

# Teaching in Cambodia

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## Abbreviations

CAR	Council on Administrative Reform
CESSP	Cambodia Education Sector Support Project
CSES	Cambodia Socio-Economic Survey
DOE	District Office of Education
DFID	United Kingdom's Department for International Development
ECE	Early Childhood Education
EFA	Education for All
EMIS	Education Management Information System
ESP	Education Strategic Plan
ESSP	Education Sector Support Program
GDP	Gross Domestic Product
LSS	Lower Secondary School
MBPI	Merit-Based Pay Initiative
MoEF	Ministry of Economy and Finance
MoEYS	Ministry of Education, Youth and Sport
NGO	Non-Governmental Organization
NIE	National Institute of Education
NTTC	National Teacher Training Center
OLS	Ordinary Least Squares
PAP	Priority Action Program
PCK	Pedagogical Content Knowledge
PETS	Public Expenditure Tracking Survey
POE	Provincial Office of Education
PFMRP	Public Financial Management Reform Program
PMG	Priority Mission Group
PTTC	Provincial Teacher Training Center
RGC	Royal Government of Cambodia
RTTC	Regional Teacher Training Center
SIDA	Swedish International Development Agency
SSC	School Support Committee
TTC	Teacher Training College
UCW	Understanding Children's Work
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VSO	Volunteer Service Overseas

## Executive Summary

**Cambodia's education landscape has undergone dramatic change in recent years as the country attempts to rebuild a system that was methodically destroyed during the Khmer Rouge period.** The government estimated that 75 percent of teachers, 96 percent of university students and 67 percent of all primary and secondary school pupils were killed when the Khmer Rouge was in power. Infrastructure was also destroyed or abandoned. Few books remained and the deterioration of school buildings and equipment was widespread. But in recent years a swelling of demand for education and a concerted effort on the part of the Royal Government of Cambodia, together with international partners and Non-Governmental Organizations (NGOs), has revived the education system. The number and characteristics of Cambodian teachers has also changed dramatically.

**This study explores the relationships between the teaching profession and educational equity, quality and efficiency.** Teacher quality is considered one of the most important contributing factors to improving student achievement. Teachers and teaching practices play a critical role in educational development, both directly and indirectly as well as at the classroom and systemic level.

**Schooling statistics and surveys have highlighted the fact that teacher issues are a major concern.** Teacher scarcity is a core problem, while getting teachers placed in remote areas remains a challenge affecting the most disadvantaged students. Teacher preparedness and performance in addition to poor professional standing of teachers in terms of capacity development opportunities, autonomy/responsibility, and managerial/system support pose significant barriers to educational quality. Communities cite low teacher living standards as the most salient school problem at all educational levels. Direct costs remain a significant barrier to participation in schooling for poor children. Uprooting informal fees, such as those from supplementary tutoring, will require more comprehensive strategies as they are linked to broader civil service reform constraints. These factors point to the need to address teacher recruitment, preparation, deployment and remuneration.

**Thus, there is an urgent need to articulate more clearly and engage in a deeper teacher reform overhaul, inclusive of teaching service conditions, minimum standards, and performance-based incentives within a sustainable budget framework.**

### ***Cambodian teachers in profile***

**Teacher levels of education are low.** About a quarter of primary school teachers hold an upper secondary degree, while about two-thirds hold a lower secondary school degree. Educational attainment for secondary school teachers is greater. Almost two-thirds of secondary teachers have completed at least grade 12, while 18 percent had some post-secondary education. Younger teachers tend to have achieved higher educational attainment.

**Most teachers have completed preservice training requirements.** Four fifths of primary school teachers have received their teaching certification, while practically all lower secondary school teachers have graduated from teacher training colleges. In-service training has remained largely insufficient and professional development opportunities have been relatively scant. Only 15 percent of lower secondary school teachers report having attended an in-service training session during the 2005/06 academic year, regardless of school type.



**Urban jobs are deemed to be considered more desirable than rural or remote area postings.** Nonetheless, there is little job turnover. About 60 percent of primary school teachers have only taught in one school, while a mere 8 percent has taught in three schools throughout their professional career.

**Teachers are more likely than other Government workers to live in the village where they were born.** Two-thirds of primary school teachers work in their district of birth and 90 percent in their own province. Approximately one quarter of lower secondary school teachers and a slightly larger share of principals (30 percent) were born in the same commune where they work. Four fifths of lower secondary school principals were born in the same province.

**Teaching has been primarily a male-oriented profession, but is slowly becoming increasingly feminized.** Female teachers comprise the majority of school staff in primary urban schools, but represent a small fraction in remote secondary schools. The gender divide is starker for school managers. School principals are overwhelmingly male. Only a small minority of principals in primary and secondary schools are female. Urban schools are slightly more likely to employ a female school principal than rural or remote schools.

**A majority of teachers are young.** About 40 percent of primary school teachers are below the age of 30, while secondary school teachers are slightly older on average. Remote area schools have the largest concentration of young teachers. Three quarters of educators in these schools are younger than 30 years old.

### ***The working conditions of teachers***

**Understanding the school and classroom environment is a critical dimension of teaching quality.** Adequate infrastructure and working conditions support the teaching function and enables student learning. Appropriate physical facilities and availability of teaching aids provide the basic elements for engagement in a teaching-learning relationship. A balanced teacher-student ratio allows teachers to dedicate sufficient attention to children's individual needs. Meanwhile, the terms of contracting can shape job satisfaction and the attractiveness of the teaching profession.

**Classroom conditions are perceived by teachers to be adequate.** Although there is certainly room for improvement, teachers generally consider school infrastructure and availability of teaching materials and textbooks to be appropriate. Urban teachers are more inclined to express dissatisfaction with classroom conditions than rural teachers.

**Cambodia has the largest student-teacher ratio in East Asia at 51:1 in the primary level and 32:1 at the lower secondary level.** At the primary level, the high student-teacher ratios are driven by the sheer shortage of qualified teachers due to the massive expansion of educational opportunities in the last decade. Lower ratios in secondary schools are a reflection of the demands of a diversified and specialized curriculum. However, on average, secondary school classrooms experience greater overcrowding than primary school classrooms. Likewise, rural primary schools tend to have higher concentration of students per classroom than urban primary schools.

**Teaching remains a highly attractive profession and there is great demand for admission into Provincial and Regional Teacher Training Colleges.** Teacher shortages are not a product of

constraints in the potential supply of teachers, but rather of central planning efforts to limit the growth of the civil service.

**Contract teaching represents a very small fraction of the teaching force and it is at present circumscribed to specific disadvantaged areas to address severe teacher shortages.** Contract teachers receive payments irregularly and late. Regular full-time appointments are highly-coveted.

**Double shift teaching is a common strategy to address teacher shortages.** It is more common in primary than in secondary schools. It is a highly unpopular approach, especially in urban primary schools, since it is poorly paid and it deprives teachers from more lucrative alternative income generation activities. Allowances commensurate to income foregone and timely payments could make double shift teaching a more attractive proposition.

**Staff redeployment efforts to rural and remote areas have not been successful.** Allowances for hardship postings have been insufficient to elicit demand. Low teacher pay makes it difficult for teachers to work in areas without support of an extended family, existing housing or land for subsistence farming.

**Local area recruitment has been espoused as a policy initiative to address chronic shortages of teachers in underserved areas.** Quotas and lower entry requirements to teacher professional training have been promoted for candidates in these localities. Attracting candidates with strong ties to underserved communities will increase the uptake of hardship postings and reduce teacher turnover. Active recruitment efforts appear to have started to pay off.

### ***Teacher pay and education finance***

**There is generalized discontent amongst teachers about teaching being poorly compensated.** There is broad consensus amongst educators, union leaders, administrators and society in general that this is indeed the case. Salary reform has been on top of the *Education Strategic Plan 2006-2010* agenda, as well as its several predecessors, and it is considered a critical stumbling block for improving educational quality.

**An average teacher lies atop of the third quintile of the earnings distribution,** both in terms of earnings from teaching as well as total earnings from other activities. But teachers receive on average lower earnings than civil servants or an average worker in all other economic sectors.

**Remote area teachers earn significantly larger total salaries than rural or urban teachers.** This is due to additional salary components and allowances, such as double shifting and multigrade teaching. Rural teachers also receive indirect benefits as incentives to take on hardship posts, such as free or subsidized housing (for about 30 percent of remote area teachers).

**Teachers in Phnom Penh earn approximately 1.8 times of the per capita poverty line, while teachers in remote area school earn 3.7 times of the per capita poverty line.** That is, teachers who are sole income earners and sustain a family with children are likely to live in poverty if they were to rely only on their earnings from teaching, particularly in urban areas.

**Cambodia has a flat teacher salary structure and salary increase scheme.** After 15 years of service, a primary school teacher salary increases from 0.43 percent to 0.58 percent of Gross Domestic Product (GDP) per capita; while a lower secondary school teacher salary increases from 0.64 percent to 0.77 percent of GDP per capita.

**Second jobs can be very important sources of income to compensate for relatively low teacher pay.** About 68 percent of primary and 50 percent of lower secondary school teachers hold another paid job, such as farming or sales. A common second occupation, especially for urban primary school teachers (42 percent at the primary level and 87 percent at the lower secondary level), is private tutoring. Tutoring earnings can represent approximately two thirds of the monthly average base salary with basic allowances.

**Although education is officially free, school staff oftentimes levies unofficial fees.** Fees may be charged against registration and enrollment, classroom materials or examinations.

Over 98 percent of the Government financing in education is devoted to recurrent expenditures. **Expenditure on wages as a share of the recurrent budget has fallen considerably over the last decade and represents only 60 percent of education recurrent spending.** Both in relative and absolute terms, there is scope for significant improvement in the Cambodian wage bill.

**As the economy continues to expand and the labor market offers more employment options, unless teachers can earn more attractive wages, it will remain difficult to draw and keep high quality educators in the profession—**especially in rural areas—for any reasonable period of time, professionalize the teaching force and provide better services. At present, the Government has promised an across-the-board base salary improvement of approximately 15 to 20 percent to all teachers annually. In the long run, the salary scale will need decompression. Increases in the differences across civil service salary schedules combined with clear standards for promotion could also allow for stronger linkages between remuneration and performance.

## ***Teacher Performance***

**The quality of teaching is a key factor in keeping children in school.** The legacy of the Khmer Rouge period represented a monumental setback to the education sector as the Cambodian teacher cadre suffered enormous casualties. During the reconstruction period, the number of trained primary and lower secondary school staff increased gradually and consistently, with an increased share of the teaching force having upper secondary education or graduate qualifications.

**However, the quality of preservice training is low and the opportunities for professional development are limited.** These are important barriers for acquiring mastery of curricular content knowledge or putting into practice pedagogically pertinent teaching practices. Distance from school, geographical isolation, a long rainy season as well as competition for time from other remunerated activities can also play a role in undermining teacher attendance patterns and reducing instructional time. All these factors combined, in turn, can have a negative effect on student performance and, directly or indirectly, affect student outcomes in terms of cognitive development, repetition and dropout.

**Lower secondary school teacher absenteeism is troubling.** Approximately 15.6 percent of teachers were absent on the day of a surprise visit. Estimates of primary teacher absenteeism are lower (7.1 percent), but they rely on self-reported data that may downward bias estimates. On average, grade 3 teachers report to miss 11.5 days during the academic year. This represents approximately 5 percent of annual instructional time.

**The availability of teacher substitutes is rare. Absent teachers usually translates into little or no learning taking place at school.** Research evidence suggests that primary teacher absences are mildly negatively correlated with student achievement in Khmer and mathematics. This problem is compounded by unauthorized school closures (5 days) beyond the number of registered holidays (19 days). Effective use of classroom time is further shortened by 10 percent of the total official instruction time per year, due to delays after break times.

Lower secondary school teachers report fewer absences when they do not have to miss school to collect their pay. A positive classroom environment and greater principal autonomy to take personnel actions also appear to play a positive role. **Student attendance is lower when teachers are absent more frequently, while the number of student absences is a strong predictor of weaker academic performance.**

**Lower secondary school teachers prepare inadequately for class.** Only half of lower secondary school teachers had lesson plans readily available on the day of an announced visit. Class time is mostly exclusively devoted to instruction or recitation. The time spent in applied individual or group work is low. Overall, classes tend to be highly structured with limited opportunities for interaction or creative thinking. Teachers tend to dominate the time-on-task through frontal instruction or asking questions.

**Student performance is higher when teachers hold a university degree or have stronger Pedagogical Content Knowledge skills.** When teachers belong to the same district/city where they are teaching, student achievement is as much as a quarter of a standard deviation higher. Effective teaching methodologies that encourage student participation also appear to yield better results.

**Overall, our results suggest that it is imperative that preservice teacher training as well as in-service professional development systems are bolstered to raise teacher subject and pedagogical content knowledge.** Better lesson planning and classroom preparation must be encouraged and regularly monitored.

