



Teaching in Lao PDR

Human Development Sector
East Asia and the Pacific Region
The World Bank

and



Ministry of Education,
Lao People's Democratic Republic

Teaching in Lao PDR

Luis Benveniste , Jeffery Marshall , Lucrecia Santibañez

Human Development Sector
East Asia and the Pacific Region
The World Bank

and

Ministry of Education,
Lao People's Democratic Republic



Table of Contents

Acknowledgments.....	iv
Executive Summary	vi
Education Progress in Lao PDR.....	vi
A profile of Lao Teachers	vii
The Working Conditions of Teachers	ix
Teacher Pay and Education Finance.....	x
Teacher Performance	xi
Towards Comprehensive Teacher Reform in Lao PDR	xiii
Introduction.....	1
Chapter 1. Education Progress in Lao PDR.....	5
Overview.....	5
1.1 Average Educational Attainment and Literacy Trends	6
1.2 School Access and Enrollment	9
Access	9
School enrollment	10
1.3 Education Outcomes.....	13
Continuation, Repetition and Completion	13
1.4 Expenditures on Education: Household and Government.....	17
Synopsis.....	19
Chapter 2. A Profile of Lao Teachers	23
2.1 Background on Teacher Education.....	23
Pre-Service Training	23
In-Service Training	28
2.2 Who are the Teachers?.....	28
Age, Gender and Experience	29
Teacher Educational Background	31
2.3 Entry into the Teaching Profession.....	35
The Plight of Rural and Remote Areas	36
2.4 Trends in Teacher Supply and Demand.....	38
Synopsis.....	43
Chapter 3. The Working Conditions of Teachers.....	47
3.1 School Infrastructure	47
3.2 Classroom conditions and resources	48
3.3 Pupil teacher ratio.....	52

3.4 Terms of Contracting	55
Contract Teaching	56
All Day Shifts.....	56
3.5 Multigrade Education	57
Synopsis.....	58
Chapter 4. Teacher Pay and The Education Sector Budget	61
4.1 How much are teachers paid?.....	61
How are teacher salaries determined?.....	64
4.2 Incentives.....	66
4.3 Additional income	70
4.4 Education Budgets and the Wage Bill	70
Synopsis.....	75
Chapter 5. Teacher Performance.....	79
5.1 Teaching Practices	79
5.2 Teacher Attendance.....	87
5.3 Student assessment outcomes.....	90
Synopsis.....	94
Chapter 6. Towards Comprehensive Teacher Reform	99
Teacher Supply and Training.....	99
Teacher salary and incentives.....	104
Teacher performance	107
Resources for Implementation.....	110
Teacher Reform: Next Steps.....	110
References.....	112

Acknowledgments

This study was led by Luis Benveniste under the overall guidance of Ian Porter (Country Director), Patchamuthu Illangovan (Country Manager) and Christopher Thomas (Sector Manager). The principal authors are Luis Benveniste, Jeffery Marshall and Lucrecia Santibañez. The team wishes to especially thank Vice Minister Sengdeuane Lachanthaboun, the Ministry of Education staff—Voradune Amarathithada, Somkhanh Didaravong and Phouangkham Somsanith—and the Swedish International Development Cooperation Agency—Davong Vongsay—for their insights and assistance provided. The Lower Secondary School Survey was conducted by Indochina Research Ltd. The team benefited from background papers prepared by Suguru Mizunoya and Emiko Apichaya Naka. The team would also like to extend its appreciation to several peer reviewers—Neil Baumgart, Helen Craig, Kazi Mahbub-Al Matin, Shabih Ali Mohib, Ana L. Revenga, Kasper Richter and Halsey Rogers—for their thorough comments as well as for feedback received at an informal workshop in Vientiane and a WBI conference on Education Reform in Washington DC. Finally, the team would like to thank Rachadawan Pasugswad and A. Juliana Williams for their good-natured administrative support.

Abbreviations

DEB	District Education Bureau
ECCD	Early Childhood Care and Development
ECCE	Early Childhood Care and Education
EFAMOD	Education for All action plan quantitative projection model
GDP	Gross Domestic Product
GoL	Government of Lao PDR
LSS	Lower Secondary School
MoE	Ministry of Education
MoET	Vietnam's Ministry of Education and Training
MoEYS	Cambodia's Ministry of Education, Youth and Sport
NRIES	National Research Institute for Educational Science
NUOL	National University of Laos
OECD	Organization for Economic Co-operation and Development
PES	Provincial Education Service
PETS	Public Expenditure Tracking Survey
PTTC	Cambodia's Provincial Teacher Training College
TEI	Teacher Education Institution
TESAP	Teacher Education Strategy and Teacher Education Action Plan
TTC	Teacher Training College
TTEST	Teacher Training Enhancement and Status of Teachers Project
TTI	Teacher Training Institute
TTS	Teacher Training School
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization

Executive Summary

Education Progress in Lao PDR

Educational attainment and literacy rates in Lao PDR have improved significantly. In 1960, the population aged 18-60 in Lao PDR completed on average two years of schooling. In 2003, average schooling for this age group was five and a half years. In 2004, average literacy rate for the 15-24 age group was 78.5 percent. These averages, however, mask stark differences by gender and ethno-linguistic minority.

Access to primary school is relatively high. Eighty-four percent of the Lao PDR population lives in a village with a primary school. But fewer children have access to lower secondary schools and even fewer to upper secondary schools. **Poor, non Lao-Tai rural youth have the least access to education. Girls also have lower enrollment rates.** Only 46 percent of female youth attend primary schools compared to 54 percent of males. This gap becomes wider at the lower and upper secondary levels. Non-poor Lao-Tai boys and girls in urban areas are enrolled in school at a high rate of 93 percent, while poor non-Lao-Tai girls in rural areas are enrolled in school at the low rate of 46 percent, implying an almost 50 percentage-point difference.

Primary school completion rates in Lao PDR are low. Only one-third of students that enter first grade are estimated to complete all five grades of primary schooling. Completion rates are even lower for girls. **Part of the problem is that repetition rates in primary school are high, particularly in grades 1 and 2.** One-fifth of Lao PDR primary students have repeated one or more grades. The majority of repeaters are boys, at all grades in the primary level. Repetition is a structural problem. Rates have remained largely stable since 2000 or experienced a slight increase in the case of girls.

Educational public spending in Lao PDR is extremely low. Lao PDR spent barely above 2 percent of Gross Domestic Product (GDP) per capita on primary education and fewer than 3 percent of GDP per capita on lower secondary schooling.

A profile of Lao Teachers

The typical primary teacher in Lao PDR is a young male with 13 years of experience teaching who has a lower secondary certification plus formal teacher training. Most primary teachers have either 8+3 or less than 8+3 qualifications. In rural areas, teachers are on average younger, less experienced and have less formal education. **The typical lower secondary teacher in Lao PDR is a slightly older male than the typical primary teacher and has an upper secondary certification plus formal teacher training.**

Most teachers have received some formal pre-service teacher training, but continuous professional development is infrequent. In 2004/05, only 14 percent of teachers were untrained, compared to 23 percent just four years earlier. About one third of lower secondary teachers reported not having received any type of in-service training in the past year.

The current system of entry to Teacher Education Institutes (TEIs) may be potentially subsidizing candidates from wealthier households who could potentially afford higher education costs but enter teacher education because it is free. On the other hand, poorer students who perform less well in entrance exams may find themselves shut out from pursuing a career in teaching because they cannot afford the fees associated for Non-Quota students.

Furthermore, spending on teacher education appears to be highly inefficient. While US\$9.9 are invested per student in the primary cycle, US\$173.3 are invested in a teacher trainee on average. Teacher education receives 80 percent of the total higher education budget. There is ample scope for a better redistribution of resources.

This is compounded by the fact that Teacher Education Institutions have experienced a surge of fee-paying “special students.” This growth in enrollment could signify a troublesome trend, since many of these students do not usually pursue a teaching career. Public funds may be subsidizing better-off students to gain skills to enter alternative professions. It is of particular concern that contributions from special students (600,000 Kip

per year) fall short from the public subsidy per capita to TEIs. This finding further underscores that public spending in teacher education not only is inefficient but large public subsidies are being directed to students who do not intend to pursue a teaching career and will put their education to work towards private gain.

The customization of teacher education programs to the years of formal schooling of trainees implies an open recognition that secondary education graduates are in very limited supply in vast swaths of Lao PDR. In order for the quality of teachers and teaching to improve, expanding access to the lower and upper secondary streams is an absolute prerequisite. This will be particularly important in remote areas, where teacher trainees enter teacher education programs as primary school graduates.

Although some improvements in the basic levels of education among primary teachers can begin to be noticed, **many teachers still enter the profession with minimum educational requirements.** This situation makes it all the **more imperative to strengthen the quality of pre-service training, as a not insignificant share of each annual cohort enters TEIs with a very short educational history.**

Primary schools in disadvantaged areas face teacher shortages. First, Ministry of Education (MoE)'s Quota system requires newly trained teachers to return to their home district after pre-service training. Second, there are insufficient Quota teacher posts, which more often go to urban centers. Third, monetary incentives are insufficient to attract qualified teachers to hardship areas.

Local teachers have lower attrition levels and are more attuned to the school cultural environment. Close to one-half of primary teachers and 28 percent of lower secondary teachers work in the same village where they are from. MoE ought to expand educational access in disadvantaged areas in order to increase the pool of local potential candidates into TEIs. TEIs may also adopt an affirmative action policy to seek out and recruit talented young students from disadvantaged communities.

Whether Lao PDR will face a shortage of teachers through 2015 is a matter of some debate. However, the most likely projection is one of teacher shortages in most years until 2015, ranging from 12 to 50 percent of total demand. Shortages could be particularly acute in rural and remote areas, once incomplete schools are completed and new schools are built where there are none.

Increased teacher demand will put great pressure on TEIs to increase capacity to train enough primary and secondary teachers to meet expected enrollment targets.

The Working Conditions of Teachers

Most schools in Lao PDR offer less than the five grades required for a full primary education program, and most incomplete schools are in rural and remote villages. Of the 8,573 schools in the country, only 44 percent are complete schools. Incomplete schools place local populations at a disadvantage for school access and educational attainment.

Classroom conditions in Lao PDR schools are inadequate, and they are slightly worse in rural areas. A majority of lower secondary school directors believe their schools are in need of total rebuilding or major repairs. Fewer than 15 percent of classrooms have electricity and less than one-third have bookshelves or wall maps. Textbook ownership is relatively high for primary Lao language, but low for other subjects. Most students in primary and lower secondary share their mathematics textbooks with 2 or more students.

Pupil-teacher ratios in primary have remained stable at around 31:1 for the past decade. In lower secondary, they have increased to 26.5:1 in 2004/05, up from 13:1 in 1994/95. In significant parts of the country, teachers face an undue burden with very large numbers of students under their care. Constraints in teacher supply—particularly in rural and remote areas—are an important factor in hampering a reduction in class size. Difficulties in attracting teachers to less than desirable posts also pose an important obstacle to the implementation of official regulations and aspirations on appropriate class sizes.

Close to 26 percent of classes in Lao PDR are taught in a multigrade setting. Multigrade classes are most often found in rural areas. Multigrade instruction presents challenges for teachers who have not received proper training to deal with multiple ability settings or able to tailor their teaching to different grades.

Teacher Pay and Education Finance

Teacher salaries in Lao PDR are low. Primary teachers earn US\$39 per month, and lower secondary teachers earn US\$45. This includes various supplements representing 10-15 percent of the total pay. **Primary and lower secondary teacher salaries represent 0.965 and 0.998 time of GDP per capita, respectively. These levels are far below Asian averages of 2.5 times of GDP per capita.**

There is little salary variation between rural and urban areas. Because the cost of living in rural areas is lower, this means salaries are higher in relative terms for rural teachers. **Rural teachers, however, experience many more delays in payment than urban teachers.**

The salary schedule is tightly compressed and growth is slow. Teachers enter the civil service salary scale according to their educational qualifications. After placed on an initial grade and step, they move up a step automatically every two years. A teacher who remains in the same grade and routinely climbs steps every two years can expect a 1.3 percent yearly salary growth for an entire 30-year career.

The level of salary supplements is very low and probably not likely to motivate teachers to work in remote areas or in more difficult settings. Even though officially supplements for multigrade teaching amount to 25-50 percent of base salary, and supplements for teaching in a remote, isolated, or mountainous area should consist of 15-20 percent of base salary, a survey of lower secondary teachers suggests actual supplements are much lower (totaling about 10 percent of total pay).

Less than one-third of the total income of lower secondary teachers is obtained

through work in other activities. Agricultural work is most frequent; although a small proportion of lower secondary teachers (14 percent) admit tutoring students for pay.

Teacher salaries take up the largest share of the education recurrent budget. And in recent years, increases in the proportion allocated to salaries have come at the expense of operational and textbook/materials. In 2004/05 close to 83 percent of the education recurrent budget corresponded to the wage bill. Sixteen percent was spent on textbooks/materials and only 5.7 percent on operational expenses.

Increases in salaries should be accompanied by improvements in performance and accountability. A commitment to improved education outcomes needs more attractive salaries for teachers. But caution should be taken to accompany these increases with increased professional standards for teachers, skills upgrading and accountability.

Ninety percent of capital investments are financed by international partners. The Government of Lao PDR (GoL), however, has not matched increases in foreign aid with concomitant increases in recurrent budgets. If investments in new schools are not matched with substantial increases in the recurrent budget, there will be a dire shortage of funds to finance needed teachers and textbooks or carry out essential maintenance.

Within the existing budget, increases in salaries and greater school-level investments are equally urgent, but they will not be feasible without a strong commitment from government towards expanding the recurrent budget. As the economy grows and treasury revenues expand, enlarging the share of the recurrent budget should be plausible and must remain high in the Government's agenda for educational development and civil service reform.

Teacher Performance

The typical Lao classroom appears to be strongly structured through lesson-planning and instructional time is well prioritized. In principle, teachers place great emphasis on developing thinking skills and problem solving. In practice, the primary method of instruction in Lao PDR schools is frontal lecturing, copying lessons on the blackboard

and encouraging recitation and memorization. Students are mostly passive recipients of instruction, while there is some opportunity for copying exercises there is comparatively little time devoted to practical exercises or application of knowledge. Efforts could be channeled into modernizing the pre-service and in-service teacher training curricula to better equip teachers with child-centered teaching and learning methodologies.

Lower secondary teachers appear to be under frequent oversight from school directors, but there is little accountability to MoE inspectors outside the school. School inspections and teacher reviews could play a supportive role in enhancing teacher performance. Existing peer networks and technical group meetings may be enhanced to promote sharing lessons from experience that could help break the isolation felt in rural contexts and place a stronger emphasis on pedagogical reflective practice to improve student results.

Teacher absenteeism is not a problem in Lao lower secondary schools. Most absences are due to official holidays. Teachers in private establishments were a lot less likely than teachers in public schools to be absent. The frequency of inspector visits was also negatively related to teacher absences, suggesting that the external accountability regime can make a difference in instilling greater discipline. Student attendance was significantly lower when teachers were more frequently absent.

Instructional time is seldom lost when lower secondary teachers are absent. In three quarters of classrooms observed where the usual teacher was absent, a substitute was in place.

On average, primary students had functional skills in Lao language, below functional skills in mathematics, and above functional skills in social and natural sciences. As a start, pre-service and in-service training programs could place greater emphasis in weak subject areas to strengthen teachers' content knowledge as well as adequate pedagogical practice to enhance student academic outcomes.

Towards Comprehensive Teacher Reform in Lao PDR

The Eighth Lao People's Revolutionary Party Congress in 2006 emphasized that human resource development was dependent upon education reforms that lead to better basic education. National education goals would be centered around addressing low internal efficiency indicators, lower access and coverage in remote and upland areas, and large inequities in both access and quality of education between rural and urban groups, boys and girls, and Lao-Tai and non Lao-Tai groups. Because teachers play such a central role in the education quality equation, improving the status of teachers in terms of salaries, education and professional development has been deemed a priority.

The evidence and discussion in this report suggests that comprehensive teacher reform in Lao PDR should focus on three areas:

Teacher supply

Recruiting enough qualified teachers to ensure adequate access and pupil-teacher ratios in the face of the education sector's expansion is an important policy concern. Human resource projections indicate that Lao PDR will probably experience teacher shortages on the range of 12 to 50 percent of total demand in most of the years through 2015. These shortages might be particularly acute in rural and remote areas.

TEIs must enroll a sufficient number of students to ensure adequate supply that can meet the pupil-teacher ratio targets. Consequently, if enrollment must increase by three or four times, TEIs will probably need to increase physical and human capacity to train these additional primary teachers. Realizing the goal of 11+5 training for 30 percent of lower secondary teachers and 11+3 for all the remaining teachers will be a challenge.

Increases in financial resources devoted to TEIs, however, should not happen in detriment of public spending on primary and lower secondary education. Over time per pupil expenditures in basic education have declined, while expenditures in tertiary education

(including teacher education) significantly increased. Disproportionate spending on tertiary education tends to benefit the non-poor and urban populations who often have better access to these opportunities than ethnic groups and people living in remote and isolated communities. One alternative to increase funding without altering the proportion of public spending that goes to teacher education would be to increase TEI's fee-paying student enrollment in both regular and special courses as well as increase the current fee levels to at least cover the actual unit costs of training. Increasing fees for special students who attend TEIs for private gain above actual unit costs could cross-subsidize the educational costs of poor rural students who cannot afford post-basic education. A second, less attractive, possibility that could be explored is for TEIs to concentrate more narrowly on educating teachers. This would mean focusing on regular courses and reducing enrollments in the special course track. Because many special course students are fee paying, this option would increase the need for public funding of TEIs. Additionally, this might require firmer commitments on the part of teacher education students to teach after graduation, and to teach in areas of high need, which might be difficult to enforce. It would also mean that post-secondary education options would need to expand to absorb special students and offer them suitable programs to learn English and other skills in high demand elsewhere. Moreover, converting TEIs into public tertiary institutions or further expansion of special courses in response to public demand for post-secondary education opportunities will risk to move TEIs away from their core function (MoE, 2006a).

With respect to in-service training, significant numbers of teachers will require upgrading (including those with no training and those with qualifications below 8+3) as well as continuous professional development. This is especially true since the majority of teachers are young and will need to be supported and their skills updated for years to come. In addition, rural and remote area teachers are more likely to have fewer years of formal schooling and teacher training; consequently, they will need even more intense in-service support. The lines of action contemplated by MoE incorporate suggestions made by international agencies to treat in-service training as upgrading so that teachers can obtain official certification for courses taken and incorporating distance learning to reach teachers in remote areas.

Teacher salary and incentives

It is a well documented fact that teacher salaries in Lao PDR are low. Supplements, originally designed to compensate teachers working in difficult settings or to provide a living wage for teachers with families, are not enough to attract teachers into the profession or to encourage teachers to move to rural and remote areas. Furthermore, there are no meaningful incentives for good teacher performance. Low salary levels force many teachers to seek employment elsewhere. The fact that teachers must spend a share of their time devoted to activities beyond the classroom, decreases the amount of time spent on teaching, student mentoring, lesson planning, and even time available for professional development activities. Unless salaries improve, it will be difficult to meet teacher recruiting targets and ensure an adequate supply of qualified teachers for all regions in the country.

Teacher salaries currently take up the majority (close to 83 percent) of the education recurrent budget. Recent improvements in salaries have been accompanied by lower investments in textbooks, materials, operations and maintenance of schools. This latter trend is worrisome given existing poor infrastructure and the dearth of basic instructional materials. **Simply put, the education budget must expand so that salaries can improve without coming at the expense of non-wage items.** However, in a scenario of constrained resources, it is important that the wage bill grows carefully so as not to squeeze out non-wage expenditures. Better budget planning and management should accompany MoE efforts to ensure resources are spent as efficiently as possible.

In addition, it is important that any salary increase be accompanied by a broader teacher management policy that covers recruitment and training, as well as mechanisms for accountability for performance. The salary structure should build in reasonable incentives for good performance. If these additional measures are not taken, it is possible that an across the board salary increase would not have any significant impact on student learning and educational quality.

Teacher performance

A comprehensive teacher reform plan, however, should also ultimately address how these changes will affect students and student learning. The National Charter of

Teacher Competencies has recently set out to address standard qualifications required for teachers. This vision statement needs now to become a practical hands-on tool to enhance teacher professional development and teaching and learning quality. Underlying teacher reform should be better understanding of how teachers in the country influence these outcomes, and how disparities in teacher supply, qualifications, living and working conditions across regions or by gender or ethnic group are contributing to greater inequalities in student learning. Results from the Grade 5 Assessment survey suggest that teachers might not be delivering the high quality teaching needed to develop problem solving or independent thinking skills in mathematics, language and science. The large proportion of untrained teachers makes pre-service training reform as well as continuous professional development efforts a necessity. Our research findings also points at the importance of strong internal and external accountability measures as a mechanism for teacher support and quality assurance. At present, there is an extensive peer informal network whose role and utility could be further buttressed with the aid of occasional professional facilitators. In addition, robust external supervisory systems could provide on-time support to teachers, provide suggestions for career development and capacity building, as well as offer over all quality assurance.

Comprehensive teacher reform in Lao PDR is required so that the country is able to recruit the teachers it needs to improve student learning and reduce disparities in service provision across regions and population groups. The various policy tools discussed in this report—local area recruitment, salary improvements, skills upgrading, quality assurance—are critical elements to ensure MoE’s reform efforts attain its goals. Resource constraints will dictate difficult choices with respect to the allocation of funding. However, there is some margin to better utilize existing budgets and capacity. Furthermore, Lao’s excellent economic growth record suggests that as government revenues continue to grow, a concomitant share of funds could be earmarked for social sector improvements. Additional funding should be allocated carefully, through clearly established priorities and on the basis of empirical evidence, so as to ensure that resources are spent judiciously and yield maximum benefits. In particular, efforts must be devoted to guarantee that GoL’s commitment reaches the populations most in need.

Introduction

Years of education research have established that, after family background, teachers are one of the most important determinants of student outcomes. Regardless of how these outcomes are defined—test scores, dropout rates, grade completion, student satisfaction—teachers are often the most relevant influences affecting them.¹ A good teacher can have a long lasting impact on what and how much a student learns. Likewise, an ineffective teacher can negatively affect student academic performance for years (Sanders and Rivers, 1996). The importance of teachers is even more significant in developing countries where, on average, parental socioeconomic status tends to be low and notable resource constraints abound. In these circumstances, good teaching becomes all the more critical as parents might not be able to provide academic help at home or school resources may not be readily available to enrich the classroom environment.

Placing a well qualified teacher at the helm of a classroom is no easy feat. First, it is difficult to identify what makes a good teacher and the precise characteristics that lead to excellence in teaching. Second, even if these characteristics are recognized, countries must devise the right mix of policies—salary, working conditions, incentives, continuous development—to attract and retain the most able candidates into the profession. Particularly in low-income countries with heavy resource limitations, the challenges are oftentimes great.

To begin to understand how these challenges manifest themselves in Lao PDR, this study examines the current status of teachers in primary and lower secondary schooling as well as government policies that strive to improve teaching in particular and education quality more generally. It explores teacher supply and demand to identify potential bottlenecks in the availability of trained personnel. It describes teachers' demographic characteristics and their skills. It looks at teacher salaries, their level and how this compares to other countries. It examines classroom conditions, pupil-teacher ratios, educational expenditures and other factors that influence the context of teaching and opportunities to engage in high quality instructional practice. Lastly, this

¹ See for example the work of Rowan, Correnti, and Miller (2002), Rivkin, Hanushek, and Kain (2000), Sanders and Rivers (1996), and Wright, Horn, and Sanders, (1997) all of whom have studied teacher influence on student achievement.

report explores teacher performance, as measured by teacher attendance, teaching practices, and student assessment outcomes.

Our analysis draws on data from the following sources:

- The Ministry of Education *Management Information System* (EMIS) includes data on enrollment, internal efficiency and other basic educational indicators of all primary and secondary schools in Lao PDR.
- A *Lower Secondary School Survey* in a sample of 155 public and private schools was conducted in June 2006. These correspond to approximately 17 percent of the total population of lower secondary schools. Twelve provinces (out of seventeen) were identified through a multi-stage random school selection to cover a nationwide representative sample. In each school, trained teams of data collectors spent up to three days gathering information on a large number of activities and school performance characteristics. These range from descriptive summaries of the physical condition of the school environment to actual classroom observations that focus on teaching methodology. Five instruments were administered. In each school two classrooms were observed, usually one Grade 6 Lao language class and one Grade 6 mathematics class. These teachers as well as the school principal completed background questionnaires. In addition, enumerators used a framework to assess the effective use of class time. This data collection strategy borrows from the time-on-task and time segment studies pioneered by Bloom (1964) and Stallings and Kaskowitz (1974). It makes it possible to describe the class both in terms of the range of activities and how the class evolved from start to finish. A one page instrument was created and divided into five areas that represent the most common in-class activities (instruction activities, recitation, etc.). The task of the enumerator was to observe the class and at every 15 second interval make a mark in the appropriate box that best described the type of activity undertaken at that moment. These marks were then used to calculate a percentage breakdown of time spent in each activity. Enumerators also conducted independent reviews of school personnel records, school infrastructural conditions as well as verified student and teacher attendance and timed the arrival and departure of teachers.
- A *Public Expenditures Tracking Survey (PETS)* was fielded in December 2005. The sample covered 259 primary schools in 17 out of 18 provinces and 54 out of 141 districts. The instrument included a series of quantitative assessments of budget flows at the various levels of government (province, district, and facility levels) to record funds that are allocated to primary schools and track salary payments from the district to facility levels. A primary school survey collected detailed information on inputs, including public funds, outputs and outcomes. Data on community characteristics was also recorded through a scaled-down version of the village questionnaire of the 2002/3 Lao Expenditure and Consumption Survey.
- National Research Institute for Educational Science (NRIES) conducted a *Grade 5 student achievement assessment* on a representative sample of 362 schools, 7,450 students, 459 teachers and 362 school directors, in 119 districts in all provinces,

during March and April of 2006. The survey included standardized tests in Lao language, mathematics and “the “World Around Us”,” which includes topics in the natural and social sciences. All test items were based on the Lao PDR Grade 5 curriculum, inclusive of multiple-choice and open-ended questions.

In addition, the report draws on a recent body of research that has explored various aspects of teachers and teaching in Lao PDR. The discussion focuses on primary and lower secondary school teachers, who together represent 87 percent of the teacher population in Lao PDR.

Throughout the paper, effort is made to investigate how teachers and their teaching situation vary by region of the country (uplands, mountain, lowlands) and type of school (urban, rural, remote). It also explores variations by gender and ethnicity.

This paper is organized as follows: Chapter 1 presents a general description of education in Lao PDR, including trends in educational attainment and school enrollment and variation among population groups. Chapter 2 describes a general profile of the Lao PDR teacher. Chapter 3 discusses the context of teaching, including school infrastructure and classroom environment. Chapter 4 explores teacher pay and education finance. Chapter 5 reviews various indicators of teacher performance such as attendance and student outcomes. Lastly, Chapter 6 concludes with a summary of findings and a discussion of government efforts to address these challenges by using a variety of policy tools. Based on the evidence and analysis presented in the paper, this Chapter also explores what could be the next wave of policies to improve teaching in Lao PDR.

Chapter 1.

Education Progress in Lao PDR

Overview²

The Lao People's Democratic Republic (Lao PDR) is an ethnically diverse country of 5.7 million people. The vast majority of the population lives in rural villages. Wedged between China, Myanmar, Vietnam, Thailand and Cambodia, its geography is one of mostly rugged mountain terrain with 47 percent forest and only 4 percent arable land.

Lao PDR is one of the poorest countries in the world, even though since the mid 1980s it experienced significant economic development. Despite this recent growth, the country remains bounded by insufficient infrastructure, few access roads, limited transportation and incipient telecommunication systems. Electricity is available only in selected urban areas. Its economy is dominated by subsistence agriculture, fishery and farming, accounting for over 40 percent of GDP and providing 85 percent of total employment. Women represent 45 percent of the labor force (World Factbook, 2007).

In 2004/05, GDP per capita was US\$491. The share of poverty was reduced by 30 percent between 1992 and 2002, lifting one eighth of the total population out of poverty. Nonetheless, the poverty headcount stood at around 31 percent in 2005 (World Bank, 2006).

Economic and social progress in Lao PDR will need to rely on an important source of human capital: the country's young population. Forty-one percent of its roughly 6 million people are between the ages of 0 and 14. The median age in the country is 19 years. Moreover, the population in the 5-19 age group is expected to keep growing at rates of 7-8 percent in the next few years (as cited by King and van de Walle, 2005).

