

VIET NAM

HIGH QUALITY EDUCATION FOR ALL BY 2020



JUNE 2011

VOLUME I: OVERVIEW/POLICY REPORT



Human Development Department
East Asia and Pacific Region
The World Bank

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Overview of Study

This study examines the changes in Vietnam's primary and secondary education over the past 20 years as well as key factors that affect such critical educational outcomes as attendance, grade attainment, and student achievement in order to derive implications for public education policy. It is divided into an analytical report and shorter overview/policy report. The study finds significant improvement in attendance, attainment, and achievement across all populations. Nonetheless, vulnerable populations (in particular the poorest and ethnic minorities) continue to fare poorly as a result of persistent, and in some cases, increasing inequalities in educational attainment and poor student achievement. Educational attainment and achievement are also shown to be complementary to a large extent. Despite the methodological limitations, evidence consistently confirms that certain characteristics of schools and teachers are significantly related to both educational outcomes. This opens the door for public policy and provides multiple (potential) policy "entrance points" for addressing the remaining challenges. Some measures have implications for public funding, its priorities and/or efficiency, and others are more closely related to the management of public institutions. Some of the main policy implications derived from the analytical findings are re-asserting or expanding priorities for public funding through expanding support for the Fundamental School Quality Level (FSQL), and supporting full day schooling and conditional cash transfers for vulnerable groups; improving spending efficiency through better targeted fee exemptions and the strengthened application of teacher standards; and improving the management of public sector schools through higher principals' management capacity, strengthened accountability of schools to their communities and better information.

Country Background

Economic growth, population, poverty reduction

In recent years, Vietnam has seen impressive poverty reduction based on a strong macroeconomic foundation. The country has experienced nearly unparalleled economic growth and change over the past 20 years, during which GDP grew about 7 percent a year. The latest socioeconomic plan for 2011–2015 calls for a growth rate of 7–8 percent. Despite the recent global financial crisis, overall economic trends are still very positive. In fact, Vietnam recovered from the crisis faster than almost any other country in the world, recording a growth rate of 5.3 percent in 2009. The country's recent record of poverty reduction is nothing short of spectacular: the poverty rate has declined from nearly 60 percent in 1993 to about 14 percent in 2008.

The most recent census (2006) estimates Vietnam's population at over 84 million, compared with about 75 million in the 1990s. However, population trends show an aging of the population, with younger age groups (children) decreasing relative to the overall population mainly due to a two-thirds decrease in fertility rates over the last decade. The ratio of females to males in the country is practically one-to-one. While most of the population resides in rural areas (72 percent in 2008), urbanization has increased in the last decades. The predominant ethnic group is the Kinh (i.e., ethnic Vietnamese), who constitute 86 percent of the population (over 70 million). Some 54 ethnic groups are recognized in the country, the largest of which are the Chinese (about 1 million according to the latest census), Tay, and Thai. Poverty rates are higher among specific ethnic groups, and previous studies have shown that members of minorities have not benefitted as much as the Kinh and Chinese from growth and expanded educational coverage.

Finally, there are stark income disparities between the regions of Vietnam. Poverty and wealth are highly concentrated in the country, a fact that has not changed with time. The Northwest and the Central Highlands have high poverty rates, and have become more impoverished over time,

with a slight decrease in recent years. In contrast, the percentage of the population in the highest income quintile in the Southeast increased from 38 percent in 1992 to 46 percent in 1998, and has since remained stable. Like the poor, minority populations are also concentrated spatially, a trend that appears to be increasing over time. The Red River Delta and coast regions are predominantly populated by the Kinh and Chinese. In the Northwest, ethnic minorities comprised 61 percent of the population in 1992 and 80 percent in 2008. In the Northeast, the percentage of ethnic minorities increased from 25 percent to 42 percent over the same period.

Structure, management and financing of the education system

The Vietnamese education system is structured into five general levels: nurseries (3 years of age) and kindergartens (ages 3–5), which are more common in urban areas; primary education, consisting of grades 1–5; lower secondary education (LSE), consisting of grades 6–9 (with an examination in grade 9); and upper secondary education (USE), consisting of grades 10–12 (with entrance and exit exams). An alternative to the upper secondary track is the vocational or technical training track, in which training varies from 6 months to 3 years in length. Similar options exist as alternatives to college upon graduation from upper secondary education. In 2009, there were 15,610 primary and secondary schools in Vietnam.

Vietnam provides primary education through main sites that are sometimes complemented by satellite schools to satisfy demand, rather than by additional schools. Overall, 77 percent of satellite schools offer all grades (1–5), with 23 percent offering an incomplete grade sequence. Nearly all (98 percent) main primary schools offer a complete grade sequence. The proportion of complete satellites has decreased slightly over time, likely reflecting the decrease in the primary school-age population. Officially, government-provided compulsory primary education in Vietnam is only a half day (25 periods per week). Periods are only about 40–45 minutes and actual teaching time is often much lower, making Vietnam—with less than 700 hours of mandated instructional time a year—a country with one of the lowest primary education instructional times in the world. Normally, two class groups share one classroom, alternating morning and afternoon shifts.

Similar to primary education, secondary education is also provided through main sites complemented by satellite schools. As in primary education, instructional time is also low and largely comprised of half-day classes.

Government support for education in Vietnam has increased over the past 25 years. The share of education in the national budget grew from 7 percent in 1986 to roughly 20 percent in 2008. Vietnam was spending about 5.3 percent of its GDP on education in 2008. This share is high relative to the East Asian average of about 3.5 percent. Per pupil expenditure in 2008 was also high at around 20 and 17 percent of GDP per capita in primary and secondary education in Vietnam, respectively, compared with the East Asian average of about 14 percent for both levels.

Primary and secondary education management is decentralized to the provincial and district level in Vietnam. The role of the central Ministry of Education and Training (MOET) largely includes:

(i) setting the curriculum; (ii) publishing the textbooks; and (iii) establishing regulations on teaching and assessments. Public resources for primary and secondary schools come to a large extent from provincial and district budgets, with the central level playing a complementary role. The vast majority of Vietnam's schools are public (i.e., government-operated) schools. The most privatized part of the national education system is the tertiary level, yet even at this level, public institutions account for about 86 percent of all schools and 89 percent of all students.

Until 1989, education in Vietnam was free with schools and teachers fully funded by the government. No user fees existed and textbooks were supplied to students. In September 1989, user fees were introduced on a scale that increased with the education level. Fees are collected by the school and used for infrastructure maintenance, supplies, equipment, and salary supplements. Parents are also required to pay for children's textbooks. Fee exemptions amounting to 100 percent are offered to the handicapped, boarder students in minority areas, children of deceased or seriously wounded soldiers, and children in remote areas. Exemptions of up to 50 percent are offered to children of less seriously wounded soldiers, children of government workers disabled on the job, ethnic minority students, and children certified as poor. Poverty certifications are made by the local village or neighborhood school committee. As of 1993, school fees were abolished for the 4th and 5th grades and by now a full tuition fee waiver is applied for the whole primary cycle.

Government education policies over the past 20 years

We summarize below the main government policies that have unfolded over the past 20 years.

The goal of the 1990s was to have all children aged 6–14 complete primary education (grades 1–5). “Literacy eradication” was the education quality goal for this period. The system of primary schools expanded rapidly and reached all communes in the country (numbering in the tens of thousands). Flexible schooling arrangements were developed to ensure that no communes were without a primary school and no villages were without primary classes (often offered via satellite schools). School infrastructure was very basic and constrained, with many schools operating three shifts per day. School fees were abolished for primary school grades.