**Formal school accountability systems (such as principal oversight and school inspector visits) are stronger in primary than lower secondary schools.** However, they are laxly enforced and seldom carry specific consequences. School inspections and teacher reviews should play a supportive role in enhancing teacher performance as well as include expected personnel actions to improve education service delivery, such as in the area of teacher absenteeism.

**Teacher technical meetings—focused around teaching methodology issues—tend to be common place and appreciated by primary and lower secondary school teachers alike.** These should continue to be nurtured and assistance for enhancing their technical depth and effectiveness, for instance through providing expert facilitators, could be made available on an occasional basis.

**Parent-teacher contact is rare.** School support committees have little parental representation. Social accountability systems—to monitor school operational funds spending in primary schools or teacher absenteeism in lower secondary schools—are generally not very effective. **There is much room for strengthening the accountability of school management to parents and community members.** Measures to empower parents by providing them with the necessary information to monitor school performance and participate in the management of schools could reduce the opportunities for funds misuse and could improve service delivery. Parents and communities need information on school finances and other aspects of school performance, including teacher performance, as well as the informal and formal administrative channels to use this information to voice their expectations or concerns.

### ***Pathways to teacher reform***

Comprehensive civil service reform must encompass three main domains:

- Teacher recruitment: A needed expansion of the teaching force
- Teacher pay: Earning a living wage
- Teacher performance: Delivering high quality education

#### **1. Teacher recruitment: A needed expansion of the teaching force**

**The education sector accounts for 59.4 percent of all civil servants (exclusive of contractual employees). The Ministry of Education, Youth and Sport (MoEYS) total staff has increased by over 10 percent in the past two years, showing strong Government commitment to satisfy increasing demand for educational services. Yet, this level of staffing is insufficient for current system growth.** There are few solutions to this constraint other than to prioritize the social sectors in the allocation of establishment positions to provide teachers to schools at a rate sufficient to maintain a reasonable maximum student-teacher ratio in each school (e.g. 40-45). A mild expansion of contract teaching may also be a means to fill the existing gap as a short-term measure.

**In addition, other strategies may be potentially considered in the medium-term to contain the growth of the wage bill by greater liberalizing the teaching labor market.** These, for example, might include disconnecting recruitment into teacher training from recruitment into the civil service, introducing cost recovery and subsidies in teacher training for those who cannot afford to pay, and decentralizing teacher recruitment, salary setting and the salary budget to the district or provincial levels. Any of these measures would require careful scrutiny and analysis, including the risk of corruption and inclusion of ghost teachers into the payroll.

**The expansion of the teacher cadre must take place with an appropriate balance between primary and secondary school teacher needs in mind.** The shifting educational landscape in terms of primary and secondary education enrollments will demand that MoEYS plan for phasing out existing teacher posts where they may not be needed, set rigorous targeting criteria for the creation of new teacher posts and carefully map and monitor under- and over-staffed schools.

**Local area recruitment initiatives are constrained by a limited supply of potential teacher trainees.** Greater efforts will be essential to expand educational access through completing incomplete primary schools and building new secondary schools in marginalized communities.

Providing subsidies to poor students in these areas will also increase their likelihood of attending and graduating from secondary school. Finally, teacher training services need to be accessible to potential teacher trainees from underserved areas where there are currently none, such as in Koh Kong, Mondul Kiri, Otdar Meanchey and Ratanak Kiri. As a stop gap measure to address the immediate shortage in teacher supply, transitory alternative service provision mechanisms that may be worth considering include modular teacher training offerings being provided through existing upper secondary schools.

## **2. Teacher pay: Earning a living wage**

**Timely payment of teacher salaries and incentives would be a notable improvement.** Delays in teacher payment are generalized, but this situation poses a heavy burden particularly for teachers deployed in remote areas where secondary job opportunities do not exist. Furthermore, since salaries are paid in cash, they are prone to “facilitation fees” and other charges. Payments through the banking system could decrease the likelihood for graft and even reduce the incidence of teacher absenteeism.

**Pay increases must be embedded in the context of a policy framework for human resource management and development.** The existing compression of the salary wage and lack of promotion opportunities call attention to the imperative need for laying out within the teaching profession long-term sustainable career pathways supported by an appropriate salary structure that links skills, professional development opportunities and performance outcomes with financial incentives.

## **3. Teacher performance: Delivering high quality education**

**A draft Teacher Standards Framework has been developed.** These standards describe a range of competencies in language which is concise, describes behaviors which can be observed and thus evaluated, and refers to actions which impact on student learning.

**The draft Teacher Standards Framework can serve a number of important functions:**

- First, it will be a guiding light to review preservice and in-service teacher training programs in order to satisfy new performance expectations and better prepare teachers to meet these requirements.
- Second, teacher standards may help strengthen the substance of existing peer mentoring and cluster development networks currently operating.
- Third, it could be an instrument to assess TTC graduates and ensure they meet minimum standards as a precondition for accreditation.
- Fourth, it could lay down the path for meritorious teacher placement and career advancement. Progression into the teaching profession could be classified along a specific set of ranks (e.g. basic, proficient, advanced), determined on the basis of skill competency levels as measured by demonstrable behavior.
- Fifth, teacher pay could be tied to observable teacher performance, both through salary banding tied to skill rankings as well as through specific incentives tied to participating in relevant professional development upgrading, incremental improvements in actual teaching skill or enhancing student performance.

**These functions may be constructed as a series of platforms for gradual implementation.** The first and foremost prerequisite will be the formal adoption of a final version of the Teacher Standards Framework which incorporates lessons learned from pilot administration and follows an extensive

consultation process with key stakeholders. Second in line will be the development of adequate teacher performance assessment instruments closely coupled with the Teacher Standards Framework. These instruments will need to be trialed and key MoEYS personnel at district, provincial, teacher development and inspectorate offices trained for their application.

**The Teacher Standards Framework ought not to be conceived as an instrument of “rewards and punishment,” but rather as a tool for the identification of teacher strengths and weaknesses that can then be linked to a capacity development plan to enhance teacher performance.** This will require, in turn, revamping pre- and in-service curricula, modernizing TTCs and improving the technical capacity of TTC trainers and MoEYS administrative personnel while instituting a flexible and responsive in-service teacher development system, widening its scope and improving the quality of teacher support and supervisory functions at school, district, provincial and central levels.

**Truly functional continuous monitoring and accountability systems—provided by school principals, MoEYS administrative inspectors, school support committees and parents—can then ensure that teacher standards are consistently applied and translate into visible improvements in education service delivery.**

# Introduction

This report aims to address some of the Ministry of Education, Youth and Sport's (MoEYS) specific concerns in the area of teacher civil service reform as it considers alternatives for the next phase of Cambodia's educational development.

This study uses the most recent empirical data to document the most salient trends around Cambodian teachers: their attributes, the characteristics of their jobs relative to those of other professionals, and their working conditions, as well as aggregate data on how the teaching profession is responding to the demands of a rapidly growing school system. This report also reviews the most important policies that affect teachers' salaries, contracts and incentives to join the profession and remain in it. It also provides observational data of teacher classroom performance and attendance, while linking student academic outcomes to teaching inputs. The objective of this study is to inform the dialogue around policy reforms that may affect the education sector, the civil service, and teachers in particular.

The data sources used for this analysis include:

- Cambodia's Education Management Information System (EMIS) provides yearly detailed data for each school from 1998 to 2006. In recent years, there has been an effort to improve the quality of Cambodian EMIS data. These data can distinguish between primary and secondary schools. However, it does not allow partitions across lower and upper secondary schools because data are aggregated at the school level for all the lower secondary schools that operate as part of an upper secondary school (28 percent of all lower secondary schools).
- The 2004 Cambodia Socio-Economic Survey (CSES) includes occupational and wage information for teachers and other professions. This survey is not designed to be representative of teachers. However, due to its large sample size (15 thousand households and 75 thousand individuals of whom 58.5 thousand are in the labor force), it includes interviews to a large number of teachers (679 persons).
- The 2004 Public Expenditure Tracking Survey (PETS) was administered in 220 primary schools from 12 provinces. While it does not cover the whole country, the survey samples were designed to be nationally representative. The main component of the PETS used for this analysis is a teacher survey which includes interviews of 1,069 teachers selected at random. However, sections of other PETS modules (such as school principal and parent questionnaires) are also referred to in this document.
- The 2006 grade 3 student assessment test in Khmer language and mathematics was administered in 210 schools to approximately 6,500 students drawn from 23 of the 24 provinces in Cambodia. The most remote area schools were excluded from the sample due to logistical difficulties, thus, the test results are expected to be an upward biased estimate of a truly national representative sample. In each school the tests were applied separately during two-day visits. Up to 35 students were selected in each school, usually from one class but when necessary they were drawn from two different classrooms. Each child was interviewed by enumerators to collect information on family background as well as school and classroom processes. Every teacher with a student in the sample was asked to complete two teacher questionnaires, one covering basic background information (experience, education, etc.) and the other focused on curriculum implementation.



- The 2006 Cambodia Education Sector Support Project (CESSP) survey collected data in 150 lower secondary schools (LSS) in 16 out of 24 provinces. In each school, trained teams of data collectors spent up to three days collecting 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 7 Khmer class and one grade 7 mathematics class. These teachers as well as the school principal completed background questionnaires. In addition, enumerators used a framework to assess the effective time-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 describes the type of activity undertaken at that moment. These marks were then added up by specific segment and general area, and then divided by the total to create 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.

This document is organized into six Chapters. The first Chapter provides a short history of Cambodian education development and summarizes key trends in education sector inputs, outcomes and policy. The second Chapter presents a profile of Cambodian teachers and places them in the spectrum of the country's workers and income-earners. It also details national trends in the supply and demand for new teachers. The third Chapter focuses on specific job attributes of teaching professionals: their working conditions, terms of contracting and job satisfaction. The fourth Chapter explores policies around teachers' salaries, incentives and alternative sources of income. A brief summary about trends in education financing is also included. The fifth Chapter focuses on teacher attendance and classroom practices as well as how these are ultimately reflected in student outcomes. The last Chapter provides a proposal for comprehensive civil service reform that includes expanding teacher recruitment, improving teacher pay and enhancing teacher performance quality assurance.

# Chapter 1 : A Brief Review of Education in Cambodia

## Overview

Cambodia's education landscape has undergone dramatic change in recent years as the country attempts to rebuild a system that was methodically destroyed during the Khmer Rouge period. The government estimated that 75 percent of teachers, 96 percent of university students and 67 percent of all primary and secondary school pupils were killed when the Khmer Rouge was in power (Clayton, 1998). Infrastructure was also destroyed or abandoned. Few books remained and the deterioration of school buildings and equipment was widespread (King, 2003). But in recent years a swelling of demand for education and a concerted effort on the part of the Royal Government of Cambodia (RGC), together with international partners and Non-Governmental Organizations (NGOs), has revived the education system. The number and characteristics of Cambodian teachers has also changed dramatically.

The overall level of education among adults is low, but there has been a blossoming in education attainment among younger generations. Enrollment rates at the primary level have increased significantly and advances in important indicators such as literacy, repetition rates and years of schooling for younger age cohorts are positive signs that the rebuilding process has taken root. The Government has focused its efforts in particular on primary schooling (grades 1-6).<sup>1</sup> According to the CSES 2004, the primary net enrollment rate has climbed in recent years to 76 percent, nearing the rates of its neighbors, and the primary gross enrollment rate stands among the highest in the region at 127 percent.<sup>2</sup> Progress has also tended to be pro-poor. Although socio-economic, rural and gender gaps in educational attainment exist, these gaps have generally been reduced significantly during the last decade, particularly at the primary level.

Despite notable progress, overall educational attainment in Cambodia remains low and the country faces significant challenges in reaching its goal of universal basic education (grades 1-9) by 2015. The primary completion rate, while improving, is still low. Most of the recent gains made in primary net enrollment rates can be attributed to a net gain in the proportion of children that enter school, most of whom are over-age, rather than children staying longer in school.

In stark contrast to the gains made on enrollment at the primary level, Cambodia's secondary system has only recently begun to catch up. According to CSES 2004, lower secondary (grades 7-9) net enrollment has more than doubled since 1997, increasing from 7.6 to 16.4 percent. Upper secondary (grades 10-12) net enrollment has also almost doubled, going from 4.6 to 8.5 percent. But these achievements fall short of the country's lower secondary education target of 51 percent by 2005. The student make-up is skewed overwhelmingly toward children from upper consumption quintile families and urban settings. Tertiary education enrolls only 1.4 percent of adults aged 19-22.

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<sup>1</sup> Cambodia's education structure consists of the following: **Preschool education** lasts three years and caters to children aged 3-5. It is not compulsory. **Primary education** is compulsory for children aged 6-11. The primary education program lasts six years and is the first stage of basic education. General **secondary education** is divided into lower secondary and upper secondary school. **Lower secondary** is for grades 7-9 and, in principle, compulsory for students aged 12-14. **Upper secondary** school is not compulsory and includes grades 10-12. **Post secondary education** includes technical/vocational and higher education.