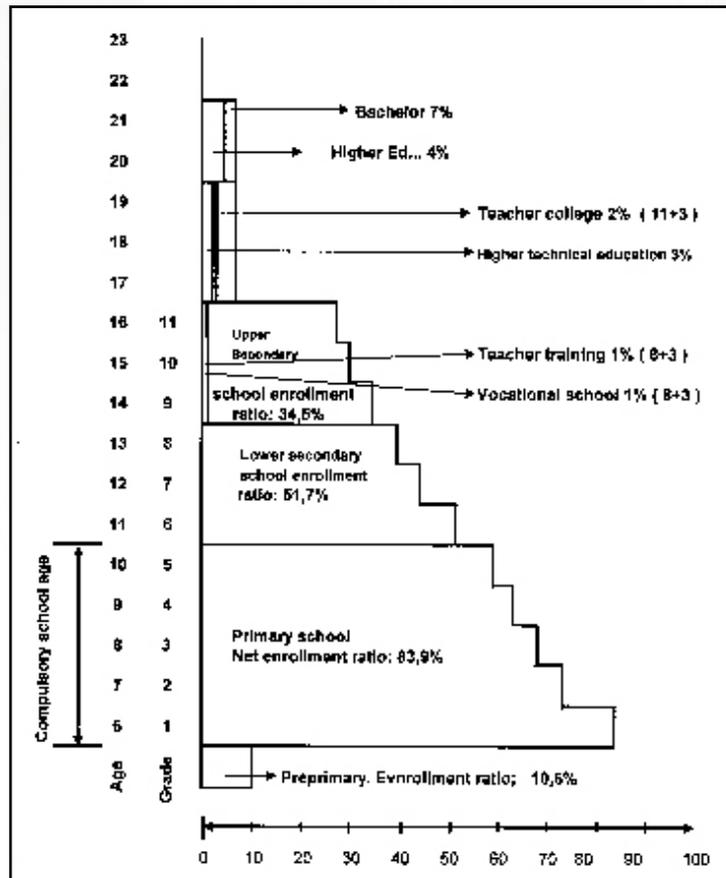
² This chapter draws largely from the work developed by King and van de Walle (2005).

To develop the potential of its young population, Lao PDR will need to devote significant efforts and resources to improve its education system. These include increasing access to lower and upper secondary schools, while improving the quality of schooling overall. Furthermore, it will be important to ensure that children not only enter school, but remain in it long enough to acquire sound literacy and numeracy skills critical for life and work. Other challenges include the high opportunity cost for parents sending their children to school, gender discrimination, a shortage of qualified teachers, poor infrastructure and lack of school materials.

1.1 Average Educational Attainment and Literacy Trends

The “general education” system in Lao PDR is organized in three levels: primary (grades 1-5), lower secondary (grades 6-8), and upper secondary (grades 9-11). Higher education includes teacher training, vocational training and university (which must be accessed from upper secondary and usually lasts around 5 years). Pre-school, where available, is offered to children aged 3-6. There are five years of compulsory education in Lao PDR (the primary cycle). Ideally, a student would enter primary at 6 years of age and finish university at 22 years. Overage, dropout and repetition, however, are serious issues in the country. Figure 1 shows a diagram of the Lao PDR education system.

Figure 1. Scaled Diagram of the Education System in Lao PDR



Source: NRIES, 2007

Although low by international standards, educational attainment and literacy rates in Lao PDR increased significantly in the last four decades. In 1960, the population aged 18-60 completed two years of schooling. In 2003, average schooling for this age group was five and a half years.³ These increases in average educational attainment were accompanied by higher literacy rates.⁴ In 2004, the overall literacy rate was 64.8 percent. Taking only the younger population (ages 15-24), the average literacy rate was 78.5 percent (King and van de Walle, 2005). These averages, however, mark stark differences by gender and ethno-linguistic minority.⁵

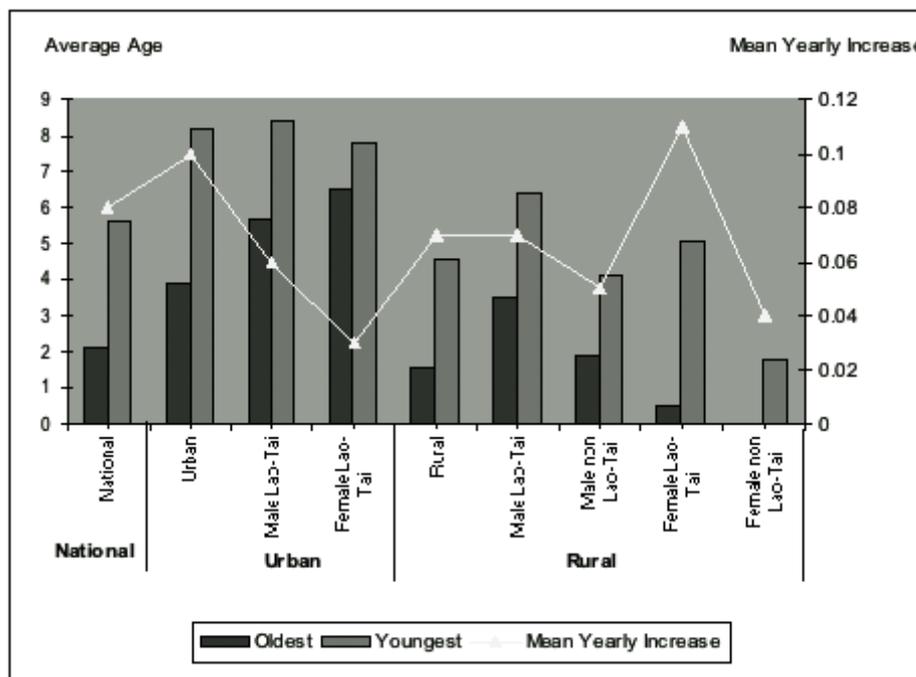
3 Because there are no time series data to measure schooling and other educational outcomes, the authors use differences in the average completed years of schooling of adults of different ages to approximate changes in education levels. In this context, average years of schooling is defined as highest grade completed rather than years in school (King and Van de Walle, 2005).

4 A person is defined literate if she can read and write without difficulty (this information is self-reported).

5 There are over 45 different ethnic groups in Lao PDR. The major categories are Tai Kadai (55 percent) occupying the lowland plains, the Hmong Emien (27 percent) occupying the mountain slopes, and the Sino-Tibetan (18 percent) occupying the high mountain areas. Other ethnic groups include Khmu, Phutai, Kor and Katu. These groups are mostly found in highland areas. Ethno-linguistic diversity is also significant, and includes the Lao-Tai family, the Mon-Khmer family, the Chine-Tibetan family, and the Hmong-Mien family. In this paper we follow King and Van de Walle (2005) and characterize educational variation by ethno-linguistic groups, dividing them into Lao-Tai (the predominant family) and non-Lao-Tai. The existence of so many different minority groups with their own languages poses a challenge for Lao identity. The borders of the country do not coincide with the area inhabited by people who consider themselves to be Lao (Fox, 2003).

On average, rural populations have fewer years of schooling and educational attainment than urban populations. And among rural populations, these indicators are lower for non-Lao-Tai women. Although it is official government policy to provide equal opportunities for boys and girls, in some rural and remote areas it is not possible for all children to attend schools because of family conditions. It is often girls who do not go to school (NRIES, 2007). Non-Lao-Tai women had 6.6 fewer years of schooling than urban Lao-Tai men (the group with most schooling) (King and Van de Walle, 2005).

Figure 2. Average Years of Schooling by Age for Population Aged 18 to 60 in 2002/03



Source: King and van de Walle (2005)

We observe a similar pattern with regards to reading and writing literacy. Urban men had the highest literacy rates (96.9 percent in 2003), followed by urban women (89.8 percent), rural men (84.4 percent) and rural women (59.8 percent). Differences in educational attainment are also found by province and elevation of area of residence. Overall, population groups in the highlands have lower educational attainment than those in the lowlands.

Table 1 . Changes in the Literacy Rate for the Population Aged 18 to 60, by Gender, Urban/Rural Location, and Poor/Non-poor Status, 1997/98 to 2002/03 (Percent)

	Urban		Rural	
	Male	Female	Male	Female
Total				
1997/98	96.7	85.6	81.7	50.4
2002/03	96.9	89.8*	84.4*	59.8*
Non Poor				
1997/98	97.6	88.1	86.5	58.0
2002/03	97.6	91.4*	87.6*	67.1*
Poor				
1997/98	92.9	75.9	81.7	39.1
2002/03	93.8	82.1*	78.1*	46.0*

Source: King and van de Walle (2005)

* Indicates 5 percent significance for the t-test that literacy rate in 2002/03 is higher than in 1997/98

1.2 School Access and Enrollment

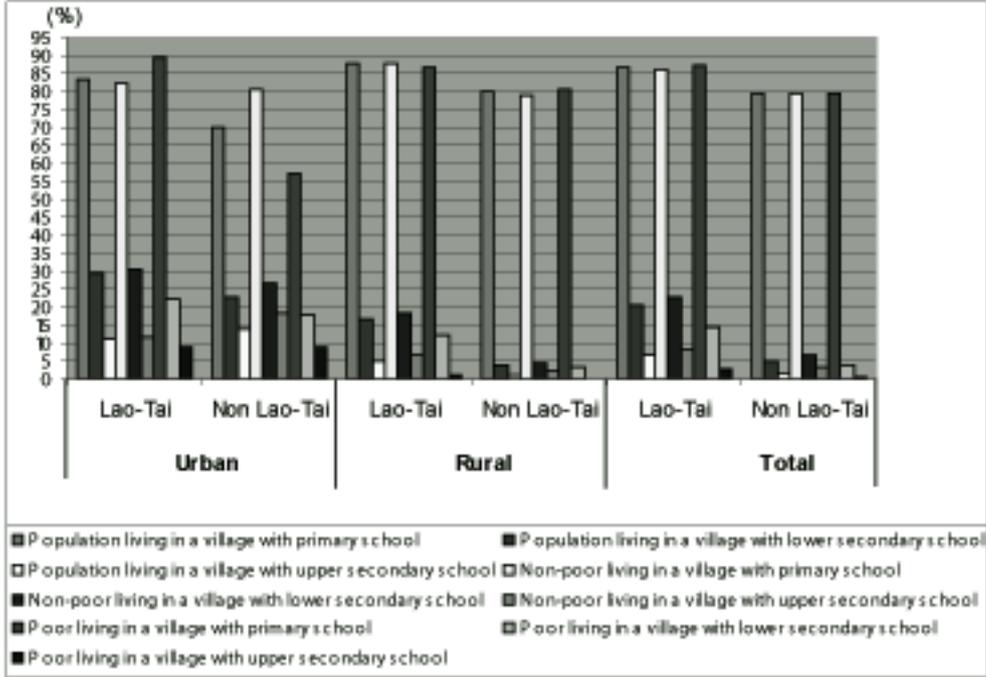
Access

Although there are some variations among ethno-linguistic groups and rural and urban populations, access to primary school in Laos is relatively high. Eighty-four percent of the Lao PDR population lives in a village with a primary school. Fewer people have access to lower secondary schools (20.5 percent of Lao-Tai people and 5.2 percent of non Lao-Tai) and even fewer to upper secondary schools (6.8 percent of Lao-Tai and 1.9 percent of non Lao-Tai).

There are marked differences in access, however, between rural and urban populations, and among poor and non-poor. Most of the villages without primary schools are located in mountainous (upland) areas. In addition, many of the primary schools in these villages are incomplete—that is, they do not offer the full 5 grade primary cycle—or have multigrade classrooms. The gap widens as children grow older and they progress through the educational system, resulting in sharp disparities between educational

attainment of the populations living in rural and urban areas. While 30.6 percent of non-poor, Lao-Tai urban youth have access to a lower secondary school, only 3.3 percent of poor, non Lao-Tai rural youth do so. Less than one percent of people in this latter group live in a village with an upper secondary school (see Figure 3).

Figure 3 . Access to Primary, Lower, and Upper Secondary Schools, Lao PDR 2002/03 (Percent of Population)



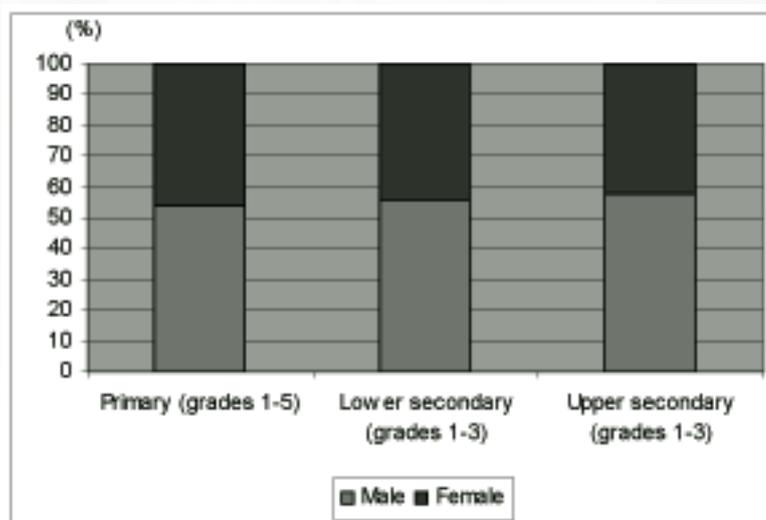
Source: King and van de Walle (2005)

School enrollment

In 2005/06, the net enrollment rate in primary schools in Lao PDR was 83.9 percent. Education access has lagged slightly behind neighboring Cambodia (86.2 percent) or Myanmar (85 percent).

There are 1.3 million children enrolled in Lao PDR schools from primary to upper secondary. Overall, enrollment is higher for males than females, and the gender gap grows larger in upper secondary schools. Figure 4 shows enrollment figures for primary, lower secondary, and upper secondary for 2005/6.

Figure 4 . Total Primary, Lower Secondary, and Upper Secondary Enrollment (2005/06)



Source: EMIS

Although the official age of entry to primary school is 6 years old, most students enter the primary cycle at ages 9 or 10, and remain there until their middle to late teens. By some estimates, it takes an average of 10 years to produce a primary school graduate (Fox, 2003). The age of entry, however, has been declining. In 2003, nearly 80 percent of children aged 10 had entered school at age 8, compared to only 20 percent of youth aged 18 (King and van de Walle, 2005). Overage enrollment is most serious for girls.

Table 2 . Gross and Net Enrollment Rates for Primary, Lower Secondary, and Upper Secondary (2005/06)

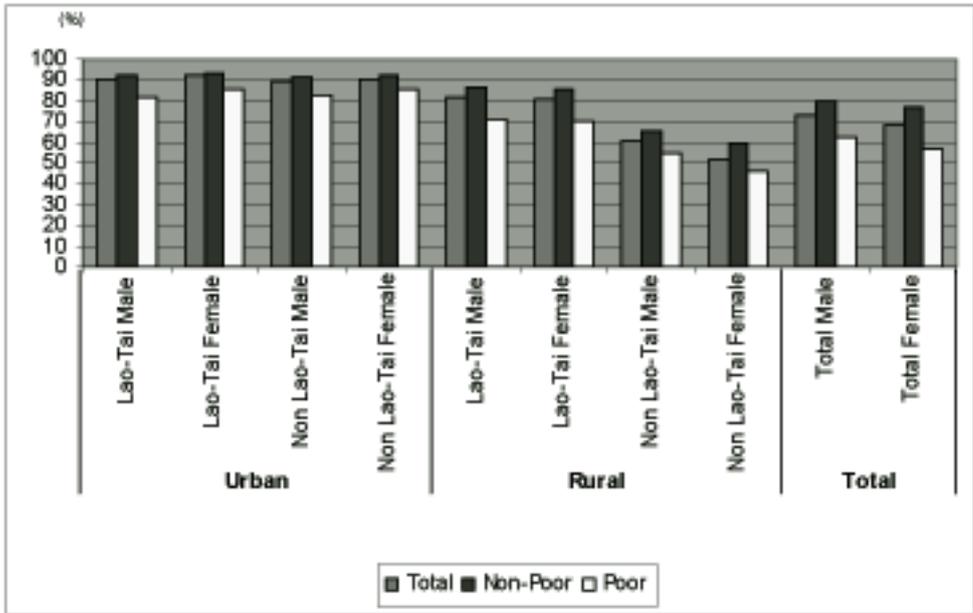
	Students	Relevant Population*	Students in Relevant Population	GER %	NER %
Primary	891,881	767,111	643,618	116.3	83.9
Female	411,211	377,675	306,850	108.9	81.2
Male	480,670	389,436	336,768	123.4	86.5
Lower Secondary	243,131	470,092	133,811	51.7	28.5
Female	106,088	229,477	66,139	46.2	28.8
Male	137,043	240,615	67,672	57.0	28.1
Upper Secondary	147,510	427,529	66,918	34.5	15.7

Female	62,469	211,489	28,124	29.5	18.3
Male	85,041	216,040	38,794	39.4	13.0

Source: EMIS
 * Relevant age population for primary: 6-10 years. For lower secondary: 11-13 years. For upper secondary: 14-16 years.
 Note: Gross enrollment ratio is total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population corresponding to the same level of education in a given school-year. Net enrollment ratio is enrollment of the official age-group for a given level of education expressed as a percentage of the corresponding population.

Urban children were much more likely to attend school than rural children. And Lao-Tai children and boys were more likely to be enrolled than non Lao-Tai children and girls. Large differences in school enrollment are also present between poor and non-poor children, with the latter group more likely to be out of school. For example, non-poor Lao-Tai boys and girls in urban areas are enrolled in school at a high rate of 93 percent, while poor non-Lao-Tai girls in rural areas are enrolled in school at the low rate of 46 percent, implying an almost 50 percentage-point difference (King and van de Walle, 2005).

Figure 5 . Participation by Age (6-12), Geographic, Ethnic, Gender and Poverty Status, 2002/03 (Percent)



Source: King and van de Walle (2005)

The previous discussion suggests that variables such as gender, belonging to an ethno-linguistic group, and area of residence play an important role in explaining school enrollment. To empirically test this, King and van de Walle (2005) performed regression

analysis using Lao Expenditure Consumption Survey for 2002/03 (LECS3) data to explore variables that are most related to the probability that a child will be enrolled in school. Indeed, girls are significantly less likely to be enrolled in school than boys (9 percent). Non Lao-Tai children are less likely to be enrolled than Lao-Tai children (between 6-31 percent depending on the group), with the disadvantage being largest for Chine-Tibetans. Children living in highlands are 7 percent less likely to be in school than children living in lowlands. A child is 25 percent more likely to be enrolled in school if she attends a complete primary school as opposed to an incomplete one. Moreover, distance from school, lack of paved roads or poor infrastructural facilities (no electricity, not enough desks for each child, or classrooms with leaking roofs), increase the likelihood of school abandonment (King and van de Walle, 2005).

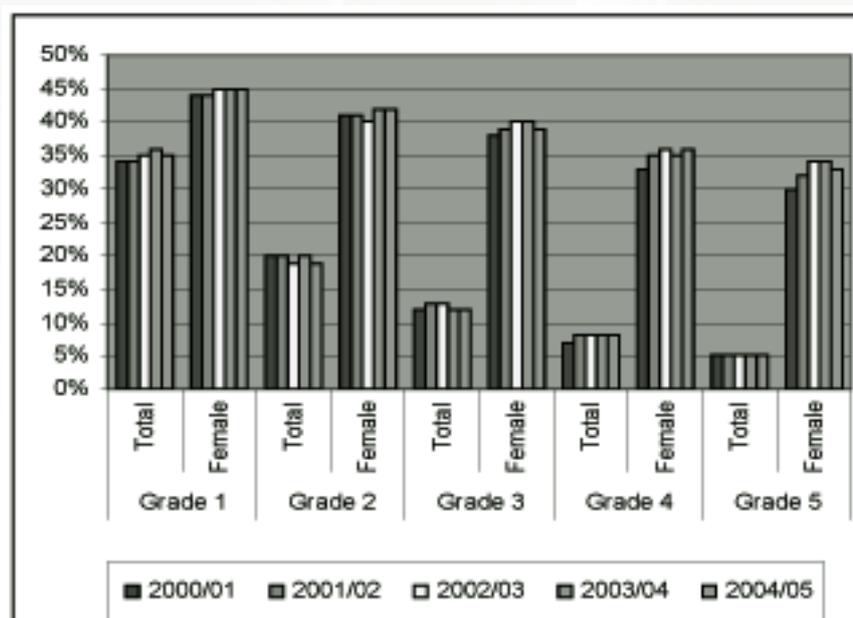
1.3 Education Outcomes

Although access and school enrollments have greatly improved since the early 1990s, Lao PDR's educational system faces important challenges with respect to internal efficiency indicators. High dropout and repetition rates are pervasive, placing a serious obstacle to academic advancement. School progression is slow. On average, a student needs 10 years to graduate from primary school when it should only take 5 years of schooling (Fox, 2003).

Continuation, Repetition and Completion

Repetition is a serious problem in primary schools. Grade repetition rates are close to 20 percent; in other words, close to one-fifth of Lao PDR primary students have been held back one or more grades. Repetition rates in Grade 1 are at 35 percent, and they are close to 20 percent in Grade 2. As children progress through the education system, repetition begins to decline sharply to around 12, 8 and 5 percent in Grades 3, 4, and 5 respectively. The majority of repeaters are boys, particularly in Grades 3-5. Repetition is a structural problem. Rates have remained largely stable since 2000 or experienced a slight increase in the case of girls (see Figure 6).

Figure 6 . Percentage Repeaters of Total Students, 2000/01–2005/06



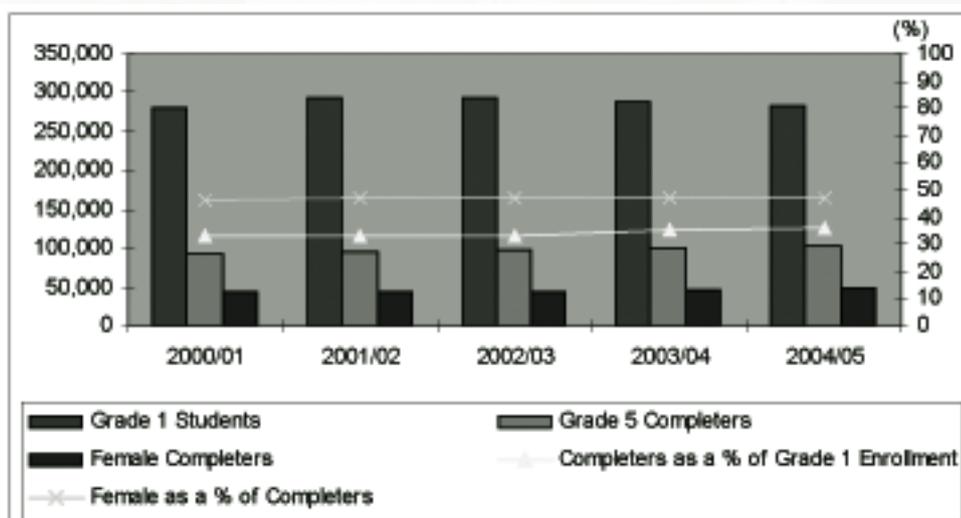
Source: EMIS

Note: Female repetition estimates are expressed as a share of total repeaters

High percentage of repeaters implies a high degree of educational wastage, making education in Lao PDR unnecessarily costly. Furthermore, educational research suggests that children may not necessarily learn more when held back in school. Repeating may even make them more prone to drop out of school (see, for instance, Gomes-Neto and Hanushek, 1994). Thus, discussions in Lao PDR have recently focused on the suitability of adopting an automatic promotion policy for the first three years of the primary cycle.

Assuming that first grade enrollments have remained somewhat stable over the past 6 years, completion rates for primary school can be estimated from current student enrollment and student graduation rates. According to this approach, primary completion rates stand at around 33 percent. This means that only one-third of students who entered Grade 1 will complete all five grades of primary schooling. The estimates in Figure 7 suggest that these rates have remained fairly constant since 2000-01, but began to improve slightly after 2003-04.

Figure 7 . Completion Rates – 2000/01 – 2004/05

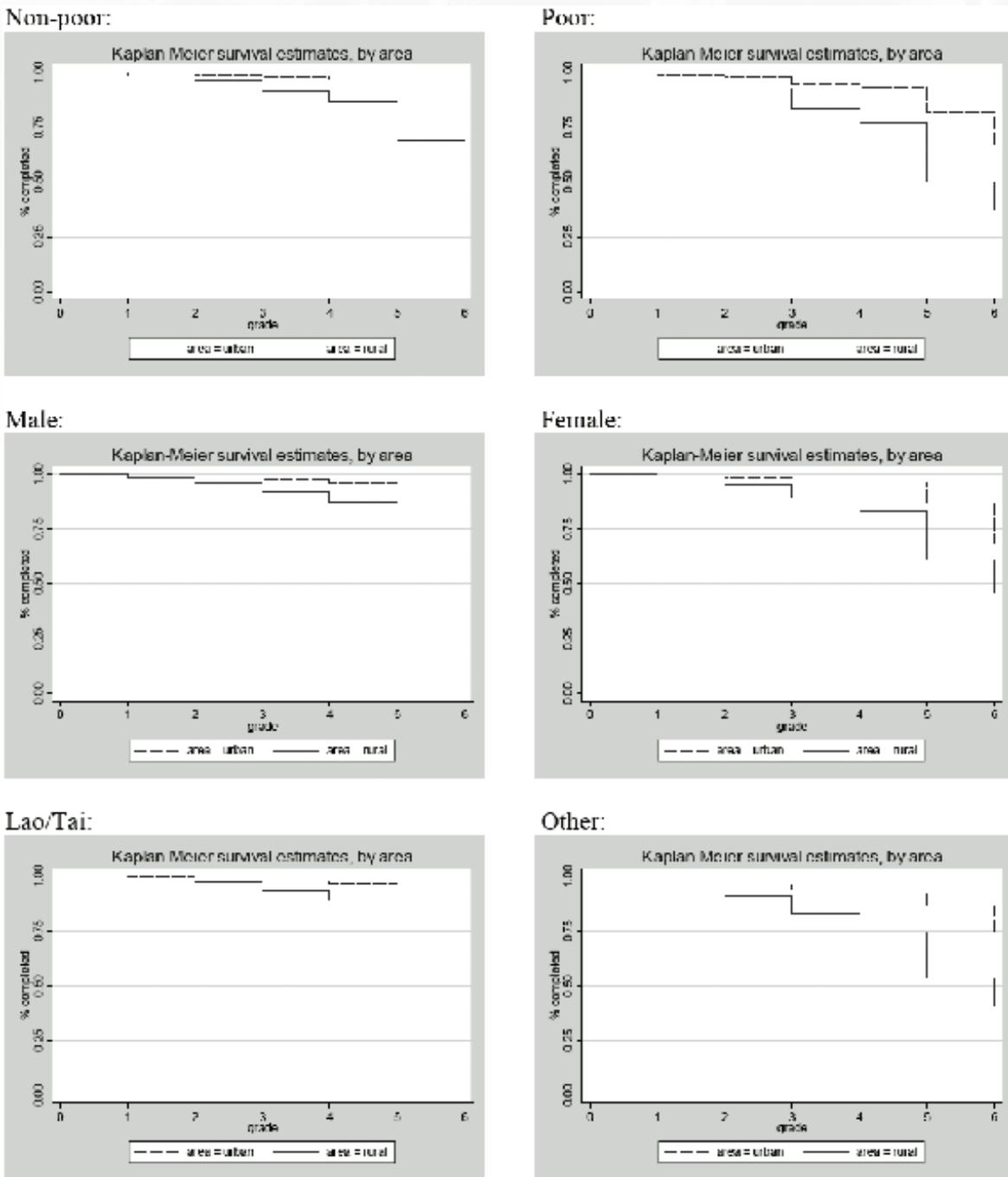


Source: EMIS

* Grade 1 student enrollments are taken from the years shown (i.e. not from 6 years earlier). To estimate completion rates, the assumption is that Grade 1 enrollment in 2000/1 closely resembles Grade 1 enrollment in 1994/95, and so forth for the rest of the estimated years.

The end of each educational cycle poses a particular risk for the continuation of children in school. The drop in the probability of continuing school is sharpest at the end of the primary cycle, but remains significant at the end of lower secondary school. Continuation rates are higher for urban than rural youth, on average. In rural areas, 70 percent of male students and fewer than 60 percent of women are still enrolled in school at the end of Grade 5. Probability of survival beyond Grade 5 is lowest among poor girls. Once students have survived lower secondary, their chances of completing the entire basic education cycle are very high (King and van de Walle, 2005).

Figure 8 . Kaplan-Meier School Survival Estimates for Children Aged 6-18, 2002-03



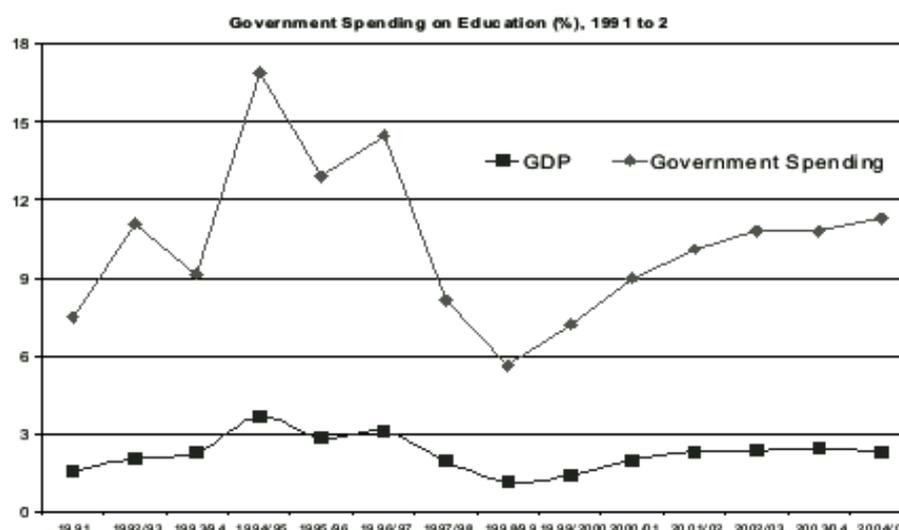
Source: King and van de Walle (2005)
 Note: These estimates give the probability of continuation through the primary school cycle by different subgroups of children aged 6-18.