Due to the rapid expansion of the education system, many teachers were recruited into the system in the 1970s, 1980s, and 1990s without minimum qualifications. As of the early 2000s, Vietnam no longer faced a teacher shortage due to the decline in the school-age population. As a result, more policy attention started to be devoted to improving the quality of education. During the 2000s, Vietnam launched initiatives to professionalize the teaching force and improve the quality of school facilities and resources while also “stewarding” a transition to full day schooling.

Main initiatives to professionalize the teaching force were: (i) awarding the title of “excellence” to teachers at the school, district, provincial, and national levels;¹ implementing professional teacher standards; (ii) introducing regular, demand-driven in-service teacher training²; (iii) upgrading teacher pre-service qualifications (as of late 2010, the number of teachers not having “standard” qualifications had been reduced to less than 3 percent); and (iv) offering pilot accreditation of teacher training programs.³

1 The title of “teacher excellence” is awarded through a process of competition organized by schools. The competition looks at teachers’ performance through an observation of a teaching session. A panel of reviewers then judges each teacher’s performance. Teachers who are awarded the “teacher excellence” title at the school level are then nominated for a competition at the district level and so on to the national level. The title brings recognition and prestige to teachers. Parents, particularly in urban areas, like to place their children in class groups that are taught by these teachers

2 Demand-driven teacher training initiatives include: (i) asking teachers to choose a mix of compulsory and elective modules; (ii) providing training at a school or a cluster of schools with support from key teachers; (iii) providing extensive printed and IT-based materials to teachers for self-study; and (iv) offering a combination of face-to-face instruction, self-study, and classroom practice.

3 Many teacher training institutions have abandoned their mission of teacher training over the last ten years and have upgraded into multidisciplinary colleges and universities. Given the large number of providers at this level (more than 70) and the need to improve formal teacher training, Vietnam has begun pilot accreditation of teacher training programs. However, this effort remains experimental because the institutional arrangements for an accreditation framework have yet to be fully established.

Professional standards are worth a few more words. Vietnam adopted the teacher professional standards—which differentiate between regular, senior and lead teachers—for primary teachers in 2007; similar standards have been developed for preschool and secondary teachers. The innovative standards encompass: (i) a teacher’s knowledge; (ii) a teacher’s pedagogical skills; and (iii) his or her attitudes and behavior. The development of these standards rests on the assumptions that training qualifications only provide teachers a starting point in their careers; teachers’ work is complex, requiring a multifaceted approach to performance measurement; and teacher competencies can be classified into different levels of performance. The standards are meant to help teachers identify where they are in their professional development, and can be used for both performance appraisals and training needs assessments. In 2007, the government adopted a policy of linking teacher remuneration with qualifications, with teachers having higher qualifications mapped to higher salary scales. Teachers’ salaries are however still not linked to the competencies specified in the professional standards. Moreover, the extent to which teacher training programs are starting to reflect application of the standards is unclear.

The main initiative to improve school resources and facilities included the introduction of the Fundamental School Quality Level (FSQL) as a minimum quality standard for all primary schools. The central government has limited influence on the availability of primary school resources, which has resulted in large differences in resources across schools. To address this issue, MOET established the Department of Primary Education in the mid-1990s, which developed “National School Standards for the 1996–2000 Period⁴”. By 2007, however, only 30 percent of schools met national standards. Many schools in urban areas tended to have highly qualified teaching staff, satisfactory school management processes, and good output indicators, but did not meet the minimum space requirements. Schools in rural areas, on the other hand, tended to meet the infrastructure and space requirements, but did not meet the other standards. The certification process had drawn attention to school resources and many local authorities and communities had consequently provided financial support to improve the resources of schools in their areas. What was missing was, however, a set of minimum standards to be achieved to focus effort on the poorest schools and communities. FSQL was therefore introduced in 2003 (Box 1 provides the details).

4 The national standards are a set of requirements and expectations that schools are expected to meet and include: (i) input standards, such as required qualifications for school heads, teachers, infrastructure, playground areas, and teaching and learning resources; (ii) process standards, such as for annual school planning, the participation of parents in school activities, and the training and professional development of teaching staff; and (iii) output standards, including as net enrollment, progression, drop out, and completion rates.

Box 1. Standards for School Quality in Vietnam: The FSQL and FII

As the imperative of school quality became more evident in Vietnam in the late 1990s, the government introduced the Fundamental School Quality Level (FSQL) as a minimum quality standard for all schools. FSQL was developed through a participatory process involving key actors from different levels of the decentralized education system, including parents. It was envisaged as an objective basis for allocating resources to schools, with the aim of allocating educational funding to where it is most needed. FSQL is a good concept for determining minimum levels of service provision, while providing an excellent information base for both calibrating the needs of individual schools and monitoring their performance.

By the time FSQL was adopted for pilot use in 2003, it included 35 standards, ranging from short- to medium-term targets. The FSQL Input Index (FII) was constructed based on these targets and uses five components relating to school quality (see table A). Data on the FII is available for all schools for which MoET collects data. The largest components in the index are school organization and/or management, teaching staff, and infrastructure. These include key inputs related to physical inputs, but also human capital inputs such as teacher education levels. The index is also made up of process indicators related to implementation and quality.

Table 1. Calculation of FII Components

Content	
School organization and management	26
Teaching staff	27
Infrastructure, teaching and learning equipments	25
Implementation of education socialization	7
Education activities and quality	15
Total	100

Vietnam is presently in the process of developing both minimum quality standards for secondary education and a Medium Term Expenditure Framework for education (MTEF), which will serve as a tool for planning the resources needed by the education sector.

Finally, over the past decade, the government has allowed schools to move to full-day instruction if they so wished. The move to full-day schooling (FDS) was initially quite spontaneous and sporadic, beginning in the biggest cities of Vietnam. By early to mid- 2000s, the transition had gained momentum and the number of schools in urban areas opting for FDS has increased significantly. The mode of adoption of FDS has varied, however, ranging from whole school adoption to adoption by only a selected number of class groups. Certain primary schools have opted for full FDS (35 or even 40 periods per week), while others have chosen partial FDS (roughly 30 periods per week). More recently the government has also put special emphasis on higher teaching time and access to early childhood for ethnic minority children.

To summarize, the chronological sequence of government education policy in Vietnam has been to: (i) campaign to get and keep kids in school, including support of satellite schools and free primary education; (ii) provide adequate numbers of teachers; (iii) implement various interventions to decrease the cost of schooling, including fee exemptions, scholarships and complementary health and nutrition services; (iv) provide school facilities and resources

(primarily by instituting minimum school standards); (v) upgrade teacher qualifications, provide in-service training, and develop teacher certification (standard) policies; and (vi) support FDS and early childhood programs.

Education in Vietnam Today: Achievements and Challenges

Current achievements

Attainment. Relative to its income level, Vietnam has achieved remarkable success in terms of basic education outcomes. While its GDP per capita in 2009 was US\$1,113—less than one-seventh the average of East Asia and Pacific countries and one-fourth the average of middle-income countries—its literacy rates are very similar to these two groups of countries. Vietnam has made impressive improvements in education attainment since the early 1990s. According to household survey data, between 1992 and 2008 the percentage of the population aged 25–55 years without any level of educational attainment decreased from 23 percent to less than 1 percent. Improvements have been concentrated in primary and secondary education, although access to university education has also steadily increased during this period (see table 1). Rural and lower-income populations have benefited the most from the increase in primary and lower secondary attainment.

Table 1: Educational Attainment of Vietnamese Population aged 25–55 Years, 1992–2008

	1992	1998	2004	2006	2008
None	22.71	0.02	1.75	0.95	0.66
Primary	27.29	39.70	41.67	33.46	32.39
Lower secondary	29.58	31.70	31.34	34.42	33.41
Upper secondary	7.22	20.20	12.76	11.87	12.41
Vocational	10.27	6.37	9.34	14.07	12.83
Undergraduate	2.88	1.94	3.05	5.07	8.08
Masters	0.01	0.04	0.07	0.16	0.19
Doctorate	0.04	0.02	0.02	0.01	0.04

Source: Nores 2008a.