<sup>2</sup> CSES 2004 data is used to report enrollment estimates since these are the latest available disaggregated *household* level data available. It should be noted that in the last three years, education statistics have likely experienced a positive upward trend and are probably slightly higher than those described here.

The government has shown commitment to improve schooling not only through policy, but also through increased expenditure. A critical factor in achieving poverty reduction through education has been to significantly increase the education recurrent budget share in recent years. In 2006 it reached 18.9 percent of government spending, nearly double the level of the second half of the 1990s. Moreover, budgets have been prioritized for basic education in order to maximize pro-poor expenditures. A benefit-incidence analysis indicates that the poor benefit from the government's major spending target of primary education, but the upper quintiles have significant representation in secondary and post-secondary schooling and receive the lion's share of benefits in those areas.

As primary and lower secondary school (LSS) access increases, demand for post-basic education is expanding. Providing opportunities to the poor for accessing upper secondary, technical/vocational and higher education have been identified as priority areas for policy development, while at the same time protecting budgets for basic education through the development of sector wide sustainable Education for All (EFA) financing strategies.

### ***Trends in school participation***

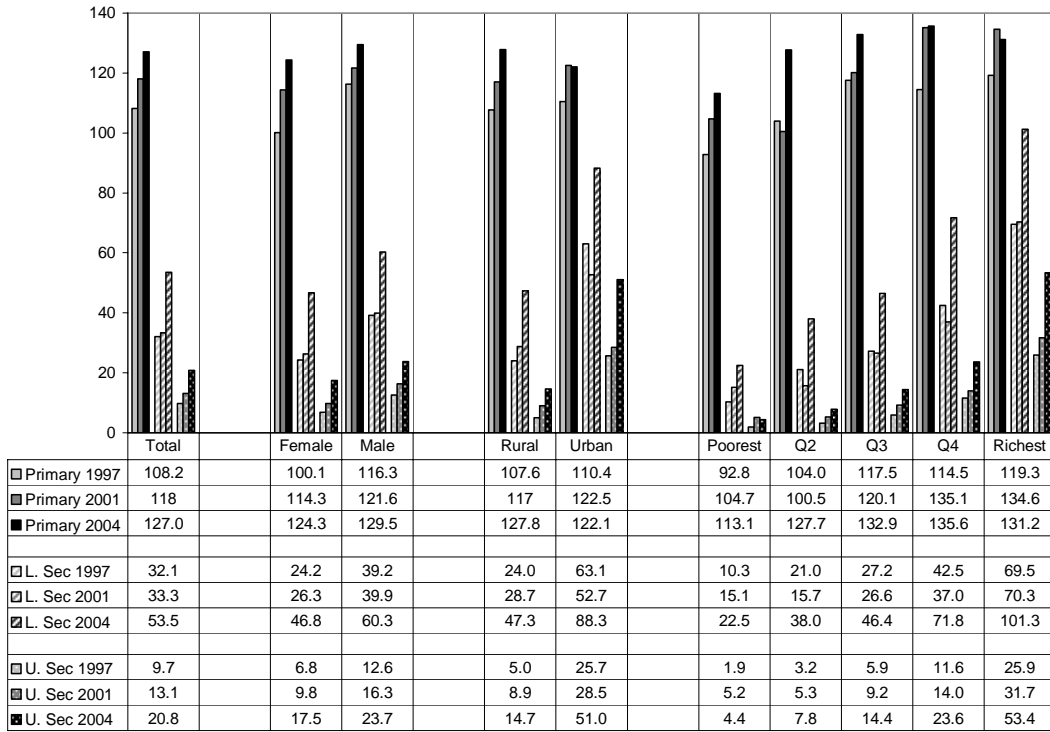
During the last decade, MoEYS has given its highest priority to increasing primary school enrollments, with actions such as the provision of school operational budgets for routine expenses, the abolition of enrollment fees and school-based learning remediation programs. These interventions have produced notable results. Enrollment has increased significantly for all location, gender and socio-economic groups and the gaps that exist within these groupings have generally been reduced. In stark contrast, while increases in secondary enrollment can be found for gender, location and socio-economic groups, the gaps have increased between urban and rural and the poorest and richest income quintiles.

In comparing results from 1997 and 2004 household surveys, significant increases in gross and net enrollment are found. *Figure 1.1* and *Figure 1.2* show that for every demographic grouping, gross and net enrollments have an increasing trend at all schooling levels and these increases have been generally large. While primary enrollment levels are high, there is a dramatic drop moving to the lower secondary level and a further dramatic drop moving to the upper secondary level. Gaps between demographic groups tend to be relatively small at the primary level, but the gaps between urban and rural and between the lower and upper quintiles are striking in secondary education. The differences between males and females tend to be small at all levels.

Rural gross enrollment is approximately half of urban lower secondary (47 to 88) and one-third of upper secondary gross enrollment (14 to 51). The gap widens for rural net enrollment, where it stands approximately at one-third (13 to 35) and one-fifth (5 to 25) of urban lower and upper secondary net enrollment respectively.

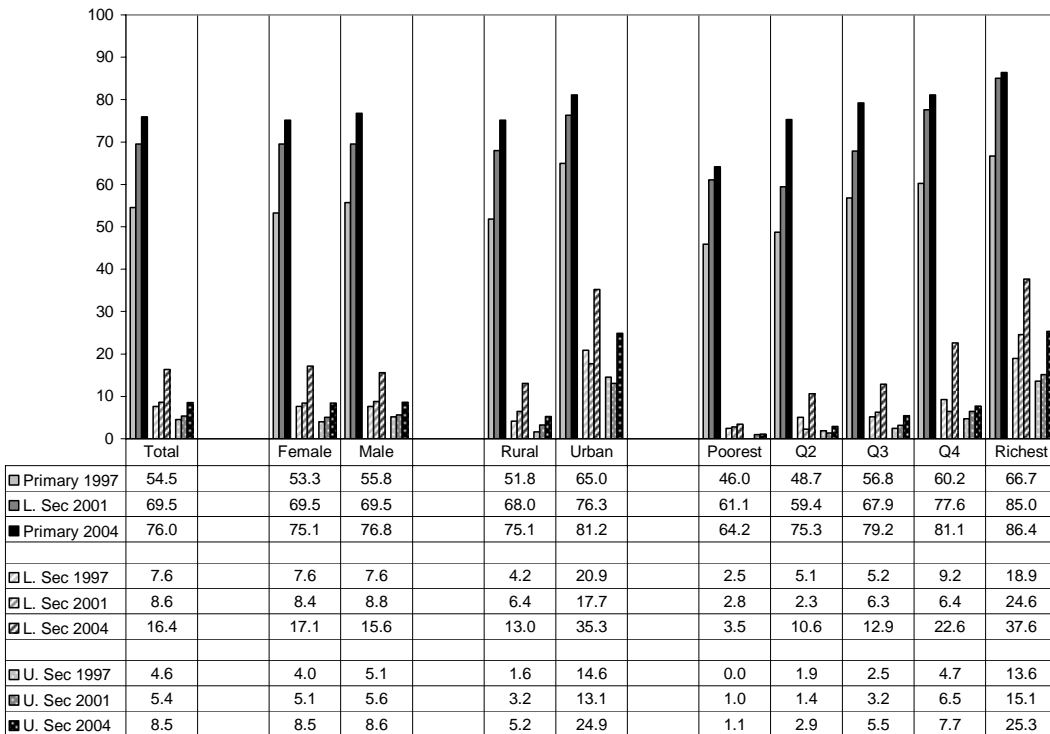
Discrepancies between consumption quintiles are even more dramatic. First, a steadily decreasing trend by quintile for gross and net enrollments at the lower and upper secondary levels can be seen by quintile. The lowest quintile has only 23 percent gross enrollment in lower secondary and a staggeringly low 4 percent upper secondary gross enrollment, compared to the upper quintile's 101 percent lower and 53 percent upper secondary gross enrollments.

**Figure 1.1: Gross Enrollment Rates for 1997, 2001 & 2004**



Source: CSES 1997 and 2004 and Child Labor Survey 2001

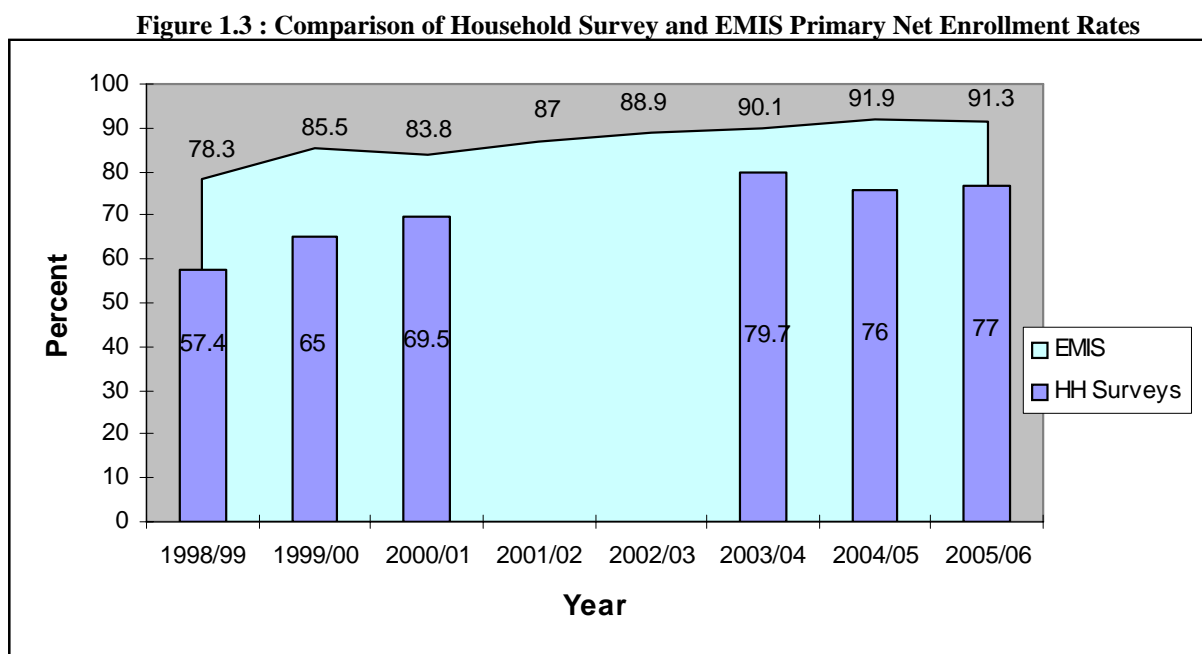
**Figure 1.2 : Net Enrollment Rates for 1997, 2001 & 2004**



Source: CSES 1997 and 2004 and Child Labor Survey 2001

Enrollment rates are significantly and consistently lower in household surveys than in official statistics, such as those collected in EMIS. For instance, EMIS data records from 2004/05 place

primary net enrollment rates closer to universal participation than household survey data, at 91.9 percent. These discrepancies are primarily not due to differences in the corresponding age group population or the absolute numbers of children attending each school level, but rather to the age distribution of those attending each school level. More specifically, the discrepancies are due to the fact that students attending each school level are reported to be significantly older in household surveys than in EMIS (see *Figure 1.3*).<sup>3</sup>



*Source: EMIS data and various household surveys: CSES 1999, Demographic and Health Survey 2000, Cambodia Child Labor Survey 2001, Cambodia Income and Poverty Survey 2004, CSES 2004 and Demographic and Health Survey 2005.*

Overage enrollment is pervasive in basic education and is primarily caused by late school entry. Trends in gross and net intake rates show that the bulk of the new student intake between 1999 and 2004 is attributed to children older than six years of age. Vulnerable groups are much more likely to be over-aged. In looking at the age distribution of children entering first grade, where the standard entry age is 6, only 28 percent of all new entrants were six or younger. Age 7 was the most common school entry age, but almost half are entering school at least two years behind schedule.

Late entry is a phenomenon that is common during a period of rapid expansion of a school system, particularly after a period of disruption. However, Cambodia’s situation appears to be not simply a temporary phenomenon. The average entry age for first grade in 2004 was 7.8 years. This is an improvement when compared to 1997 and 1999 survey results—8.7 and 8.4 years respectively. But since 2001, average age entry appears to have stabilized around 7.8. This finding suggests that late school entry may be related to structural factors such as child labor or malnutrition.

<sup>3</sup> In assessing this difference, it is worth noting that age is measured more accurately in household surveys than in EMIS, where age of the school’s student body is reported by the school director. This age underreporting is also typical of school censuses in other countries (Wils, 2004).