Among younger students (12 year olds), the most cited reasons for dropping out at the end of the primary cycle are the cost of schooling and having no interest in studying further. Among older students (those aged 16-24), these reasons were lack of interest and having to work. School distance was also an often cited reason for not attending school among youth in this age group.

1.4 Expenditures on Education: Household and Government

The government faces significant challenges in financing education. In the mid-1990s, the education budget represented more than 15 percent of the national budget, but by 1998 this proportion had fallen below 6 percent. Public spending in education suffered tremendously during the Asian financial crisis of the late 1990s. Education spending as a share of total government spending was approximately at 11 percent in 2004 and estimates indicate that it grew to 14 percent in 2005. Thus, a significant recovery has taken place. Nonetheless, the education sector budget remains below average according to international standards. The Asia-Pacific average stands above 16 percent. Similarly, in 2006, the education budget represented about 3.2 percent of GDP. This compares unfavorably with other developing Asian countries which, on average, spend 4.7 percent of GDP on education.

Figure 9 . Government Spending on Education, 1991-2004/05 (Percent)

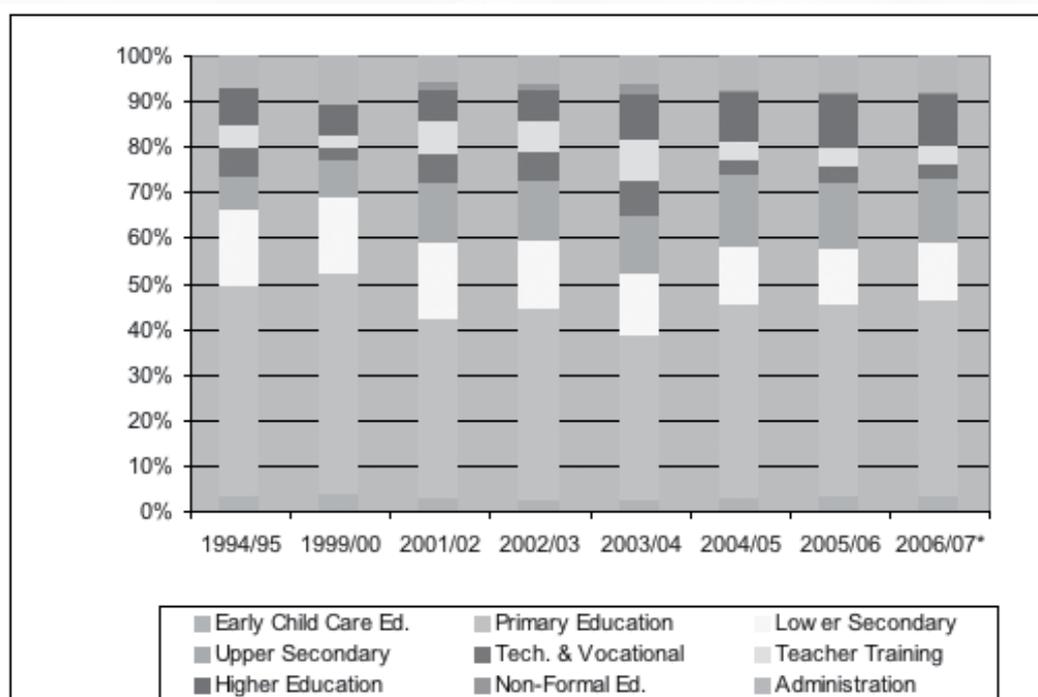


Source: World Bank, 2007a

Educational spending per student is also extremely low, to the particular detriment of basic education. Looking at the proportions in recurrent spending by level it is evident that, although primary schooling takes up a large proportion of spending, this proportion has been gradually declining since 1994/95, while the budget spent on upper secondary and higher education has been increasing (see Figure 10.) This trend benefits the non-poor

(who are more likely to attend tertiary education) and stands in contrast to the declared policy focus on achieving universal primary education (World Bank, 2007a).

Figure 10 . Recurrent Expenditure by Sub-Sector (Percent of Total Recurrent Spending in Education)



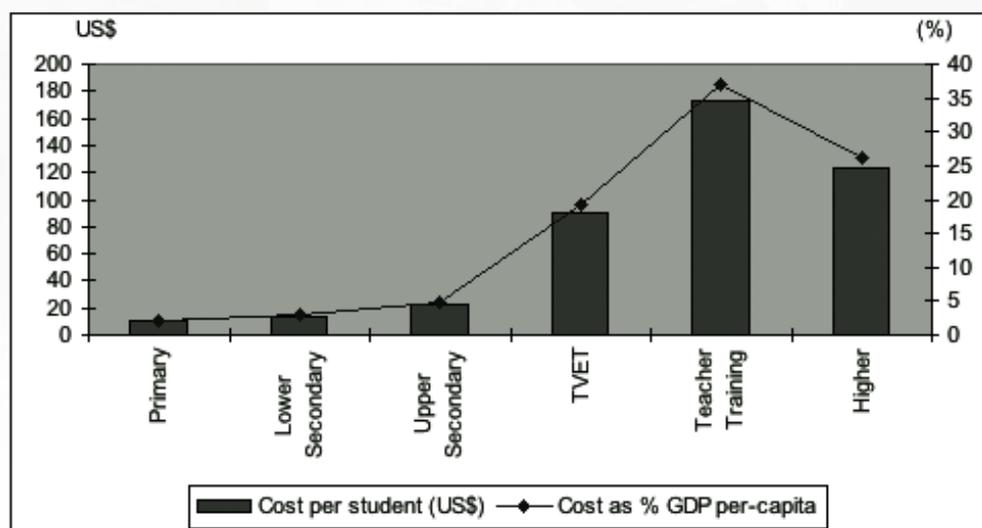
Source: MoE (2007)

* Preliminary

While in 2004, other Asian countries spent 7 to 14 percent of GDP per capita on primary schooling, Lao PDR spent barely above 2 percent. And while other Asian countries spent 20 to 24 percent of GDP per capita on lower secondary schooling, this figure was fewer than 3 percent in Lao PDR.

Overall, Lao PDR invests about US\$9.9 per student in the primary cycle, US\$13.7 in lower secondary, US\$22.7 in upper secondary, US\$173.3 in teacher education, and US\$122.7 in higher education. Spending on teacher education seems particularly high if one considers that teacher training enrollments amount to half of higher education, yet it receives 80 percent of the total amount received by higher education. This finding suggests that spending on teacher training is highly inefficient and there is ample scope for a better redistribution of resources.

Figure 11 . Cost per Student by Level of Education (2003-04)



Source: MoE (2007)

In addition to public spending, households also devote part of their income to education. On average, urban households spend about 7 percent of their income on education-related spending, while rural households spend about 4 percent. Uniforms account for the largest share of this spending (in both rural and urban areas), followed by textbooks and materials, transportation, and meals and lodging expenses. Tuition and fees do not represent a significant share of education-related outlays in either primary or lower secondary schools (King and van de Walle, 2005).

Synopsis

1. **Educational attainment and literacy rates in Lao PDR improved significantly.** In 1960, the population aged 18-60 in Lao PDR completed on average two years of schooling. In 2003, average schooling for this age group was five and a half years. In 2004, average literacy rate for the 15-24 age group was 78.5 percent. These averages, however, mask stark differences by gender and ethno-linguistic group.
2. **Access to primary school is relatively high.** Eighty-four percent of the Lao PDR population lives in a village with a primary school. But fewer people have access to lower secondary schools and even fewer, to upper secondary schools. **Poor, non Lao-Tai rural youth have the least access to education.** Only 3.3 percent of people in this group have access to a lower secondary school.
3. **Girls have lower enrollment rates.** Only 46 percent of female youth attend primary schools compared to 54 percent of males. This gap becomes wider at the lower and upper secondary levels. Non-poor Lao-Tai boys and girls in urban areas are enrolled in school at a high rate of 93 percent, while poor non-Lao-Tai girls in rural areas are enrolled in school at the low rate of 46 percent, implying an almost 50 percentage-

point difference.

4. **Primary school completion rates in Lao PDR are low.** Only one-third of students that enter first grade are estimated to complete all five grades of primary schooling. Completion rates are even lower for girls.
5. **Repetition rates in primary school are high.** One-fifth of Lao PDR primary students have repeated one or more grades. The majority of repeaters are boys, in all grades of primary education. Repetition is a structural problem. Rates have remained largely stable since 2000 or experienced a slight increase in the case of girls.
6. **Educational public spending in Lao PDR is extremely low.** In 2004, Lao PDR spent barely above 2 percent of GDP per capita on primary education and fewer than 3 percent of GDP per capita on lower secondary schooling.
7. **Spending on teacher education appears to be highly inefficient.** While US\$9.9 are invested per student in the primary cycle, US\$173.3 are invested in a teacher trainee on average. Teacher education receives 80 percent of the total higher education budget. There is ample scope for a better redistribution of resources.
8. **Households in urban areas spend more in education-related expenses.** Urban households devote about 7 percent of their income on education-related spending, while rural households spend about 4 percent. Uniforms account for the largest share of this spending (in both rural and urban areas).



Chapter 2.

A Profile of Lao Teachers

This section profiles primary and lower secondary teachers in Lao PDR. It begins with a brief discussion of teacher education options, including pre-service and in-service programs. It then presents average teacher characteristics (age, gender, seniority) as well as qualifications. It also reviews trends in supply and demand as well as projected shortages and surpluses of teachers. Lastly, it explores three dimensions of teacher performance: attendance, classroom practice and student outcomes.

2.1 Background on Teacher Education

In Lao PDR, as in most countries, individuals receive teaching credentials through formal education programs and update their knowledge through a variety of continuous education courses. Pre-service teacher education consists of a formal training program to equip trainees with an official teacher qualification. Aspiring teachers must spend at least a year of full-time study to receive a teacher certification. Pre-service training is usually delivered in teacher training schools or colleges, a form of higher education.

In-service training, or continuous professional development, occurs after teachers have been deployed. It is designed to update teachers' knowledge about subject matter, teaching methodologies or other topics related to their work. It is usually delivered by MoE or other authorities at the school, district or teacher education institutions. In-service training consists of short-term workshops and career development opportunities to upgrade basic professional skills.

Pre-Service Training

There are eight Teacher Education Institutions (TEIs) offering pre-service training for future pre-school, primary and lower secondary teachers.⁶ Five of these are Teacher

⁶ Two additional teacher education institutions are responsible for training physical education and arts teachers for all levels.

Training Colleges (TTC), while there are Teacher Training Schools (TTS). TTCs prepare trainees for secondary school teaching (11+3), issuing high level certificates. TTS train future preschool and primary teachers (11+1, 8+3 and 5+4). Graduates receive medium level certificates. It is envisioned that in the near future these institutions will be harmonized as Teacher Training Institutions (TTI). In addition, the Faculty of Education at the National University of Laos (NUOL) offers a degree level program for upper secondary teachers.

In the past five years, the number of faculty at the eight TEIs grew from almost 400 teachers to 520.⁷ The largest TEI employs 89 teachers, while the smallest employs 39. Four out of every ten TEI teachers are female, and the average age of TEI faculty is 36 years. There are some TEI teachers as young as 20 years and some beyond retirement age (60 years). On average, TEI faculty have over 12 years experience teaching. Of these, 10 years have been spent teaching at a TEI. Half of TEI teachers have bachelor's degrees, and one-third have 11+3 qualifications. Male teachers hold higher qualifications on average than female TEI teachers. Interestingly, older TEI faculty have more qualifications on average than younger faculty, perhaps suggesting that hiring standards have been lowered in recent years or younger workers have more attractive alternative job opportunities.

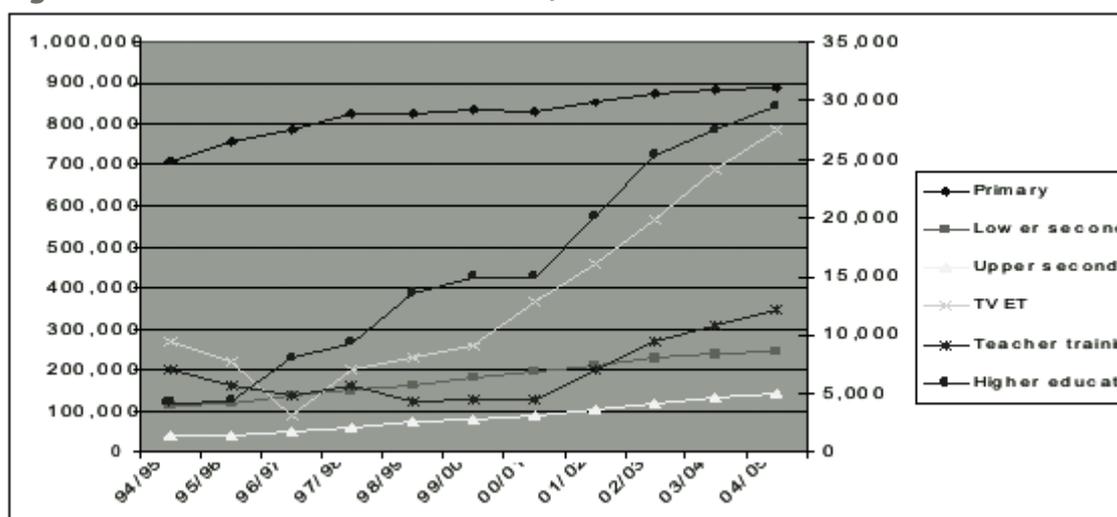
Students can enter the regular program through four different channels: Quota, Exam, Nangobay, and Non-Quota. Students that enter the regular course through the Quota system undergo an extensive application process. They obtain free tuition and a stipend. Exam students are selected on the basis of their scores on the TEI entrance exam. They receive similar benefits to Quota students. Nangobay students must submit an application letter to be considered for this category. This pathway is reserved for children of teachers, national heroes, leaders, and retirees. Their financial benefits are those of Exam students, minus the living stipend. Finally, Non-Quota students are those who did not pass the TEI exam, but were admitted into the TEI as fee-paying students. In some TEIs, Non-Quota students are taught separately from other students in regular courses.

⁷ The discussion in the next few paragraphs is based on survey findings reported in the Teacher Education Institution Capacity, Operational Study 4 funded by the Swedish International Development Cooperation Agency (SIDA) (Ministry of Education, 2006). There are some discrepancies between survey data and official data. It appears that official data might be slightly inflated. Here we report only estimates based on the SIDA survey data.

In academic year 2005-06, TEIs enrolled 15,738 students. The largest TEI had 1,600 registered students and the smallest had 34. The student body in TEIs has tended to be gender balanced (51 percent male). There are two kinds of TEI students: regular and special students. Two-thirds of the students are enrolled in regular coursework and one-third in special courses. Special courses have slightly more male students than females, while the opposite is true for regular courses. Regular courses are part of the official teacher education program. They train teachers for preschool, primary and lower secondary teaching. Special courses are offered in the evenings to fee paying students. These courses are based on the 11+1 and 8+3 teacher training curricula, but seldom lead to a teaching career. The emphasis of these courses is usually to improve English language skills, rather than pedagogy. Many students that attend special courses are sponsored by their employers and usually receive a salary increase upon completion.

Special course enrollment has undergone spectacular growth in the past few years and account for a significant jump in enrollments in teacher education. Between 2001/02 and 2004/05, there was an almost five-fold (474 percent) increase in special course students—compared to an increase of 55.5 percent in regular course students. All special course students were enrolled in “special English” programs (MoE, 2006a). This trend mirrors similar patterns in student enrollment growth in post-basic (vocational and higher education) institutions (see Figure 12).

Figure 12 . Student Enrollment Growth, 1994–2005



Source: World Bank, 2007a

Note: Numbers represent number of students. Primary, Lower secondary, and Upper secondary are measured by the left vertical axis. TVET, Teacher training and Higher education are measured by the secondary axis on the right vertical axis

Considering that special course students take up resources and capacity at TEIs, but do not pursue a teaching career, this growth in enrollment signifies a troublesome trend. TEIs are apparently feeling a gap in an environment where there is increasing demand for higher education opportunities but limited supply of vacancies. It is of particular concern that, while the share of fee-paying students in TEIs has increased dramatically, the contributions that special students make to defray the annual costs of their education (approximately 600,000 Kip), do not cover the public subsidy per capita to TEIs (over 1.7 million Kip). TEIs carry the highest cost per student by level of education, as noted already in Chapter 1. This finding further underscores that public spending in teacher education not only is inefficient but large public subsidies are being directed to students who do not intend to pursue a teaching career and will put their education to work towards private gain.

TTEST's Operational Study 4 discussed TEIs capacity and the appropriate balance between regular and special course students. The report indicated that converting TEIs into public tertiary institutions or further expansion of special courses in response to public demand for post-secondary education opportunities will risk to move TEIs away from their core function. Although special courses play an important role in generating income for TEIs, they do not rationally contribute to the supply of potential teachers (MoE, 2006a).

TEIs offer 11 different pre-service programs in its regular courses leading to different teaching certificates. Each program has various minimum requirements in terms of how many years of schooling students must have before admission as well as the type of certification sought. The customization of these programs to the years of formal schooling of trainees implies an open recognition that secondary education graduates are in very limited supply in vast swaths of Lao PDR. In order for the quality of teachers and teaching to improve, expanding access to the lower and upper secondary streams is an absolute prerequisite. This will be particularly important in remote areas, where teacher trainees enter teacher education programs as primary school graduates.

Table 3 . Teacher Education Programs (Regular Courses)

Title	Schooling Required on Entry	Years Required at TEI	Intended Outcome
5+3	Five years of primary education	Three	Qualification to teach in (remote) primary
5+4	Five years of primary education	Four	Qualification to teach in (remote) primary
8+1	Five years of primary education plus three years of lower secondary education	One	Qualification to teach in (remote) primary
8+3	Five years of primary education plus three years of lower secondary education	Three	Qualification to teach in primary
11+1Y	Five years of primary education, three years of lower secondary education, plus three years of upper secondary	One	Qualification to teach in pre-school
11+1Z	Five years of primary education, three years of lower secondary education, plus three years of upper secondary	One	Qualification to teach in primary
11+2	Five years of primary education, three years of lower secondary education, plus three years of upper secondary	Two	Qualification to teach in primary
11+3A	Five years of primary education, three years of lower secondary education, plus three years of upper secondary	Three	Qualification to teach natural science in lower secondary
11+3B	Five years of primary education, three years of lower secondary education, plus three years of upper secondary	Three	Qualification to teach social science in lower secondary
11+3C	Five years of primary education, three years of lower secondary education, plus three years of upper secondary	Three	Qualification to teach English in lower secondary
11+3D	Five years of primary education, three years of lower secondary education, plus three years of upper secondary	Three	Qualification to teach French in lower secondary

Source: MoE (2006a)

Note: The coding suffixes, such as 11+1 Y are shown although in Lao PDR education circles these are simply referred to as "11+1" or "11+1 Pre-school."

The largest program in terms of student enrollments in 2004/05 was 11+3C (leading to a qualification to teach English in lower secondary schools), followed by 11+1Z (leading to a qualification to teach in primary schools) and 11+3B (leading to a qualification to teach social science in lower secondary schools). If the current trend in

TEI enrollments continues, most new teachers in Lao PDR will have at least 11 years of pre-teacher education schooling, as opposed to the 8 years they now have. This suggests that the next generation of teachers in Lao PDR will be substantially more educated than it currently is.

In-Service Training

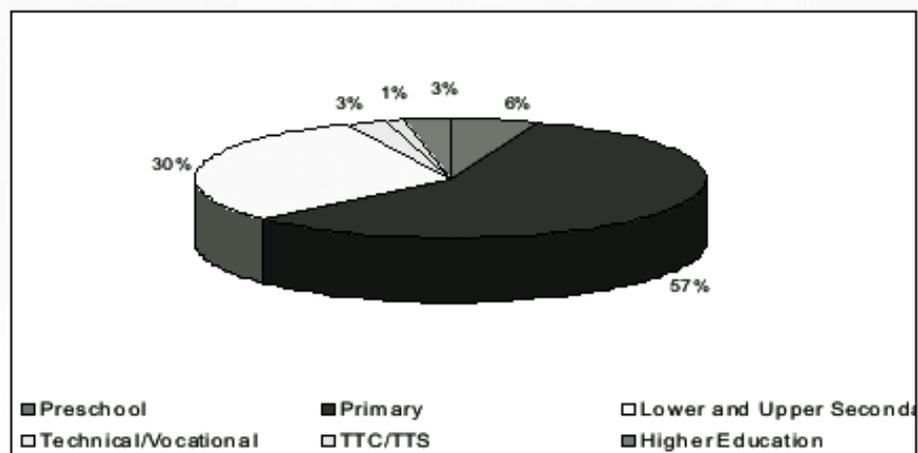
In-service training in Lao PDR consists of coursework aimed to upgrade teachers so they can receive an official qualification as well as training that is provided as part of continuous professional development efforts. Upgrading teachers is an important endeavor if we consider that close to one-sixth of Lao teachers do not have any formal training. To this effect, Lao PDR has instituted 17 teacher upgrading centers located in different provinces. In addition, there is a special program to train teachers for areas with populations of diverse ethnicity.

Although substantial efforts are taking place to implement short courses and other similar activities to upgrade teaching skills, for the most part they are not structured as part of a sustained plan for continuous professional development. Over 63 percent of lower secondary teachers report having attended in-service training at some point during the year. This proportion is much higher (69 percent) in large (more likely urban) secondary schools than in small schools (58.6 percent). On the other hand, these estimates also reveal that a significant share of lower secondary teachers (one in three and close to 40 percent in small schools) did not receive any professional development training in the past year.

2.2 Who are the Teachers?

In the 2004/05 academic year, there were 48,113 teachers in Lao PDR working at all levels (from pre-school to higher education). About one half of these (46 percent) were women. Most teachers were placed at the primary level (see Figure 13).

Figure 13 . Proportion of Teachers by School Level 2004/05



Source: EMIS

Age, Gender and Experience

According to the Grade 5 Assessment study (NRIES, 2007), primary teachers in Lao PDR were 34 years old on average. Sixty-one percent were male and 39 percent were female.⁸ Rural primary schools were more likely to have male teachers than schools located in urban areas. Approximately half of all teachers taught in the same village where they were from. There are areas, however—such as Oudomxay, Sekong, Xayaboury, Khammouane, Savannakhet, and Attapeu—where the proportion of local teachers is much lower, ranging from 0 to 30 percent. For the most part, these are provinces with large concentration of remote areas where there are insufficient numbers of primary and secondary school graduates. Basic education attainment is a bottleneck to adequate teacher supply.

The average primary teacher has 13 years of teaching experience. There was a considerable range, though, with some provinces having teachers with over 16 years experience (e.g. Savannakhet) and others with only 5 years (e.g. Luangnamtha). Rural and remote schools have less experienced teachers on average than urban schools (see Table 4). This is largely a reflection that remote areas tend to attract younger teachers, while more experienced teachers tend to migrate towards densely populated areas.

⁸ To the extent that Grade 5 teachers are not representative of teachers in other primary grades, the results here will not apply to the whole of the primary teacher cadre.

Table 4 . Years Teaching by Primary School Location and Local/Non-Local Teacher

School Location	Teacher	Years Teaching	
		Mean	Standard Error
Remote	Non-local	7.44	0.26
	Local	11.33	0.38
Rural	Non-local	10.32	0.20
	Local	13.32	0.17
Urban	Non-local	15.68	0.31
	Local	15.8	0.32

Source: NRIES (2007)

Lower secondary teachers in Lao PDR are slightly older than primary teachers (36 years old). Little more than half (54 percent) of them are male. On average, they have been teaching for almost 14 years, although this varies by school size. Teachers working in smaller schools tend to have less seniority than those working in larger schools. Again, this is due to the fact that more senior teachers show a preference for urban (or less rural) settings, which often have larger schools. Over one-quarter (28 percent) of lower secondary teachers were born in the same village or city where they currently teach. Average commutes to school are approximately 15 minutes.

Table 5 . Lower Secondary School Basic Teacher Profile

Variable	Whole Sample	By School Size			School Type	
		Small	Medium	Large	Public (Urban)	Private
Age	36.1	34.9**	36.7**	37.0**	36.1	36.3
Gender						
Male	53.6	61.7	54.8	38.6	53.5	56.7
Female	46.4	38.3**	45.2	61.4**	46.5	43.3
Years teaching	13.9	12.5**	14.5**	14.8**	14.0	12.0*
Years teaching at this School	9.5	8.2**	10.3**	9.8	9.7	4.8**
Teacher born in this Village	28.2	24.8	32.0	26.2	27.8	6.3**

Teacher born in this District	44.3	42.2	53.0**	22.6**	34.6	6.7**
Time to get to school:						
1-15 minutes	81.6	81.2	82.8	78.6	78.9	75.0
16-30 minutes	12.2	12.5	11.5	14.3	16.9	18.7
More than 30 minutes	6.2	6.3	5.7	7.1	4.2	6.3
Means of reaching school:						
Walk	46.2	55.6	37.7	33.3	32.4	0.0
Bicycle	9.6	9.7	10.7	4.8	7.0	0.0
Motorbike	42.5	34.0	50.0	57.1	57.7	100.0
Other	1.7	0.7	1.6	4.8	2.8	0.0
		p=0.00**		p=0.05*		p=0.02**
Average transport costs (Kip)	3,666	3,289	3,830	5,000	4,844	8,468**
(1 USD = 10,000 Kip)						

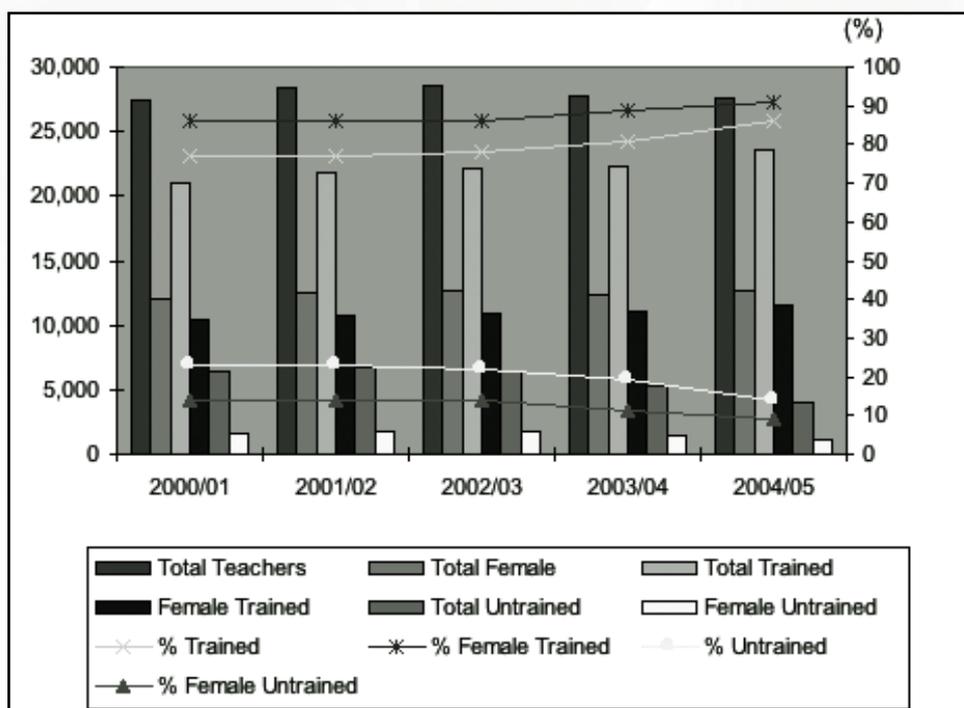
Source: Lao Secondary School Survey, 2006

Notes: School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. Age is measured in average years and is calculated by subtracting year of birth from 2006. Male and Female measured in proportions. Years teaching is measured in average years and is calculated by subtracting the first year of teaching from 2006. Years teaching at this school is also measured in average years and is calculated by subtracting the first year of teaching at this school from 2006. Data based on official record books (77%), a combination of official record books and the memory of the staff member answering the questions (19%), or only from the memory of staff members (4%). Teacher born in this village/district refer to the percentage of teachers who indicated yes. For Time to get to school and means of reaching school the teacher chose one single answer. Average transport costs are measured in Kip per trip to the school (round trip). For comparisons of means t-tests are used with significance levels of 0.05(**) and 0.10 (*) for two tail test. For comparisons of percentages/proportions a Chi-square is used to evaluate the entire distribution, p value presented for significance level of 0.05(**) and 0.1 (*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.

Teacher Educational Background

Lao teacher qualifications are classified by a combination of formal school years and period of teacher training. Qualified teachers are generally defined by length of teacher training. Educated teachers may be counted as untrained because although they may be more educated than formally “trained teachers,” such as 5+3, they did not receive formal teacher training (MoE, 2003).