Enrollment and Attendance. Primary enrollment is now nearly universal in Vietnam.⁵ Gross enrollment in 2006 at the primary, secondary, and tertiary levels were roughly 100 percent, 76 percent, and 16 percent, respectively.⁶ These rates place Vietnam in a very favorable position vis-à-vis countries with similar per capita income. The expansion of secondary education since 1992 has been especially notable.

Attendance rates⁷ are more readily calculated from household surveys. All subpopulation groups showed growth in attendance rates during the 1992–2008 period. As of 2008, attendance

⁵ Specific values differ depending on the methodology, but always rank between 95 and 100 percent.

⁶ No formal updates have been provided using institutional data. More recent attendance rates calculated from household surveys are however pointing to similar outcomes – as shown below.

⁷ The present analysis asked the question “Are you currently enrolled in school?” Attendance rate is defined as the total number of school-aged children in school divided by the total number of school-aged children.

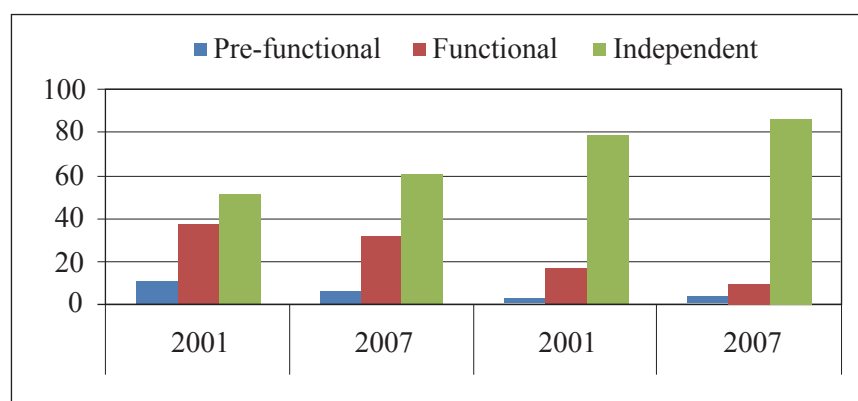
rates were 95 percent in primary education, 92 percent in lower secondary education, and 69 percent in upper secondary education. Overall, as expected given their higher initial value, primary attendance rates have increased much less in comparison to lower and upper secondary attendance rates, with consistent growth at all levels. Upper secondary has experienced almost a threefold increase between 1992 and 2008. Likewise, most of the growth has occurred in rural areas (where most of the population resides) with growth in enrollment rates in lower secondary of 20 percentage points. Male and female attendance rates do not differ significantly in primary and lower secondary, and the gender bias in secondary education appears to have slightly reversed in favor of females.

Completion. Beyond enrollment and attendance rates, the completion rates for primary, lower secondary, and upper secondary education have also increased substantially since 1992. These findings indicate that the educational attainment of the 25–55-year-old cohort will be much higher in 2020 than it is now. Vietnam’s primary school completion rate of roughly 90 percent is actually slightly higher than that of comparator countries.

Primary level completion rates in rural areas rose from 39.6 percent to 88 percent between 1992 and 2008. As a result, there have been very large reductions in the differences between urban and rural completion rates. Completion rates at the lower secondary level have also increased considerably, with a threefold increase observed at the national level. Lower secondary completion in rural areas has increased from 19.6 to 73.5 percent, while for the lowest income quintile, the corresponding change through 2006 was nearly 40 percent: from 7.2 to 45.6 percent. Similar to attendance, there is relative gender parity in primary education, but females appear to slightly surpass male completion rates in both lower and upper secondary.

Quality. Finally, a comparison of two large-scale standardized tests of grade 5 students showed substantial improvement in student achievement over the 2001–2007 period. 61 and 87 percent of pupils now have sufficient reading and mathematics competence, respectively, for independent learning in secondary education (Figure 1). Particularly in mathematics, the evidence suggests that primary schools are generally preparing their students for the post-primary curriculum. A breakdown by gender also shows relatively equal performance in mathematics, but females significantly outperform males in reading, as consistent with international norms.

Figure 1: 5th Grade Student Functionality Levels in 2001 and 2007



Source: Griffin and Cuc, 2009.

As education quality and access have improved, overage enrollment has also fallen at the lower levels and slowly pushed to the higher grades (with attendance having increased at these levels),

before eventually being reduced for all grades and levels. Despite these improvements, more than 7 percent of students in each grade (except 1st) are overage.

This performance is overall quite remarkable. In particular, when we consider the combined increase in attendance, completion and standardized scores. This increase suggests that there has been no trade-off between quantity and quality so far, but that higher quality may have reinforced the motivation to stay in and complete school. On the other hand, the full diagnostic is less clear cut. Learning outcomes did not grow to the same extent across population groups. Enrollment and attendance gaps have not been reduced at all education levels. Even average learning outcomes are not necessarily synonymous with high competency levels. And despite females' slight advantage in attainment and learning outcomes, the lower salaries and occupations they command in the labor market suggest that education may perpetuate gender stereotypes. This brings us to the discussion of current educational challenges in Vietnam.

Current challenges

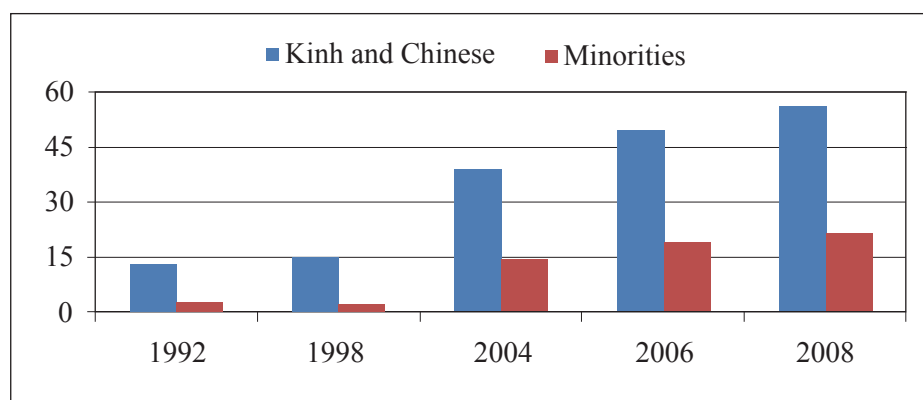
Attainment inequities.⁸ A first major problem facing Vietnam is persistent inequalities in grade attainment, attendance and completion, particularly along the income and ethnic dimensions.

Although educational attainment increased for all income quintiles between 1992 and 2008, for the first and second quintiles (and, to a lesser degree, the third), most growth has been in primary and secondary attainment, while for the upper income quintiles, growth has been concentrated at the vocational and undergraduate level. Along similar lines, between income quintiles, attendance rate disparities shrank for primary and lower secondary, but remained for upper secondary education. The lower income quintile has attendance rates below the national average at both lower and upper secondary: 84 percent for lower secondary education and 48 percent for upper secondary education (in 2006/9). This means that at the upper secondary level, the upper income quintile has an attendance rate of 1.8 times that of the lower quintile. Primary completion rates are 73 percent for the poorest children, versus roughly 95 percent for the upper income quintile, indicating significant room for improvement. About one in every two poor children (46 percent) completes lower secondary education at the corresponding completion age, versus two in three (77 percent) middle-income children and four in five (89 percent) upper-income children.