**Table 1.1: School Entry Age and Overage Intake, 2004**

	School entry		% Overage intake		% Overage by Level		
	Average age	% Overage	Grade 7	Grade 10	Primary	Lower Sec.	Upper Sec.
<b>Total</b>	7.8	72.2	87.5	79.7	38.5	67.1	56.2
Rural	7.9	74.7	90.5	85.0	39.6	70.9	62.6
Urban	7.0	57.5	77.6	69.5	31.2	55.7	47.1
Females	7.8	71.3	85.2	73.7	37.7	60.2	47.8
Males	7.8	73.1	89.3	83.6	39.2	72.5	61.9
<b>Poorest</b>	8.3	82.2	99.4	96.1	41.9	83.8	74.4
Q2	8.0	78.7	90.9	90.8	39.8	70.7	62.9
Q3	7.9	74.6	89.5	88.3	39.3	71.4	59.8
Q4	7.3	61.2	88.3	85.6	38.4	66.5	65.1
<b>Richest</b>	6.9	51.9	78.4	69.5	30.9	58.7	49.1

Source: CSES 2004

In 2001 Cambodia had one of the highest child labor rates in the region (UCW, 2006). While the government has made efforts to curb child labor in recent years, it is still prevalent and has a significant impact on education attainment. Policies that attract children to school at the proper enrollment age are avenues to reducing primary school dropout. To achieve this, and to reduce dropout rates more generally, efforts are needed to increase school readiness early on, for example, through a more extensive provision of early childhood care and education.

### **School completion and its determinants**

One of the education sector's most significant challenges is to keep children, particularly poor children, in school beyond the first few grades of primary school. Despite a remarkable improvement in primary enrollment rates, current trends in enrollment, school progress, and educational attainment figures suggest that Cambodia will need to continue to channel sustained efforts in order to reach its goal of universal primary education by 2015. Completion rate analysis shows that efforts to increase access to, retention in, and completion of primary and lower secondary education need to be specifically targeted at children in the poorest two quintiles.

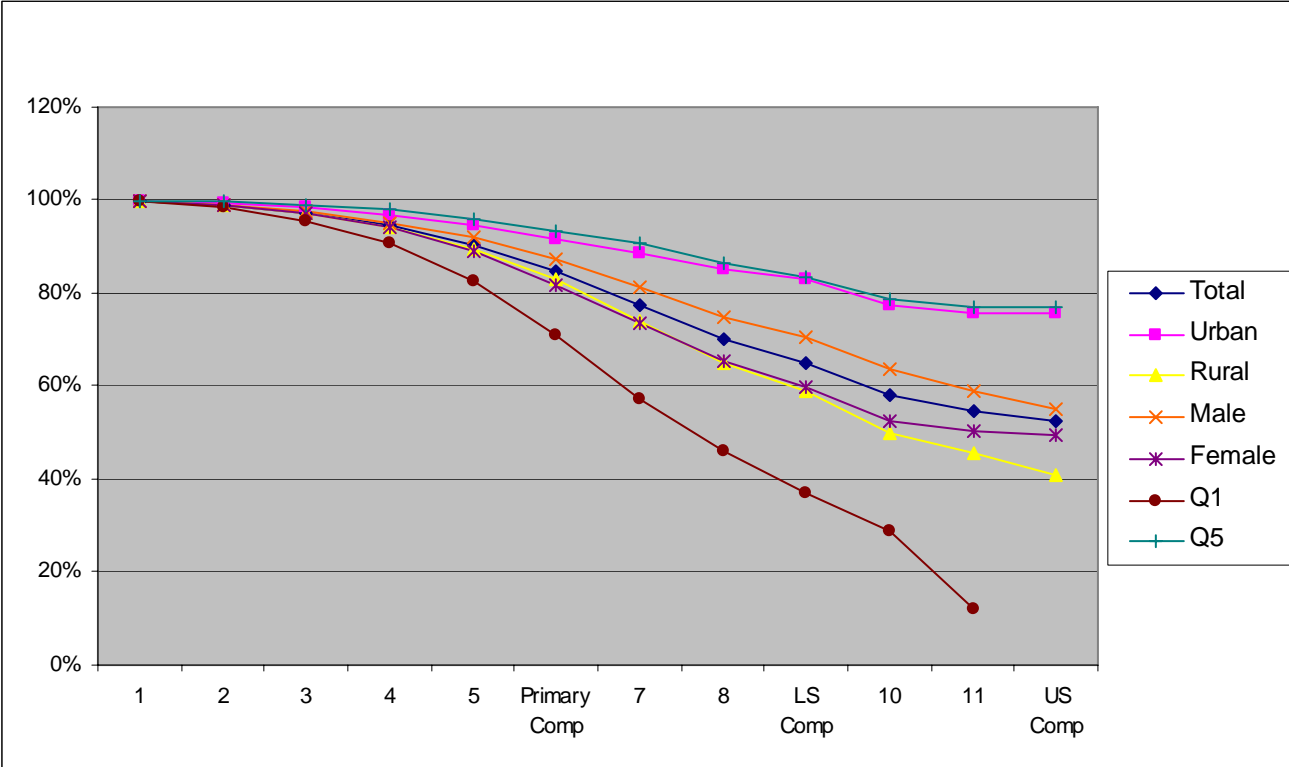
Most of the recent gains in primary net enrollment rates is due to a net gain in the proportion of children – mostly over-aged – that enter school, rather than children staying longer in school. A large and significant number of children continue to drop out before completing primary school.

According to CSES 2004, approximately 85 percent of children who start school graduate from primary school and only 65 percent complete basic education. While most children spend some time in primary school, a significant proportion of them drop out before finishing. If we take into consideration that many children never attend school to begin with, the primary completion rate is even lower. When including those who never entered school, the completion rates drop to 75 percent for primary and 52 percent for lower secondary school.<sup>4</sup>

<sup>4</sup> Kaplan-Meier estimates are a simple way of computing student survival curves. It involves computing the number of people who drop out at a certain time point/grade, divided by the number of people who were still in school at that time. We multiply these probabilities by any earlier computed probabilities, which is one reason this is called a "product limit estimate." It is often used to compare curves for two different groups of subjects (boys/girls, income quintiles, urban/rural). However, Kaplan Meier estimates are based on those students *who have enrolled in school*, rather than the

The richest quintile and urban groups have the highest completion rates by a significant margin, while the lowest completion rate is held by the poorest quintile, which lags significantly behind other groups. While primary completion rates are similar by gender, the gap widens in lower secondary, with males having a 15 percent greater completion rate than females. Interestingly, the gap narrows again to only 5 percent by the completion of upper secondary school. This suggests that the large dropout rate in upper secondary school is skewed towards boys (see *Figure 1.4*).

**Figure 1.4: Conditional Completion Rates by Grouping, Ages 6-17, 2004**



Source: CSES 2004

There have been significant improvements in the internal efficiency of the education system, but repetition and dropout rates in primary school remain high. Between 1998 and 2005 repetition rates in primary schools fell from 26.3 percent to 10.2 percent. The decline was most significant in those grades where repetition was higher (i.e. grades 1 and 2). Repetition rates in lower secondary school are lower than those in primary school and also fell from 8.8 percent in 1997 to 4.6 percent in 2005. Most repetition in lower secondary school occurs in the last grade.

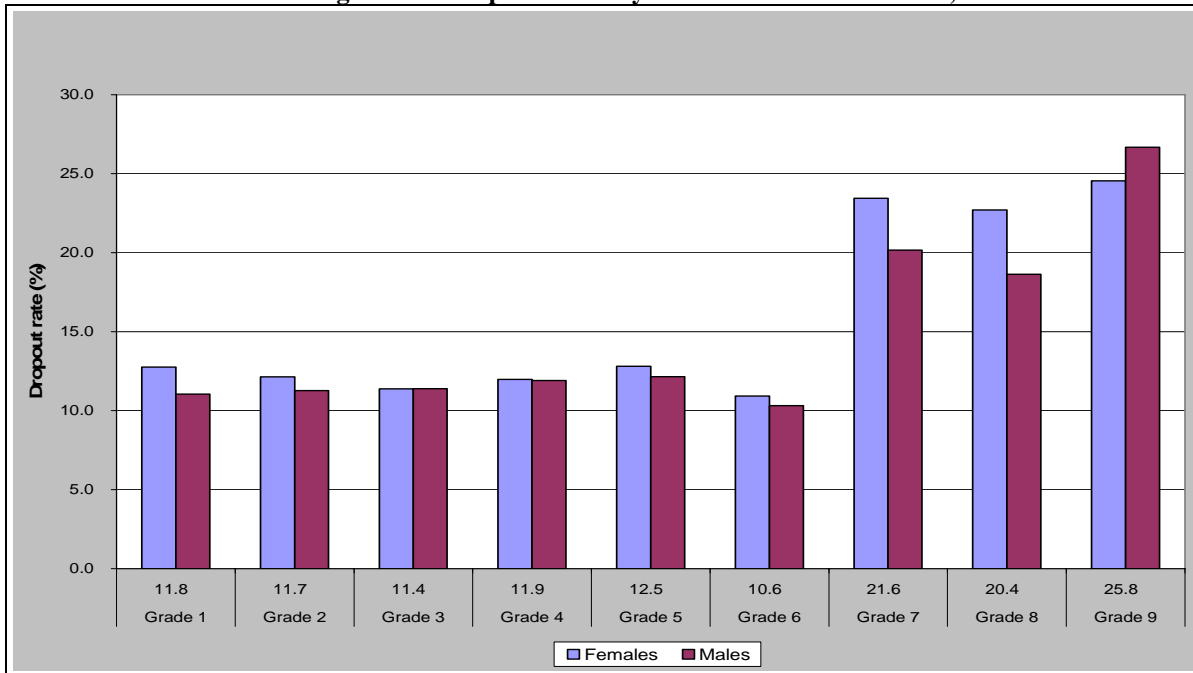
Even though dropout rates are higher in secondary school than in primary school, in absolute terms most dropouts occur in primary school by grade 5. Girls are at slightly greater risk of dropping out than boys, while children in remote rural areas are more than twice as likely to drop out as children in urban areas. Large dropout rates are the product of both demand and supply side factors. First, there is a high percentage of primary schools that do not offer the complete range of grades 1 through 6,

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total population. Children who *never enroll* in school must be taken into account to get an accurate overall picture of primary school completion estimates.

particularly the last two grades (approximately 1,499 in 2006/07). This problem is further compounded by the barriers imposed by direct and indirect costs to schooling.

**Figure 1.5: Dropout Rates by School Grade and Gender, 2004**



Source: Education Sector Working Group, 2006

Although household direct costs have been reduced after the introduction of the Priority Action Program (PAP) in 2000, they remain substantial. PAP provides schools with public resources that partially compensate for the removal of school charges for registration, learning materials, and tests – particularly at the primary level. However, these expenses were always small relative to other household costs such as uniforms, pocket money, transport, and supplementary tutoring.

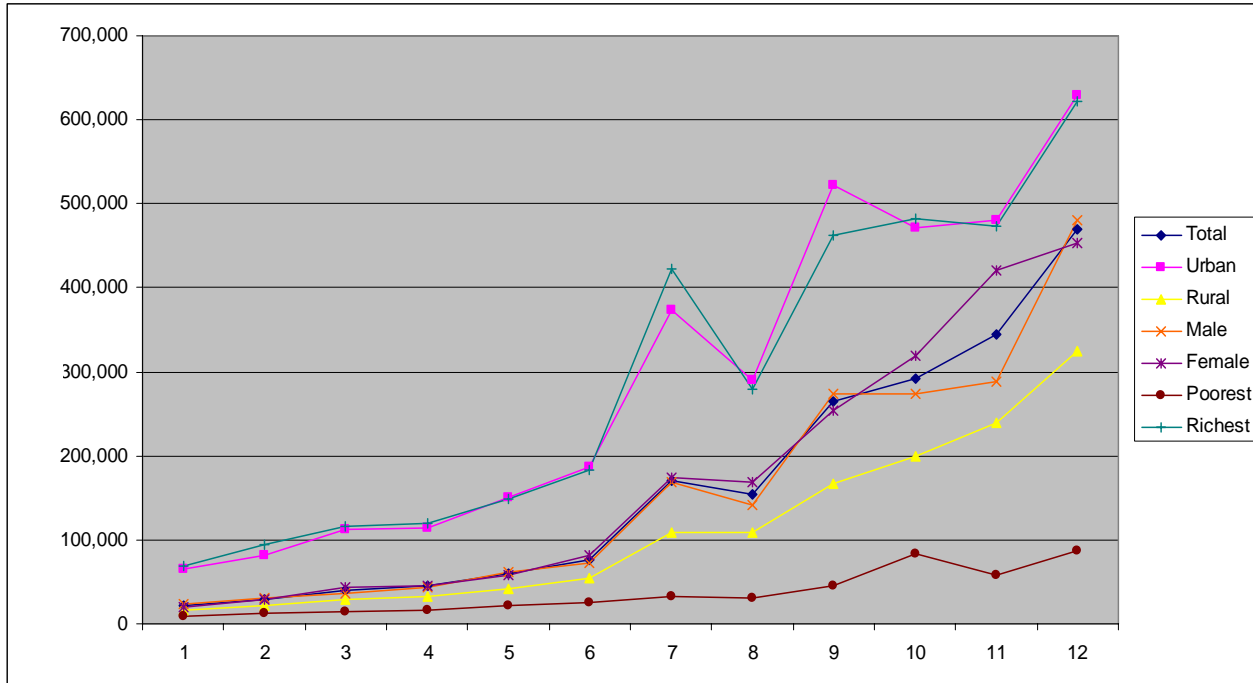
Household costs per student increase rapidly by grade and by school level. The greatest proportional increase is observed in the transition between primary and lower secondary school, with a dramatic jump of 124 percent. The cost of grade 12 is notably higher than other years, which may in part explain the dropout rate of 46 percent compared to only 10 percent in grade 11. There are also distinct differences in spending between demographic groups. Household costs are much larger in urban areas than in rural areas and the spending gap increases by grade. The differences in spending between the poorest and the richest quintiles are most striking, where the richest quintile begins to spend significantly more in lower secondary, while the poorest quintile keeps expenditures to a minimum (see Figure 1.6). Education expenditures can make up a large percentage of nonfood consumption nonetheless. Costs are nominal for grade 1, making up only 7.4 percent of total nonfood consumption, but they rise quickly and make up a quarter of all nonfood consumption by grade 7. By grade 12, schooling costs make up close to half of all nonfood expenditures.