Figure 14 . Trained and Untrained Teachers, 2000-01 – 2004-05



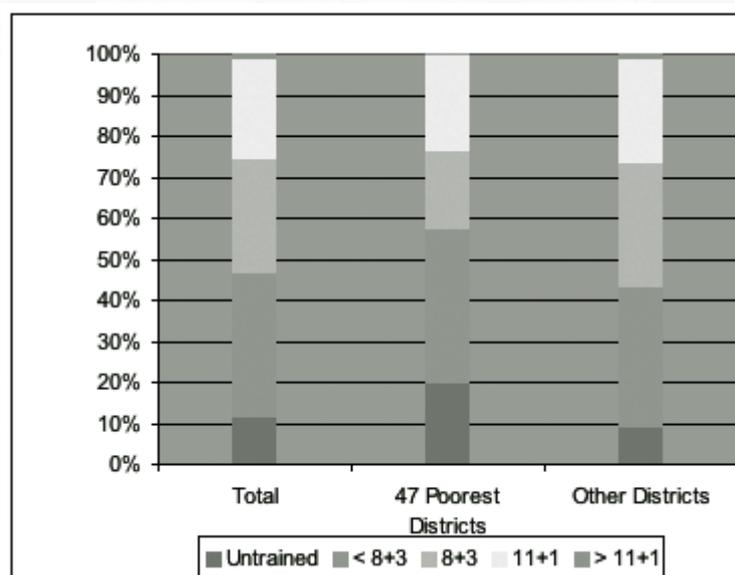
Source: EMIS

The vast majority of primary and secondary teachers in Lao PDR have received some types of teacher training. In the 2004/05 academic year, 14.1 and 1.42 percent of primary and secondary teachers, respectively, had not received any further education.⁹ These averages mask important variation between districts and provinces. In non-poor districts only 11.2 percent of primary teachers are untrained, compared to 24.6 percent of primary teachers in the poorest districts. A similar picture emerges when comparing provinces. Provinces with the highest percentage of poor villages—such as Huaphanh and Phongsaly—had the highest percentages of untrained teachers (38.5 and 33.2 percent respectively). Provinces with low percentages of poor villages—such as Xayaboury and Xiangkouang—had lower proportions of untrained teachers (6.8 and 8.0 percent respectively).

Most primary teachers have obtained either an 8+3 certification or a certification that requires fewer years than that. Only one quarter of primary teachers have 11+1 certification or above (see Figure 15). There are slightly more teachers with fewer than 8+3 credentials in the 47 poorest districts than the national average.

⁹ The secondary teacher figure corresponds to the 2003/04 school year.

Figure 15 . Education – Primary Teachers



Source: Noonan and Xaiyasensouk (2007)

Lower Secondary School (LSS) teachers have significantly more education than the average person in Lao PDR. Table 6 shows average educational credentials for LSS teachers. Most completed up to Grades 8-10 (50.6 percent), and 45.8 percent completed Grade 11. Fewer than 4 percent of LSS teachers did not attend either a teacher training school or a teacher training college.

Table 6 . Education – Lower Secondary Teachers

Variable	Whole Sample	By School Size:			School Type:	
		Small	Medium	Large	Public (Urban)	Private
Last grade of school completed:						
Lower than Grade 8	3.6	2.0	4.1	7.1	4.2	0.0
Grade 8-10	50.6	49.0	54.1	42.9	47.2	25.0
Grade 11	45.8	49.0	41.8	50.0	48.6	75.0
Post-secondary school attendance:						
Teacher Training School	74.3	67.6	81.2	73.2	69.0	50.0
Teacher Training College	22.0	29.5	14.7	19.5	23.9	31.3
Other	3.7	2.9	4.1	7.3	7.0	18.7
		p=0.02**	p=0.04**			

Source: Lao Secondary School Survey, 2006

Notes: School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. All variables are based on answers given by 309 teachers on teacher questionnaire. Last grade of school

completed refers to studies in formal system. Almost all teachers (98 percent) report having attended some kinds of post-secondary schooling, even those that report less than 10 years of schooling. For comparisons of percentages/proportions a Chi-square is used to evaluate the entire distribution, p value presented for significance level of 0.05(**) and 0.10(*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.

A large proportion of lower secondary teachers (86.8 percent) have an official teaching certificate and 65 percent rated the training they received as “very good.” Almost two-thirds of them mentioned that they had attended in-service training in 2006.

Table 7 . Pre- and In-Service Training – Lower Secondary Teachers

Variable	Whole Sample	By School Size:			School Type:	
		Small	Medium	Large	Public (Urban)	Private
Completed pre-service training (Certification)	86.8	84.8	89.3	85.7	87.5	81.3
How would you rate the quality?						
Very good	64.7	65.8	61.5	72.2	69.8	76.9
Average	35.3	34.2	38.5	27.8	30.2	23.1
Have attended in-service training (this year)	63.6	58.6	67.2	69.0	65.3	56.2

Source: Lao Secondary School Survey, 2006

Notes: School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. All variables are based on answers given by 309 teachers on teacher questionnaire. Completed pre-service training refers to percentage of teachers who indicated that they had completed the basic certification. How would you rate the quality included four categories that have been condensed into two. Have attended in-service training is the percentage of teachers who have attended a training session during the 2005/06 school year. For comparisons of means t-tests are used with significance levels of 0.05(**) and 0.10 (*) for two tail test. For comparisons of percentages/proportions a Chi-square is used to evaluate the entire distribution, p value presented for significance level of 0.05(**) and 0.10(*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.

Overall, teacher quality at entry appears to be higher in lower secondary than in primary schools. A larger concentration of secondary school graduates can be observed and only a small minority did not attend teacher training institutions. Although some improvements in the basic levels of education among primary teachers can begin to be noticed, many teachers still enter the profession with only minimum educational requirements. This situation makes it all the more imperative to strengthen the quality of pre-service training, as a not insignificant share of each annual cohort enters TEIs with a very short educational history.

2.3 Entry into the Teaching Profession

Entry into the teaching profession in Lao PDR usually begins with the choice to enter a TEI. Typically, the teaching profession is attractive to individuals from relatively low socioeconomic backgrounds and poor communities. They see the teaching profession as offering stable wage employment. Often, however, these candidates are unable to pass the entry exams for TEI. And often, it is more urban students who do pass the examinations, although for many of them teaching is not their career of choice (MoE, 2006a).

Thus, the current system of entry to TEIs is probably subsidizing candidates from wealthier households who could potentially afford higher education costs but enter teacher education because it is free. Many of these students do not intend to enter the teaching profession. On the other hand, poorer students who perform less well in entrance exams may find themselves shut out from pursuing a career in teaching because they cannot afford the fees required for Non-Quota students.

Teacher postings in Lao PDR are determined by MoE and teachers are centrally assigned. In principle, when a classroom reaches 33 students, MoE assigns another staff member to that school. In practice, teachers are unequally deployed among provinces and individual schools, resulting in an oversupply of teachers in some schools and severe undersupply in others.

There are two reasons for this imbalance. First, MoE's Quota system requires newly trained teachers to return to their home district after pre-service training. This approach restricts mobility and the capacity of the school system to balance teacher supply, particularly for rural and remote areas where basic education access and quality are low and the likelihood of admission into TEIs is severely reduced.

Second, another important reason behind the shortage of qualified teachers in rural areas is the lack of sufficient Quota teacher posts, which more often go to urban centers.

These must be prioritized above all. Recent graduates have been offered the possibility of a regular civil service employment (Quota contracts) after teaching for two years as contract teachers in schools in remote areas. However, anecdotal data suggests that these promises have gone unfulfilled. It appears that teachers only obtain permanent status after three to five years of service, instead of two (MoE, 2006a).

The Plight of Rural and Remote Areas

Rural and remote areas largely rely on local teachers to staff their schools and teach their children. According to data from LECS3, while Lao-Tai children are taught predominantly by Lao-Tai teachers (90 percent in urban areas and 80 percent in rural areas), a much smaller proportion of children of other ethno-linguistic groups are.

In order to motivate Lao-Thai teachers to move to remote areas and address existing teacher shortages, the Government has offered hardship allowances to make the remuneration package more attractive. However, these incentives have been small and insufficient to outweigh the challenges of living in isolated locales.

Local level recruitment has had several advantages over the provision of monetary rewards. It reduces teacher attrition and improves pedagogy through knowledge of the local language and customs.¹⁰ Thus, it is imperative to sustain the growth of basic education access points in currently underserved areas to increase the cohort of graduates who may then proceed into teacher training opportunities. Furthermore, TTIs could adopt an affirmative action policy to seek out and recruit talented young students from underserved rural and remote areas.

Box 2.1 Remote Area Teacher Recruitment in Cambodia

In order to address a chronic shortage of teachers in remote areas, the Ministry of Education, Youth and Sport (MoEYS) has begun to promote local area teacher recruitment as a means to match teacher supply and demand.

¹⁰ On the other hand, because the national curriculum is in Lao language, relying on local teachers might put non Lao-Tai children at a disadvantage because their teachers might have limited fluency in this language (King and van de Walle, 2005).

In the past, MoEYS had opted to address teacher shortages in rural and remote areas through: (a) re-deployment of non-teaching staff into teaching, (b) re-deployment of teachers into areas of high need and (c) allowances for hardship postings. However, none of these initiatives were actually successful in promoting the transfer of a critical number of qualified teachers into areas of high need. Postings in hardship areas were, not surprisingly, not very attractive. Furthermore, low teacher pay made it difficult for teachers to work in areas without support of an extended family, existing housing or land for subsistence farming. Top-up amounts proved insufficient to compensate for living in a more challenging environment and, thus, failed to be an attractive bait to lure new qualified teachers from urban centers into disadvantaged localities. More generous resettlement incentives were also unsuccessful to elicit the transfer of urban teachers to remote postings in sufficient numbers.

MoEYS has waived Grade 12 entry requirements to Provincial Teacher Training Colleges (PTTC) for candidates from provinces and districts where upper secondary education options are unavailable. Thus, potential teacher trainees from remote areas can gain access to teacher professional education after completing only their lower secondary studies. MoEYS has further buttressed this approach with the provision of scholarships to poor students and ethnic minority children as an incentive to enlarge eligible graduating cohorts from lower and upper secondary schools. These policies have sought to expand the potential applicant pool and attract into teaching candidates who already have strong ties to underserved communities and are well rooted in their specific cultural and linguistic contexts. Thus, these teacher trainees are more likely to “return home” and accept long-term postings upon graduation. Furthermore, they can be more effective at teaching by relying on the vernacular language as a means of communication with non-Khmer speaking children.

This strategy has begun to pay off. At present, remote primary schools—with smaller and younger staffing profiles—exhibit a substantially larger share of teachers who are upper secondary school graduates than urban or rural primary schools. Rural schools have the greatest share of 9+2 teachers (56 percent), while urban schools follow closely behind (41 percent). But while 75 percent of remote primary school teachers have completed their upper secondary diploma before entering teacher training, 6 percent only hold a primary school degree. And many teacher posts in remote areas have remained unfilled. The situation is especially dire in localities with large ethnic minority populations.

Active teacher training and recruitment policies for these marginal communities are certainly still needed. Launched in early 2001, they sought to recruit into teacher training colleges about 1 in 4 teachers from underserved communities. These targets have probably been over-ambitious and anecdotal reports suggest that PTTC placements for remote area students can be illegally accessed by paying an unofficial fee. Quota places for ethnic minority students not unusually go unfilled. Nonetheless, active recruitment efforts appear to have made a significant difference as the number and spread of young teacher recruits is expanding to small isolated schools nationwide.

Source: World Bank (2007c)

Many education projects in Lao PDR focus on the provision of teacher training and distribution of ethnic teachers in their respective villages. However, experiences from

these projects suggest that a number of challenges in teacher deployment in remote areas remain. Targeting is a problem. Some candidates who are recruited into TTIs do not meet selection criteria or do not come from targeted villages, but enroll in order to benefit from incentives provided by projects. Language also remains a challenge for students from ethnic groups. This problem is aggravated when there is lack of support from TTIs and tends to result in drop outs. Even students who do graduate may decide not to pursue assignments in their own villages due to various reasons such as marriage to a spouse from a different village. Moreover, low salary levels and delay in payments in remote areas make it difficult for new graduates to affront local cost of living.

2.4 Trends in Teacher Supply and Demand

According to some estimates (MoE, 2005), there is no current shortage of teachers, and, except for one year, no projected shortage through 2015.

Table 8 . Teacher Supply (Graduates from Teacher Colleges) and Demand by Level 2005-2015

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Teacher Supply (graduates)											
5+4	98	136	180	234	289	344	373	397	418	441	467
8+3	716	981	1276	1612	2007	2477	1486	2238	2748	3067	3294
11+1	1730	2131	2473	2820	3135	3365	3592	3858	4187	166	4283
11+3	1748	1970	2220	2481	2732	2949	3204	3465	3749	2749	3257
Total Supply	4292	5218	6149	7147	8163	9135	8655	9958	11102	6423	11301
Teacher Demand by Level											
ECCE	821	859	990	1058	1053	1043	1335	1501	1557	1612	1665
Primary	1628	1575	1435	1657	1969	2267	2340	2213	2149	2016	1993
Lower Secondary	1092	1319	1603	1493	1219	5023	1178	1337	1792	2281	2560
Upper Secondary	855	768	734	784	942	-2189	808	623	3314	884	828
Total Demand	4396	4521	4762	4992	5183	6144	5661	5674	8812	6793	7046
Total Shortage or Surplus (supply minus demand)	-104	697	1387	2155	2980	2991	2994	4284	2290	-370	4255

Source: MoE (2005)

The data in Table 8 are based on the Education for All action plan quantitative projection model (EFAMOD) to project supply and demand. EFAMOD is based on population and enrollment growth estimates based on historical trends. These estimates also take into account expected major policy reforms, such as converting all incomplete schools to complete schools by 2010 and building new schools for previously underserved villages (one school per two villages, on average). In addition, it assumes that enrollment rates will improve over time as well as internal efficiency indicators (e.g. improvements in transition rates from one grade to the next and decreases in dropout rates). EFAMOD also adjusts its teacher supply and demand projections based on average historical teacher attrition rates (6.7 percent) as well as average dropout rates from teacher colleges (estimated at 8 percent in 2005 and expected to gradually decrease to 5 percent in 2015).

EFAMOD projections are also disaggregated by level of education. It assumes that the 11+1 program supplies ECCD teachers, the 5+4 and 8+3 programs supply primary teachers, and the 11+3 program prepares teachers for lower and upper secondary teaching. Nonetheless, it suggests focusing on the total shortage figures instead of level disaggregates. The reasons for concentrating on the bottom line include: (1) there are two 11+1 programs: one for primary teachers and the other for ECCD, but it is not possible to differentiate between them; and (2) in practice there is considerable substitution among teachers in different programs. Over 4,500 primary teachers (20 percent of the total) have 11+1 qualifications, 39 percent of secondary teachers have an 8+3 qualification, while 10 percent have an 11+1 qualification.

The EFAMOD model has important limitations that could substantially alter its conclusions. First, although it accounts for dropouts from teacher colleges, it assumes that all teacher training students would eventually enter the teaching profession. This assumption does not seem to be fully supported by the available evidence. One study of two provinces (Luangnamtha and Xiangkhouang) found that on average 23.9 percent of 11+1 graduates and 38.4 percent of 8+3 graduates in these provinces were not recruited into permanent teaching positions (MoE, 2004). In addition to this report, anecdotal

evidence suggests that up to 50 percent of teacher training institution graduates do not enter teaching.

Second, a large proportion of teacher college enrollments in recent years have been “special students.” These students are formally enrolled, but are not necessarily pursuing a teaching qualification. There is no empirical evidence to explain enrollment patterns, but it appears that these students enroll in teacher colleges as a last resort alternative to higher education. Even though some of these might eventually become teachers, a safe assumption would be that most do not.

Based on these more “pessimistic” expectations about teacher supply, there is evidence of a growing gap between teacher demand and graduating cohorts from TEIs (see Table 9).

Table 9 . Requirements and Supply after Adjustment for Entry into Teaching

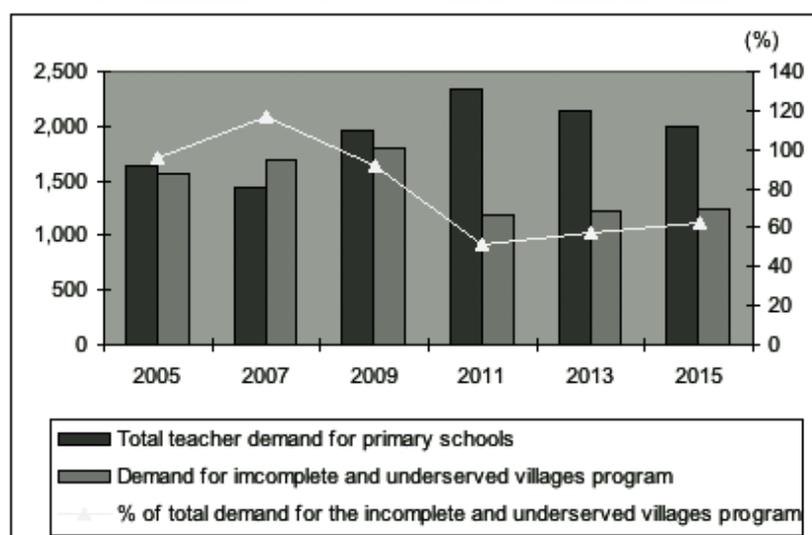
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Teacher Demand	4395	4521	4762	4992	5183	6143	5662	5674	8811	6792	7046
Adjusted graduates 5+4	98	136	180	234	289	344	373	397	418	441	467
Adjusted graduates 8+3	287	403	537	694	884	1116	684	1053	1320	1503	1647
Adjusted graduates 11+1	1138	1389	1598	1805	1989	2116	2238	2382	2560	101	2570
Adjusted graduates 11+3	1101	1255	1430	1615	1797	1961	2153	2353	2572	1905	2280
Total Adjusted Supply	2624	3183	3745	4348	4959	5537	5448	6185	6870	3950	6964
Teachers entering Teaching*	1968	2387	2809	3261	3719	4153	4086	4639	5153	2963	5223
Demand minus Supply	-2427	-2134	-1953	-1731	-1464	-1990	-1576	-1035	-3658	-3829	-1823

Source: MoE (2005)

* Assumes that only 75 percent of the graduating class enters teaching and special students seek employment elsewhere

According to these estimates, teacher shortages will take place in underserved villages or those currently served with incomplete schools. These villages tend to be found mostly in rural and remote areas. Figure 16 shows that through 2009, over 90 percent of primary school teacher demand will be focused around the incomplete and underserved villages program. By 2015, when it is expected that the program be completed, 62 percent of the total demand of primary school teachers would still be captured by staff recruitments of formerly incomplete schools and underserved villages.

Figure 16 . Implications of Improved Primary Provision for Incomplete Schools and underserved Villages on Teacher Requirements



Source: MoE (2005)

Furthermore, if teacher supply grows as expected, it would require a large expansion of TTIs' capacity. There are 10 colleges (inclusive of two TEIs responsible for training physical education and arts teachers for all levels) with a total enrollment of 10,813 and fewer than 600 teacher college instructors. If the need for teachers grows as projected in Figure 16, enrollment would need to swell to 36,692 in 2015.¹¹ Even if special course students were omitted from these calculations (currently about one-third of total enrollments), projected enrollments would still be substantial and would put pressure on teacher colleges to hire additional teaching staff and build additional classrooms and facilities (see Table 10). By some estimates, TEIs are already at or above capacity in their

¹¹ Calculations not shown here. The 36,692 figure is total projected enrollment for all TEIs in all programs, including special course students.

Foreign Languages department (due to exceeding demand from special course students) and in Lower Secondary. There appears to be some room for extra capacity for primary programs (MoE, 2006a). These projections, naturally, will also be constrained by the ability to recruit teacher trainees, especially from rural and ethnic communities.

Table 10 . Basic Estimates of Increased Classrooms Requirements in the Teacher Training Colleges

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Additional number of student teachers	2,043	2,853	3,099	3,367	3,505	3,485	-	4,391	3,769	0	8,080
Number of classrooms to build & equip	68	95	103	112	117	116	0	146	126	0	269
Total building costs (US\$m)	0.510	0.713	0.773	0.840	0.878	0.870	0	1.095	0.95	0	2.02

Source: MoE (2005)

In sum, whether Lao PDR will face a shortage of teachers at all or most levels through 2015 is a matter of some debate. Based on EFAMOD assumptions, Lao PDR would not face a shortage, but a surplus of teachers through 2015. However, when these assumptions are challenged, the scenario shifts from one of average surplus to one of average shortage. If, for example, one third of TTC graduates either dropout or decide not to enter teaching, shortages would be experienced in most years through 2015. If the dropout figure nears the anecdotally reported 50 percent, then substantial shortages would be experienced in most years, ranging from 12 to over 50 percent of total demand. Thus, the estimates in Figure 16, therefore, should be seen more as an indication of potential supply than of actual supply.

In addition, there is no information to conclude that dropouts occur uniformly across programs. In fact, the MoE (2005) study concluded that dropouts were lower in the 8+3 program (which recruits students from more modest socio-economic backgrounds)

and much higher in the 11+1 program (which recruits mostly from urban settings). If dropouts do occur with higher frequency at the 11+1 and 11+3 programs, which supply over 70 percent of total teachers through 2015, the shortage situation would worsen.

Lastly, if Lao PDR continues to make progress in increasing school access and build classrooms in villages currently underserved, it is highly likely that the current supply of graduates will be insufficient to satisfy teacher demand in new schools.

Synopsis

1. **The typical primary teacher in Lao PDR is a young male with 13 years of experience teaching who has a lower secondary certification plus formal teacher training.** Most primary teachers have either 8+3 or less than 8+3 qualifications. In rural areas, teachers are on average younger, less experienced and have less formal education. **The typical lower secondary teacher in Lao PDR is a slightly older male than the typical primary teacher and has an upper secondary certification plus formal teacher training.**
2. **Most teachers in Lao PDR have received some formal pre-service teacher training, but continuous professional development is infrequent.** In 2004/05, only 14 percent of teachers were untrained, compared to 23 percent just four years earlier. About one-third of lower secondary teachers reported not having received any type of in-service training in the past year.
3. **The current system of entry to TEIs may be potentially subsidizing candidates from wealthier households who could potentially afford higher education costs but enter teacher education because it is free.** On the other hand, poorer students who perform less well in entrance exams may find themselves shut out from pursuing a career in teaching because they cannot afford the fees associated for Non-Quota students
4. **TEIs have experienced a surge of fee-paying “special students.”** Considering that special course students take up resources and capacity at TEIs, but many do not pursue a teaching career, this growth in enrollment signifies a troublesome trend. It is of particular concern that annual contributions from special students (600,000 Kip) fall short from the public subsidy per capita to TEIs (over 1.7 million Kip). This finding further underscores that public spending in teacher education not only is inefficient but large public subsidies are being directed to students who do not intend to pursue a teaching career and will put their education to work towards private gain.
5. **The customization of teacher education programs to the years of formal schooling of trainees implies an open recognition that secondary education graduates are in very limited supply in vast swaths of Lao PDR.** In order for the quality of teachers and teaching to improve, expanding access to the lower and upper secondary streams is an absolute prerequisite. This will be particularly important in remote areas, where teacher trainees enter teacher education programs as primary school graduates.

6. Although some improvements in the basic levels of education among primary teachers can begin to be noticed, **many teachers still enter the profession with minimum educational requirements.** This situation makes it all the more imperative to **strengthen the quality of pre-service training, as a not insignificant share of each annual cohort enters TEIs with a very short educational history.**
7. **Primary schools in disadvantaged areas face teacher shortages.** First, MoE's Quota system requires newly trained teachers to return to their home district after pre-service training. Second, there are insufficient Quota teacher posts, which more often go to urban centers. Third, monetary incentives are insufficient to attract qualified teachers to hardship areas.
8. **Local teachers have lower attrition levels and are more attuned to the school cultural environment.** Close to one-half of primary teachers and 28 percent of lower secondary teachers work in the same village where they are from. MoE ought to expand educational access in disadvantaged areas in order to increase the pool of local potential candidates into TEIs. TEIs may also adopt an affirmative action policy to seek out and recruit talented young students from disadvantaged communities.
9. **Whether Lao PDR will face a shortage of teachers through 2015 is a matter of some debate. However, the most likely projection is one of teacher shortages in most years until 2015,** ranging from 12 to 50 percent of total demand. Shortages could be particularly acute in rural and remote areas, once incomplete schools are completed and new schools are built where there are none.
10. **Increased teacher demand will put great pressure on TEIs to increase capacity to train enough primary and secondary teachers to meet expected enrollment targets.**



Chapter 3.

The Working Conditions of Teachers

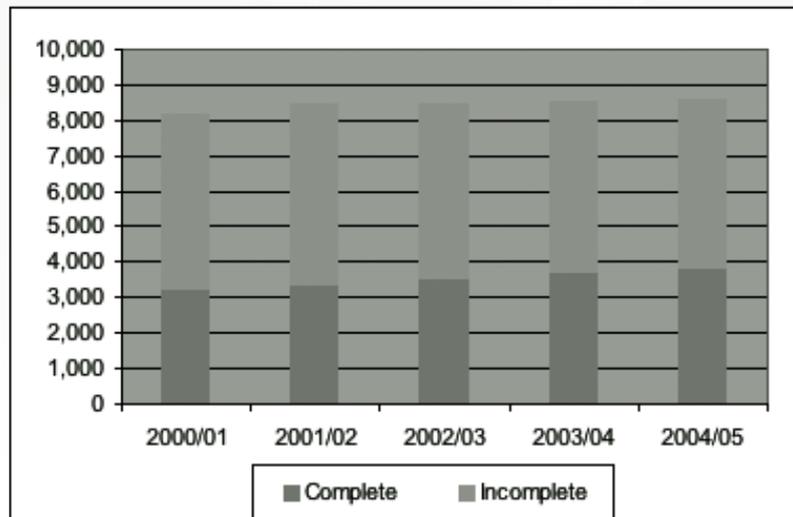
Teacher working conditions, or the context under which teachers are expected to perform their jobs, play an important role in determining school outcomes. It has been well established that good working conditions help support classroom teaching as well as foster learning (Vegas, 2005). Basic school infrastructure, classroom aides, textbooks and instructional materials are part of the essential toolbox that teachers rely on to perform on-the-job. The terms of contracting and workload—in terms of the length of the school day or the demands from the student population—are another dimension that can shape job satisfaction and the attractiveness of the teaching profession.

3.1 School Infrastructure

As discussed earlier, most children in Lao PDR have access to primary schools. Fewer have access to lower and upper secondary schools. Even among those who have access to primary schools, there are great disparities in the type and quality of the classroom environment that various populations attend.

Out of 8,573 schools in Lao PDR in 2004/05, only 44 percent offered a complete program of study, while 56 percent had less than the five grades required for a full primary education. Most incomplete schools are located in rural areas, putting rural populations at a disadvantage in terms of access and at a higher risk in terms of continuation.

Figure 17 . Complete and Incomplete Schools, 2000/01 to 2004/05



Source: EMIS

On average, urban populations have access to schools that are better equipped than do rural populations. These schools are more likely to have electricity and specialized rooms for teachers and principals. Variations are also significant when comparing schools in the highlands and the lowlands, with the latter group having significantly worse school infrastructure (King and van de Walle, 2005).

3.2 Classroom Conditions and Resources

Most Grade 5 primary school classrooms are equipped with a blackboard, chalk, a teachers' desk and a teachers' chair. But only 30 percent had a bookshelf and slightly over one-third had a wall map. Fewer than 15 percent had an electric lamp deemed good enough to light up the classroom (see Table 11). When school directors were asked about classroom conditions, most answered that they were inadequate. Over 50 percent responded that schools and classrooms needed complete rebuilding (30.4 percent) or that some classrooms needed major repairs (22.1 percent).

Table 11 . Availability of Classroom Furniture in Primary Schools

Furniture	Percent	Standard Error
Blackboard	98.9	0.6
Chalk	99.2	0.5
A wall map	35.8	2.5
Bookshelf	29.7	2.4
Teacher's desk	95.6	1.1
Teacher's chair	95.0	1.1
An electric fan	11.6	1.4
Electric lamp-sufficient to light the classroom	14.1	1.7

Source: NRIES (2007)

With respect to teacher materials, most classrooms have teachers' guides and materials for Lao language and mathematics. Slightly over one-half had supplementary reading books, and slightly over 60 percent had pictures for illustration (see Table 12). Classrooms in urban schools had slightly more furniture and materials than classrooms in rural schools.

Table 12 . Availability of Teaching Materials in Primary Schools

Teaching materials	Percent	Standard Error
Lao Dictionary	16.1	1.9
Mathematicsematics teaching material	85	1.8
Teacher's books (Lao language)	88.7	1.6
Teacher's books (Mathematicsematics)	90	1.6
Supplementary reading books	53.3	2.6
Pictures for illustration	62.6	2.4

Source: NRIES (2007)

In lower secondary schools, most classrooms are considered "reasonably clean." Less than a third of teachers had access to teaching aids. Interestingly, classrooms appeared to be largely segregated by gender. The most common seating arrangement was either large separation or complete separation between boys and girls.

Table 13 . Classroom Environment in Lower Secondary Schools

Variable	Whole Sample	By School Size			School Type	
		Small	Medium	Large	Public (Urban)	Private
How is the classroom hygiene?						
Extremely clean	37.5	32.4	41.8	47.6	43.1	81.2
Reasonably clean	48.4	51.0	46.7	40.5	47.2	18.8
Not very well clean	14.1	16.6	11.5	11.9	9.7	0.0
						p=0.02*
How were the students seated?						
Male & female students sit together with no obvious separation	12.6	11.0	13.9	14.3	13.9	12.5
Male & female students sit together in the classroom with largely separation	49.3	56.6	42.6	42.9	50.0	43.8
Male & female students sit together in the classroom with no largely separation	6.0	3.4	8.2	9.5	4.2	12.5
Classroom is completely separated by gender	32.1	29.0	35.3	33.3	31.9	31.3
						p=0.06*
The teacher used teaching aids	27.3	29.7	22.1*	38.1	38.9	56.3
Teaching aids were appropriate	84.4	76.7**	96.3**	87.5	82.1	100.0**
The teacher used textbooks	63.5	60.0	65.6	73.8	77.8	100.0**

Source: Lao Secondary School Survey, 2006

Notes: School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. All variables are based on head counts of students made by enumerators in each classroom visited, compared with the official number of students that are registered in each class. How is the classroom hygiene is based on observations of the school grounds. The teacher used teaching aids is a Yes-No question where responses refer to percentage of classrooms where things like maps and science equipment were used. Teaching aids were appropriate and The teacher used textbooks are also a Yes-No question completed by enumerators. For comparisons of means t-tests are used with significance levels of 0.05(**) and 0.10 (*) for two tail test. For comparisons of percentages/proportions a Chi-square is used to evaluate the entire distribution, p value presented for significance level of 0.05(**) and 0.10(*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.

