

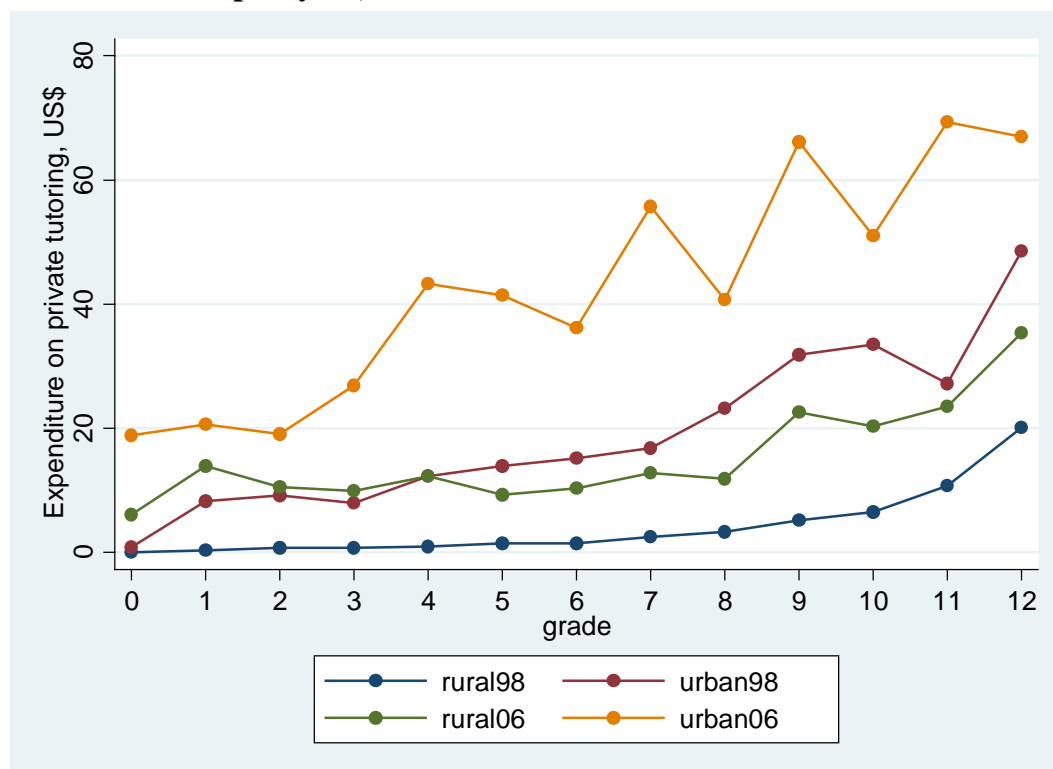


Figure 3: Percentage of students taking tutoring classes by ethnicity and school levels, Vietnam 1998- 2006