Supplementary tutoring, which operates as a sort of shadow system alongside the mainstream schooling system, consumes considerable household resources, especially in urban areas and for key final grades. In grades 3-8, tutoring makes up approximately 20 percent of total education expenditure in urban areas and by 9<sup>th</sup> grade it amounts to 38 percent. Whereas in primary school tutoring usually covers the whole curriculum, in lower secondary school it is specialized by subject. In Cambodia,



much of the tutoring takes place in students’ own schools and is provided by their own teachers (Bray and Seng, 2004). The tutoring system that has evolved can be considered regressive as it is a cost that poor households typically cannot afford. This is a theme we will return to in more detail in Chapter 3.

**Figure 1.6: Household Expenditures by Demographic Grouping by Grade (in Riel)**



Source: CSES 2004

Child work is widespread in Cambodia and begins at a very early age. The time devoted by school-aged children to work is significant and contributes a sizable amount to the livelihood of the household. On average, children earn approximately USD1 per day, accounting for 28 percent of the total household labor income. Child labor has potentially negative consequences on child health and schooling. It can potentially interfere with schooling by reducing the time available for school activities and diminishing school performance as a result of physical exhaustion. Since 1992, the Government of Cambodia has been involved in several national and international activities aimed at combating the worst forms of child labor.

Working girls have greater difficulty combining work responsibilities with schooling. This is partly related to the fact that work seems to be more demanding for girls than for boys. Girls are also more likely to be engaged in both productive and domestic work than boys. This difference is first noted between the ages 12-14 but becomes increasingly apparent at ages 15-17. The 2001 Child Labor Survey showed 87 percent of girls aged 15-17 were working at the time of the survey, compared to 81 percent of the boys. Differences between socio-economic groups are also large. The richest quintile has 63 percent of those 10-17 years of age in school, compared to only 41 percent in the poorest quintile (UCW, 2006).

In order to reduce the direct costs to education and mitigate the loss of income due to time spent at school, MoEYS has launched a significant initiative to provide targeted “scholarships” to encourage poor children— particularly girls—to remain in school. This intervention has mainly focused on the lower secondary level. Incentive programs or conditional cash transfers for primary school students

have been limited and managed by selected NGOs, although MoEYS will launch a small pilot program for grades 4-6 in September 2008. The World Food Program also provides free breakfasts or take-home rations to primary school children in selected poor communes. On the supply side, MoEYS has focused on a large school facilities development program to complete incomplete primary schools and bring educational service delivery opportunities closer to children's homes. The school curriculum is also being revamped in order to improve the relevance of education, particularly in the area of life skills, and discourage school dropout. Finally, school re-entry schemes are being piloted on a small scale.

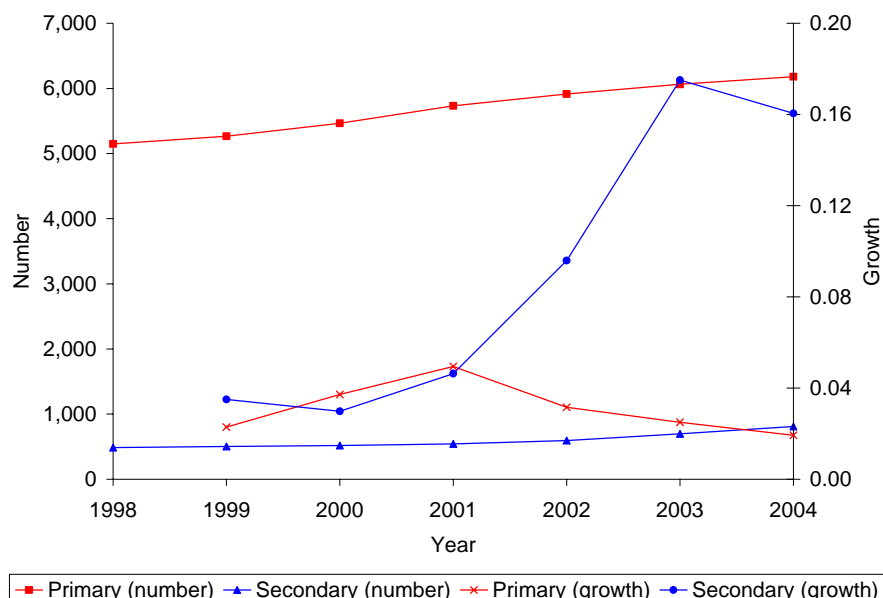
### ***The context of schooling***

The quality of education service delivery at both the primary and lower secondary levels has been traditionally poor, stemming from scarce resourcing, insufficiently trained teachers and principals, inadequate professional development opportunities, deficient school performance monitoring systems and weak local capacity to take responsibility for school improvement at the facility, district and provincial levels. Over the last decade, however, MoEYS has engaged in a massive effort to upgrade the context of schooling, particularly as it relates to physical infrastructure. This section provides a summary of the overall transformation of the conditions in which teaching and learning have been taking place. It serves as a prelude to Chapter 2, in which the characteristics of the teaching profession are explored.

### **School infrastructure**

The number of educational establishments has increased considerably in the last few years, but there are substantially fewer secondary schools than there are primary schools (see *Figure 1.7*). On average, there are 7.6 primary schools per secondary school. Due to these differentials, MoEYS has prioritized the expansion of lower secondary schooling in recent years. The rate of increase in the number of secondary schools has been substantially larger than that of primary schools (a growth rate of 16 percent versus 2 percent in 2004). Although the rate of growth of primary schools has been positive throughout the period, it has been continuously decreasing since 2001. On the other hand, the rate of increase of secondary schools has become larger throughout the period, except in 2004, when it experienced a decrease of about 2 percentage points. As a result, in 1998, 32 of Cambodia's 183 districts did not have a lower secondary school and 81 did not have an upper secondary school. By 2004 only 14 districts were still without a lower secondary school and 45 districts lacked an upper secondary school.

**Figure 1.7: Number of Schools, 1998-2004**



Source: EMIS 2004

Infrastructure quality has also improved in recent years. EMIS data provides detailed information on different variables related to school infrastructure. *Table 1.2* summarizes this information for years 2003 and 2004. The table illustrates that the percentage and the number of schools with drinking water and with toilet facilities had large increases between 2003 and 2004 for both urban and rural areas and primary and secondary schools. The number of classrooms with better quality materials (e.g. concrete versus wood or bamboo) also experienced an increase over that period, especially in rural areas. Consequently, there are relatively more classrooms with better quality material as a proportion of all classes. *Table 1.2* also describes the average number of classes that is under repair at each type of school. A similar pattern is observed in relation to classrooms without adequate roofs, walls, and floors as well as the availability of specific classroom infrastructure such as desks, chairs, blackboards, and teachers' tables. Overall, the number and the percentage of classrooms that lack these facilities decreased between 2003 and 2004. Secondary schools seem to be in better condition and better equipped than primary schools in both urban and rural areas. And urban schools have better infrastructure than those in rural and remote areas.

**Table 1.2: School Infrastructure, 2003 and 2004**

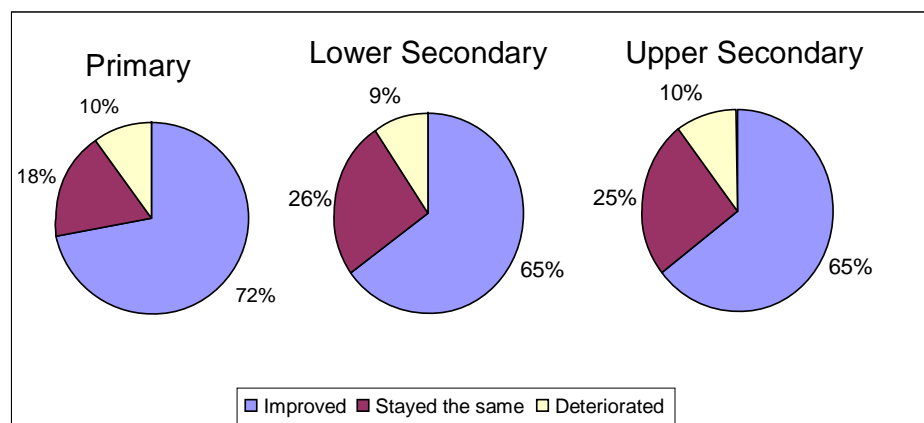
	Rural and Remote				Urban			
	Primary		Secondary		Primary		Secondary	
	2003	2004	2003	2004	2003	2004	2003	2004
Has drinking water (% of schools)	47.0	57.8	55.6	61.6	55.9	59.1	62.1	63.2
Has drinking water (number of schools)	2,548	3,063	319	339	356	381	77	84
Has toilet (% of schools)	56.9	66.2	70.6	81.6	73.2	74.9	80.6	88.0
Has toilet (number of schools)	3,089	3,508	405	449	466	483	100	117
Concrete rooms (mean number per school)	5.40	5.94	13.4	14.5	8.69	9.01	23.3	23.1
Concrete rooms (as % of school total)	61.5	67.2	85.9	90.0	68.3	71.1	90.0	91.5
Wooden rooms (mean number per school)	1.85	1.73	1.77	1.64	2.42	2.26	2.23	1.98
Wooden rooms (as % of school total)	33.5	29.1	13.5	9.5	30.4	28.1	9.7	8.3
Bamboo rooms (mean number per school)	0.15	0.10	0.05	0.06	0.04	0.03	0.10	0.06
Bamboo rooms (as % of school total)	5.0	3.7	0.6	0.5	1.2	0.7	0.3	0.2
Classrooms under repair (mean number per school)	0.25	0.24	0.59	0.62	0.25	0.23	0.62	0.68
Classrooms under repair (as % of school total)	5.2	4.8	4.6	4.4	3.5	3.8	1.9	3.4

Classrooms without good floor (mean number per school)	1.65	1.58	3.65	3.64	2.24	2.21	4.06	3.89
Classrooms without good floor (as % of school total)	24.2	21.8	22.4	20.1	21.6	19.6	14.0	13.8
Classrooms without good roof (mean number per school)	0.88	0.85	1.95	1.86	1.38	1.45	2.94	2.70
Classrooms without good roof (as % of school total)	14.1	12.7	11.6	9.8	12.6	13.2	9.1	7.8
Classrooms without good walls (mean number per school)	1.23	1.17	2.53	2.59	1.57	1.48	3.95	3.72
Classrooms without good walls (as % of school total)	20.0	17.9	16.5	14.1	16.2	14.6	12.1	12.1
Classrooms without desks (mean number per school)	0.39	0.36	0.77	0.70	0.30	0.25	0.56	0.46
Classrooms without desks (as % of school total)	7.5	6.6	6.0	4.6	3.1	2.8	2.9	1.5
Classrooms without chairs (mean number per school)	0.34	0.31	0.73	0.84	0.24	0.20	0.52	0.32
Classrooms without chairs (as % of school total)	6.5	5.9	5.2	4.8	2.4	2.2	2.5	0.9
Classrooms without blackboard (mean number per school)	0.26	0.21	0.49	0.41	0.24	0.18	0.31	0.17
Classrooms without blackboard (as % of school total)	4.5	3.6	3.9	2.3	2.3	1.7	1.2	0.6
Classrooms without teachers' table (mean number per school)	0.59	0.46	1.37	1.29	0.44	0.36	1.27	1.42
Classrooms without teachers' table (as % of school total)	10.0	7.9	9.4	7.2	5.5	4.5	5.9	4.4

Source: EMIS 2004

To complement EMIS data, the CSES 2004 village survey documents community perceptions regarding progress in school infrastructure. When asked whether their schools had improved over the past five years, the vast majority of respondents acknowledged that educational establishments had experienced improvements (72 percent relative to primary schools and 65 percent relative to secondary schools).