The gap between Kinh and Chinese, on one hand, and remaining ethnic minorities, on the other, is present at all education levels and larger at upper education levels. In 2008, minorities had attendance rates of 89 percent in primary education, 85 percent in lower secondary education, and 52 percent in upper secondary education. The trend is decreasing at the upper secondary level, with a 64 percent attendance rate in 2004 falling to 52 percent in 2008. Although primary completion increased for ethnic minorities from 14 percent in 1992 to 78 percent in 2008, ethnic minorities consistently displayed the lowest primary completion rates not only in relation to Kinh and Chinese (at 92 percent in 2008), but also in relation to all other comparison groups by rural/urban location, income, and gender. And a little more than half as many children from ethnic minorities completed lower secondary education (52 percent) in 2008 as did Kinh and Chinese children (80 percent). Completion rates for upper secondary for minorities are one third the rates for the Kinh and Chinese, with slow improvement in time (Figure 2).

⁸ Broadly defined as also including attendance and completion indicators.

Figure 2: Upper Secondary Completion Rates – Kinh and non-Kinh



Source: Nores 2008a.

While differences are less sharp, national attendance averages still mask important differences across rural versus urban areas, which have upper secondary attendance rates of 65 percent and 79 percent, respectively. In rural areas, the increase in educational attainment is concentrated at the primary and secondary levels, and in urban areas it is concentrated at the vocational and undergraduate levels. Completion rates in rural areas are about two-thirds of what they are in urban areas. These differences in educational attainment and completion over time translate into increasing inequality, considering that the urban population accounts for only 20 percent of the total population and the intergenerational reproduction of these types of inequalities.

Finally, gender does not appear to be a large concern in attainment; however females often display higher attainment rates, particularly in upper secondary. There is relative gender parity in primary and lower secondary attendance and enrollment. A notable exception is in upper secondary, which has seen a reversal from a previously male advantage to now a female advantage. In 2008, female attendance and enrollment rates were 73 and 55 percent, respectively, compared with male attendance and enrollment rates of 64 and 46 percent, respectively. This trend also occurs within income groups, where female attendance and enrollment rates exceed male rates in upper secondary. For individuals in the lowest quintile, females also tend to have higher rates in primary and lower secondary. For higher income groups, this bias disappears, and males and females show similar rates. In terms of completion, there is also gender parity in primary education, but females are more likely to complete lower and upper secondary.

Inequity dynamics. Despite impressive gains at the bottom, lower sections of the income distribution and ethnic minorities remain far behind their wealthy and Kinh and Chinese counterparts. This problem is attributable in part to the significantly lower rates of primary school completion for children from historically disadvantaged groups. The inequality is then further fuelled by the divergence in post-primary schooling experiences among minority and lower-income populations. These outcomes are to a significant extent related, as shown below.

Inequality is increasing because of different *rates of improvement* of different population groups, not because circumstances are getting worse for some. This divergence is partly explained by two factors. First, primary completion for the disadvantaged has not increased as fast as desirable. While the overall gap in completion between the upper and lower quintiles decreased from 38 percentage points in the early 1990s to around 20 percentage points by 2006, the completion rate gap between the first and third income quintiles has been fairly consistent at about 20 percentage points, indicating that the lowest quintile is the one left behind. Slowly

moving primary completion rates can exacerbate inequality in secondary education attendance and completion.

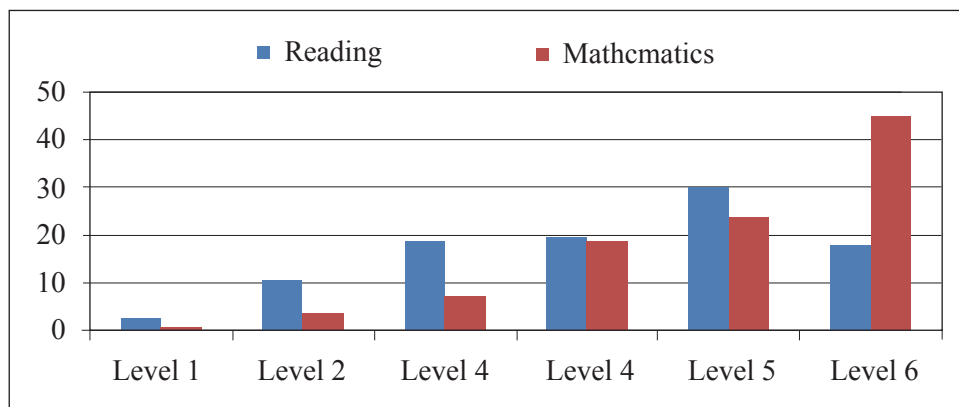
Second, household survey data from 1992–2008 reveal generally persistent, or even increasing, gaps in secondary attendance and completion rates between poor and wealthy, rural and urban areas, and Kinh and Chinese versus ethnic minority students. When it comes to this critical level of education, the poorest sectors of society are falling behind, rather than catching up with their more advantaged neighbors. Between 1992 and 2006, upper secondary completion gaps more than doubled between income quintiles 1 and 5. From 1992 to 2008, completion gaps between minority and nonminority groups more than doubled in lower secondary and more than tripled in upper secondary. These gaps reflect different rates of improvement, as the more disadvantaged groups have made measurable progress, but their rate of change has not kept up with those of other population groups.

These problems can be categorized sequentially. They begin with the group of children who do not complete primary school, often because of poor quality or complete primary school but do not continue on to secondary, often because of limited access and/or high costs. Then there are children who enter secondary school but fall behind—or drop out—because they are poorly prepared for the demands of the secondary curriculum. Other students are better equipped to progress through secondary school, but unable to complete because of cost (or other) pressures. This in turn has consequences for access to higher education and, ultimately, labor market success. Each of these problems (primary school dropout, not enrolling in secondary school, secondary school dropout) has consequences for development and equity in Vietnam. It is therefore imperative that policymakers address these critical “pressure points” in the grade attainment sequence. Poor quality of schooling, in particular for disadvantaged groups, is one critical determinant of inequitable attainment.

Insufficient learning outcomes. The second major problem facing Vietnam’s education system is one of insufficient learning outcomes, on average and especially for disadvantaged groups. It is critical to look at quality. Not only does quality have an impact on quantity, as further reviewed below, but there is also clearly some attenuation of the gains in participation and completion when school quality is low. Simply stated, the payoffs to universal primary and secondary completion are limited if students are not obtaining the knowledge and skills they need for either post-secondary schooling or the changing needs of a growing economy. Some students complete primary school but learn very little, so they have not really completed primary school. In Vietnam, years of schooling is a strong predictor of student achievement confirming that children are learning more as they progress through more grades, but quality remains an issue overall and for some groups in particular.

First, a high share of students at the independent learner stage reflects minimum (or basic) competency levels but does not mean that Vietnamese students are scoring very high in math or reading, nor does it mean that these students have demonstrated extensive higher-order cognitive skills. It is worrisome, for example, that in 2007, less than half of 5th grade students were able to problem solve to answer mathematics questions. Additionally, while the majority of students reached independent learning in mathematics, the number of students learning at the lowest pre-functional level increased from 2.8 in 2001 to 3.5 percent in 2007. The results for Vietnamese reading are even less positive, with nearly one-third of 5th grade students unable to infer meaning from text, and less than 20 percent of students performing at the highest level of reading competency (Figure 3). Functionality levels were also much lower in reading than mathematics, with 40 percent of students still not learning at an independent level. In spite of the overall improvement, there is therefore still significant scope to do better.

Figure 3: Percentages of 5th Grade Students reaching Different Skill Levels¹⁰ in Reading and Mathematics⁹, 2007



Source: Griffin and Cuc 2009.