There are few reference books available through most of the education system in Lao PDR. In primary schools there were limited books in the classroom. The best provided provinces had 50 books, but even this number is scant for classes of 20 to 30

students. In some provinces the situation was considerably worse, with a total of only 2 (Luangnamtha) or 7 books (Xayaboury) for the whole classroom. Only 16 percent of primary classrooms had a Lao dictionary available.

Textbook availability is relatively high for Lao language (67 percent of students had their own textbook), but very low for mathematics (only 6 percent had their own textbook). Up to 20 percent of students did not have their own textbook. In mathematics classes, textbooks are most often shared with 2 or more pupils (NRIES, 2007).

In lower secondary schools, textbooks were present in 63.5 percent of schools, but these were likely to be shared by more than one student. In 45.3 percent of schools, less than half of students owned their own textbooks. Only in 0.8 percent of the schools did all students own their textbooks, while in 15.8 percent of schools, none of the students owned their textbooks (although this proportion is much higher in small and medium than in large schools). The ability to take classroom textbooks home, however, might ease the problem of ownership by at least making books available to students temporarily.

Table 14 . Textbooks and Homework – Lower Secondary Schools

Variable	Whole Sample	By School Size			School Type	
		Small	Medium	Large	Public (Urban)	Private
How many students have their own text?						
All students	0.8	9.0	9.0	9.5	11.1	68.7
Most students	17.5	15.2	14.8	33.3	22.2	18.7
Half of the students	13.4	10.3	19.7	4.8	13.9	6.3
Less than half of the students	45.3	45.5	42.6	47.6	48.6	6.3
None	15.8	20.0	13.9	4.8	4.2	0.0
				p=0.01**		p=0.00**
Students can take texts home	93.7	90.5	97.1**	95.0	95.7	100.0
Frequency teacher assigns homework (times per week)	3.1	3.0*	3.2	3.5	3.5	3.4

Source: Lao Secondary School Survey, 2006

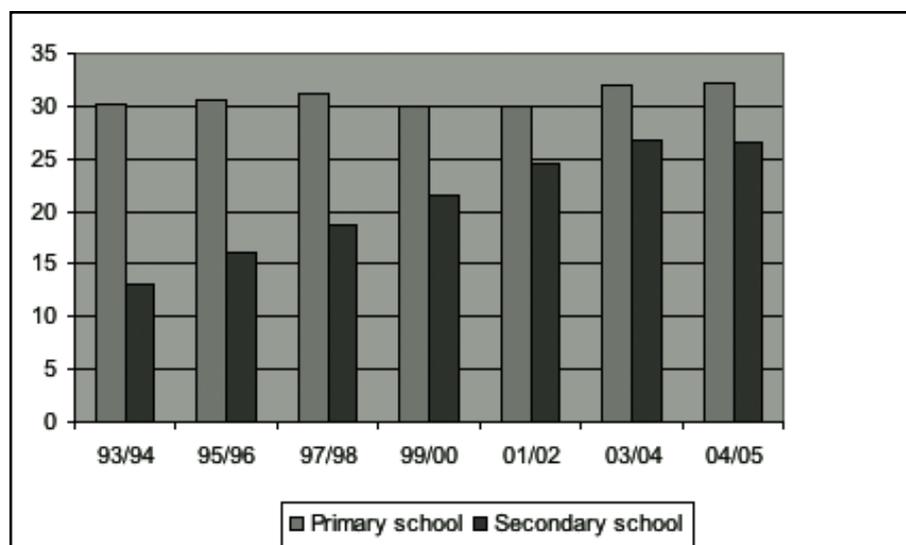
Notes: School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. All variables are based on answers given by 309 teachers on a teacher questionnaire. How many students have their own text refers to textbooks in general, not specific subjects. Students can take texts home is the percentage of teachers who indicated Yes. Frequency teacher assigns homework is measure in days per week, and also does not refer to a single subject. For comparisons of means t-tests are used with significance levels of 0.05(**) and 0.10 (*) for two tail test. For comparisons of percentages/ proportions a Chi-square is used to evaluate the entire distribution, p value presented for significance level of 0.05(**) and 0.10(*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.

Overall, the picture that arises is one of scarce resources at the classroom level. Schools are equipped with only minimum equipment—blackboards, chalk, desks, a teacher’s guide. Other basic essentials—such as teaching aids, textbooks and reference materials—are largely confined to a select group of schools who can benefit from a richer classroom environment.

3.3 Pupil-Teacher Ratio

Pupil-teacher ratios in primary schools have remained steady since the early 1990s, at around 31 pupils to one teacher. In secondary schools, the pupil-teacher ratio has significantly increased in the past decade as part of the steady expansion in secondary schooling. Nonetheless, it is smaller than at the primary level and now stands at 26.5 pupils to one teacher.¹²

Figure 18 . Pupil-Teacher Ratios in Primary and Secondary Classes

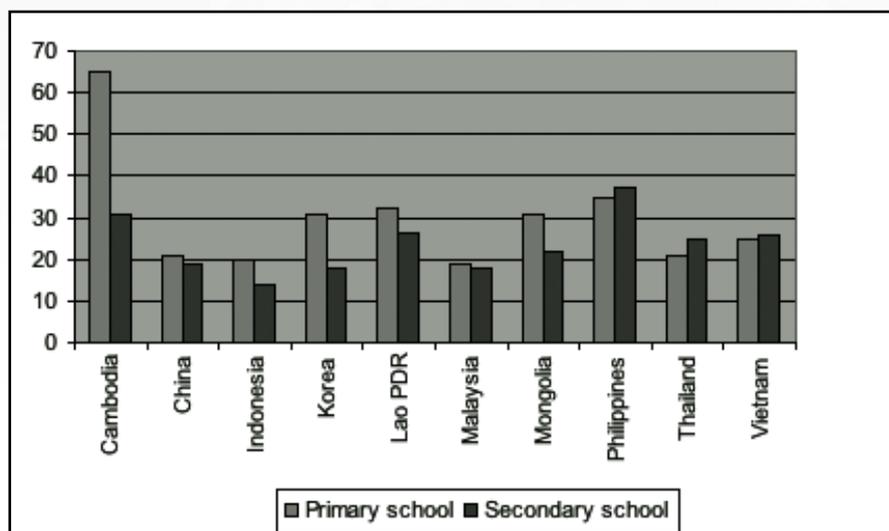


Source: EMIS

¹² Separate data for lower and upper secondary schools are not available.

These estimates place Lao PDR slightly above the regional average for teacher-student ratio.

Figure 19 . Regional teacher-student ratio



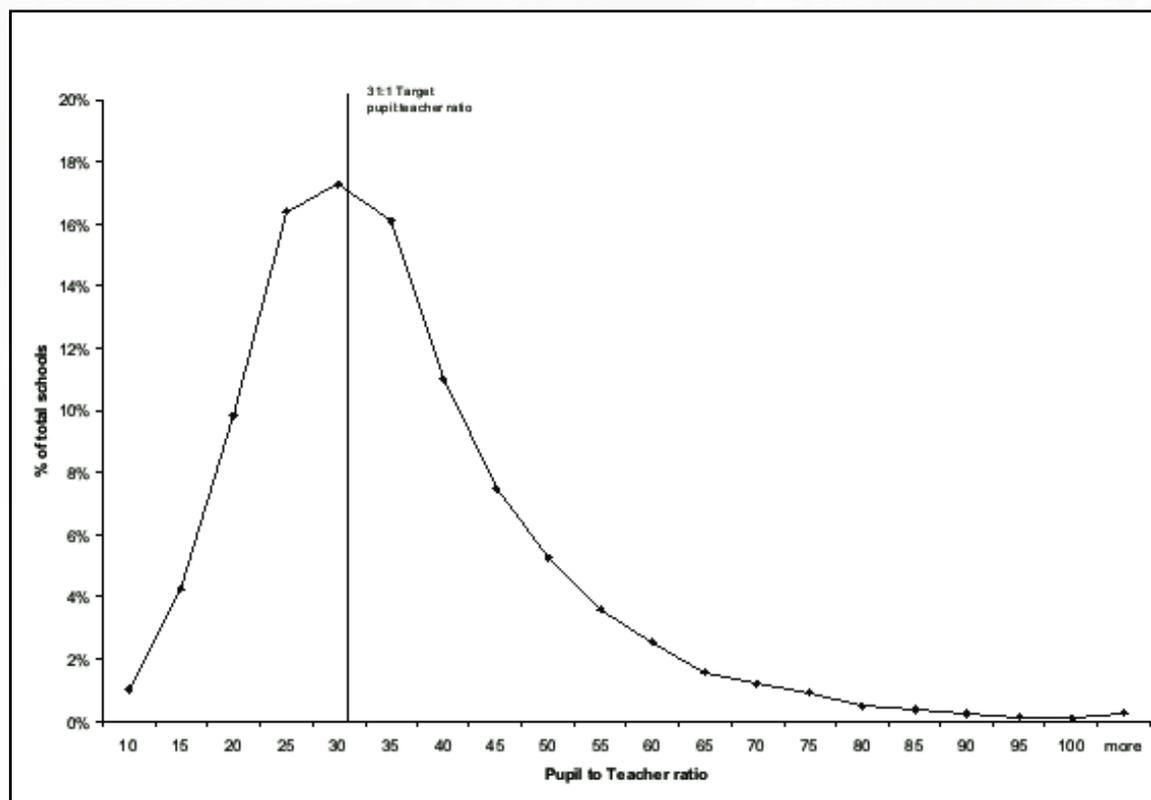
Source: Lao data come from EMIS 2005; for all other countries, Edstats

Notes: Data for countries other than Lao and Cambodia are for the most recent year available, generally 2002

However, the reported pupil-teacher ratios underestimate actual class sizes as well as mask considerable variation across regions. As Figure 20 shows, fewer than one-half of all schools in Lao PDR have pupil-teacher ratios lower than the 30:1 target for primary schools.¹³ A significant proportion of schools have pupil-teacher ratios that are far larger, some even going into ratios of 70:1 or more.

¹³ These are goals stipulated for 2015 in the Teacher Education Strategy and Action Plan, Ministry of Education (2006)

Figure 20 . Pupil-Teacher Ratio Distribution across Lao PDR Schools



Source: Lally (2006)

MoE has documented classrooms in ethnic minority areas where the pupil-teacher ratio was closer to 50:1, as well as classrooms with ratios lower than 20:1 (MoE, 2000). In 2005, provinces such as Oudomxay and Saravane reported average primary pupil-teacher ratios of 52.3 and 41.2, respectively, and average secondary pupil-teacher ratios closer to 30:1. In contrast, Phongsaly province had primary and secondary pupil-teacher ratios of 25:1 and 21.7, respectively.

Thus, while subscribing on average to official policy prescriptions that student-teacher ratios should be kept at 30:1 in primary schools and 27:1 in lower secondary schools (MoE, 2006b), we observe that in practice classrooms oscillate between extremes. In significant parts of the country, teachers face an undue burden with very large numbers of students under their care. The constraints in teacher supply described in Chapter 2—particularly in rural and remote areas—are an important factor in hampering a reduction in class size in extensive parts of the Lao geography. Difficulties in attracting teachers to less than desirable posts also pose an important obstacle to the implementation of official regulations and aspirations on appropriate class sizes.

3.4 Terms of Contracting

Teachers in Lao PDR are categorized depending on the type of certification and training they have received, whether they are employed as civil servants or not, and whether their tenure is temporary or permanent. Table 15 describes these various categories.

Table 15 . Definitions of Teacher Categories

Category	Description
<u>Certification</u>	
Uncertified	Teachers <i>lacking</i> a certificate of completion of teacher training from a TTS or TTC.
Certified	Teachers having a certificate of completion of teacher training from a TTS or TTC.
<u>Qualification</u>	
Un-qualified	At primary and lower secondary level, teachers lacking teacher training at a TTS, TTC, or equivalent training. At upper secondary level, teachers lacking pedagogical training at the Faculty of Education (NUOL).
Under-qualified	Teachers who were qualified under prior regulations but whose level of education and training do not qualify them under current regulations.
Qualified	Teachers whose level of education and training qualify them for their current teaching position under current regulations.
<u>Training</u>	
Untrained	Teachers lacking recognized pedagogical education and training at a TTS, a TTC, or the Faculty of Education. A university graduate teaching lacking requisite pedagogical training and teaching at secondary school would be classified as "Untrained".
Trained	Teachers having recognized pedagogical education and training.
<u>Quota Status</u>	
Non-quota	Any teacher who is <i>not</i> formally employed as a civil servant and <i>not</i> paid by the central government. See <i>Employment Form / Contract and Community, Volunteer</i> .
Quota	Any teacher who is formally employed as a civil servant paid by the central government. See <i>Employment Form / Regular</i> .
<u>Employment Form</u>	
Regular (Quota)	Any teacher (regardless of qualifications) who is formally employed as a civil servant paid by the central government. See <i>Quota Status / Quota</i> .
Contract	1. Any teacher (regardless of qualifications) employed in a public school but <i>not</i> formally employed as a civil servant, typically paid by the <i>provincial</i> government. See <i>Quota Status / Non-quota</i> ; 2. Any teacher employed by a private school; 3. Any teacher employed by contracting with a community (see <i>Community, Volunteer</i> below).

Community, Volunteer	Any teacher employed by contracting with a community (see Community, Volunteer below), typically paid by the community.
<i>Duration</i>	
Temporary	Any teacher (regardless of qualifications, quota status, or employment form) who is temporarily serving in a school <i>different</i> from the school to which he or she is formally attached. For example, in cases of teacher shortage in one school (due to illness or other reasons), a teacher can be temporarily transferred in from a neighboring school.
Permanent	Any teacher (regardless of qualifications, quota status, or employment form) who is currently serving in the school to which he or she is formally attached.

Source: Noonan (2004)

The main category of teachers in Lao PDR is the “Quota” teacher category. These teachers are hired as civil servants and are paid according to the Civil Service salary schedule.

Contract Teaching

As explained in Table 15 above, contract teachers are those who, regardless of qualifications, are employed in a public school, but not under the civil service regime. These teachers are also referred to as “Non-Quota” teachers. At present there are no official statistics of the number of Non-Quota teachers employed in the education system, but they are estimated to be a very small share of overall employment in MoE

Teachers in private schools are also considered contract teachers, as are teachers who are hired directly by communities.

All Day Shifts

Lao PDR schools can operate in three different ways: morning shift, afternoon shift, or all day shift. At the primary level, the vast majority (94.6 percent) of students are taught in all day shift schools. Morning or afternoon shifts are circumscribed to schools that do not have sufficient classrooms to operate all grades simultaneously. In turn, lower secondary schools, almost all schools have separate morning and afternoon shifts.

Teachers do not get differentiated salaries whether they work in an “all day” or a “morning-afternoon shift” school. The curriculum is supposed to be applied in the same way in all schools, regardless of the number of hours of instruction.

3.5 Multigrade Education

One important distinguishing feature of classrooms in Lao PDR is whether they are single classrooms or multigrade. Single classrooms are those in which students of a single grade are taught by one teacher. Multigrade classrooms are those in which one teacher instructs students from multiple grades simultaneously.

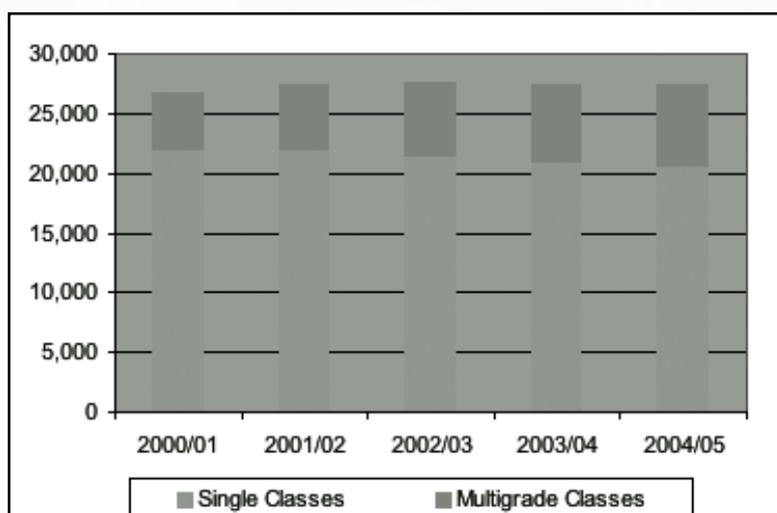
Multigrade teaching is crucial for expanding access in marginal areas, particular where populations are disperse and density is low. It enlarges the possibility of grade progression within an incomplete school. Furthermore, it allows for a more efficient allocation of limited human and financial resources by assigning one teacher to multiple grades where pupil-teacher ratios are low or, as is the case in Lao PDR, teachers are scarce.

The presence of multigrade classrooms presents a variety of challenges for teachers who must adapt their teaching strategies to accommodate children learning different material at a different pace. Teachers must divide their time across children at various stages of cognitive development and undertaking diverse tasks. Multigrade teaching requires careful *a priori* planning, management of multiple curricula and painstaking time management.

Although multigrade teaching is more difficult, these classrooms are usually led by teachers with the least experience or capacity. Rural and remote areas have the highest concentrations of contract teachers who lack basic training and are most ill-prepared to manage the multiple demands imposed by multigrade teaching. Moreover, school facilities usually lack essential materials and teaching aids to facilitate teaching.

In Lao PDR, slightly over one-quarter of classes are taught in multigrade settings. Interestingly, the proportion of multigrade classes has been steadily increasing since 2000/01, perhaps as a consequence of expanded enrollments under constrained physical and human resource environments.

Figure 21 . Multigrade Classrooms



Source: EMIS

Synopsis

1. **Most schools in Lao PDR offer less than the five grades required for a full primary education program, and most incomplete schools are in rural and remote villages.** Of the 8,573 schools in the country, only 44 percent are complete schools. Incomplete schools place local populations at a disadvantage for school access and educational attainment.
2. **Classroom conditions in Lao PDR schools are inadequate, and they are slightly worse in rural areas.** A majority of lower secondary school directors believe their schools are in need of total rebuilding or major repairs. Fewer than 15 percent of classrooms have electricity and less than one-third have bookshelves or wall maps. Classroom conditions are slightly worse in rural areas than in urban ones.
3. **There are few available reference and other books throughout the Lao PDR education system.** Textbook ownership is relatively high for primary Lao language, but low for other subjects. Most students in primary and lower secondary share their mathematics textbooks with two or more students. Up to 20 percent of primary students did not have any textbook at all. In lower secondary schools, close to 16 percent owned no textbook at all.
4. **Pupil-teacher ratios in primary level have remained stable at around 31:1**

for the past decade. In lower secondary, they have increased to 26.5:1 in 2004-05, up from 13:1 in 1994-95. In significant parts of the country, teachers face an undue burden with very large numbers of students under their care. Constraints in teacher supply—particularly in rural and remote areas—are an important factor in hampering a reduction in class size. Difficulties in attracting teachers to less than desirable posts also pose an important obstacle to the implementation of official regulations and aspirations on appropriate class sizes.

- 5. Close to 26 percent of classes in Lao PDR are taught in a multigrade setting.** This number is up from 2000/01, when only 18 percent of the classes were multigrade. Multigrade classes are most often found in rural areas. Multigrade instruction presents challenges for teachers who have not received proper training to deal with multiple ability settings or able to tailor their teaching to different grades.

Chapter 4.

Teacher Pay and the Education Sector Budget

Teacher salaries in Lao PDR are mainly determined by qualification, function performed (type of teacher and level) and years of experience. But contrary to the case of other countries, teacher incentives and supplements could potentially constitute—at least in theory—a significant portion of a teacher’s salary. Consequently, the salary scale is not the only source of information to estimate how much a teacher earns.

This section describes the structure and level of teacher salaries as well as recent trends in pay improvements. It also discusses incentives and supplements to teacher remuneration. Lastly, it explores education finance in Lao PDR and how salaries figure into current and estimated budgets.

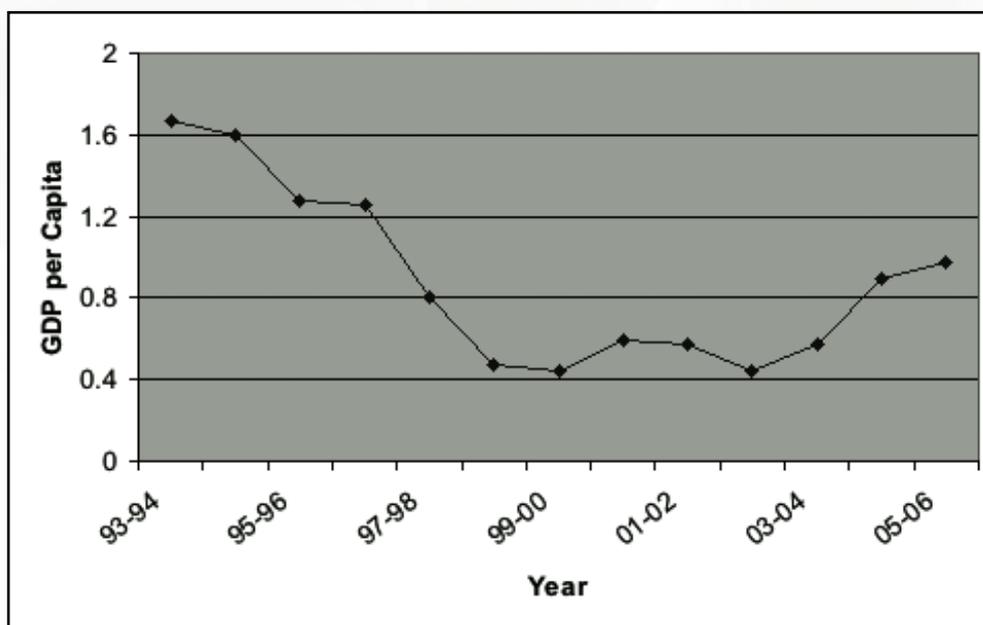
4.1 How Much are Teachers Paid?

Teacher salaries in Lao PDR are low, and since 1993/94 lost much of their value in real terms.¹⁴ Primary teachers earn around 390,000 Kip (US\$39) per month. Lower secondary teachers earn about 450,000 Kip (US\$45) per month. Around 85 percent of this salary corresponds to base pay and 15 percent to bonuses, supplements and family allowances.

In 2003, real primary teacher salaries represented about 40 percent of GDP per capita. In 2006, teacher salaries recovered to some extent from the loss in real terms experimented since the early 1990s to 97 percent of GDP per capita, up from 89 percent of GDP per capita the year before. As Figure 22 shows, teacher salaries as a proportion of GDP per capita showed weak progress after a steep decline in the mid to late 1990s, although in recent years they have started to experiment a cautious upward trend.

¹⁴ This was true not only of teachers, but of other public employees in Lao PDR such as those employed by the Health Sector (Gannicott, 2005).

Figure 22 . Primary Teacher Salaries as a Share of GDP per Capita, 1993-2006

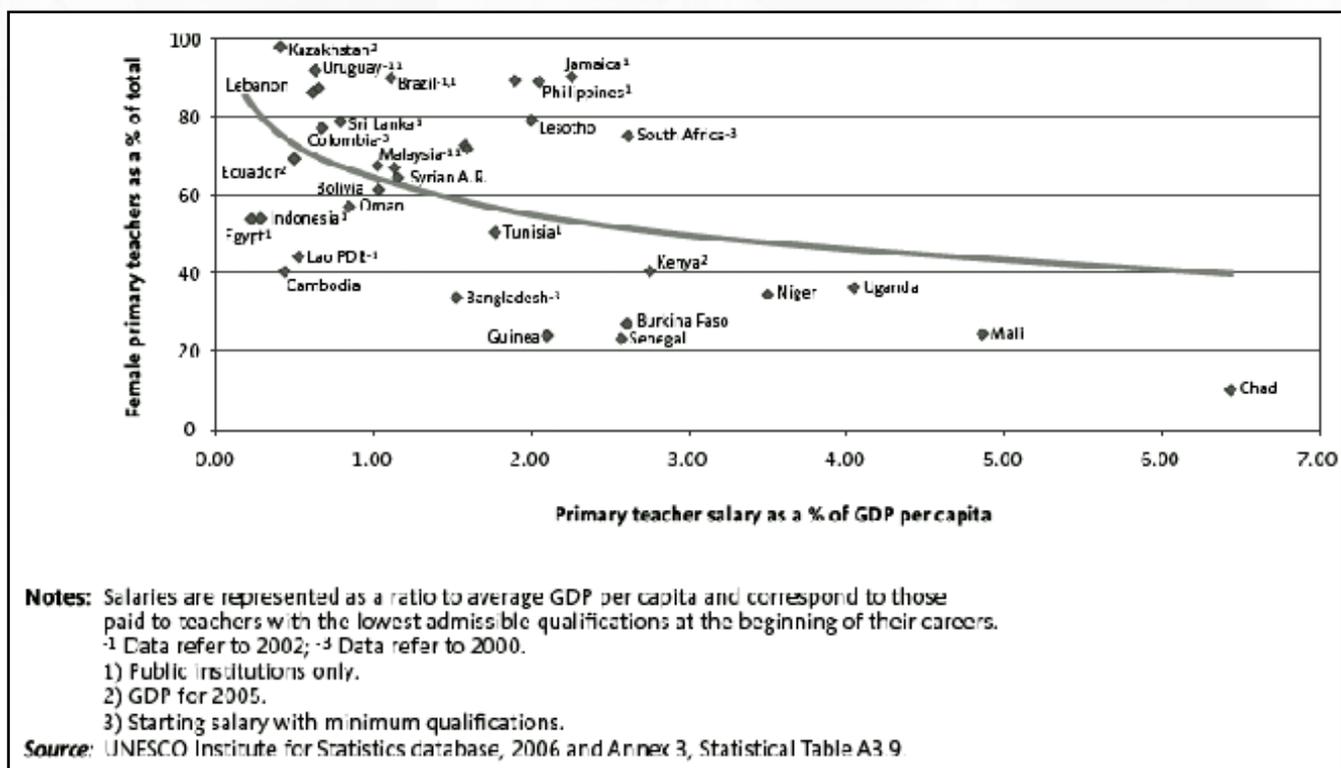


Source: Department of Finance, MoE

The Lao Poverty Assessment (World Bank, 2007b) established the 2003 poverty line at around US\$1.5 per capita per day. This means that primary school teacher earnings are roughly below the per capita poverty line, while lower secondary school teacher earnings are just about the per capita poverty line. In short, teachers who are sole income earners cannot sustain a family with children. They are likely to live in poverty if they were to rely only on their earnings from teaching, particularly in urban areas. Only 5 percent of teachers interviewed for the 2005 PETS study reported that their salary is sufficient to cover their living expenses. In short, Lao teachers do not earn a living wage.

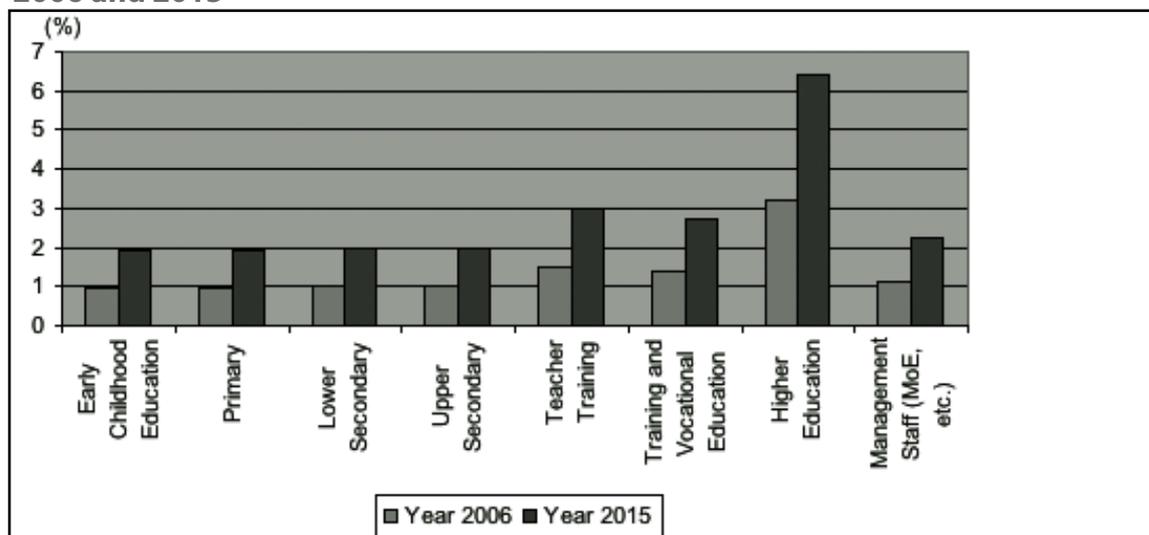
International comparisons corroborate that Lao teacher base salaries are well below the GDP per capita average, suggesting that in the Lao labor market and pricing structure teacher remuneration is small. In a survey of 61 countries, Lao primary teachers were ranked fourth from the bottom, at US\$1,072 international purchasing power parity dollars (UNESCO Institute for Statistics, 2006, p.194).