Figure 1.8: Change of School Condition in Last Five Years



Source: CSES 2004

The construction of new schools has made primary schooling relatively equal in terms of access between household income quintiles, but large differences can be seen for access to lower and upper secondary schools. As Table 1.3 shows, there is little difference in primary schooling indicators among villages separated by consumption quintile. The percentage of villages with a primary school is 49.2 percent for poorest quintile villages and 48.6 percent for upper quintile villages. The average distance to the nearest primary school is 2.25 kilometers for those in the poorest quintile, which is only slightly longer than those in the richest quintile at 1.66 kilometers.

But distinct differences emerge for lower secondary schooling. Only 8.4 percent of the poorest quintile villages have a lower secondary school compared to the richest quintile's 15.9 percent. The average distance to the nearest lower secondary school for the poorest quintile is 7.66 kilometers, which is more than twice the richest quintile's distance of 3.09 kilometers. The number of villages that have an upper secondary school is extremely low for all quintiles, with only 3.4 percent of the poorest quintile villages having an upper secondary school and 5.9 percent of the richest villages. The

average distance to the nearest upper secondary school is 16.9 kilometers for the poorest quintile villages compared to 7.34 kilometers for the richest quintile villages. The distance of 16.9 kilometers is undoubtedly a significant constraint to attending upper secondary school, both in terms of time required and transportation costs.

**Table 1.3: Selected Village Education Indicators Consumption Quintile, 2004**

Indicator	Per capita consumption quintile					All	Ratio, total to poorest
	Poorest	Q2	Q3	Q4	Richest		
Primary school in village (%)	49.2	53.6	56.3	55.9	48.6	52.7	1.07
Distance to nearest primary school (km)	2.25	1.78	2.01	1.66	1.05	1.75	0.78
Lower secondary school in village (%)	8.4	9.9	12.4	14.3	15.9	12.2	1.45
Distance to nearest lower secondary school (km)	7.66	5.91	5.25	4.40	3.09	5.27	0.69
Upper secondary school in village (%)	3.4	3.4	4.9	5.0	5.9	4.5	1.34
Distance to nearest upper secondary school (km)	16.90	13.44	11.56	9.93	7.34	11.84	0.70
Adult literacy program in village (%)	18.7	20.8	19.7	18.2	16.3	18.7	1.00

Source: CSES 2004

## Community perceptions of school problems

The CSES 2004 village survey posed the question, “What are the major problems with schooling in this village?” This query was asked for primary, lower secondary and upper secondary levels. For all levels, the responses are revealing and very relevant to the main focus of this study. They tended to focus on teacher standards of living, poor infrastructure and lack of space. The top reason for all three schooling levels is that “*the living standard of teachers is too low,*” highlighting low teacher remuneration as a key concern, even from parents’ perspective. At the primary level, “poor school buildings” and “not enough places/desks” were offered as additional top reasons. For lower secondary schools, the responses “poor school buildings” and “schools too far” stand out, while for upper secondary schools, “not enough places/desks” is another important source of concern.

**Table 1.4: Community Perceptions on Biggest School Problems**

Problems	Primary		Lower Secondary		Upper Secondary	
	1 <sup>st</sup> Reason	Top 3	1 <sup>st</sup> Reason	Top 3	1 <sup>st</sup> Reason	Top 3
Living standard of teachers is too low	27%	21%	37%	24%	28%	21%
Not enough places/desks	20%	18%	8%	11%	18%	13%
Poor school building	20%	10%	18%	11%	12%	5%
Not enough teachers	9%	12%	9%	11%	9%	11%
Other	6%	6%	7%	7%	2%	7%
School too far	6%	3%	13%	5%	10%	7%
School budget constraint	4%	7%	2%	11%	-	12%
Not enough supplies	3%	11%	4%	12%	11%	12%
Classes not held regularly	3%	9%	0%	5%	10%	10%
Poor quality of teachers	2%	4%	1%	2%	-	2%

Source: CSES 2004

## Cambodia’s education sector reform strategy

Cambodia has made great strides in rebuilding its education system and its achievements should be celebrated, but many challenges remain in reaching its goal of universal basic education (grades 1-9)

by 2015. Viewing trends by demographic groupings highlights the fact that strides have been made in reducing the gender gap and the urban-rural gap, but that the country's poorest have not benefited as much as other groups. Ensuring that the poor participate more – particularly beyond primary school – is one of the biggest challenges faced by Cambodia. Without programs that help bring the poor and keep them in school, the goal of universal basic education will remain elusive. The Education Sector Support Program (ESSP) highlights a number of the challenges that remain:

- low access to basic education, particularly lower secondary schooling, among children from poor families, girls, ethnic minorities, children with disabilities and children living in remote areas
- high dropout rates in basic education, with most of this dropout occurring in upper primary school before children have completed the full cycle
- uneven quality and standards in basic education

The MoEYS prepared an *Education Strategic Plan* (ESP) for 2006-2010. This process was informed by findings and recommendations from past annual ESSP reviews and from relevant sector studies. The ESP lays out policy priorities that diverge from previous policy formulations for basic education in three main respects:

- increased emphasis on demand-side interventions
- greater importance on improving education quality
- stronger focus on lower secondary education

Some of the key measures to continue to increase educational opportunities for out of school children and improve student retention are summarized in *Table 1.5* below:

**Table 1.5: Measures in *Education Strategic Plan, 2006-2010***

Supply-side measures	Demand-side measures
<ul style="list-style-type: none"> <li>➤ Reduce the number of incomplete primary schools (about 1,700 across the country in 2005), by means of an increase in multi-grade teaching in sparsely populated areas and additional facilities.</li> <li>➤ Increase the number of schools and classrooms in secondary education.</li> <li>➤ Improve quality of teaching and learning by nationwide implementation of the new Child Friendly School curriculum, student achievement standards and local life skills programs.</li> <li>➤ Expand public/NGO/community partnerships in non-formal education.</li> <li>➤ Expand access to Early Childhood Education programs for 5-year-olds.</li> <li>➤ Vernacular/mother tongue instruction for ethnic minority children</li> <li>➤ Increased provision of core instructional materials and textbooks</li> </ul>	<ul style="list-style-type: none"> <li>➤ Abolish “informal” payments by parents in grades 1-9 while simultaneously increasing school operational budgets and teachers’ remuneration.</li> <li>➤ Scholarships for the poorest children, and especially poor girls, targeted at grades 7 to 9.</li> <li>➤ Better poverty targeted school feeding.</li> <li>➤ Stricter regulations governing on-time entry (children at age 6) into grade 1 (linked to expanded early childhood education for 5 year olds).</li> </ul>

Source: ESWG 2006, p. 21

As a result of MoEYS investments in school facilities and instructional materials in the past few years, a notable transformation has taken place in secondary education. Lower secondary net enrollment rates reached only 15 percent in 1997, by 2001 had increased merely to 19 percent, but subsequently accelerated its rate of growth, reaching 31 percent in 2005. Yet, while it is important to continue to provide increasing resources to secondary schooling, it is also important to highlight that the bottleneck of the basic education system begins, not in LSS, but in primary school. Efforts to complete incomplete schools through multigrade teaching and additional classrooms will certainly help in providing primary education services where they are not available. But direct and indirect household costs reinforce each other to produce a critical barrier for the poor starting in upper primary grades. These findings call for greater emphasis on promoting primary school completion and addressing demand-side constraints.

The poorest quintile stands out as the group lagging furthest behind and must be targeted in order to achieve universal primary education. Scholarship programs or conditional cash transfers in lower secondary have proved to be effective in removing the critical barrier created by direct and indirect costs. Results of this program indicate that 30 to 43 percent of scholarships that were awarded to grade 7 girls kept the recipient in school who would not otherwise have been enrolled (Filmer and Schady, 2006).

In addition to interventions that are mainly designed to keep children enrolled in basic education, efforts are needed to recover those who are already out of the system. To this end, the government is to be commended for a small expansion of re-entry and equivalency programs for school dropouts. A sustained expansion of such programs must be continued.

As noted earlier, late school entry is a pervasive and structural phenomenon with very negative consequences on primary school completion. Late school entry means that schooling faces greater competition with work responsibilities. Thus, policies that attract children to school at the official entry age of 6 will be essential to reducing primary school dropout.

To achieve this, and to reduce dropout rates more generally, efforts are needed to attend to the school readiness of children and the provision of preschool education. The ESP 2006-2010 explicitly strives to expand community and home based education programs, including community-based information campaigns and holistic early childhood interventions, especially in disadvantaged environments. However, investments in Early Childhood Education (ECE) (USD0.19 million in 2006, increasing up to USD 0.3 million by 2010) have remained comparatively modest within the overall education program (0.5 percent of PAP recurrent share), particularly given the magnitude of the problems they aim to address.

Curricular reform, a greater focus on life skills and better monitoring of student performance have set the stage to enhance the relevance of children's educational experiences. MoEYS has also begun piloting vernacular language instruction programs in the early primary grades with promising results. Mother tongue education has been shown to reduce attrition rates of ethnic minority learners (Noorlander, Samal and Sohout, 2003). Further concerted efforts to expand and strengthen these interventions could pay enormous dividends, especially for disenfranchised and marginalized communities.

Yet, although all of these measures are certainly critical to expand access and improve student retention, they are not sufficient to bring about lasting change. Teacher quality is considered one of the most important contributing factors to improving student achievement (Rice 2003; Rivkin, Hanushek and Kain 2005). The following Chapters explore the relationships between the teaching profession and educational equity, quality and efficiency. Teachers and teaching practices play a critical role in educational development, both directly and indirectly as well as at the classroom and systemic levels.

Schooling statistics and surveys have highlighted the fact that teacher issues are a major concern. Teacher scarcity is a core problem, with an average student-teacher ratio of 51:1 in primary school. Getting teachers placed in remote areas remains a challenge, affecting the most disadvantaged students. And communities cite low teacher living standards as the most salient school problem at all educational levels. These factors point to the need to address teacher recruitment, deployment and remuneration.

The analysis of direct costs demonstrates that these remain a significant barrier to participation in schooling for disadvantaged children. The removal of formal entry fees brought about a significant improvement with visible payoffs. But uprooting informal fees, such as those from supplementary tutoring, will require more comprehensive strategies as they are linked to broader civil service reform constraints. And teacher preparedness and performance in addition to poor professional standing of teachers in terms of capacity development opportunities, autonomy/responsibility, and managerial/system support pose significant obstacles to educational quality. Thus, there is an urgent need to articulate more clearly and engage in a deeper teacher reform overhaul, inclusive of teaching service conditions, minimum standards, and performance-based incentives within a sustainable budget framework. To these subjects we now turn our attention.



## Chapter 2 : Cambodian Teachers in Profile

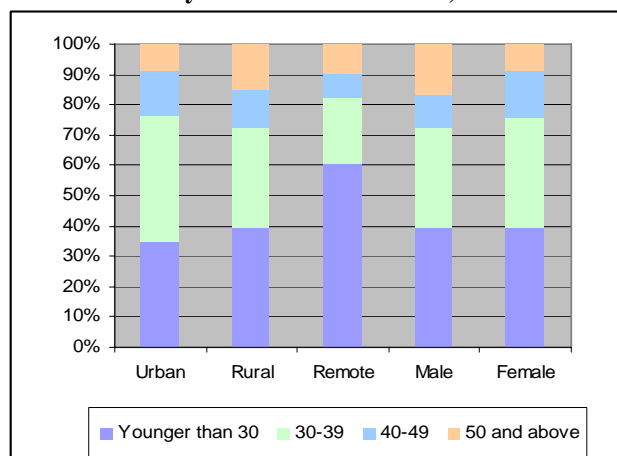
### *Who are the teachers?*

There are about 50,000 primary school teachers and 25,000 secondary school teachers in Cambodia. The teaching profession has traditionally been male-oriented, but this is increasingly changing over time. In recent years, we observe a trend towards greater feminization. Between 1998 and 2004, the share of female primary school teachers increased from 37.1 to 41.4 percent, while the share of female secondary school teachers increased from 26.8 to 31.7 percent. Female teachers tend to be more prevalent in primary than in secondary schools. In fact, female teachers comprise the majority of teachers in urban primary schools (62 percent versus 40 percent in urban secondary schools). On the other hand, female teachers represent, respectively, 37 and 25 percent of the teacher body in rural and remote primary schools and 27 and 15 percent in rural and remote secondary schools.