Second, there are very large gaps in scores between urban and rural/remote, poor and wealthy, and ethnic minority and majority students. To a large extent, as for attainment, these gaps reflect lower rates of improvement for these disadvantaged groups. Over the 2001 to 2007 time period, students in rural areas consistently outperform students in remote areas, and students in urban areas consistently outperform students in rural areas. Scores have increased for all three groups, with rural students displaying large gains in reading, and both rural and urban students displaying large gains in mathematics, while scores for remote students have shown less improvement. Growing inequity is most apparent across ethnicity where non-Kinh students experience little change in math and reading scores compared with nearly 7 and 12 percent gains in reading and math for Kinh students, respectively. In 2007, less than 40 percent of ethnic minority students were reading at an independent level versus over 60 percent of Kinh students. There is a smaller gap in scores across genders, but females outperform males in reading to a large extent, and outperform males in math to a smaller extent.

Results from standardized tests merged with household survey data provide some additional clues to learning gaps in Vietnam beyond primary. Comparisons of urban and rural students suggest that rural students in grades 5–9 are about three grades behind their urban counterparts; the corresponding gap in grades 10–12 is about two grades. The same is true for comparisons between the first and third quintiles in reading and math scores, and between ethnic majority (i.e., Kinh and Chinese) and minority groups. Again, these differences reflect a gap of about 3 years of schooling for the grade 5–9 cohorts.

Quantity-quality dynamics. The literature shows both trade-offs and complementarities between quantity and quality. On the one hand, increasing quantity can have an initial negative effect on learning outcomes if students coming from more disadvantaged backgrounds are brought into school. On the other hand, however, low-quality schooling generally plays a role in explaining the persistence of primary and secondary school dropouts among disadvantaged population groups, so increasing quality can lead to quantity increases. In Vietnam, complementarities appear to be stronger than trade-offs. The above diagnostic has shown that increases in average primary education learning outcomes have co-existed with increases in average primary education attainment and completion. Most disadvantaged groups have seen some increases in both attainment and learning outcomes. This evidence can be in part explained by the fact that

⁹ A definition of each skill level can be found in Table 4.22 of the analytical report.

many common factors –family or school related-affect both attainment and learning outcomes in Vietnam and to the extent that policy makers pull the right triggers both dimensions can therefore improve. At the same time, lack of action can hamper both dimensions, as illustrated by lower rates of improvement of both attainment and learning outcomes for ethnic minorities. Additionally, trade-offs can start appearing if some more narrowly quantity or quality related factors are not addressed. Below reviews the main factors that explain educational attainment and learning outcomes in Vietnam (analyzed together), followed by a final section on policies to improve educational outcomes in the country.

Education in Vietnam Today: What Explains Educational Outcomes

The above diagnostic suggests that some of the policies implemented by Vietnam over these last decades have bore fruit. At the same time, there is still significant scope to improve quality and an urgency to close gaps in attainment and learning outcomes. These persistent challenges indicate that many factors are at play, some may not be easily affected by education policy, while others may not have been addressed, or not sufficiently addressed, by education policy.

In Vietnam like elsewhere, the largest predictors of educational performance¹⁰ include student and family background characteristics, such as socioeconomic status and parental education.¹¹ For instance, the results of the rho analysis¹² conducted for this study indicate that most of the variation in learning outcomes in Vietnam (about 60 percent) comes from differences between students within schools, and a relatively smaller percentage (about 40) is attributable to differences between schools.

However, the rhos of about 0.40 are generally higher than what studies have found in other countries, indicating that student performance-related inputs are still fairly inequitably allocated across schools in the country (even though this allocation has improved over time, with a higher share of inequity now found within individual schools), and that many factors are “policy malleable.” A substantial part of the average gain in mathematics from 2001 to 2007 is notably attributable to changes in school and teacher characteristics. Ethnic minorities appear to be especially affected by school and teacher quality.

In order to disentangle implications for public education policy, we summarize below the factors that have been supporting educational performance in Vietnam, that could potentially be supporting educational performance, and that have been constraining educational performance. Some factors are contributing to higher educational performance because they have been moving in the right direction largely thanks to policy choices. Other factors may potentially contribute significantly but remain under-utilized (not used to their full potential). And still other factors are detrimental to educational performance if not addressed. We look at educational performance overall, but point out when the effect found is attainment or learning outcome specific. The analysis is presented for average performance, but also, when relevant, highlights the effects on population sub-groups to support our emphasis on closing gaps (in other words, supporting

10 Defined broadly, in this policy report, as including both grade attainment and learning outcomes, to a large extent shown to be complementary in Vietnam.

11 The evidence on school quality and learning outcomes in Vietnam comes mainly, although not solely, from the primary level; the evidence on educational attainment from both the primary and secondary level.

12 “Rho” is a statistic called the coefficient of intra-class correlation and offers a measure of equity, or disparity, of learning opportunity. High values of rho are associated with greater inequality, while lower values of rho mean that schools (or provinces) have similar outcomes overall and that most of the variation is attributable to differences within schools or provinces.

educational performance is not only about increases in average, but also about the potential to close the gaps).

Factors that have contributed positively to educational performance

Permanent household income. The probability of enrolling in lower secondary school is affected by both current income and/or consumption as well as more permanent indicators of wealth. The more permanent features of wealth may exert a stronger overall effect in the transition to lower secondary education than shorter-term liquidity constraints, which in turn points to interventions that affect the accumulation of human or physical capital and better equip households to make longstanding investments in children. Beyond specific policies in the education sector, the high growth rates and remarkable economic performance of the country have and will continue to support increased educational attainment as *long as they continue to be sufficiently “shared” within the population (also spatially)*. In other words, poverty reductions will naturally continue to lead to improved educational performance (both quantity and quality).

Parental education. The link between parental education and student performance is an important indicator for investing in education, where highly educated students become parents who subsequently place a high value on education, regardless of their ability to afford it. The study finds that students of more educated parents tend to have higher completion rates in primary, and particularly secondary, education. These students also showed among the highest gains in reading and math scores. Overall increases in education attainment across generations (including the significant increases in primary and lower secondary attendance of disadvantaged groups) have made this factor one that contributed favorably to educational performance in Vietnam. However, this is also a potential “inequalizer” if secondary completion also matters and rates of improvement across population sub-groups in this dimension remain very different.

Teacher education, experience, and content knowledge. There is some evidence that primary school completion is more likely in schools where head teachers and teachers have higher pre-service training levels. These same studies also find that some vulnerable groups (like minorities and the poorest) are especially more likely to complete school when teachers have higher levels of education. Overall effects are however relatively small.

There is also a positive link between head teacher experience and the frequency with which teachers report being visited in their classrooms—a very significant predictor of student achievement. In addition, head teacher experience is associated with significantly lower levels of intra-school inequality. These results certainly point to more experienced head teachers being more effective. However, the analyses conducted for this study show that teacher effectiveness is not always strongly related to experience. Yet for secondary education students, the evidence points to a fairly large impact of teacher experience (10 years or more) on test scores.

The most important teacher related variable is content knowledge. Teacher content knowledge is one of the largest predictors of student test scores: a finding that reinforces the fact that effective teachers must first be knowledgeable about the content for which they are responsible. Related to content knowledge, teacher certifications for identifying “excellent” teachers have also been highly correlated with learning outcomes.

As shown previously, Vietnam has been fairly active in supporting teacher policies, in particular through promoting higher qualifications and more recently by developing and supporting teacher standards. As a result, while there are larger concentrations of teachers in the system with higher secondary education training than teachers with other levels of education, the average percentage of teachers with only primary and lower secondary education has decreased over time, while the

percentage of teachers with a pedagogical college degree or pedagogical university education has increased steadily. At the same time, teacher standards are now widely applied in the country's schools. Judging from the positive impact of qualifications, content knowledge and certification on completion and learning scores, these policies must have had some pay off in educational achievement. On the other hand, a comparison of costs and benefits suggests that policies to introduce teacher standards are likely more cost-effective than policies to increase teacher qualifications. More difficult is to assess public policies having an effect on teacher and principal experience. Principals are being more actively trained than in the past, complementing or making up for some experience and suggesting that this may have had pay offs as well.