Figure 23 . Primary Teacher Base Salaries as a Share of GDP per Capita, 2003



Recognizing that there is a generalized perception amongst educators, administrators and society in general that teachers are poorly paid, MoE is planning to overhaul the teacher salary structure and build in significant pay increases in the next decade. It is projected that by 2015 primary and lower secondary teacher salaries would essentially double from one time of GDP per capita to two times (see Figure 24).

Figure 24 . Teacher Salaries by Educational Level as a Share of GDP per Capita, 2006 and 2015*



Source: MoE (2007)

*Estimates for 2015 are projections

Salaries do not vary much between urban and rural areas. Even though urban teachers have better qualification and thus receive higher base wages than teachers in rural areas, the difference is compensated by higher incentives and family allowances for remote areas, including multigrade teaching. Since the cost of living is lower in rural areas, in real terms, salaries are higher in villages than cities.

While salaries may have a somewhat greater purchasing power in remote areas, other aspects of the wage package are less appealing. First of all, while 70 percent of teachers get paid on a monthly basis in urban areas, just over 30 percent in rural areas do so. One in two teachers in rural areas, poor villages or non-Lao-Tai localities receive wages “irregularly.” About 8 percent of salaries are delayed every month in cities compared to 18 percent in villages. About 10 percent of salaries in rural areas are delayed by three months, in contrast to 5 percent in urban areas.

Compounding the problems of irregular pay, most (58 percent) teachers in lower secondary schools report having to pay “facilitation fees” to collect their pay. The average fee is 17,000 Kip (US\$1.20). Neither facilitation fees nor payment delays were reported in private schools.

In rural and remote areas, in addition to salary payments, teachers receive in-kind contributions from villagers or village authorities such as rice and housing. Without village support, teachers may have difficulty to survive due to long delays of salary payments.

How are teacher salaries determined?

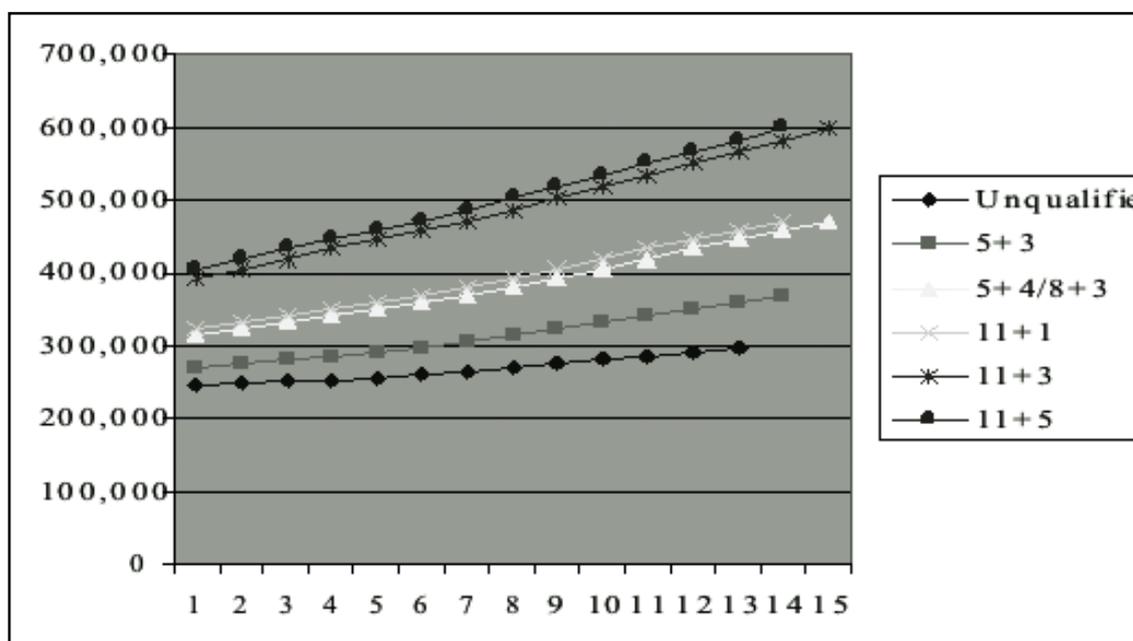
As noted earlier in this chapter, the standard form of employment is a civil service or “Quota” teacher position. Quota teachers receive their salaries based on the civil service salary scale comprised of a base salary to which various supplements are added. The civil service salary scale is a combination of grades and steps. There are five salary grades plus a special grade for vice-ministers and ministers. Each step represents two years of employment. The actual amounts paid under the basic scale are calculated as the product of an index base and an adjustable index value.

Table 16 . Teacher Salary Scale – Starting Grade and Step by Qualification

Level of Qualification	Starting Grade And Step
Primary Certificate	Grade 1, step 1
Lower Secondary Diploma	Grade 1, step 3
Upper Secondary Diploma	Grade 1, step 5
5+3	Grade 2, step 2
5+4	Grade 3, step 1
8+3	Grade 3, step 1
11+1	Grade 3, step 2
11+3	Grade 4, step 1
11+5	Grade 4, step 2

Source: Gannicott, 2005

The pay scale is tightly compressed and salary growth is slow. For example, a teacher who remains in the same grade and routinely climbs steps every two years would experience a 1.3 percent yearly increase in salary over her 30-year working life. Figure 25 charts expected salary progression of teachers of various qualifications. It shows that the salary of even the most qualified teachers (11+3 and 11+5) would increase fewer than 3 percent per year over a 15 year span.

Figure 25 . Salary Progression for Teachers

Source: Gannicott (2005)

Non-Quota teachers are not centrally regulated as Quota teacher salaries are. These teachers are paid directly by provinces according to their financial capacity. Consequently, there is a lack of accurate information on their salary level. Anecdotally, it is known that contract teachers' salaries are slightly lower than Quota salaries (around 95 percent), and that they exclude pension and other civil service rights.

4.2 Incentives

In addition to base salaries, supplements are built in for factors such as additional years of service, teaching in a remote/isolated/mountainous area or being married. Salary supplements can range from a few hundred Kip to 50 percent over the base salary per month. Table 17 describes various supplement categories and their value.

Table 17 . Types of Teacher Supplements

Type of Supplement	Monthly Amount
Management of pedagogical function	Varies with Function
Years of civil service employment	300 Kip per year of service
Teaching supplement	18,000
Remote & isolated area	15% of net salary
Remote & mountainous area	20% of net salary
Especially difficult area	25% of net salary
Teaching two-grade classes (multigrade)	25% of base salary
Teaching three-grade classes (multigrade)	50% of base salary
Married	15,000
Each child	19,000

Source: Gannicott (2005)

Actual supplements reported by teachers directly are lower than the official levels described above. According to the Lower Secondary School Survey, average supplemental salary amounted to 46,000 Kip, or about 10 percent of total pay. Some supplements are extremely low. For example, teaching an all day shift earns a lower secondary teacher a monthly supplement of 2,918 Kip. And even though according to Table 17, teachers in remote and mountain areas should be earning a 20 percent supplement over net salary, the

Lower Secondary School Survey suggests that teachers receive a supplement of only 4,151 Kip, representing 1 percent of the base salary (see Table 18). These findings suggest large discrepancies between supplement levels set by the Government and benefits actually paid to teachers.

Table 18 . Components of Teacher Salaries in Lower Secondary Schools

Variable	Whole Sample	By School Size:			School Type:	
		Small	Medium	Large	Public (Urban)	Private
Teacher Salary Components (1 USD = 10,000 Kip)						
Base salary	404,595	399,905	418,647**	395,537	413,589	533,188**
Remedial	33	0	83	0	147	0
Double shift	2,918	4,527	3,500	122	1,426	38,625
Multi-grade	676	1,736	269	0	470	15,625
Remote and mountainous areas	4,151	4,946	3,559	2,500	6,268	0
Good teacher award	4,690	8,632	3,166	4,000	2,941	73,937*
Other	34,396	29,295	48,338*	24,775*	29,490	142,687*
Total Teacher Salary	451,459	449,041	477,562	402,159	454,331	804,062
How often are you paid the full amount of your salary?						
Always	64.0	64.3	65.0	64.2	71.8	100.0
Usually	14.8	12.1	17.5	14.3	15.5	0.0
Seldom	11.4	12.1	7.5	19.1	9.9	0.0
Never	9.8	11.4	10	2.4	2.8	0.0
Do you pay a "facilitation fee"?						
If Yes, how much on average? (1 USD = 10,000 Kip)	58.1	78.0**	46.7	16.7**	26.4	6.3
Have there ever been delays?	11,028	14,136	6,250	1,714**	5,100	10,000
	83.3	86.2*	79.5	76.2	74.3	12.5**

Have you received in-service training incentives?	17.9	16.1	20.7	14.6	17.1	12.5
Do you tutor students privately?						
Yes with pay	14.0	9.0	15.6	33.3	29.2	68.8
Yes without pay	4.3	4.1	5.7	0.0	5.6	0.0
No	81.7	86.9	78.7	66.7	65.2	31.2
		p=0.02**		p=0.00**		p=0.01**
How much do you earn from other jobs besides teaching? (1 USD = 10,000 Kip)	150,694	154,348	152,566	113,947	156,867	18,750**

Source: Lao Secondary School Survey, 2006

Notes: School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. All variables are based on answers given by 309 teachers on teacher questionnaire. Teacher salary components are based on teacher responses, and are measured in Kip per month. How often are you paid the full amount of your salary refers to the percentage of teachers who chose each response. Do you pay a "facilitation fee" is the percentage of teachers who indicated Yes. The same is true for Have there ever been delays (with payments) and Have you received in-service training incentives. Do you tutor students privately refers to the percentage of teachers who chose each response. How much do you earn per month in non-teaching work does not include extra classes, and the averages are for all teachers and not just for the 60 percent who report non-teaching jobs. For comparisons of means t-tests are used with significance levels of 0.05(**) and 0.10 (*) for two tail test. For comparisons of percentages/ proportions a Chi-square is used to evaluate the entire distribution, p value presented for significance level of 0.05(**) and 0.10(*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.

Approximately one in five lower secondary teachers also report receiving incentives for in-service training, mainly in the form of per diems for attending training sessions.

When school directors were asked about incentives for good performance, 61.4 percent reported giving out such incentives. About 50 percent of principals reported that these incentives took the form of financial awards (a salary supplement or a monetary reward), especially in large schools and urban settings. But getting a "good teacher" award, implies a meager salary supplement equal to 4,690 Kip on average. Other common incentives included career advancement within the school/MoE or community recognition. In most cases, directors claim to use student achievement (internally evaluated) as the

most important criteria for appraising good performance and selecting teachers for a reward. Surprisingly, teacher performance assessments were notably less commonly used as criteria for rewarding staff (see Table 19).

Table 19 . Teacher Performance and Incentives (as Reported by Directors)

Variable	Whole Sample	By School Size			School Type	
		Small	Medium	Large	Public (Urban)	Private
Incentives for good performance are used	61.4	49.3**	70.5*	85.7**	69.4	100.0*
Types of incentives for good performance:						
Salary increase (beyond normal salary increase)	17.2	3.1**	24.3	31.3*	29.4	20.0
Special financial reward	49.6	31.3**	60.6	68.8	82.4	100.0
Career advancement (within school or MoE)	52.5	50.0	51.5	56.3	58.8	20.0
More responsibility	45.8	31.3**	45.7	75.0**	64.7	40.0
Community recognition	49.6	71.9	72.7	75.0	76.5	100.0
Most important criteria for evaluating good performance:						
Achievement of students	56.6	50.8	60.4	68.4	69.2	80.0
Teacher performance Assessments	31.1	30.2	33.3	26.3	23.1	0.0
Years of experience	4.7	7.9	2.1	0.0	3.9	0.0
Completing in-service training courses	2.9	4.8	2.1	0.0	0.0	20.0
Other	4.7	6.4	2.1	5.3	3.9	0.0

Source: Lao Secondary School Survey, 2006

Notes School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. Incentives for good performance is a Yes/No question and indicates the percentage/proportion of directors who indicated that Yes. Each of the categories under Types of incentives for good performance are Yes/No questions and indicate the percentage/proportion of directors who indicated Yes for each type of incentive. Categories for

*Most important criteria for evaluating good performance were not prompted. Directors provided up to three answers, of which only the first answer is recorded here. For comparisons of means t-tests are used with significance levels of 0.05(**) and 0.10 (*) for two tail test. For comparisons of percentages/proportions a Chi-square is used to evaluate the entire distribution, p value presented for significance level of 0.05(**) and 0.10(*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.*

In summary, teacher salaries in Lao PDR are low and the salary structure lacks a meaningful incentive structure. Salary supplements attempt to compensate for difficult working conditions and other factors, but are not sufficient to attract qualified teachers to rural and remote areas, as already indicated in the previous Chapter.

4.3 Additional Income

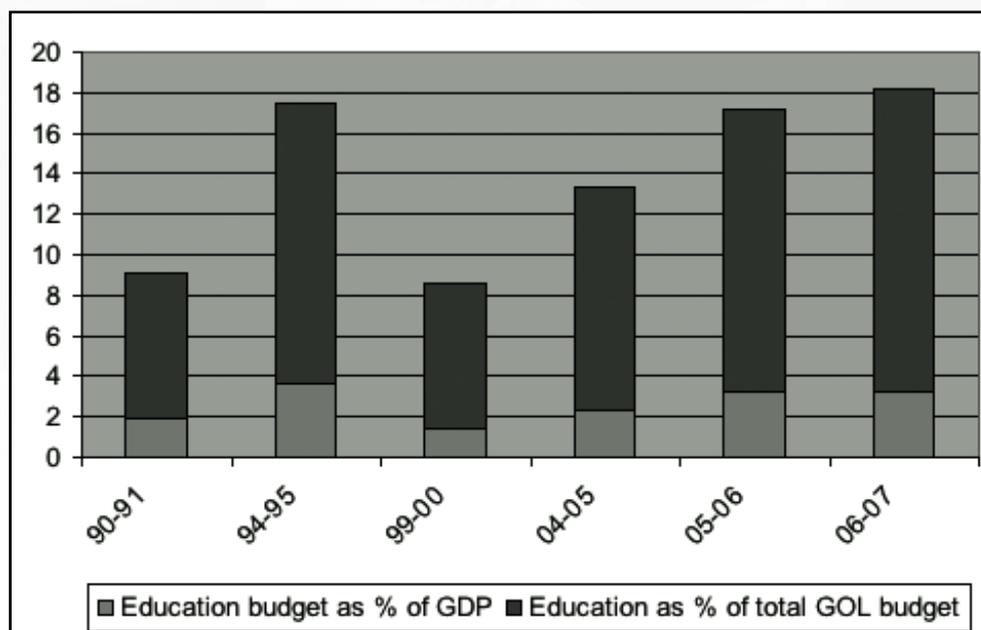
Given low teacher salary levels, delays in payment and the fact that most teachers report that wages are not sufficient to cover living expenses, it is not surprising that many teachers take on additional jobs to supplement their incomes. Most teachers with multiple jobs report they have to work two or more jobs to make ends meet. Although much of the extra work is in agriculture, most primary teachers reporting additional jobs are found in urban areas (World Bank, 2007b).

A small percentage of lower secondary school teachers (14 percent) reported offering private classes to students, although percentages were much higher in large schools and much lower in small schools. In private lower secondary schools, almost 70 percent of teachers report giving private classes for pay. Lower secondary school teachers report, on average, earning 150,694 Kip per month from other jobs besides teaching. This represents one-third of the total pay they receive from teaching.

4.4 Education Budgets and the Wage Bill

Public expenditures in education have increased since the Asian crisis of the late 1990s and now stand at 3.2 percent of GDP, as noted in Chapter 1.

Figure 26 . Lao PDR Public Expenditure on Education, 1990-2007 (%)

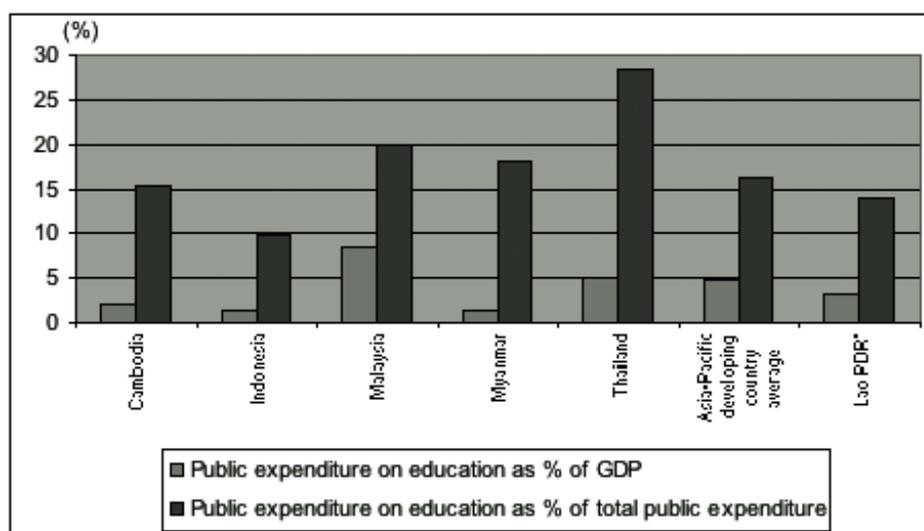


Source: MoE (2007)

Note: Estimates for 2006-07 are preliminary

Nonetheless, Lao PDR still spends less on education as a share of total public expenditure than other neighboring countries. The Asia-Pacific developing country average was greater than 16 percent of total public outlays, while public expenditures on education represented 4.7 percent of GDP.

Figure 27 . Public Expenditures on Education in selected Asian Countries (Percent)



Sources: MoE (2007a)

Note: Lao PDR data for 2005/06; all other countries 2001 as reported in UNESCO, 2005.

Recurrent vs. Capital Expenditures

The annual education budget in Lao PDR in 2005/06 was 1,033 Billion Kip or slightly over US\$100 million. Capital spending (infrastructure, school facilities, etc.) accounts for over two-thirds of the education budget, with recurrent spending (i.e. salaries, scholarships, textbooks and teaching materials, etc.) account for one-third. In other words, the budget is heavily biased towards capital expenditures.

Table 20 . Recurrent and Investment Budget, 2001-07 (in Billion Kip)

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07*
Education budget	386.1	451.9	457.5	658.1	1033.4	1189.9
Recurrent	184.7	185.8	246.6	304.7	383.1	430.5
Capital	201.5	266.1	210.9	353.4	650.3	759.4
Recurrent as % of education	47.8	41.1	53.9	46.3	37.1	36.2
Investment (capital) as % of education	52.2	58.9	46.1	53.7	62.9	63.8
% of capital domestically financed	40.8	23.9	18.1	7.8	8.2	4.4
% of capital foreign financed	59.2	76.1	81.9	92.2	91.8	95.6
Education budget as % of GDP	2.30	2.35	2.45	2.49	3.19	3.20
Recurrent as % of GDP	1.0	1.0	1.0	1.1	1.18	1.16
Capital as % of GDP	1.3	1.4	1.5	1.4	2.01	2.04
% of education budget foreign financed	30.9	44.8	37.8	49.5	57.8	61.0
Education budget as % total budget	10.1	10.8	10.8	11.0	14.0	15.0
Recurrent as % total public recurrent budget	10.0	10.4	8.7	8.7	10.2	9.4
Capital as % total public capital budget	10.2	11.0	12.6	14.2	17.8	22.6

Source: MoE (2007)

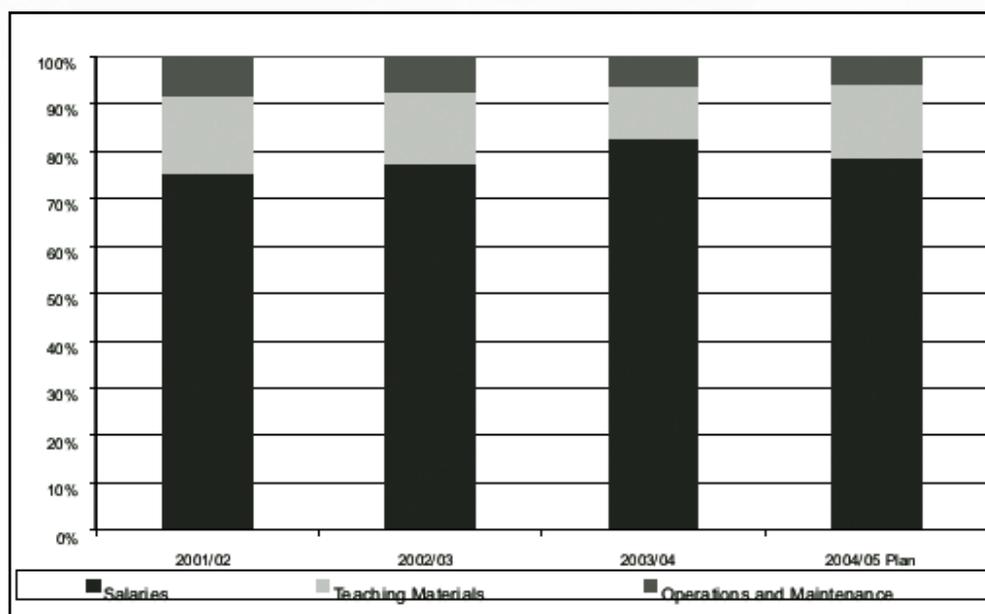
*Preliminary

When deciding about how best to allocate resources between recurrent and capital investments, and within recurrent budgets to teacher salaries and other expenses, Lao PDR policymakers are faced with a difficult choice. On the one hand, the share allocated to teachers' salaries in recurrent expenditures has increased since the Asian Financial Crisis in the late 1990s and has returned to its early 1990s levels. Teacher salaries now take up about four-fifths of the recurrent budget. Yet, teacher salaries in Lao PDR remain low.

On the other hand, the fact that the majority of the recurrent budget goes to salaries means that there are few financial resources left for school operating expenses,

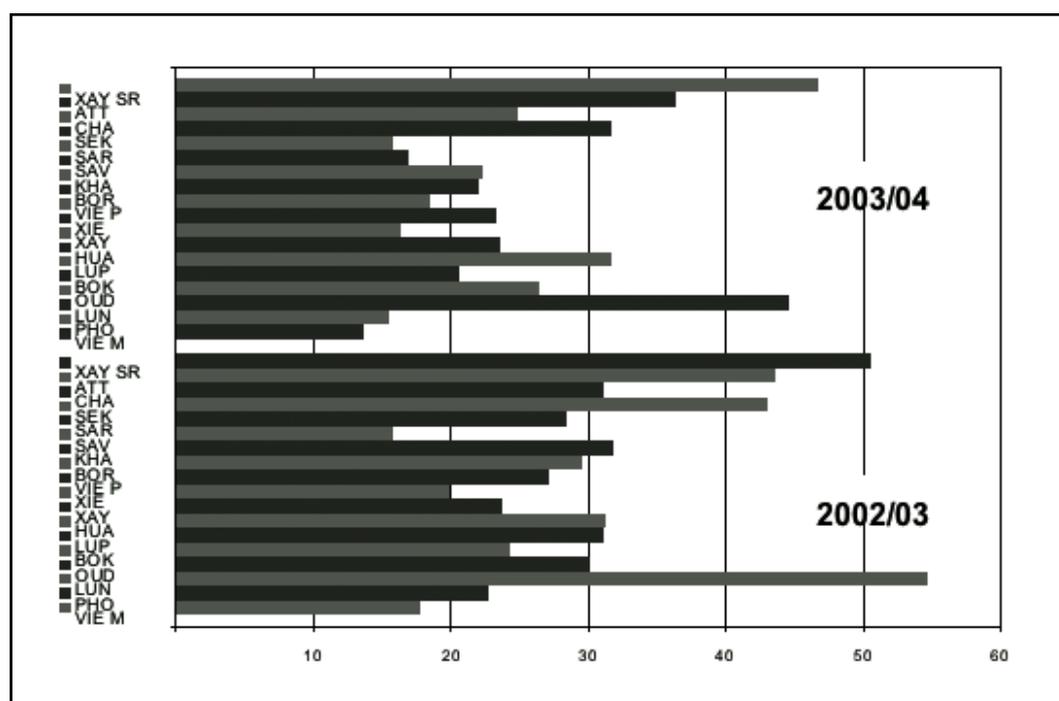
investments in teaching materials, textbooks, etc. While there is remarkable variation in the allocation of recurrent budgets across provinces, 16 provinces spent in 2003/04 less than the internationally recommended 33 percent on non-wage costs (World Bank, 2007b). As Figure 28 and Figure 29 show, the slight rise in the salary share of the recurrent budget has come at the expense of operational expenditures.

Figure 28 . Composition of Recurrent Expenditures in Education (Percent), 2001-05



Source: World Bank, 2007b

Figure 29 . Non-Wage Education Spending by Province as a Percentage of Recurrent Education Spending, 2002-3 and 2003-4



Source: World Bank, 2007b

The composition of recurrent expenditures had shifted towards salaries to the detriment of textbooks, teaching materials and operational expenses until 2003/04. At present, Lao PDR may appear to have a gradual correction away from increasing salaries to greater spending on textbooks and materials, while we observe a slower decline in the share going to operational expenses.

Table 21 . Composition of Recurrent Expenditure 1995–2005

	1995/96	1999/00	2001/02	2002/03	2003/04	2004/05 (planned)
Salaries	82.2	67.4	75.4	77.5	82.9	78.4
Textbooks/ teaching materials*	N.A	N.A	16.3	15.0	10.9	15.9
Operations and maintenance	N.A	N.A	8.3	7.4	6.2	5.7

Source: World Bank (2007a)

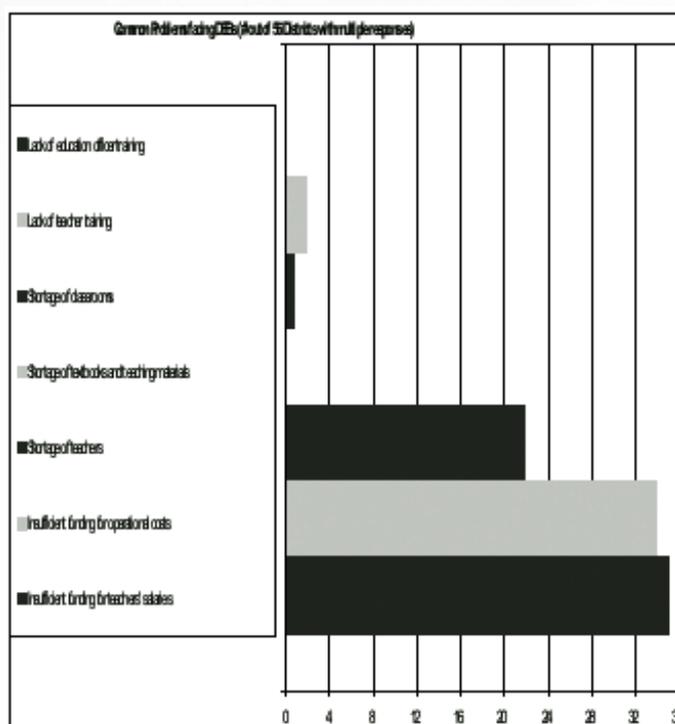
*Includes student subsidies and scholarships.

There is no doubt that a commitment to improved education outcomes needs more attractive salaries for teachers. Nevertheless, it is important to accompany any salary increase with a broader teacher management policy that covers recruitment and skills upgrading, as well as mechanisms for strengthening teacher performance and accountability over educational results (as it will be discussed in Chapter 5). Moreover, it is important to continue to devote sufficient resources to operations and maintenance as well as textbooks and materials, since most Lao PDR schools are in need of substantial repairs and the level of the most basic resources and materials throughout the system is quite low.

Further fiscal pressure will arise from sustained capital investments. It appears that in recent years, the pendulum has swung towards outlays in infrastructure. Moreover, 90 percent of capital spending has been financed through foreign aid. If these investments in new schools are not matched with substantial increases in the recurrent budget, there will be a dire shortage of funds to finance needed teachers and textbooks or carry out essential maintenance.

The dire situation faced by district officers and the difficult trade-offs they face in school management were aptly captured by the PETS survey. The most common problems cited by District Education Bureaus (DEBs) were (a) insufficient funding for teacher salaries, (b) insufficient funding for operational costs and (c) a shortage of teachers.

Figure 30 . Common Problems Facing DEBs



Source: World Bank (2007b)

The bottom line is that within the existing budget, increases in salaries and greater school-level investments are equally urgent, but they will not be feasible without a strong commitment from the Government towards a concomitant expansion of the existing recurrent budget. As the economy grows and treasury revenues expand, enlarging the share of the recurrent budget should be plausible and must remain high in the Government's agenda for educational development and civil service reform.

Synopsis

- 1. Teacher salaries in Lao PDR are low.** Primary teachers earn US\$39 per month, and lower secondary teachers earn US\$45. This includes various supplements representing 10-15 percent of the total pay.
- 2. Primary and lower secondary teacher salaries are 0.965 and 0.998 times of GDP per capita, respectively.** These levels are far below Asian averages of 2.5 times

GDP per capita. Even though salaries have increased in recent years, they continue to be well below international standards.