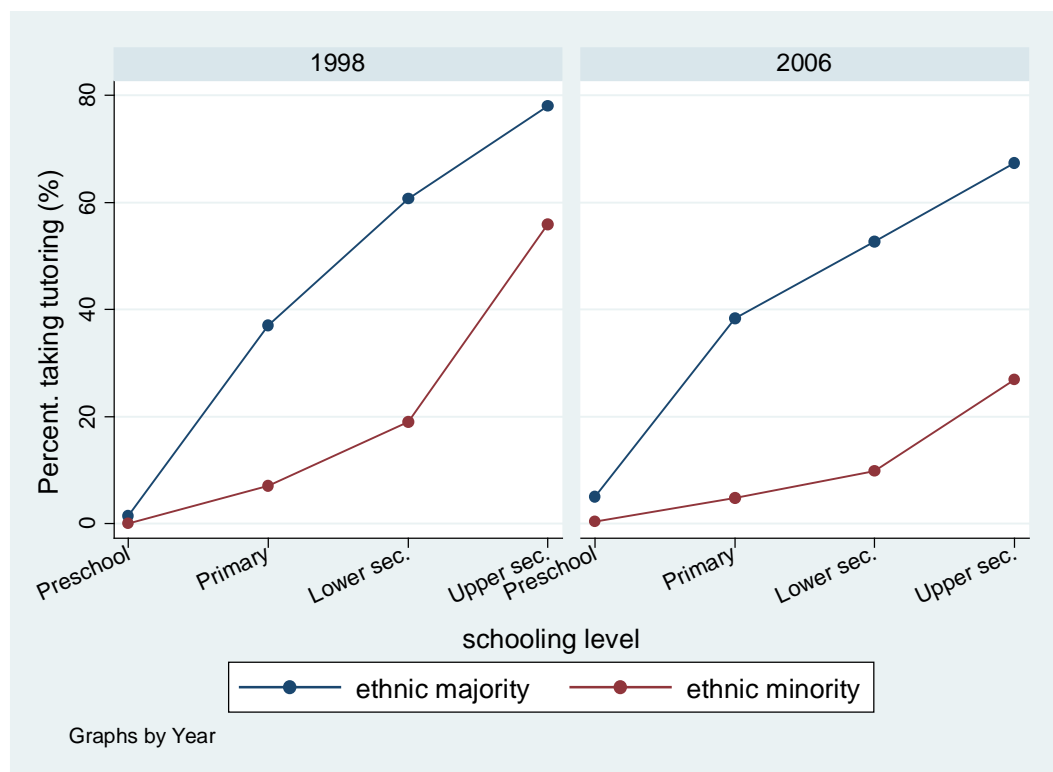
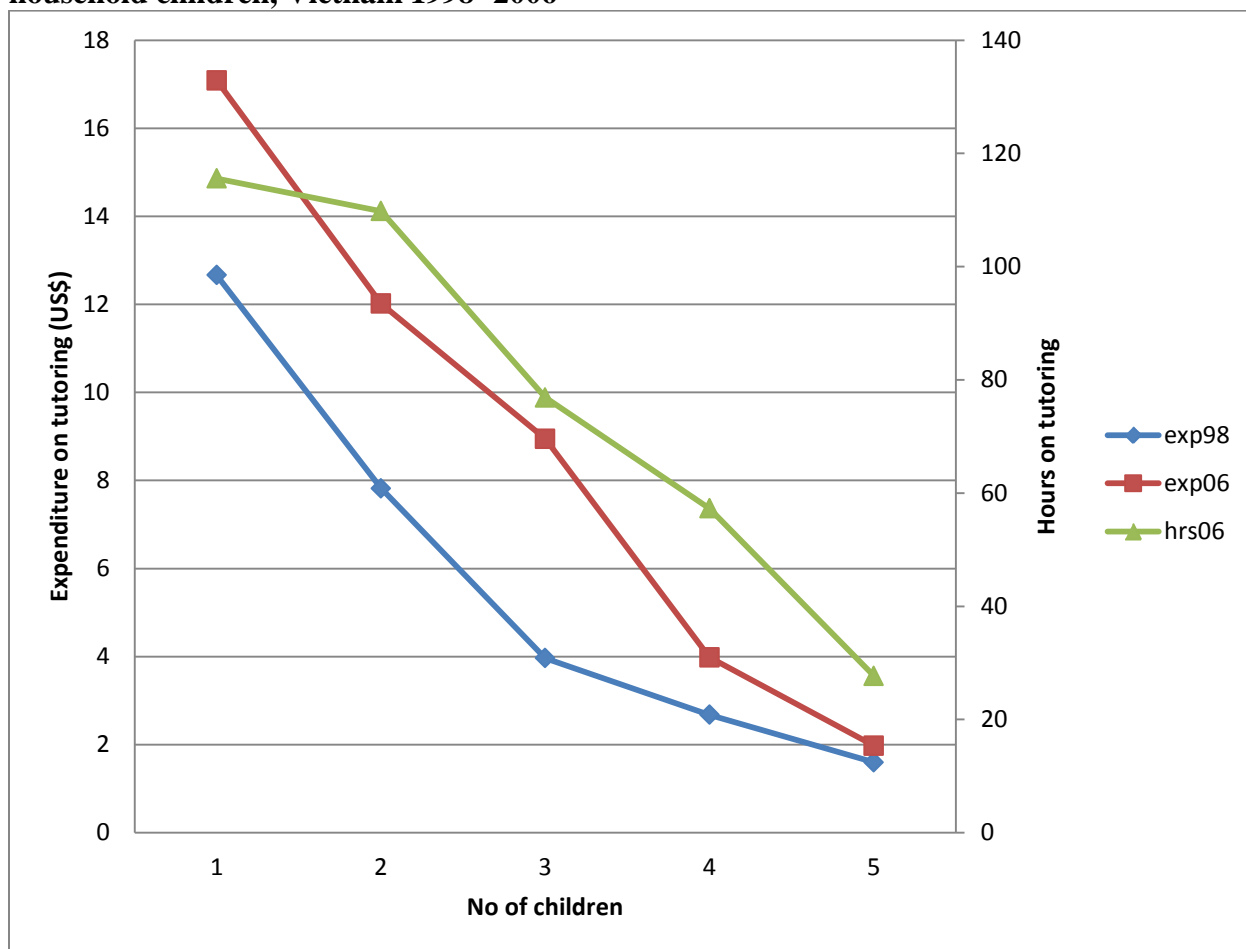