Nevertheless, school directorship remains a strongly male-dominated post. Only 7.3 percent of primary school directors were female in 2004, a small increase from 6.5 percent in 1998. A similar tendency is observed in secondary schools. In 1998, a mere 4.3 percent of schools were headed by a woman, increasing to 5.6 percent in 2004. Urban areas tended to have the largest participation of female primary school directors, 16.3 percent in 2004, compared to 6.3 percent in rural and remote schools. Female secondary school directors in urban, rural, and remote areas were less common, representing 9.8, 4.7 and 0 percent respectively in 2004.

A majority of Cambodian teachers are young. In 2004, 79, 71, and 85 percent of teachers were under age 40 in urban, rural, and remote primary schools respectively. The age distribution of teachers in rural and urban primary schools is similar, except that rural primary schools have significantly more teachers who are 50 or older. In turn, remote primary schools differ substantially from the other two categories in that they have the youngest teaching staff. Seventy-three percent of teachers in remote primary schools are younger than 30. Interestingly, age distribution across genders differs little for teachers under age 40. However, there are more male teachers who are 50 or older and relatively more females who are 40-49 years old (see *Annex 2.1* for a provincial disaggregation of *Figure 2.1*).

**Figure 2.1: Age of Primary School Teachers, by Location and Gender, 2004**



Source: EMIS 2004

Note: Observations; urban = 10,455; rural = 37,262; remote = 1,465; Male = 29,462, Female = 20,678

**Figure 2.2 : Provincial Distribution of Primary School Teachers below Age 30, 2004**

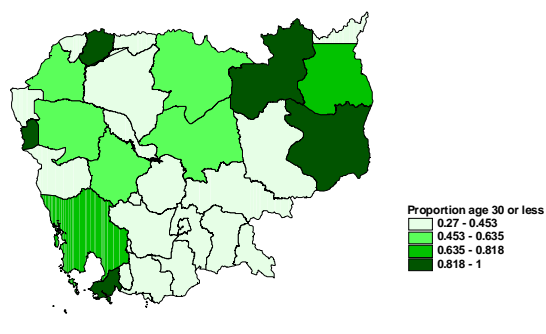
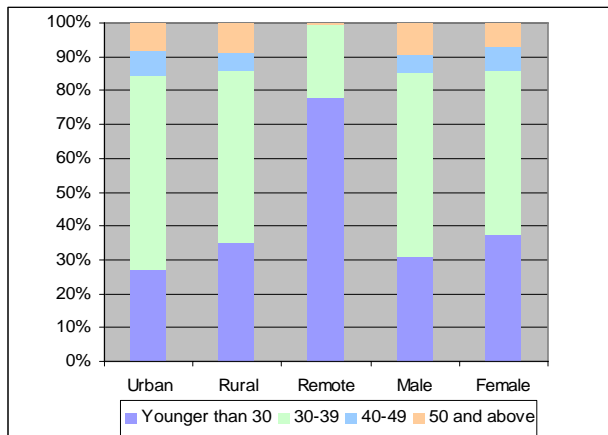


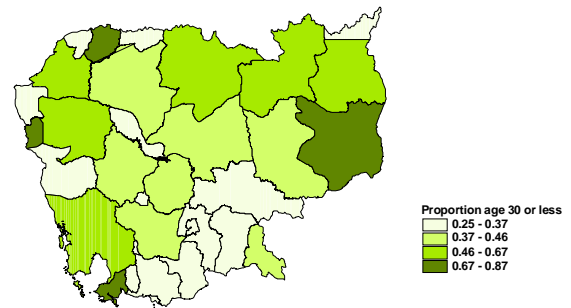
Figure 2.3 presents the age distribution of secondary school teachers. Secondary school teachers are young as well, but slightly older than their primary school counterparts. Furthermore, there are very few secondary school teachers—and secondary schools generally—in remote areas. Relative to primary school teachers, a bigger share of those in secondary urban and rural schools are clustered around 30-39 years of age. When partitioned by gender, the data shows that there is a slightly larger proportion of younger female secondary school teachers than there are males (see Annex 2.2 for provincial-level information on the age distribution of teachers in Figure 2.3).

**Figure 2.3: Age of Secondary School Teachers, by Location and Gender, 2004**



Source: EMIS 2004

**Figure 2.4: Provincial Distribution of Secondary School Teachers below Age 30, 2004**



Note: Observations; urban = 9,001; rural = 14,668; remote = 155; Male = 17,143, Female = 7,964

Data from EMIS 2004 not presented in these tables suggests that, contrary to primary school teachers, a majority of non-teaching staff of primary schools is older. In fact, 40 percent of non-teaching staff in primary schools is 50 years of age or older, while only 12 percent is younger than 30. This is not as extreme in secondary schools, where about 50 percent of the staff is younger than 30 and only 32 percent are 50 or older.

Drawing from data in CSES 2004, Table 2.1 compares Cambodian workers across different economic sectors. All workers were classified based on their declared primary occupation. On the far-left column are workers in the education sector, of which 95 percent are teachers. A number of descriptive statistics for these different types of workers are presented. The last two columns show the t-tests comparing means across pairs of groups. In the second to the last column, teachers are compared to other government workers while in the last column teachers are compared to all other workers.

The teaching profession is, on average, less male dominated than other civil servants, but in general, it has less females than all other sectors together. Teachers are also younger than other civil servants, although they are relatively older when compared to all other workers. Consistent with the age profile, and compared to other civil servants, teachers are less likely to be married and more likely to have never been married. Opposite patterns are found when comparing teachers to all other workers.

Teachers are more likely to be of Khmer ethnicity than other workers, while there are no significant differences between teachers and other civil servants. In terms of human capital, teachers have more

years of education *and* are more likely to speak at least one additional language than all other civil servants or workers. Relative to their geographic mobility, teachers are more likely than other government workers to be living in the village where they were born. However, when compared to all other workers, it results that more teachers have left their place of birth.

Finally, teachers are also more likely to be attending continuing education programs than other civil servants, but less likely than the rest of workers, which is consistent with the latter being also younger and less educated, on average.

**Table 2.1: Characteristics of Workers in Different Sectors of the Economy, 2004**  
(Means and Standard Deviations)

	Education	Health	Public Administration	Agriculture, Livestock and Forestry	Fishing	Other	1=3	1=All others
	1	2	3	4	5	6		
<b>Male</b>	0.66	0.64	0.88	0.50	0.74	0.46	***	***
<b>Age in years</b>	36.4	40.3	40.3	29.8	28.1	31.5	***	***
<b>Married</b>	0.68	0.76	0.85	0.58	0.57	0.54	***	***
<b>Never married</b>	0.27	0.13	0.13	0.35	0.39	0.38	***	***
<b>Widowed</b>	0.05	0.07	0.02	0.05	0.02	0.06	***	**
<b>Khmer ethnicity</b>	0.99	0.99	0.98	0.96	0.88	0.97		***
<b>Speaks at least two languages</b>	0.38	0.48	0.32	0.06	0.15	0.11	**	***
<b>Born in village where living now</b>	0.43	0.38	0.27	0.77	0.74	0.58	***	***
<b>Years of schooling</b>	10.7	10.3	9.3	4.7	4.3	6.1	***	***
<b>In school</b>	0.04	0.03	0.04	0.33	0.25	0.14		***
<b>Number of occupations</b>	1.36	1.23	1.24	1.21	1.12	1.09	***	***

Source: CSES 2004

Notes: Difference is significant at: \*\*\* 99%, \*\* 95%, \* 90%. T-tests are done on un-weighted data.

## Educational background and experience

With regards to formal training, teacher average levels of formal education are low. As would be expected, secondary teachers have had more educational training than primary teachers. According to EMIS data, in 2004 the majority of primary school teachers—69 percent—had only obtained a lower secondary degree; that is, a grade 9 education. Only 7 percent had completed primary school, while 24 percent of primary teachers had finalized their upper secondary education. On the other hand, 44 percent of secondary school teachers had completed upper secondary education, 38 percent held a lower secondary degree and a miniscule 0.1 percent had only completed primary education. While 18 percent of secondary school teachers had post-secondary school education, a mere two-tenths of a percentage of primary school teachers had received equivalent training.

Table 2.2 shows that most teachers have indeed completed at least lower secondary school. It also illustrates that differences in teachers' education by gender are very small. Relative to rural schools, urban schools have more teachers who completed higher levels of education. But another interesting trend is also revealed. Remote schools exhibit a substantially larger share of teachers with upper secondary education than urban or rural schools. This finding defies conventional wisdom that remote area schools have the least skilled teachers. On the other extreme, they are also more likely than urban or rural schools to have teachers that only have primary schooling.

**Table 2.2: Education of Primary School Teachers, by Location and Gender, 2004**

	Urban A	Rural B	Remote C	Male D	Female E	A=B	B=C	D=E
Primary	0	2.4	6.2	2.7	1.8	***		
Lower secondary	48.4	56.3	18.5	50.1	56.1	*	***	*
Upper secondary	51.6	41.2	75.3	47.3	42.1	**	***	
Observations	159	829	81	675	394			

Source: PETS 2004

Notes: Differences are statistically significant at: \*\*\* 99%, \*\* 95%, \* 90%.

The over-representation of teachers with higher education levels in remote areas reflects the shifting educational profile of Cambodian teachers. Teachers in remote schools are more likely to be younger than urban or rural teachers. And younger teachers tend to be better educated. There are very large and significant differences in the levels of schooling across older and younger school teachers. The PETS 2004 Teacher Survey reveals that 90 percent of primary school teachers with upper secondary education are younger than 30 years of age. *Table 2.3* illustrates how younger cohorts of teachers differ from older cohorts. The table partitions PETS primary school teachers into three age cohorts.<sup>5</sup> The last two columns of the table present results from t-tests that evaluate the statistical significance of the differences across contiguous age cohorts. Teachers under 30 years old are three times more likely than those who are 30-39 years old and seven times more likely than those who are 40 years and older to have completed upper secondary education. In turn, teachers who are 30 years of age and older are seven times more likely than those younger than 30 to have completed at most lower secondary education. The magnitude of these differences suggests important structural changes in the teaching force of Cambodia that could potentially reflect in very positive effects in terms of teacher quality.

**Table 2.3: Education of Primary School Teachers by Cohort, 2004**

	<30 A	30-39 B	40 and up C	A=B	B=C
Has lower secondary or less	0.10	0.74	0.87	***	***
Has upper secondary	0.90	0.26	0.13	***	***
Observations	383	389	281		

Source: PETS 2004

Notes: Difference is significant at: \*\*\* 99%, \*\* 95%, \* 90%

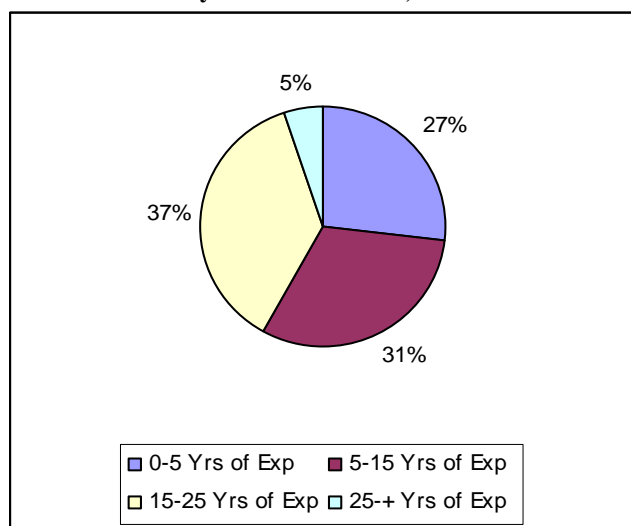
Differences in levels of education across younger and older primary teachers are reinforced by the higher likelihood of younger teachers to have attended preservice training and by the fact that –of those who received it—they received this training for a longer period of time. While virtually all primary teachers younger than 30 have participated in preservice training (96 percent) for a two year period, only 87 and 43 percent of primary teachers age 30-39 and 40 and older had any preservice training and, when they did, it was for shorter periods of time (1.3 and 0.2 years, respectively). We observe a similar but less pronounced pattern in lower secondary school teachers.

Teaching skills are developed not only through formal training but through on-the-job training and professional practice as well. EMIS data provides information on teachers' experience as measured by the number of years of service. Aggregate data suggests that 27 percent of teachers in primary schools

<sup>5</sup> Age cohorts "40-49" and "50 and up" that were presented as separate categories in previous tables are merged in this one to balance the number of observations in each of the columns and because these are two groups that have many commonalities in their observable characteristics.