School resources (FSQL). . Schools scoring high on the FSQI Input Index (FII) have significantly higher learning scores than schools scoring less well. In other words, the FII is a strong positive predictor of student achievement. At the same time, the analysis conducted by the study found that many key components of the FII taken separately are also positively related with school attendance and learning outcomes (for both primary and secondary levels). This is particularly the case of some teacher variables (analyzed above), teaching materials (giving a student a book set can increase reading test scores by around 0.2 standard deviations, which is roughly equivalent to the impact of an additional 2-3 years of schooling), and some measures of infrastructure quality (including presence of libraries, laboratories, toilets, and drinking facilities). There is also some evidence that vulnerable populations are particularly affected by school inputs, both in terms of attendance and learning outcomes.

Aggregate data taken from the District Fundamental School Quality Audit (DFA) reveal good progress in the FSQI Input Index (FII) and several of the individual FSQI indicators between 2003–2005 and 2008–2009, pointing to a positive contribution of these variables to educational achievement. In particular, the FII increased from 62 to 71 percent, the proportion of schools achieving a FII of more than 80 percent went from 16 to 24 percent, and the proportion of schools achieving a FII of more than 60 percent increased from 71 to 90 percent. Teacher training (except in the last two years), availability of teaching materials, and quality of the infrastructure all improved substantially during this period, although the resources available to schools, in particular in satellite campuses, remain below the desired level.

The contribution of FSQI to educational achievement is constrained by limited focus on pedagogical variables—which we will see below have high impact on achievement—and application still largely limited to the primary level.

Factors that could support higher and more equitable educational performance if more or better used

Pedagogical practices. Teacher feedback was found to be the strongest predictor of student achievement differences in remote schools, far more significant in remote areas than in rural and especially urban areas. This suggests that remote school student achievement is especially affected by this particular kind of interaction with teachers. This may be because these students have less access to learning aids (and feedback) outside of school, unlike in urban areas where parents (or even tutors) may fill these functions. In addition to teacher feedback, homework and viewing pictures and maps were found to lower achievement inequality among students. Overall, teacher feedback and use of varied learning aids are indicative of the beneficial effects of inter-active student-centered pedagogical approaches over more traditional frontal approaches. Unfortunately, very little progress has been done in this area in Vietnam. The concept of pedagogical skills included in teacher standards still gives insufficient emphasis to and incentive for the application of interactive practices. Even within the currently low class size, teachers

continue to teach frontally with limited direct interaction with students and no use of active learning methodologies.

School resources (Full-day schooling). Full-day schooling (FDS) is consistently a significant predictor of student performance, especially for minority students. It has a noticeably larger effect in rural and urban areas than in remote locations, most likely due to school quality. Schools with more FDS students were also better equipped. The research and analysis conducted for this study make it clear that the overall effect of FDS in Vietnam is a combination of several elements, including better physical and human resources and more time to learn. The separate and strong effect of additional learning time on performance is confirmed. But the impact of additional time is enhanced by a fuller resource and pedagogical package, highlighting the importance of school quality as an intervening variable in the implementation of FDS.

Vietnamese students lag behind others in their opportunity to learn. On average, instructional time averages 513 hours per year at the primary level, or about 16.7 hours of teacher teaching per week. While the government has been supporting a transition to the full day, this transition has been largely left to the initiative and financial means of households and communities. This explains why, to date, access to FDS has been fairly inequitable (concentrated primarily in urban and more affluent areas of Vietnam) as rural and disadvantaged areas where school infrastructure is constrained and families cannot pay for additional teacher costs lag behind. As a result of this policy, the share of primary education students in FDS (at least 30 periods per week) substantially increased from 43 percent in 2003–2004 to 59 percent in 2008–2009. However, the incidence of FDS in the poorest districts and rural areas of the country is only 31 percent, and for ethnic minority students, 32 percent. Demand for the full day is high among disadvantaged groups and benefits are high, particularly for ethnic minority groups, suggesting that the barrier is rather financial. The additional costs of moving to the full day in terms of human and physical resources combined with unequal access suggest that these are prohibitive for vulnerable communities and groups, pointing to cash constraints which have not been addressed (although, as will be seen below, some new initiatives are going in the right direction).

School management. Having the right mixture of inputs—including teachers—is not by itself a guarantee for success. Schools also need to be well run. Although Vietnam has made steps towards improved governance, such as increasing the number of schools that prepare school development plans, its education system remains weak in leadership capacity and accountability mechanisms. Test scores are substantially higher in schools where principals are more actively engaged in observing teachers. There is also evidence that community involvement can improve student performance. When parents are actively engaged (e.g., through involvement and contributions) in the school, their children are more likely to do better, and the school can benefit from extra help and resources. This is particularly true for children of vulnerable populations. Parental involvement may also act as an accountability mechanism and a way for the community to instigate change. The positive effects found in both principal and community support the need for increased monitoring and accountability of teachers in the classrooms (through principals and parents) and for increased accountability of principals to communities (the frequency that head teachers report meeting with parents is also positively correlated with student achievement). The traditional lack of interaction between principals and teachers, and the current weak role and lack of capacity of parent teacher associations in Vietnam indicate the country's immediate need to improve school governance through greater principal and community involvement.

Factors that have constrained educational performance

Tuition fees. At higher levels of education, short-term liquidity constraints enter more forcefully into the picture. Tuition fees represent on average about 20% of education expenditure. They are

a constraint to the educational achievement of the poor and disadvantaged groups. Households in the third income quintile (the middle 20 percent of the income distribution) currently spend almost seven times what poorer households spend (without adjusting for the larger households of the poor) on tuition; and Kinh and Chinese families spend five times the amount spent by ethnic minorities on tuition. These trends are largely indicative of lower access to higher levels of education and access to lower quality schools (notably half day schools). Tuition fees have more than doubled in Vietnam from VND 149 in 1998 to VND 307 in 2006. This increase has been counterbalanced with policies on fee exemptions for the poor, but these have had limited effect in part because of targeting issues and in part because of the magnitude of other costs.

Other costs: indirect schooling costs and opportunity cost of education. Although tuition and parent association expenses are high in Vietnam, they do not represent the bulk of household disbursements for children’s education. Overall, the bulk of expenditures are indirect expenses such as uniforms, transportation, tutoring, boarding (in the case of boarding students), and meals outside the house, among others. Taken together, and in the absence of effective equity-enhancing measures, these expenses are an important disincentive for lower-income families to send their children to school in Vietnam.

At the same time, when a child’s time is valuable to the household, school attendance has an additional “opportunity cost.” All schooling comes at a cost in some form, and for poor households this cost—despite the promise of how education can improve people’s lives—may simply be too high. Based on an analysis of VLSS data on hourly wages of children in 2004 and 2006, opportunity costs increased for children aged 6–10, 11–14 and 15–17 (corresponding, respectively, to primary, lower secondary, and upper secondary education.)

Hence, increasing tuition fees in secondary education combined with other private and opportunity costs that affect school attendance play an important role in constraining the educational attainment of the poorest sectors of society. This calls for more focused and immediate help for getting children into school through scholarships or other cash and in-kind transfers.