Figure 4: Household investment on supplementary education classes vs. number of household children, Vietnam 1998- 2006



Appendix

Table 1.1: Determinants of household (per child) investment in tutoring classes, children age 6-17, Vietnam 2006

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
No of siblings, age 0- 17				-0.507*** (-6.51)		
No of siblings, age 0- 5					-0.369** (-2.57)	
No of siblings, age 6- 10					-0.310** (-2.49)	
No of siblings, age 11- 14					-0.621*** (-5.46)	
No of siblings, age 15- 17					-0.753*** (-5.61)	
No of brothers, age 0- 5						-0.403** (-2.06)
No of brothers, age 6- 10						-0.353** (-2.06)
No of brothers, age 11- 14						-0.770*** (-4.96)
No of brothers, age 15- 17						-0.742*** (-4.15)
No of sisters, age 0- 5						-0.357* (-1.76)
No of sisters, age 6- 10						-0.290* (-1.69)
No of sisters, age 11- 14						-0.505*** (-3.54)
No of sisters, age 15- 17						-0.774*** (-4.35)
Years before last grade			-0.330*** (-6.05)	-0.324*** (-5.93)	-0.331*** (-6.06)	-0.332*** (-6.08)
Lower secondary school			0.894*** (4.09)	0.847*** (3.85)	0.849*** (3.77)	0.856*** (3.79)
Upper secondary school			1.870*** (5.54)	1.688*** (4.97)	1.673*** (4.92)	1.681*** (4.93)
Ethnic majority (1= majority, 0= minority)		4.187*** (14.04)	4.094*** (13.85)	3.892*** (13.10)	3.887*** (13.08)	3.881*** (13.05)
Age	0.302*** (16.02)	0.307*** (16.58)	0.044 (0.96)	0.039 (0.85)	0.045 (0.99)	0.045 (0.98)
Sex (1= Male, 0= Female)	-0.258** (-2.33)	-0.261** (-2.39)	-0.243** (-2.24)	-0.333*** (-3.06)	-0.305*** (-2.81)	-0.310*** (-2.81)
Head's years of schooling	0.248*** (11.75)	0.180*** (8.38)	0.170*** (7.99)	0.150*** (7.04)	0.152*** (7.14)	0.151*** (7.11)
Log of household expenditure	1.299*** (8.69)	1.057*** (7.17)	1.016*** (6.93)	1.095*** (7.53)	1.129*** (7.73)	1.127*** (7.72)
Urban (1= Urban, 0= Rural)	1.552*** (8.75)	1.340*** (7.78)	1.336*** (7.78)	1.171*** (6.83)	1.141*** (6.64)	1.145*** (6.66)
Constant	-15.503*** (-10.88)	-16.659*** (-11.93)	-13.174*** (-8.95)	-12.837*** (-8.78)	-13.228*** (-9.05)	-13.187*** (-9.02)
σ	4.245***	4.141***	4.122***	4.095***	4.090***	4.089***
σ_u						3.470***
σ_e						2.302***
rho						0.694
chi2						1930.27
Log likelihood	-12171	-11980	-11953	-11916	-11910	-11908
No of children	8373	8373	8373	8373	8373	8373
No of left-censored observations	5046	5046	5046	5046	5046	5046
Note: *p< .1, **p<0.05, ***p<0.01; robust t-statistics in parentheses accounts for clustering at the household level. All regressions control for regional dummy variables.						