3. **There is little salary variation between rural and urban areas.** Because the cost of living in rural areas is lower, this means salaries are higher in relative terms for rural teachers. **Rural teachers, however, experience many more delays in payment than urban teachers.** Eighteen percent of rural teachers (compared to 8 percent in urban areas) experience a delay every month. Ten percent of rural teachers (compared to 5 percent in urban areas) experience delays of up to three months.
4. **The salary schedule is tightly compressed and growth is slow.** Teachers enter the civil service salary scale according to their educational qualifications. After placed on an initial grade and step, they move up a step automatically every two years. A teacher who remains in the same grade and routinely climbs steps every two years can expect a 1.3 percent yearly salary growth for an entire 30 year career.
5. **The level of salary supplements is very low and probably not likely to motivate teachers to work in remote areas or in more difficult settings.** Even though officially supplements for multigrade teaching amount to 25-50 percent of base salary, and supplements for teaching in a remote, isolated, or mountainous area should consist of 15-20 percent of base salary, the survey of lower secondary teachers suggests actual supplements are much lower (totaling about 10 percent of total pay). Teachers in remote areas reported receiving a monthly supplement equal to 4,151 Kip (less than US\$0.50), or 1 percent of total pay. And those teaching multigrade in small schools reported average supplements of 1,736, or less than US\$0.20.
6. **Less than one-third of the total income of lower secondary teachers is obtained through work in other activities.** Agricultural work is most frequent although a small proportion of lower secondary teachers (14 percent) admit tutoring students for pay.
7. **Teacher salaries take up the largest share of the education recurrent budget. And in recent years, increases in the proportion allocated to salaries have come at the expense of operational and textbook/materials.** In 2004/05 close to 83 percent of the education recurrent budget corresponded to the wage bill. Sixteen percent was spent on textbooks/materials and only 6 percent on operational expenses.
8. **Increases in salaries should be accompanied by improvements in teacher performance and accountability.** A commitment to improved education outcomes needs more attractive salaries for teachers. But caution should be taken to accompany these increases with increased professional standards for teachers, skills upgrading and accountability.
9. **Ninety percent of capital investments are financed by foreign donors.** The GoL, however, has not matched increases in foreign aid with concomitant increases in the recurrent budgets. If these investments in new schools are not matched with substantial increases in the recurrent budget, there will be a dire shortage of funds to finance needed teachers and textbooks or carry out essential maintenance.
10. **Within the existing budget, increases in salaries and greater school-level**

investments are equally urgent, but they will not be feasible without a strong commitment from the Government towards expanding the recurrent budget. As the economy grows and treasury revenues expand, enlarging the share of the recurrent budget should be plausible and must remain high in the Government's agenda for educational development and civil service reform

Chapter 5.

Teacher Performance

How teachers are recruited, paid and the working conditions under which they teach are important determinants of the type of teacher that stands before a group of students. All of these, however, are instruments whose ultimate intent is to improve student learning and educational quality. Chapter 1 describes some poor internal efficiency indicators of Lao PDR schools such as low completion rates and high dropout and repetition rates. While it is not possible to attribute all of these to teachers and their practices, it is useful to describe some dimensions of teacher performance to gain a better understanding of teachers' work and their ultimate effect on students.

This Chapter looks at three different dimensions of teacher performance, beginning with teaching practices, followed by teacher attendance and concluding with a review of student assessment outcomes.

5.1 Teaching Practices

The Grade 5 Assessment study collected a wealth of information about various aspects of teaching practice such as time devoted to work, instructional style and frequency meeting parents. On average, Grade 5 students are taught by a teacher who works 36 hours a week. There was no statistically significant difference in teaching load between urban and rural areas. In general, teachers in Lao PDR work significantly more hours than teachers in OECD countries, who teach between 15 and 26 hours a week (NRIES, 2007). In addition to hours spent teaching in school, primary teachers prepare lessons and mark homework at home for an average of 7 hours per week. Teachers also spend an additional amount of time meeting parents. Parent-teacher meetings took place four times a year on average.

A mere 0.6 percent of teachers reported being observed by other teachers in the month prior to the survey. This suggests that peer mentoring is not a practice common

in Lao PDR. On the other hand, slightly over 60 percent said they were observed by their principal once every term.

With respect to styles of instruction, a large proportion of Lao language teachers perceived recitation, memorization, and individual tasks to be very important activities in the classroom. Nearly 70 percent said developing thinking skills was very important, as was developing basic reading skills (see Table 22 and Table 23).

Table 22 . Pupils with Teachers Rating Different Activities as Very Important in Lao Language (Percent)

Activities	Rating very important	
	%	Standard Error
Working in pair or group to discuss	19.4	2.0
Individual study	60.7	2.5
Preparing visual materials to be shown in class	30.2	2.6
Use visual aids	35.0	2.6
Homework assignments	45.5	2.6
Do exercises	38.0	2.7
Studying and explaining words	48.9	2.7
Learning by heart, reciting tables	49.6	2.7
Quizzes, tests, exams, etc.	12.1	1.7

Source: NRIES (2007)

Table 23 . Teacher Goals in Lao Language (Percent)

Goals	Rating very important	
	%	Standard Error
Basic reading skills	69.3	2.3
Writing story	49.1	2.5
Thinking skills (answering questions)	70.3	2.3
Confidence in using language correctly	58.9	2.5
Enjoy doing exercise	28.6	2.3
Sound condition for gaining knowledge	54.7	2.5
Improving skills	67.6	2.4

Source: NRIES (2007)

As Table 24 suggests, most teachers in Grade 5 Lao language classes use whole class teaching, teaching in small groups, and teaching through question and answer techniques. The vast majority try to relate their teaching to everyday life situations and emphasize basic skills training.

Table 24 . Pupils with Lao Language Teachers that Use Approaches Often (Percent)

Approaches	Pupils with teachers who used the approach 'often'	
	%	Standard Error
Use actual story in daily life	94.6	1.1
Whole class teaching	96.4	0.9
Teaching in small group	93.4	1.3
Teaching individually	61.8	2.5
Teaching through question and answer techniques	98.1	0.7
Relating to everyday life situations	95.3	1.1
Basic skills training	98.4	0.6
Explaining processes in writing story	97.3	0.8
Using available local materials	90.3	1.5

Source: NRIES (2007)

In Mathematics, the situation is somewhat different, with most primary teachers reporting that they consider working in groups (as opposed to individual study) very important as well as administering exercises and exams. Only slightly more than half of primary mathematics teachers consider developing thinking skills as a very important goal. For most, a salient objective is building a foundation for future mathematics and teaching how to solve problems (see Table 25 and Table 26).

Table 25 . Pupils with Teachers Rating Different Activities as Very Important in Mathematics (Percent)

Activities	Rating very important	
	%	Standard Error
Working in pairs or group to solve mathematics problems	77.7	2.1
Working alone on problems	28.3	2.2
Preparing visual materials to be shown in class	65.6	2.4
Use visual aids.	62.5	2.5

Homework assignments	51.8	2.5
Do exercises	60.3	2.5
Studying and explaining words	48.5	2.5
Question and answer game	47.0	2.5
Quizzes, tests, exams, etc.	86.7	

Source: NRIES (2007)

Table 26 . Teacher Goals in Mathematics (Percent)

Goals	very important	
	%	Standard Error
Basic numeracy skills	48.7	2.5
Problem solving (transfer of skills to everyday life)	67.4	2.4
Thinking skills (different ways of solving problems)	51.5	2.5
Confidence in solving mathematics problem	59.2	2.5
Satisfaction from doing mathematics	32.6	2.4
Building up foundation for future learning of mathematics	78.4	2.1
Improving skills	68.1	2.4

Source: NRIES (2007)

Similar to the case of Lao language teachers, most Grade 5 mathematics teachers used whole class teaching, taught through questions and answers and emphasized basic skills training.

Table 27 . Pupils with Mathematics Teachers that Use Approaches Often (Percent)

Approaches	Pupils with teachers who used the approach 'often'	
	%	Standard Error
Using oral and written exercises	81.8	1.9
Teaching the whole class as a group	77.8	2.1
Teaching in small group	31.2	2.4
Teaching individually	12.7	1.6
Teaching through question and answer techniques	79.2	2.1
Problem solving relating to everyday life	49.9	2.5
Basic skills training	68.3	2.3
Explaining mathematics processes	79.1	2.1
Using available local materials	40.2	2.6

Source: NRIES (2007)

Our survey of lower secondary schools provides rich information on school management and teaching methodologies in Lao PDR. In addition to teacher and director self-reports, observational data about teacher approaches to instruction in the classroom was gathered.

Most teachers (77 percent) reported having regular technical meetings structured around teaching methodologies and proposals for learning improvement. Lesson plans were found in 70.6 percent of the observed lower secondary classrooms. Almost one quarter of teachers, however, did not have a lesson plan (see Table 28).

Table 28 . Lesson plans in Lower Secondary Schools

Variable	Whole Sample	By School Size			School Type	
		Small	Medium	Large	Public (Urban)	Private
For the observed lesson, does the teacher have a lesson plan?						
No, there is no lesson plan	24.5	24.8	22.1	28.6	23.6	12.5
Yes, and it is available	70.6	71.7	72.1	64.3	70.8	87.5
Yes, but it is not available	4.9	3.5	5.7	7.1	5.6	0.0

Source: Lao Secondary School Survey, 2006

Notes: School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. This information was collected by enumerators during classroom visits in each school. All numbers refer to the percentage of teachers who chose each response. For comparisons of percentages/proportions a Chi-square is used to evaluate the entire distribution, *p* value presented for significance level of 0.05(**) and 0.10(*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.

About half of all teachers mentioned having informal conversations with other teachers about teaching processes on a weekly or even daily basis. Teachers, however, do not frequently observe each other's teaching. Forty-eight percent of lower secondary instructors reported visiting another classroom, but only 9 percent reported doing so on a regular basis. Even though most lower secondary schools had a formal system for visiting classrooms, very few teachers participate.

School directors appear to be more frequent observers of teachers' practice. More than half of teachers reported having their classes observed by their school director on a monthly basis. Moreover, a majority of teachers (77.4 percent) reported these observation (and the feedback received) to be "very helpful." Few teachers reported visits by MoE, PES, DEB or inspectors. Almost one third of lower secondary teachers said they had had no visits to their classrooms from any of these during the school year.

With respect to time use, secondary school students were in school a total of 375 minutes per day on average. Of these, 50 minutes were spent on breaks. Teacher spent between 76 and 86 minutes on Lao and Mathematics classes, respectively. In both cases, actual observed time was slightly lower (6 minutes on average) than the official schedule dictates.

Instruction (teacher copying the lesson on the blackboard, giving some examples), student work activities (students copying the lesson from the blackboard, doing individual work), and recitation were the three most common classroom activities observed in lower secondary schools (see Table 29). On average, students were assigned homework 3 times per week.

Few students appeared to be engaged or "on task" when working individually. Interestingly, the survey found few significant differences between public and private lower secondary schools with respect to classroom instructional processes.

Table 29 . Classroom Work Routines

Variable	Whole Sample	By School Size			School Type	
		Small	Medium	Large	Public (Urban)	Private
Do students work in groups?	32.6	38.6**	27.9	28.6	26.4	56.3**
If Yes, did each student in the group have a specific task?	55.9	58.9	52.9	58.3	73.7	88.9
Do students work individually?	66.3	61.4*	70.5	71.4	69.4	68.8
Are students engaged when working individually?						
Yes, most or all are engaged	35.6	31.5	39.5	36.7	42.0	36.4
No, few are engaged	64.4	68.5	60.5	63.3	58.0	63.6
Did the teacher monitor student work throughout the lesson?						
Yes	90.1	90.3	89.3	92.9	88.9	100.0**
No	9.9	9.7	10.7	7.1	11.1	0.0
How frequently did the teacher..						
Give praise or encouragement						
Never	24.9	25.5	23.8	26.2	25.0	25.0
Once	18.7	19.3	16.4	21.4	20.8	6.3
More than once	56.4	55.2	59.8	52.4	54.2	68.7
Scold students						
Never	73.8	79.3	72.1	57.1	61.1	50.0
Once	14.2	8.3	18.9	21.4	20.8	18.8
More than once	12.0	12.4	9.0	21.4	18.1	31.2
		p=0.02**	p=0.09*	p=0.03**		
Ask students to give opinion						
Never	13.3	13.1	12.3	16.7	16.7	12.5
Once	6.4	6.9	5.7	7.1	9.7	12.5
More than once	80.3	80.0	82.0	76.2	73.6	75.0
Use student names						
Always	18.3	17.9	18.0	21.4	20.8	25.0
Usually	35.1	36.6	35.2	28.6	30.6	25.0
Rarely	29.2	33.8	23.8	31.0	29.2	43.8

Never	17.3	11.7	23.0	19.0	19.4	6.2
p=0.08*						
Stop because of disruption						
Never	93.1	96.5	92.6	80.9	84.7	81.2
Once	4.8	2.1	4.1	16.7	12.5	6.3
More than once	2.1	1.4	3.3	2.4	2.8	12.5
P=0.06*				p=0.00**		
Blackboard used by ...						
Only teachers	57.6	60.0	55.4	54.8	53.5	50.0
Students and teachers	42.4	40.0	44.6	45.2	46.5	50.0
Teacher copied lesson on the board from the textbook						
Yes	86.6	89.0	84.3	85.7	87.3	93.8
No	13.4	11.0	15.7	14.3	12.7	6.2
Teachers wrote questions on the board for students to copy						
Never	19.1	19.3	17.4	23.8	21.1	25.0
Once	8.9	6.2	13.2	7.1	12.7	18.7
More than once	72.0	74.5	69.4	69.1	66.2	56.3

Source: Lao Secondary School Survey, 2006

Notes: School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. This information was collected by enumerators during classroom visits in each school. Do students work in group/individually, Do the teacher monitor student work, and Teacher copied lesson on the board are Yes/No questions completed by enumerators. Feedback given to students during the lesson and Use of blackboard are based on observations using a checklist for categories. For comparisons of means t-tests are used with significance levels of 0.05(**) and 0.10 (*) for two tail test. For comparisons of percentages/proportions a Chi-square is used to evaluate the entire distribution, p value presented for significance level of 0.05(**) and 0.10(*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.

The typical Lao classroom appears to be strongly structured through lesson planning and instructional time is well prioritized. In principle, teachers place great emphasis on developing thinking skills and problem solving. On the other hand, actual observed classroom behavior suggests that the primary method of instruction in Lao PDR schools is frontal lecturing, copying lessons on the blackboard and encouraging recitation and memorization. Group activities are seldom and teachers tend to dominate the time-on-task through lecturing or asking questions. Students are mostly passive recipients of instruction, while there is some opportunity for copying exercises there is comparatively little time devoted to practical exercises or application of knowledge.

Moreover, independent observers report that approximately *two-thirds* of students are “not engaged” when individual work is assigned. This is a very large share of the class, providing further evidence of a less than dynamic learning environment within the classroom. Efforts could be channeled into modernizing the pre-service and in-service teacher training curricula to better equip teachers with child-centered teaching and learning methodologies.

Overall, lower secondary teachers appear to be under frequent oversight from school directors, but there is little accountability to MoE inspectors outside the school. Direct contact with district or provincial authorities is at best minimal. School inspections and teacher reviews could play a supportive role in enhancing teacher performance. Existing peer networks and technical group meetings may be enhanced to promote sharing lessons from experience that could help break the isolation felt in rural contexts and place a stronger emphasis on pedagogical reflective practice to improve student results.

5.2 Teacher Attendance

Teacher attendance is an important measure of teacher performance. It is difficult to imagine much learning taking place inside a classroom when the teacher is absent.

Lower secondary schools reported being closed an average of 14.5 days per year. Most of these were due to official holidays. This fact was corroborated when a random sample of schools were visited by surprise. Visitors found the vast majority of these schools to be open on the day of the visit.

Teacher attendance was measured under our survey by surprise classrooms visits of up to 20 randomly selected teachers per school. The number of teachers was a function of school size. Care was taken to visit teachers who were expected to be working at the time of the visit. When the teacher was not present the reason for their absence was noted as well as the presence of a substitute teacher (if applicable). Self-reported data on absences was also used as official data on school closings.

Overall, teacher absenteeism is not a major problem in Lao PDR lower secondary schools. On the day of the surprise visits, 92 percent of teachers were found in attendance. Table 30 shows that most teachers (59 percent) in Lao PDR reported being absent between 11 and 30 days of the year. Thirty-eight percent of teachers reported fewer than 10 days of absences. A similar survey conducted in Cambodia in 2006 showed that teacher absenteeism in lower secondary school was 16 percent. Chaudhury *et al.* (2006) also provide evidence from primary schools in six developing countries. Teacher absenteeism ranged from 12 percent in Peru to 25 percent in India.

Table 30 . Absenteeism: Definitions and Whole Sample Averages

Variable Name	Definition	Sample Average
Teacher Absences	Self reported absences by teacher	
Zero Days	(Frequencies)	0.38
1-10 Days		
11-30 Days		0.59
More than 30 days		0.06
Teacher Attendance	Percentage of teachers in attendance on day of school visits	0.92 (0.16)
Student Attendance	Percentage of students in attendance on day of school visits	0.86 (0.17)
School Closings	Self reported total number of days school has been closed during 2005/06 school year	14.2 (5.2)

Source: Lao Secondary School Survey, 2006

When asked about the motives for teachers being absent on the day of the visit, most school principals responded that there were “other” reasons for leaving (48.9 percent) or had received authorized leave (20.4 percent). In 73.3 percent of the schools a substitute teacher was in place (see Table 31). There were no major differences across school types in the likelihood of having a substitute teacher.

Table 31 . Teacher Absences

Variable	Whole Sample	By School Size			School Type	
		Small	Medium	Large	Public (Urban)	Private
Absent on day of visit	7.3	6.7	7.7	7.1	7.4	4.4
<i>Reason for absence:</i>						

Official teaching related duty (training, etc.)	6.9	14.3	3.1	7.1	6.1	50.0
Official non-teaching duty (elections, etc.)	5.7	2.4	10.8	0.0	5.3	25.0
Expected later/left early	3.9	9.5	1.5	0.0	3.8	0.0
Sick	13.9	19.1	10.8	14.3	14.5	0.0
Authorized leave	20.4	23.8	23.1	7.1	19.9	25.0
Other	48.9	31.0	50.8	71.3	50.4	0.0
		p=0.01**	p=0.04**	p=0.08*		p=0.01**
Substitute for absent Teachers	73.3	66.7	75.4	78.6	73.2	75.0

Source: Lao Secondary School Survey, 2006

Notes: School categories by size are based on total enrollment. The sizes refer to Small (0-200), Medium (201-500) and Large (501 and greater). The public and private comparisons are only for urban schools. Whole sample averages are computed using sample weights to account for over-sampling of private schools. Absent on day of visit is the percentage/proportion of teachers who were absent on the day enumerators visited the school, excluding those who were not at the school because the shift they teach was not in session. Reason for absence is measured in proportions/percentages by category. Substitute for absent teachers measures the percentage/proportion of absent teachers that were replaced by substitute teachers on the day of their absence. Data based on official record books (77 percent), a combination of official record books and the memory of the staff member answering the questions (19 percent), or only from the memory of staff members (4 percent). For comparisons of means t-tests are used with significance levels of 0.05(**) and 0.10 (*) for two tail test. For comparisons of percentages/proportions a Chi-square is used to evaluate the entire distribution, p value presented for significance levels at 0.05(**) and 0.10(*). For private-public urban comparison the significance value refers to the difference between the two categories versus each other.

A multivariate analysis was performed to try to uncover the determinants of teacher absences and its effects on student absences (see Annex 5.1). A very sizeable (negative) effect on teacher absences was associated with private schools. Teachers in private establishments were a lot less likely than teachers in public schools to be absent. The frequency of inspector visits was also negatively related to teacher absences, suggesting that the external accountability regime can make a difference in instilling greater discipline. Lastly, the analysis showed that student attendance was significantly lower when teachers were more frequently absent.

Teacher absences were also related to the types of teaching contract and schools served. Contract teachers were less likely to be absent than Quota teachers, while teachers in multigrade classrooms were also found to be absent less often. Variables such as age, commuting distance to the school and teacher salary were not found to be related to

teacher absenteeism (defined as being absent more than 18 percent of the working days in a year). These findings may indicate that rural and remote teachers in small schools, where multigrade and contract teachers are more common, are less inclined to miss school. This may be a function of greater commitment of teachers to their communities or greater scrutiny from education administrators and community members.

5.3 Student Assessment Outcomes

The Grade 5 Assessment survey tested a representative sample of schools in Lao language, mathematics and a subject area called “the “World Around Us”” which includes topics in the natural and social sciences. All test items were based on the Lao PDR Grade 5 curriculum. This section presents some of the results from this study in an effort to explore student outcomes and discuss what role teachers might have had in these results.

The majority (78.5 percent) of Grade 5 students in Lao PDR operate at a basic Lao language literacy competency level (Levels 3 and 4 explained in Table 32). In other words, students have mastered “functional skills,” as suggested by international benchmarks (NRIES, 2007).

Table 32 . Percentages of Pupils Reaching the Different Skill Levels in Lao language

	Lao language Skill Levels	Percent	Standard Error
Level 1	Pupils at this level can write simple personal details and communicate simple information.	0.5	0.2
Level 2	Pupils at this level can fill majority of details in the form, recognize and transcribe correct spelling of the simple words. Appropriately address teachers.	4.0	0.4
Level 3	Pupils have basic listening and comprehension skills and are able to put a polite request to a peer. Pupils are able to recognize correct spelling and transcribe more complex words. Pupils are able to locate some of the written information in the written text.	47.7	1.2

Level 4	Pupils at this level can locate majority of information from the written text. Some familiarity with literal text. Ability to classify nouns and adjectives. Good spelling skills.	30.8	0.9
Level 5	Pupils at this level can read and make simple inference from complex text. Familiarity with literal text. Good listening skills, able to summarize from the spoken passage. Recognition of key grammar elements.	11.2	0.6
Level 6	Pupils at this level have good reading comprehension skills and are able to draw on multiple pieces of information from the text. Able to analyze and interpret literal text. Good command of common grammatical elements.	5.8	0.7

Source: NRIES(2007)

With respect to mathematics skills, fifth graders tended to perform poorly – at Level 2 (49.1 percent), followed by Level 3 (19.7 percent), and Level 1 (16.3 percent) (see Table 33). These results suggest low levels of mathematics proficiency. The competency level of the majority of students could be described as having “pre-functional skills.” That is, most students have not reached the level considered to be essential for functional purposes in Lao society.

Table 33 . Percentages of Pupils Reaching the Different Skill Levels in Mathematics

	Mathematics Skill Levels	Percent	Standard Error
Level 1	May recognize and classify basic shapes. Not enough information from which to draw further conclusions.	16.3	1.0
Level 2	Familiarity with numbers described in word and numeric form. Understanding of place value for whole numbers. Emerging ability to perform single-step arithmetic operations including addition, subtraction, multiplication and division. Recognizes fractions in both numeric and visual representations. Some concept of symmetry emerging.	49.1	1.1
Level 3	Emergence of arithmetic applied to problem solving. Multiple-step arithmetic operations. Understanding place value for decimals. May read a value from a simple bar graph. Familiarity with inequalities and ability to order decimal numbers by magnitude. Developing understanding of proportional fractions. Basic conversion of linear units such as length, weight and time.	19.7	0.8

Level 4	Developing the ability to solve word problems requiring a fraction or percentage operation. Developing more sophisticated arithmetic including BODMAS, long division and multiplication with decimals. Conversion between various units of weight, time and volume. Deals with elementary spatial problems involving 2-dimensional displacement.	10.3	0.7
Level 5	Beginning to combine and summarize multiple pieces of information from charts. Developing an understanding of spatial concepts such as rotation and reflection. Conversion of units for weight, time, area and volume.	3.6	0.5
Level 6	Use of rules and symmetry to solve geometric measurement problems. Strong command of unit conversion for everyday measures. Capacity to solve word problems using a range of appropriate arithmetic operations.	1.0	0.2

Source: NRIES (2007)

Lastly, in the World Around Us test, the majority of students exhibited moderate to high levels of skills. Thirty-six percent of students placed at Level 5, followed by 19.2 percent at Level 4 and 22.8 percent at Level 3. In this case, students would be considered to have reached either a functional or an independent learning competency level with respect to the natural and social science skills included in this subject.

Table 34 . Percentages of Pupils Reaching the Different Skill Levels in World Around Us

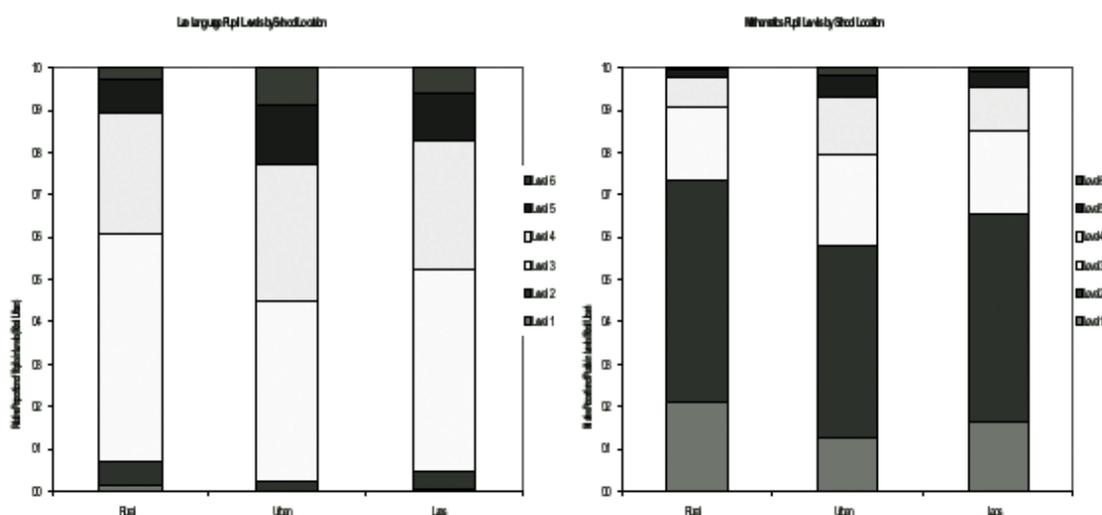
The World Around Us Skill Levels		Percent	Standard Error
Level 1	Emerging familiarity with basic socially appropriate behaviors. Some understanding of the notion of classifying as applied to animal types for example.	5.0	0.5
Level 2	Familiarity with basic socially appropriate behaviors. Developing knowledge of elementary living and agricultural systems. Awareness of key national traditions and leaders in Laos.	10.9	0.7
Level 3	Understands socially appropriate behaviors. Emerging knowledge of local climate, geography and history. Awareness of a variety of living and reproductive systems. Developing awareness of health issues including the short term prevention and treatment of common diseases. Emergence of an understanding of physical systems.	22.8	0.8

Level 4	Understands socially appropriate behaviors. Awareness of everyday physical concepts such as heat, pressure, light, sound and energy. Basic awareness of historical, geographical, environmental and political issues affecting the people of Laos.	19.2	0.6
Level 5	Understands socially appropriate behaviors. Sound awareness of local historical, political and cultural issues affecting Laos. Sound knowledge of the key components of living and physical systems. Emerging awareness of long-term solution approaches to issues in health, species survival and environment.	35.9	1.1
Level 6	Sound knowledge of geographical, biological, physical and chemical concepts and processes apparent in everyday life. Comprehensive knowledge of Laotian cultural, political and historical characteristics. Emerging capacity to recall very detailed characteristics of living systems.	6.2	0.6

Source: NRIES (2007)

These national averages hide some important differences across regions. Figure 31 shows Lao language and mathematics achievement by urbanicity. It is clear from these graphs that rural pupils are more likely to place at Level 3 in Lao language and Levels 1 and 2 in mathematics than urban students.

Figure 31 . Levels of Achievement in Lao Language and Mathematics, by School Location



Source: NRIES (2007).

The study did not uncover statistically significant differences in achievement (in any of the three subjects) by gender. It did uncover statistically significant differences by socio-economic status (as is often the case in the rest of the world), with students from higher socio-economic backgrounds scoring significantly higher than students from lower socio-economic backgrounds.

Unfortunately, currently there is no linked information between teachers and students in the Grade 5 Assessment study. This information is necessary to allow the exploration of teachers' role in student achievement. Plans are being made to couple this information in the future. This will enable researchers to explore relationships between teacher characteristics, instructional style and other teaching practices to student academic achievement.

It is apparent from the results of this rigorous study that performance in mathematics in Grade 5 students is weak and requires urgent attention. As a start, pre-service and in-service training programs could place greater emphasis on this subject area to strengthen teachers' content knowledge as well as adequate pedagogical practice to enhance student academic outcomes.

Synopsis

- 1. The typical Lao classroom appears to be strongly structured through lesson planning and instructional time is well prioritized.** In principle, teachers place great emphasis on developing thinking skills and problem solving. In practice, the primary method of instruction in Lao PDR schools is frontal lecturing, copying lessons on the blackboard and encouraging recitation and memorization. Students are mostly passive recipients of instruction, while there is some opportunity for copying exercises there is comparatively little time devoted to practical exercises or application of knowledge. Efforts could be channeled into modernizing the pre-service and in-service teacher training curricula to better equip teachers with child-centered teaching and learning methodologies.
- 2. Lower secondary teachers appear to be under frequent oversight from school directors, but there is little accountability to MoE inspectors outside the school.** School inspections and teacher reviews could play a supportive role in enhancing teacher performance. Existing peer networks and technical group meetings may be enhanced to promote sharing lessons from experience that could help break the

isolation felt in rural contexts and place a stronger emphasis on pedagogical reflective practice to improve student results.