Policy Recommendations

Three critical points should be kept in mind concerning the current challenges of primary and secondary education in Vietnam. First, persistent inequality is a problem with multiple causes that cannot be resolved simply by addressing one issue (such as non-universal primary school completion) or one factor (such as the price of schooling or school quality). Second, large learning gaps are present in the Vietnamese school system at the primary level with consequences for both quantity and quality of education. The challenge is therefore to equalize learning opportunities, not just access, at the earliest grades in order to ensure that the poorest sectors of society are prepared for the challenges at each subsequent schooling level. Better preparation will not only ensure a much more rewarding schooling experience, but also help children stay in and complete school.

Third, there are multiple (potential) policy “entrance points” for addressing these problems (while supporting further increases in average learning outcomes). The study finds that schools, and policy, matter. Despite the limitations of the mostly cross-sectional achievement data, evidence consistently confirms that certain characteristics of schools and teachers are significantly related to student achievement. In other words, a student’s family background is not the only predictor of how he or she performs on an exam or attends school. This opens the door for policy makers to make a real difference in the lives of Vietnamese children—particularly the poor and disadvantaged ones—by tackling the price of schooling through subsidies, as well as planning interventions that are most likely to raise quality and make schools more responsive to user

needs. In turn, this can increase the demand for schooling. In some cases, existing policies will need to be strengthened, and modified or started from scratch in other cases. Some measures have implications for public funding, its priorities and/or efficiency, and others are more closely related to the management of public institutions. Some implications are more relevant for the central government, while others are more relevant for provinces and districts, or even schools and principals. For all cases, implications for public education policy are profound.

Re-asserting or expanding priorities for public funding

Expand support to the Fundamental School Quality Level (FSQL), in particular for the schools serving the most vulnerable populations. The evidence for FSQL is clearly positive and reinforces the ongoing push in Vietnam to invest public funds to improve minimum school quality inputs in primary schools. Instead of closing satellite campuses—some evidence indicates that closing satellite schools needs to be handled with care given the possible negative repercussions on enrollment in remote areas and for ethnic minority groups—Vietnam should continue to improve satellite quality by making sure they, at least, all reach FSQL. While FSQL has increased faster in poorer districts and schools, further effort is needed to bridge the resource gap, particularly in between main sites and satellites where resource differences are still very pronounced.

Support Full Day Schooling for schools serving vulnerable populations. Existing evidence supports expanding FDS for both primary and secondary education. Expansion, however, needs to ensure that the most vulnerable groups participating in FDS provide strong justification for using public financing to cover some of the salary and investment costs for transitioning to FDS in disadvantaged areas. At the same time, expansion needs to take into account school quality that continuously prioritizes the critical minimum school inputs and pedagogy. Of note, school principals and teachers have raised concerns about infrastructure and the ability of all schools to adopt the FDS program. They identified toilets, additional classrooms, and multifunctional rooms as the most pressing school needs.

The emphasis on full transition to FDS (measured as at least 30 periods a week in primary education) by 2020 in the government's 2008–2020 Education Strategy goes in the right direction, as does its new primary full day schooling program, which provides a comprehensive input package—comprised of improved school facilities, principal and teacher training, and targeted school and students grants—to a large sample of half-day schools that currently offer less than 30 periods a week. Vietnam should also proceed with its policy of increasing learning time while rationalizing the use of teachers,¹³ the bulk of which will need to occur in urban or peri-urban areas, to support a cost-effective reform.

Introduce conditional cash transfers for poor and disadvantaged students. The combined importance of indirect and opportunity costs, together with the effect of liquidity constraints on attendance as the education level increases, suggests that there is scope for using cash transfers in Vietnam much more extensively. This case is stronger for upper secondary education and ethnic minorities, but the scope for scholarships is also increasing for primary education because of the increased opportunity costs and the gradual transition to full day schooling.

13 The pupil-teacher ratio in basic education in Vietnam is low by international standards and decreasing. This is an unusual situation and likely reflects investments made in education in earlier decades, which were followed by a slowing of population growth. The school-age population for primary education has decreased by around 30 percent over the last ten years, yet the number of teachers and class groups remains virtually unchanged. There is therefore potential for cost-savings by refraining from new hiring and using existing teachers more efficiently

The actual impact of cash transfers is heavily influenced by three factors: the targeting mechanism(s), design and implementation, and school quality. Scholarship programs are only effective when they are able to identify the kinds of children whose schooling success is most dependent on receiving the scholarship. Success has also been shown to be higher when the transfer is made conditional upon outcomes, e.g., school attendance or performance, which, in turn, also requires a good monitoring and evaluation framework. School quality remains imperative: using scholarship monies to keep children in schools where very little learning is taking place results in few impacts for students, their families, and the society at large. Because the kinds of families that are the best candidates for targeted cash transfers in Vietnam often live in areas where the local schools are of the lowest quality, cash transfers should be seen as complementary to school quality-enhancing interventions. Box 2 provides examples of conditional cash transfers for increasing student enrollment in Latin America and East Asia.

Box 2: Conditional Cash Transfers

Conditional cash transfer programs (CCTs) can increase the demand for schooling both directly by providing additional resources to poor individuals and indirectly by compensating individuals for the foregone income from working.

CCTs started in the late 1990s, mostly in Latin America, and are quickly becoming popular in Latin America and East Asia. Evaluations of these programs in LAC reveal significant impacts on school enrollment. The best documented is Mexico's Oportunidades, which has increased secondary school attendance rates by 8.4 percent, increased the transition to secondary school by nearly 20 percent, and increased grade attainment by 10 percent. These effects are significantly larger for girls than for boys. The program, however, had no impact on learning. The impact on enrollment is mainly due to the conditionality on attendance. CCTs can also serve as safety nets against shocks. Efficiency gains can be achieved through targeting and calibration of the grant. Oportunidades is not inexpensive, but the net benefit is substantial.

Indonesia's scholarship program had some success in protecting school enrollments.¹ The program had a consistently significant (short run) impact on dropouts, school attendance, and enrollments at the junior secondary level. Cambodia's scholarship program for girls in lower secondary school also had large positive effects: approximately 60 percent of scholarships were given to girls entering lower secondary who would not have been enrolled in school in the absence of the program.²

1. Ridao-Cano and Filmer, 2004.

2. Filmer and Schady, 2005.

Source: World Bank, 2006.

Consider the scope for further expansion of early childhood and complementary school services. This is a potentially large area for public policy in Vietnam, and encompasses interventions that support preschools, health care supplements for families, health checks, and feeding and nutrition programs (evidence is limited to the effects of health checks on secondary enrollment and completion). These kinds of interventions traditionally have larger impact for vulnerable groups, including ethnic minorities. Children with less out-of-school support are likely to be especially impacted by in-school factors. Preschool access and complementary health services can also be useful to address the more permanent features of poverty (as opposed to

liquidity constraints). Health checks and nutrition interventions may have even more potential to improve education outcomes when started in early childhood, suggesting that there may be scope for combining preschool and complementary services in the government's new early childhood strategy. Because low-quality early childhood interventions and complementary services can be an expensive policy with little return, cost-effective analyses need to be undertaken to identify the best approaches to such interventions in Vietnam.

Improving spending efficiency

Strengthen the application of teacher standards. Vietnam needs to continue strengthening its strategy for teacher development to ensure quality teaching beyond formal qualifications. The most important aspects of teacher effectiveness are those related to actual teaching, as opposed to teacher characteristics. In that spirit, teacher standards should not only serve as the basis for teacher training—still not always the case—and evaluation, but also for teacher remuneration. Continuing to remunerate teachers solely on the basis of education and experience will likely hamper progress towards quality teaching. At the same time, relating pay to performance can lead to savings in recurrent spending that can free up space for equity-enhancing interventions. (Box 3 reviews cases of performance-based pay that extends beyond what is being proposed by relating student pay to student outcomes).