3. **Teacher absenteeism is not a problem in Lao lower secondary schools.** Most absences are due to official holidays. Teachers in private establishments were a lot less likely than teachers in public schools to be absent. The frequency of inspector visits was also negatively related to teacher absences, suggesting that the external accountability regime can make a difference in instilling greater discipline. Student attendance was significantly lower when teachers were more frequently absent.
4. **Instructional time is often not lost when lower secondary teachers are absent.** In three quarters of classrooms observed where the usual teacher was absent, a substitute was in place.
5. **On average, primary students had functional skills in Lao language, below functional skills in mathematics, and above functional skills in social and natural sciences.** As a start, pre-service and in-service training programs could place greater emphasis in weak subject areas to strengthen teachers' content knowledge as well as adequate pedagogical practice to enhance student academic outcomes..
6. **There is no linked information between teacher and student performance to make inferences about teachers' role in student achievement.** The results of the Grade 5 national assessment can provide rich information about teachers' role in promoting academic achievement, but these analyses cannot be undertaken unless the relevant databases are linked together to be able to match students with their respective teachers.

Annex 5.1. Covariates of Student and Teacher Attendance (Observed)

VARIABLE	AVERAGE TEACHER ATTENDANCE (OBSERVED):			AVERAGE STUDENT ATTENDANCE (OBSERVED)		
	1	2	3	1	2	3
<i>Teacher Characteristics:</i>						
Female Teacher	0.02 (0.12)	0.03 (0.17)	0.01 (0.06)	0.06 (0.31)	0.06 (0.29)	0.01 (0.01)
Born in this commune (village)	-0.10 (-0.39)	-0.13 (-0.51)	-0.18 (-0.77)	-0.33 (-1.50)	-0.30 (-1.50)	-0.35* (-1.66)
Distance of school to home	0.02 (0.24)	0.03 (0.42)	-0.01 (-0.20)	-0.12* (-1.70)	-0.13* (-1.80)	-0.16** (-2.07)
Teacher age	---	---	---	---	---	---
Teacher total salary	-0.001 (-1.02)	-0.005 (-0.83)	---	-0.002 (-0.19)	-0.002 (-0.09)	---
Never miss school to collect pay	-0.07 (-0.21)	-0.05 (-0.16)	---	-0.33 (-1.09)	-0.33 (-1.07)	---
Teacher tutors students	-0.41 (-1.10)	-0.38 (-1.02)	---	-0.22 (-0.82)	-0.19 (-0.70)	---
<i>School Conditions:</i>						
Average problems in school	-0.21 (-0.99)	-0.20 (-0.97)	---	-0.15 (-1.09)	-0.09 (-0.62)	---
School has technical group	-0.26 (-1.49)	-0.29 (-1.62)	---	-0.50** (-3.17)	-0.42* (-2.71)	---
Frequency director visits classroom	-0.09 (-0.83)	-0.10 (-0.97)	---	0.05 (0.03)	0.04 (0.43)	---
Frequency inspector visits classroom	0.19** (2.14)	0.20** (2.15)	---	-0.01 (-0.01)	-0.04 (-0.59)	---
Parental participation in school	-0.08 (-0.42)	-0.06 (-0.29)	---	0.11 (0.75)	0.11 (0.74)	---
Average Director Autonomy	0.02 (0.12)	0.05 (0.40)	---	0.22** (2.09)	0.22** (2.25)	---
Parents monitor teacher attendance	---	---	---	---	---	---

Litter on grounds	----	----	----	-0.17 (-1.24)	-0.13 (-0.99)	----
Availability of toilets	----	----	----	----	----	----
Can take library books home	----	----	----	-0.04 (-0.16)	-0.15 (-0.70)	----
Receive Report Card	----	----	----	----	----	----
Has information board	----	----	----	0.43** (2.56)	0.35** (1.99)	----
Private School	0.80 (0.99)	----	0.50 (1.43)	0.06 (0.13)	0.02 (0.05)	0.88** (3.60)
Afternoon Shift	----	----	----	-0.05 (-0.30)	-0.05 (-0.30)	-0.05 (-0.23)
Teacher Attendance (observed)	----	----	----	----	0.19** (2.09)	----
Sample Size	146	146	146	146	146	146
Explained Variance (R ²)	0.124	0.117	0.092	0.203	0.246	0.075
F Test Probability	0.688	0.644	0.296	0.008	0.003	0.028

Source: Lao Secondary School Survey, 2006

Notes: T-statistics reported in parentheses using robust standard errors (where appropriate). Outcomes are modeled using OLS, coefficients represent change in standard deviations of dependent variable for a one unit change in the independent variable. Additional controls, not presented, include the school strata and teacher work variables. Three estimations are used for each outcome. The first includes all of the independent variables together with the private school control. The second drops the private school dummy in order to identify more specific mechanisms that link the school governance system with each outcome. Finally, in order to get an idea of the “upper bound” effect of the private school control, the third estimation drops all variables except basic controls for school type and the private school control. Full results available upon request.

Chapter 6.

Towards Comprehensive Teacher Reform

In recent years, the provision of education in Lao PDR has been significantly expanded in terms of quantity and quality and has contributed to the socio-economic development of the country (MoE, 2006b). Despite these improvements, significant reform still needs to take place. In 2004, MoE in Lao PDR approved an *Education for All National Plan of Action* and began major education programs to (a) improve access to and expand education, (b) improve quality and relevance of education, and (c) strengthen management and administration of education.

The Eighth Lao People's Revolutionary Party Congress in 2006 emphasized that human resource development was dependent upon education reforms that lead to better basic education. National education goals would be centered around addressing low internal efficiency indicators, lower access and coverage in remote and upland areas, and large inequities in both access and quality of education between rural and urban groups, boys and girls, and Lao-Tai and non Lao-Tai groups. Because teachers play such a central role in the education quality equation, improving the status of teachers in terms of salaries, education and professional development has been deemed a priority.

The evidence and discussion in this report suggests that comprehensive teacher reform in Lao PDR should focus on the following three areas:

1. Teacher supply;
2. Teacher salary and incentives; and
3. Teacher performance and training

Teacher Supply and Training

Access to schooling has increased significantly in the past years and will continue to increase as Lao PDR moves to meet its goals of universal primary coverage

and increased access to lower secondary school. Recruiting enough qualified teachers to ensure adequate access and pupil-teacher ratios in the face of the education sector's expansion is an important policy concern. There is some debate, however, about whether the system will face a teacher shortage or surplus in the years to come. Taking the projected teacher supply (based on TEI enrollments) and comparing it to projected demand, as the EFAMOD model does, leads to the conclusion that no significant teacher shortages will be anticipated through 2015. This conclusion, however, is quickly challenged. EFAMOD makes certain assumptions that render these projections implausible, the most important of which is assuming that all TEI graduates will eventually become teachers. The fact that TEIs are increasingly populated by "special course" students, most of whom have no strong intention of becoming teachers, raises concerns about the validity of the EFAMOD projections.

In addition, the fact that pupil-teacher ratios for lower secondary schools have been steadily increasing since 2000 suggests that expanding access to this level has come at the cost of increasing class sizes. This could be due to (1) not having enough resources to recruit more teachers to keep class size down, or (2) not having enough teachers (even when there is budget to pay them) to fill in certain posts, particularly in rural areas where pupil-teacher ratios are substantially higher.

Under more pessimistic scenarios about TEI graduates entering teaching, a more reasonable conclusion arises. Lao PDR will probably experience teacher shortages (on the range of 12 to 50 percent of total demand) in most of the years through 2015. These shortages might be particularly acute in rural and remote areas. Ensuring there is an adequate supply of teachers for these schools is, therefore, a key policy concern.

In addition to ensuring adequate supply, Lao PDR faces the challenges of training its current stock of teachers to meet given standards of quality. Although most teachers in Lao PDR have received some formal pre-service training, there are still significant

numbers of teachers (14 percent) with no formal training whatsoever. Furthermore, most teachers in primary schools have only completed an 8+3 qualification or below. All of this suggests that teacher in-service training (upgrading and continuous professional development) will play an important role in ensuring that current and future teachers receive adequate training at various points in their careers.

The *Teacher Education Strategy for 2006-2015* and the *Teacher Education Action Plan for 2006-2010 (TESAP)* lay out specific targets in the area of ensuring adequate teacher supply and training. Among these are:

- Student-teacher ratios of 20:1, 30:1, and 27:1 in pre-school, primary and secondary respectively.

- Professional standards for teachers so that 80 percent of pre-school teachers obtain 8+3, 11+1, or 11+2 level and 15 percent attain higher levels; 75 percent of primary teachers attain 8+3, 11+1, or 11+2 level and 25 percent attain higher levels; 70 percent of lower secondary teachers attain 11+3 and 30 percent attain 11+5; and, 80 percent of upper secondary teachers attain 11+5 or higher.

- Develop university-level teacher training programs through enabling at least one Teacher College to be able to offer a Bachelor level teacher training degree.

- Improve teacher upgrading and in-service training through opening of 14 new teacher upgrading centers and developing a plan for continuous professional development that provides each teacher the opportunity to attend an in-service training at least once a year. This includes giving all TEIs the opportunity of offering in-service training and upgrading programs, and incorporating distance learning methodologies for teachers in rural and remote areas.

These goals lay out a clear vision for teacher professionalization and recruiting which will undoubtedly put pressure on TEIs, teacher upgrading and in-service training

institutions to expand enrollments and training capacity. To do this, TESAP acknowledges that TEIs must enroll a sufficient number of students to ensure adequate supply that can meet the teacher-pupil ratio targets.

Consequently, TEIs and in-service institutions must increase their capacity to absorb the number of teacher education students required to meet expected demand. TESAP contemplates providing TEIs and teacher upgrading centers with the necessary physical facilities and equipment to boost capacity. By some accounts, TEIs could absorb extra enrollments for primary teacher education students by using existing capacity more efficiently. If enrollment must increase by three or four times (as it must if the policies to expand primary and lower secondary schooling reach their intended targets), TEIs will probably need to increase physical and human capacity to train these additional primary teachers.

Realizing the goal of 11+5 training for 30 percent of lower secondary teachers, and 11+3 for all the remaining teachers (which under a scenario of expanded education services in basic education would imply that TEI enrollments could swell to about 18,000 additional students at this level in 2015) will be a challenge. The TTEST (2006) study found TEIs are at capacity to train lower secondary teachers. In addition, the fact that pupil-teacher ratios in secondary level have gradually and consistently increased for the past 5 years suggests that demand has been stronger than supply. Teacher recruitment will need to be boosted up if Lao PDR is to meet its goal of keeping pupil-teacher ratios in secondary schools at 27:1.

Box 6.1 The Class Size Debate

Reducing class sizes has long been a goal of educational policy makers. The Tennessee class size experiment in the United States provided empirical evidence that smaller class sizes in kindergarten through third grade of primary school led to better student achievement, particularly for disadvantaged children. In 1996, California enacted legislation that reduced class sizes by roughly ten students at an annual cost of over US\$1 billion. This broad policy reform (as opposed to the small-scale, controlled environment of the Tennessee experiment) led to important implications about class size reduction policies at larger scales.

Even though the Tennessee experiment did find smaller class sizes benefit students in the early grades, little evidence exists on the effects of a large-scale reduction in class size that requires the hiring of a large number of new teachers. The reason for this result is that the positive effects of lower class sizes are offset by the lowering of teacher quality standards that result from large-scale class size reduction efforts and the demands put on the teacher workforce. These effects are particularly evident in high-poverty schools which have a harder time attracting and retaining qualified teachers (Jepsen and Rivkin, 2002).

Class size reduction policies are very expensive. Depending on the scale of the reform, hundreds to thousands of new teachers will need to be hired almost overnight. The California experience showed that under a scenario of limited teacher supply, this leads to hiring of many teachers without the proper credentials or certification. Class size reduction also requires building many new classrooms. In California, many schools resorted to using library space, music or art rooms for classrooms to the detriment of these activities.

Whenever class size reduction is considered, teacher supply plays a key role. If there are not enough qualified teachers to fill the new teaching positions that open up with reduced class sizes, the reform might end up doing more harm than good. Is it better to have a qualified teacher teaching 35 students, than a poorly prepared teacher teaching 30 students?

There might be other reforms that are less costly than class size reduction. Moreover, there are examples of countries around the world that have excellent student achievement results, with class sizes of more than 50 students. Korea is one such an example. Studies using international data have suggested that capable teachers are able to promote student learning equally well, regardless of class size (West and Woessman, 2003). Class size reforms that lead to a detriment in the overall quality of teachers might end up doing more harm than good.

The above discussion suggests that to meet its TESAP targets, MoE will need to make significant investments in increasing TEI capacity to recruit thousands of additional teacher education students and ensure adequate graduation rates. Increases in financial resources devoted to TEIs, however, should not happen in detriment of public spending on primary and lower secondary education. As discussed in Chapter 1, over time per pupil expenditures in basic education have declined, while expenditures in tertiary education (including teacher education) significantly increased. While it is important that all levels of education receive adequate funding, disproportionate spending on tertiary education tends to benefit the non-poor and urban populations who often have better access to these opportunities than ethnic groups and people living in remote and isolated communities.

One alternative to increase funding without altering the proportion of public spending that goes to teacher education would be to increase TEI's fee-paying student enrollment in both regular and special courses as well as increase the current fee levels to at least cover the actual unit costs of training (MoE, 2006a). Increasing fees for special students who attend TEIs for private gain above actual unit costs could cross-subsidize the educational costs of poor rural students who cannot afford post-basic education.

A second, less attractive, possibility that could be explored is for TEIs to concentrate more narrowly on educating teachers. This would mean focusing on regular courses and reducing enrollments in the special course track. Because many special course students are fee paying, this option would increase the need for public funding of TEIs. Additionally, this might require firmer commitments on the part of teacher education students to teach after graduation, and to teach in areas of high need, which might be difficult to enforce (MoE, 2006a). It would also mean that post-secondary education options would need to expand to absorb special students and offer them suitable programs to learn English and other skills in high demand elsewhere.

With respect to in-service training, TESAP is right to focus on this area as significant numbers of teachers (including those with no training and those with qualifications below 8+3) will require upgrading and continuous professional development. This is especially true since the majority of teachers are young and will need to be supported and their skills updated for years to come. In addition, rural and remote area teachers are more likely to have fewer years of formal schooling and teacher training. Consequently, they will need even more intense in-service support. The lines of action contemplated by TESAP incorporate suggestions made by international agencies to treat in-service training as upgrading so that teachers can obtain official certification for courses taken and incorporating distance learning to reach teachers in remote areas.

Teacher salary and incentives

It is a well documented fact that teacher salaries in Lao PDR are low. At about

one time of GDP per capita, they are low even by Asian standards (where the average is 4.7 times of GDP per capita). Supplements, originally designed to compensate teachers working in difficult settings or to provide a living wage for teachers with families, are not enough to attract teachers into the profession and to encourage teachers to move to rural and remote areas. In some cases, the supplements represent less than 1 percent of total pay. Existing incentives for teacher performance, such as “good teacher awards,” are too low (1 percent of total pay) to act as a motivating force for teachers and it is unclear to what extent they are meritoriously awarded since the vast majority of principals acknowledge that they are not based on teacher performance reviews. At present, these incentives are not subject to a transparent process whereby awards are allocated based on widely accepted standards or observable measures.

Low salary levels force many teachers to seek employment elsewhere. The most common form of additional employment is agricultural work, although a small proportion of teachers engage in private tutoring for pay. These activities generate teachers one-third of their total income on average. The fact that teachers must spend a share of their time devoted to activities beyond the classroom decreases the amount of time spent on teaching, student mentoring, lesson planning or professional development activities. As suggested by anecdotal evidence, many teachers are teaching for less than their official number of instructional hours because they need time for outside employment to compensate for low remuneration (World Bank, 2007b).

Consequently TESAP’s priorities include:

- To improve salaries and incentives for teachers; and

- To “give recognition to teachers who are active, devote themselves to teaching and have proper responsibility for their duties based on a set criteria.”

The plan does not set specific targets for salary improvements or incentives. And it does not make clear how teacher recognition will be given (e.g. financial bonuses, community recognition, promotions) or the specific criteria on which these awards will be

based. Nevertheless, the fact that TESAP emphasizes both salary and incentives is a good indication that they acknowledge that low salaries are indeed a major concern. Unless salaries improve (and to a lesser extent working conditions, although this is not explicitly mentioned in TESAP), it will be difficult to meet teacher recruiting targets and ensure an adequate supply of qualified teachers for all regions in the country.

Box 6.2 Teacher Standards in Vietnam

One of the central priorities of the Ministry of Education and Training (MoET) in Vietnam for improving education quality has been to upgrade and standardize teacher education and credentials at all education levels, and to upgrade teacher training institutions. Accordingly, the Regulations on National Standards for Primary Schools 1996–2000 were designed to bring all primary teachers up to or above the national standard by 2000. These efforts have yielded remarkable progress. In 1997 and 2002 the proportion of primary teachers below standard fell by half, to 12 percent. A similar concerted effort at the lower secondary level reduced the percentage of below-standard teachers from 15 to 9 percent by 2002, even as the total teacher force at that level grew by more than 30 percent. The *Education Development Strategy 2010* reemphasizes the importance of this objective and sets more ambitious 12 + 3 targets and 12 + 4 targets for primary and lower secondary teachers, respectively.

A breakthrough development at the primary level has been the drafting of Teacher Professional Standards or a Professional Profile for primary teachers. This profile defines the personal qualities (personality, ideology, politics), content knowledge and pedagogical skills expected in teachers. The professional standards can be applied in four critical areas: mapping and aligning teacher training courses; assessing trainees and teachers, both in terms of performance and training effectiveness; making informed decisions about teacher training needs; and creating a benchmark of skills expected of the current teaching force. The draft profile was recently approved by MoET and a benchmark profile of skills for about 25,000 teachers has been compiled.

Although the criteria in the Professional Teacher Profile need further examination to ensure they align with the new instructional expectations, the profile's very existence marks an important step toward defining the characteristics and competencies required of a qualified teacher. It also forms the basis for establishing quality control measures for both teaching performance and training effectiveness.

Source: Huang (2005)

Teacher salaries currently take up the majority (close to 83 percent) of the education recurrent budget. And as previously discussed, most recent improvements in salaries have been accompanied by lower investments in textbooks, materials, operations and maintenance of schools. This latter trend is worrisome given that the majority of

school directors interviewed for the Lower Secondary School Survey mentioned that their schools were in major need of repairs. Furthermore, there is a generalized lack of books and textbooks in the system, as well as of learning materials as essential as dictionaries or maps. Simply put, the education budget must expand so that salaries can improve without coming at the expense of non-wage items.

However, in a scenario of constrained resources, it is important that the wage bill grows carefully so as not to squeeze out non-wage expenditures. Better budget planning and management should accompany TESAP efforts to ensure that resources are spent as efficiently as possible.

In addition, it is important that any salary increase be accompanied by a broader teacher management policy that covers recruitment and training, as well as mechanisms for accountability for performance. In addition, the salary structure should build in reasonable incentives for good performance. If these additional measures are not taken, it is possible that an across the board salary increase would not have any significant impact on student learning and educational quality.

Teacher performance

It is clear from the evidence and discussion presented in this report that major reforms are needed in Lao PDR to improve the situation of teachers and teaching in the country. Some of these are included in TESAP, such as improving salaries and ensuring an adequate supply of teachers, particularly for rural and remote areas. A comprehensive teacher reform plan, however, should also ultimately address how these changes will affect students and student learning. In very few instances, an explicit link between teaching and student achievement or learning is made in the strategic areas and lines of action proposed by TESAP.

Underlying teacher reform in Lao PDR should be goals regarding student learning as well as a better understanding of how teachers in the country contribute to

these outcomes, and how disparities in teacher supply, qualifications, living and working conditions across regions or by gender or ethnic group contribute to greater inequalities in student learning.

Results from the Grade 5 Assessment survey suggest that students are not developing enough skills for independent or even functional learning in Lao language, and particularly in mathematics. These poor results suggest that teachers might not be delivering the high quality teaching that is needed to develop problem solving or independent thinking skills in these areas. As mentioned in the introduction to this report, Lao PDR has a very young population and its chances for economic and social development depend on this population attaining sufficient skills to be productive in the labor market. Only in this way can Lao PDR both benefit from and promote enhanced economic growth. Because teachers are an important determinant of achievement, steps should be taken to improve teacher performance as part of a comprehensive teacher reform strategy.

TESAP does not set out explicit targets for teacher performance. However, it does detail targets and lines of action regarding teacher education and continuous professional development. Both of these channels can influence teacher performance and ultimately, play a role in student learning. Among these are:

- To improve the quality of pre-service training programs;
- To enhance policy analysis to detect areas for improvement, particularly with respect to teacher capacity development in remote and ethnic areas; and
- To strengthen and increase access to in-service and teacher upgrading efforts.

The National Charter of Teacher Competencies has set out to address standard qualifications required for teachers. In particular, its purposes are to promote good practice for teachers, allow further development and integration of different pre-service and in-

service teacher training curricula, and assist in incorporation of teacher performance measures into revisions of salary and incentives. Teacher qualifications are classified along three areas: (a) teachers' characteristics and professional ethics, (b) knowledge of children, and (c) subject knowledge and practical teaching wisdom (MoE, 2007b). These criteria are an excellent start, but this vision statement must now translate into practical tools to assess teacher performance both in school and in other education contexts. Thus, the operationalization of the National Charter of Teacher Competencies will be critical for staff professional development and teaching and learning quality improvements.

The large proportion of untrained teachers makes continuous professional development or in-service training a necessity in Lao PDR. Strengthening professional development is one of the five key strategic areas in the TESAP plan and some areas of action with respect to training have already been discussed earlier in this Chapter.

Our research findings also points at the importance of strong internal and external accountability measures as a mechanism for teacher support and quality assurance. At present, there is an extensive peer informal network whose role and utility could be further buttressed with the aid of occasional professional facilitators. In addition, a robust external supervisory system could provide on-time support to teachers, provide suggestions for career development and capacity building, as well as offer over all quality assurance.

Greater efforts to understand the linkages between teacher performance and student results must be undertaken to inform policy analysis that can explore teachers' role in student achievement and other outcomes. The first step in this direction would be to link the Grade 5 Assessment survey database to teacher information to be able to identify which students were taught by which kinds of teachers. This information will become a key input in future decisions to institute targeted support measures and incentives to enhance teacher skills and ultimate performance, as well as to better make recruitment decisions and capacity building reforms.

Resources for implementation

Resources for the implementation of TESAP will come from the GoL education budget, in close partnership with several international partners. MoE has estimated that it would cost in the order of US\$250 million to implement TESAP between 2006-2015. By far, the largest share of this investment will go to fund increases in teacher salaries and hiring additional teachers (see Table 35).

Table 35 . Proposed Education Sector Budget

Project Description	2006-2010 (US\$)	2011-2015 (US\$)	2006-2015 (US\$)
Component 1: Policy analysis for improved management of the Teacher Education System	1,457,172	203,067	1,660,239
Component 2: Management of the Teacher Education System	1,849,658	1,974,752	3,824,410
Component 3: Strategy for Teacher Education Methodology	2,664,100	3,437,360	6,081,460
Component 4: Strategy for Continuing Professional Development	11,657,816	10,592,744	22,250,560
Component 5: Sufficient Number of Teachers and Improved Salaries for Teachers	140,500	62,500	203,000
Total teacher salary	68,651,182	89,512,567	158,163,749
Additional teacher salary	11,624,782	41,990,567	53,615,349
Government contribution (including salary)	2,677,200	4,810,844	7,488,044
Total	100,722,410	152,584,401	253,286,811

Source: MoE (2006b)

The greatest challenge will be to translate TESAP from a vision statement to an operational plan. And that the financing requirements that it lays out materialize in order to fulfill its vision.

Teacher reform: next steps

Lao PDR has taken great steps to improve its education system, increase access

and coverage of primary and lower secondary education as well as improve teacher qualifications. Still, comprehensive teacher reform in Lao PDR is needed so that the country is able to recruit the teachers it needs to improve student learning and reduce disparities in service provision across regions and population subgroups. The various policy tools discussed in this report—local area recruitment, salary improvements, skills upgrading, quality assurance—are critical elements to ensure these reform efforts attain its goals.

Resource constraints will dictate the need to make difficult choices with respect to the allocation of funding. However, there is some margin to better utilize existing budgets and capacity. Furthermore, Lao's excellent economic growth record suggests that as government revenues continue to grow, a concomitant share of funds could be earmarked for social sector improvements. Additional funding should be allocated carefully, through clearly established priorities and on the basis of empirical evidence, so as to ensure that resources are spent judiciously and yield maximum benefits. In particular, efforts must be devoted to guarantee that GoL's commitment reaches the populations most in need.

Lao PDR has a young population. The next generation will need to master the necessary skills and knowledge if it is to propel the country into greater economic and social progress. The focus and efforts of many will need to be involved to bear fruit and bring Lao PDR closer to realizing its development goals.

References

- Bloom, B. and Krathwohl, D. (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook I: Cognitive Domain*. New York: Longmans, Green
- Chaudhury, N., Hammer, J., Kremer, M., Muralidharan K. and Rogers, F. (2006). “Missing in Action: Teacher and Health Worker Absence in Developing Countries.” *Journal of Economic Perspectives* 20(1): 91-116.
- Duflo, E. and Hanna, R. (2006). *Monitoring Works: Getting Teachers to Come to School*. Manuscript. Cambridge, MA.
- Fox, C. (2003). “No Place for Girls? Gender, Ethnicity and Citizenship Education in the Lao People’s Democratic Republic.” *Compare* 33(3). September, 2003.
- Gannicott, K. (2005), “Improving the Status of Teachers through Salaries and Incentives.” Manuscript. Vientiane.
- Gomes-Neto, J. and Hanushek, E. (1994). “Causes and Consequences of Grade repetition: Evidence from Brazil,” *Economic Development and Cultural Change*, v. 43, p. 117-148.
- Huang, S. (2005). *Vietnam: Learning to Teach in a Knowledge Society*. Washington, DC: The World Bank.
- Jepsen, C. and Rivkin, S. (2002). “What is the Tradeoff Between Smaller Classes and Teacher Quality?” NBER Working Paper 9205.
- King, E. and van de Walle D. (2005). *Schooling and Poverty in Lao PDR*. Washington, DC: The World Bank, Development Research Group.
- Lally, M. (2006). “Methodology for Projecting Teacher Supply 2005-2015.” Manuscript.
- Ministry of Education (2003). *Education Financing in Lao PDR: Worthwhile Achievements, Daunting Challenges*. Vientiane: Department of Teacher Training, Ministry of Education.
- Ministry of Education (2004). *Teacher Training and Recruitment into the Teaching Profession*. Vientiane: Department of Teacher Training, Ministry of Education.
- Ministry of Education (2005). *Teacher Requirements, Teacher Output in Lao PDR: What is the Evidence?* Vientiane: Department of Teacher Training, Ministry of Education.
- Ministry of Education (2006a). *Teacher Education Institution Capacity: Operational Study 4*. Vientiane: Department of Teacher Training, Ministry of Education.

- Ministry of Education (2006b). *Teacher Education Strategy 2006-2015 and Action Plan 2006-2010 (TESAP)*. Manuscript. Vientiane.
- Ministry of Education (2007a). *Education for All Mid Decade/Fast Track Initiative National Report*. Vientiane: Ministry of Education.
- Ministry of Education (2007b). *National Charter of Teacher Competencies*. Vientiane: Ministry of Education.
- Noonan R. (2004). *Teacher Salaries in 2001/2002: An Analysis of the Teacher Salary Scale, Salary Supplements and Income Tax Scale, with Special Reference to Primary Teachers*. Manuscript.
- Noonan R. and Xaiyasensouk, V. (2007). *Alternative Models of Teacher Training for Remote Areas*. Swedish International Development Agency (Sida).
- NRIES (2007). *Grade 5 National Assessment Survey*. Manuscript. Vientiane.
- Rivkin, S., Hanushek, E. and Kain, J. (2005). "Teachers, Schools, and Academic Achievement." *Econometrica* 73: 417-458.
- Sanders, W. and Rivers, J. (1996). *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement. Tennessee Value-Added Assessment System (TVAAS)*. (http://www.mdk12.org/practice/ensure/tva/tva_2.htm)
- Santibañez, L., Martínez, J. F., Datar, A., McEwan, P. J., Setodji, C. M., and Basurto-Dávila, R. (2007). *Breaking Ground: Analysis of the assessments and impact of the Carrera Magisterial program in Mexico*. Santa Monica, CA: RAND/MG-141.
- Stallings, J. and Kaskowitz, D. (1974). *Follow Through Classroom Observation Evaluation, 1972-73*. Menlo Park, CA: SRI, International.
- UNESCO Institute for Statistics (2006). *Teachers and Educational Quality: Monitoring Global Needs for 2015*. Montreal: UNESCO Institute for Statistics.
- Vegas, E. (Ed.) (2005). *Incentives to Improve Teaching: Lessons from Latin America*. Washington, DC: The World Bank
- West, M. E. and Woessman, L. (2003) "Crowd Control. Does Reducing Class Size Work?" *Education Next*. No. 3 Available online at <http://www.hoover.org/publications/ednext/3347861.html>
- World Bank (2004). *Making Services Work for Poor People—World Development Report 2004*. Washington, DC: The World Bank.
- World Bank (2006). *Poverty Assessment Report: From Valleys to Hilltops—15 Years of Poverty Reduction*. Washington, DC: The World Bank.
- World Bank (2007a). *Integrated Public Expenditure and Financial Review*. Washington, DC: The World Bank.

World Bank (2007b). *Public Expenditure Tracking Survey in Primary Education and Primary Health. Making Services Reach Poor People*. Washington, DC: The World Bank.

World Bank (2007c). *Teaching in Cambodia*. Washington, DC: The World Bank.