Box 3: Performance-Based Pay

Performance-based pay is an objective assessment often involving monetary compensation for schools and teachers based on their students' performance, such as attendance or achievement. The benefits of performance-based pay include increased productivity and efficiency. Performance-based pay can act as a safeguard to ensure that teachers are attentive to their students' learning, such as assigning homework despite the added work it gives teachers to review and grade. It can also help identify the most productive and effective teachers, and improve school governance as principals better monitor the work of their teachers.

In 1995, Israel issued school-based monetary incentives for secondary schools and teachers based on the number of credits per student, the share of students receiving diplomas, and the school dropout rate. 75 percent of the award was allocated for teacher salary bonuses, and 25 percent was allocated for school facilities. A comparison of participating and non-participating schools two years after the program's implementation found significantly higher student performance in the participating schools, particularly among weaker students in these schools. Participating schools showed significantly higher credit units, higher student scores and pass rates on matriculation exams, and a significantly lower dropout rate.

Several individual-based incentive programs in the US found similar positive results for performance-based pay. For example, a national survey found students, particularly those in low income schools, scored higher on tests when teacher incentives from raises or bonuses were also higher. Another state found evidence that merit pay may have a greater effect on students in earlier years of schooling.

Source: Lavy, 2007.

Target fee exemptions more efficiently. The effect of fee exemptions is stronger for lower secondary education than upper secondary education. This suggests that fees may represent a higher share of the costs at that level. It also suggests that they may more efficiently address the lack of enrollment due to liquidity constraints in upper secondary. Exemptions have significantly

increased since the late 1990s and appear redistributive as they are more concentrated across the vulnerable population groups such as rural, lower quintile groups, and ethnic minorities. At higher education levels, exemptions appear to further support lower-income advancement. Nevertheless, there appears to be a fair amount of exemptions leaking to high-income groups, with half of them reporting exemptions at the primary level and a third at the secondary level. This means that some lower income groups may be left out. Better targeted fee exemptions in lower secondary education could therefore support higher enrollment rates among disadvantaged students, while saving on scarce resources.

Improving school management and pedagogy

Strengthen school management practices. Schools in Vietnam could benefit from improving principals' management capacity and increasing autonomy and accountability.

Improving principals' management capacity requires adequate training and standards. This includes training in management, particularly for implementing full day schooling, and in handling fees and other financial resources in secondary schooling. At the same time, principal standards, now under development, can help shape the type of competencies that principals (and deputy principals) should have in Vietnam, and tailor new training programs to support them. The capacity to supervise and work with teachers may be one critical competency. Others include the capacity to lead the preparation of school development plans, and ensure that parents and communities are actively engaged in the school.

Although the data do not provide us with evidence on this aspect, qualitative evidence in Vietnam and elsewhere suggests higher school autonomy may also help improve educational achievement, especially of disadvantaged groups. Schools with a high degree of financial and administrative autonomy can better target scholarships and fee exemptions to poor and vulnerable populations, better allocate funding to improve school facilities and materials (in a way which satisfies more closely community needs), and establish parent and teacher associations and other programs that promote community engagement. In conjunction with autonomy, adequate accountability mechanisms can ensure that schools respond to the demands of students and parents. Strong and more effective parent teacher associations will be critical to achieve this goal, as well as able principals and deputy-principals holding teachers accountable for results in the classroom.

Support a move to new teaching practices. To maximize the impact of transitioning to full day schooling, it will be very important for Vietnam to maximize the use of teacher time by introducing more effective pedagogical practices. Among other things, more time permits more practical and interactive teaching, more interaction with parents, and more principal-teacher interaction—all processes that the study has found to positively impact learning outcomes. Policy makers should therefore look for powerful indicators to use together with the basic background measures. An important indicator is the frequency with which students receive feedback from teachers. This reinforces the importance of active teachers who engage students in the learning process. Other findings, such as the importance of homework and working in groups, provide some useful additional clues about effective pedagogical processes. The concept of teachers' pedagogical skills in teachers' standards should give much more emphasis to interactive practices, including student feedback and student-centered approaches to instruction. It will also be important to pay attention to culturally sensitive teaching practices for ethnic minorities; this may involve using their mother tongue language as a mean of instruction and having ethnic minority teaching assistants.

It will also be important to pay attention to culturally sensitive teaching practices for ethnic minorities; this may involve using their mother tongue language as a mean of instruction and

having ethnic minority teachers and teaching assistants. Language has been shown to be a significant barrier to learning for ethnic minorities in Vietnam. This barrier needs to be addressed. The Government of Vietnam has taken several steps to support the teaching of the Vietnamese language to ethnic minority students, notably through supporting better access to pre-school education and higher teaching time. While these efforts are commendable, further exploration and development of other learning models would also be important at this stage. One potentially effective approach, recently under development in three provinces of Vietnam, is mother-tongue bi-lingual education during primary school. In that approach the ethnic minority mother-tongue is used as main language of instruction in pre-school and grade 1 with Vietnamese introduced as a second language and then gradually shifting to main language of instruction from grade 2 onwards (while keeping the mother-tongue). This approach aims to help ethnic minorities read and write in their mother-tongue first and then transfer their skills to learning Vietnamese. International practices and initial evidence on Vietnam show that this type of approach, which requires the development of a bi-lingual curriculum and teachers specially trained to deliver that curriculum, may be an effective learning model for ethnic minorities, as illustrated by generally higher test scores and communication skills (in both languages of instruction) of young children raised using this methodology. This and other potentially effective learning models, together with their implications for scaling-up, need to be further explored.

Improving information

Use feedback surveys to assess satisfaction. User feedback surveys are an important source of downward accountability with much more potential to be used in Vietnam. The VHLSS provided valuable student and parent assessments of education at the national, regional, and provincial levels. Teacher surveys included in the grade 5 database were useful for understanding their principals' management capacity, and the frequency at which they observe their teachers. The student surveys assessing teachers' pedagogical practices were also more significant predictors of student achievement than teacher's self-reported responses. This suggests that student responses can be useful for assessing their satisfaction of their teachers' performance.

Fine-tune the FII and extend its application to secondary education. There is a need to constantly evaluate the FII and build wide consensus on its composition, while making sure it is used for monitoring and decision-making by the government and school communities. It is easier for schools, teachers, and parents, for example, to understand the importance of school inputs if the index includes factors they deem as important. At the same time, they need to be aware of the level and changes in the FII of their school to guide decision-making at school and local level. Flexibility is also needed to deal with future changes in inputs, especially those related to technological advances (computers, etc.), specific interventions, and future research on best practices in Vietnam. Given that the pace of equalizing the FII among schools that serve wealthy and poor students is slow, the government should ensure that the FII includes the inputs with the most impact. A safe way forward is to continue the push to increase inputs, especially in schools serving vulnerable populations, and work to gather better information that can focus on expanding those inputs with the biggest returns. Possible indicators that could be added to the FII are teacher certification levels, preschool availability, FDS (at least 30 periods a week), and finer measures of teaching practices.

Finally, FSQ should also be developed and used in secondary education. A few key variables suggested as candidates for inclusion at this level are classroom materials (book sets per student), teacher experience, availability of health checks, and full day schooling.

Introduce achievement assessments at the secondary level and test adult skills. In order to begin documenting and tracking educational achievement more systematically at the secondary

level, it is imperative that Vietnam start applying sample-based standardized testing at this level. One way forward is by participating in the Programme for International Student Assessment (PISA) competency exam, which it has already scheduled for 2012. Beyond testing students at different education levels, testing the cognitive and non-cognitive skills of the adult population (including skills like problem solving, communication, and leadership) would also be an important way of assessing the quality of education in Vietnam. Participating in the Programme for the International Assessment of Adult Competencies (PIAAC) and other international testing programs involving adult population would be a step in the right direction.