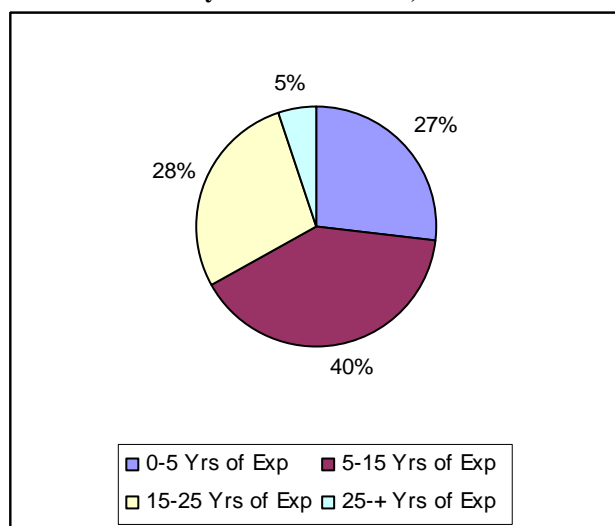
had 0-5 years of experience, 31 percent had 5-15 years of experience, 37 percent had 15-25 years of experience, and 5 percent had more than 25 years of experience. The distribution of years of experience does not differ across male and female teachers. In turn, among secondary school teachers, 27 percent had 0-5 years of experience, 40 percent had 5-15 years, of experience 28 percent had 15-25 years of experience, and 5 percent had more than 25 years of experience. The differences in experience across primary and secondary school teachers are consistent with the age differences observed earlier. Given that the number of female secondary school teachers has increased among younger cohorts, this trend also reflects a larger share of female teachers with fewer years of experience.

**Figure 2.5 : Primary School Teachers by Years of Service, 2004**



Source: EMIS 2004

**Figure 2.6 : Secondary School Teachers, by Years of Service, 2004**



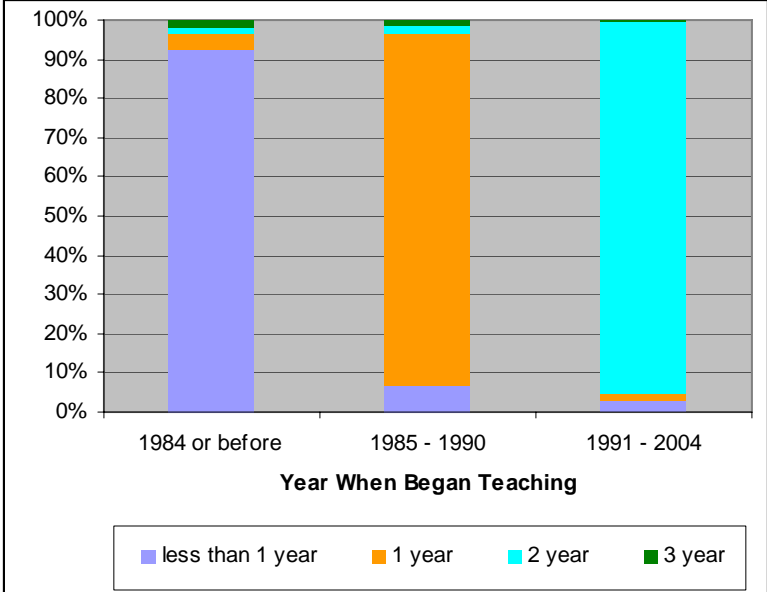
Source: EMIS 2004

PETS 2004 data makes it possible to explore primary school teachers' experience at a more disaggregated level. An average primary school teacher has around 12 and a half years of experience and there are no differences across male and female teachers. In terms of school location, there are no statistically significant differences in the mean years of experience of teachers from urban and rural schools. However—and consistent with the fact that teachers in remote schools are the youngest—they are also the ones with the least experience, only seven years on average. The order of magnitude of the differences in mean years of experience across age cohorts is of about the same size as the cohorts themselves, which suggests that an average teacher is likely to remain in this profession throughout his or her career.

For the most part, teachers come to schools with the expected professional training. According to the PETS 2004 survey, 78 percent of all primary school teachers expressed completing preservice training and obtaining their teacher certification prior to becoming teachers. The likelihood of having received preservice training was slightly higher in remote schools (close to 90 percent) than in urban and rural schools (between 81 and 76 percent, respectively). Of those who received preservice training, a majority (59 percent) reported having done it for two years, while the remainder of teachers had shorter periods of training. It is important to highlight that the number of years of preservice training appears to be very much tied to the year in which the interviewee began teaching. As can be observed in *Figure 2.7*, 92 percent of teachers who began teaching before 1984 typically had less than one year of preservice training. In turn, 90 percent teachers who started between 1985 and 1990 had one year

of training, while 95 percent of those who began teaching after 1991 received two years of training. This is indicative of the evolution and compliance of the requirements to enter the teaching profession, with a steady increase in preservice training years as the system continues to develop and strengthen.

**Figure 2.7: Years of Preservice Training, by Year Started Teaching, 2004**



Source: PETS 2004

**Table 2.4: Preservice Training of Primary School Teachers by Cohort, 2004**

	<30	30-39	40 and up	A=B	B=C
	A	B	C		
Has preservice training	96%	87%	43%	***	***
Years of preservice training	1.96	1.34	0.24	***	***
Observations	383	389	281		

Source: PETS 2004

Notes: Difference is significant at: \*\*\* 99%, \*\* 95%, \* 90%

Participation in preservice training is practically universal among lower secondary school staff. Based on the CESSP teacher survey, almost 97 percent of teachers report having secured their teacher certification. The level of satisfaction for the training received at teacher training colleges is also high. More than half of all surveyed teachers rate the quality of training as average and almost 40 percent considered their teacher preparation coursework to have been very good. Only a tiny minority—one percent—rate it as poor. There are no significant variations by school type.

**Box 2.1 : Preservice Training Requirements for Teachers**

Teacher education level is low in large part due to the fact that the Khmer Rouge systematically destroyed the schooling system and those who had education. When the rebuilding of the system started after 1979, schools could re-open on the basis of volunteers who assumed the new roles and functions of teachers and principals. Those volunteer teachers, most with a few years of primary education completed, received between two, four and six weeks of training to support them in their

new job. The principle followed was that those with more education would teach the less educated ones.

Standards on preservice teacher training are increasing as the level of education of citizens rises and the country advances in its reconstruction process. Applicants have to pass an entry exam in order to be admitted into any teacher training program. All teacher training programs are free of charge. Some Teacher Training Centers have the capacity to offer accommodation to students. Others had to transform their dormitories into classes in order to increase the number of places available. Teachers receive a scholarship to cover their living expenses of about USD2 per month, but it tends to be insufficient to cover all necessary expenses.

Preschool teachers are trained at a National Teacher Training Center (NTTC). Primary school teachers are provided their training through 18 Provincial Teacher Training Colleges (PTTCs). To enter a primary teacher education program, applicants need to have completed 12 grades of general education and pass an exam in Khmer language, Mathematics and general culture. Training for lower secondary teachers is offered by six Regional Teacher Training Colleges (RTTCs). To enter a lower secondary teacher training program, the completion of grade 12 is also required plus an examination in three subjects: two from the specialization chosen to teach and one in general culture. To be trained as an upper secondary school teacher, the requirement is to have completed the first four years of study of the discipline at the university level before entering the National Institute of Education (NIE) (formerly known as the Faculty of Pedagogy) for an additional year of training.

Teachers need to complete a practicum and pass a final exam in order to graduate. The final exam for primary school teachers covers mathematics, language, general culture, history, geography, and pedagogy. Lower secondary teachers are required to pass an exam in each of the two subjects of their specialization, and in general culture and pedagogy. Upper secondary school teachers are required the same four subjects and foreign languages (Duthilleul, 2004).

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In-service teacher training is the formal responsibility of the Teacher Training Department of MoEYS, although the Primary and Secondary Education Departments also conduct short-term capacity building workshops. Better coordination and integration of in-service training activities, with clearly defined divisions of labor across MoEYS departments, could help expand, deepen and enhance existing professional skills upgrading offerings. The development of the recently approved Child Friendly Schools program provides an opportunity to better delineate training priorities, based on actual needs, and involve relevant departments and stakeholders at the central, provincial, district, cluster and school levels.

Opportunities for in-service training have been mainly concentrated at the primary level. The programs provided have been of two types: (i) courses organized to introduce new textbooks to teachers; and (ii) school-based training facilitated by specialized trainers, usually aimed at developing a vision of an effective school, school grant development and implementation or introduction of child-centered methodologies. The first type of courses is usually organized at the provincial level and the lead subject teacher of the school attends. Courses usually last about a week per grade. Upon completion of the course, the lead teacher is expected to replicate the training at the school level with other teachers through a cascade model. The second type of training has mostly been financed through NGO or international partner funds (e.g. Asian Development Bank, Belgian Technical

Cooperation, Save the Children Norway, United Nations' Children's Fund (UNICEF), United States Agency for International Development (USAID), Volunteer Service Overseas (VSO) and World Bank, among others). They consist of periodic workshops on pedagogical or specific content areas, usually conducted at district or cluster school level (Duthilleul, 2004).

EMIS data contains information on the number of staff that received training in 2003 and 2004. *Table 2.5* summarizes the results. Overall, the frequency of participation in in-service training—seemingly provided by MoEYS—is extremely low. Less than 1 percent of all teachers attend in-service training on any school year. This is a striking finding.

**Table 2.5: In-Service Training by Educational Level and by Year, 2004**

	Primary school		Secondary school	
	2003	2004	2003	2004
Total	0.5%	0.7%	1.1%	1.0%
Urban	0.8%	1.1%	1.7%	1.3%
Rural	0.4%	0.6%	0.7%	0.9%
Remote	0.3%	0.1%	0	0

*Source: EMIS 2004*

The PETS 2004 survey asked primary school teachers directly whether they had received any in-service training since 2000. Approximately 35 percent of teachers reported having received some form of training during this four-year period. Albeit this is a vast improvement from the data contained in EMIS, given the low levels of educational expertise of Cambodian teachers it remains insufficient nonetheless. Differences in the frequency of in-service training were not significant across urban, rural, and remote schools. The younger cohort of teachers who are less than 30 years old is significantly less likely to have received any in-service training. Only about 28 percent of teachers had participated in such capacity building activities. No differences are observed across all other cohorts where, on average, 40 percent of teachers received in-service training.

In-service training opportunities at the lower secondary level are also scant. According to the CESSP survey, only 15 percent of lower secondary teachers had the opportunity to attend professional development workshops during the 2005/06 academic year.

A non-experimental evaluation of in-service training provided by the Education Quality Improvement Project suggests that sustained periodic training produced modest but robust improvements in student outcomes including lower dropout rates, higher promotion rates, and better literacy and numeracy test scores. The results also indicate that in-service training rates high in terms of cost-effectiveness; that is, relatively small amounts of money devoted to teacher capacity building can result in substantial impacts on student outcomes (Marshall, 2004). Cambodia has also benefited from other extensive internationally-funded teacher upgrading programs with varied levels of success. A comprehensive review of past experiences, drawing lessons learned and best practices, may help tailor more effective and efficient programs for the future that respond to sector's evolving characteristics.

### ***Entry into the teaching profession***

Teachers in Cambodia are largely a dedicated cadre that actively pursued education as a life career. An overwhelming majority of teachers interviewed in the PETS survey (96 percent) reported that teaching was their top choice as a profession. The most important reason for their initial interest in education was that they liked teaching as an activity (58 percent), followed by a personal belief on the



importance of education (21 percent). A distant third reason for becoming a teacher was the absence of better professional alternatives (13 percent). When inquired about their current (as opposed to their initial) motivation to continue as teachers, a majority of interviewees (69 percent) still like the profession and believe in its importance. Other options that were popular among interviewees were related to specific socio-economic aspects of this (and other) professions. Specifically, 18 percent of teachers reported continuing in the profession because of lack of alternative opportunities, while 7 percent did it because of job security and 2 percent because teaching allowed time to engage in other professional activities.

The reasons for entry into the teaching profession represent another area that exhibits a significant shift across demographic groups. A significantly larger proportion of younger teachers acknowledge they chose their current profession due to lack of better opportunities, while significantly less of them reported selecting their current job because of an active preference towards teaching as a career option. Older generations of teachers who lived through the years of the Khmer Rouge and the destruction of the human capital of the country may be more likely to exhibit stronger preferences and perceptions about the value of education and its importance in society. Nonetheless, in the context of a healthily growing economy that is steadily opening new job opportunities, these differences are an important element to consider in terms of the potential of the education sector to retain young individuals within the teaching profession. While the sector seems to have been successful in the past in retaining teachers throughout their careers, this trend could change as new generations of better qualified individuals may not find teaching fulfilling or financially viable.

**Table 2.6: Reasons for Entry into Teaching, by Cohort**

	<30	30-39	40 and up	A=B	B=C
	A	B	C		
Became teacher because likes teaching	0.53	0.63	0.56	***	**
Became teacher because believes in education	0.18	0.16	0.28		***
Became teacher for lack of other options	0.20	0.11	0.06	***	*
Observations	383	389	281		

Source: PETS 2004

Notes: Difference is significant at \*\*\* 99 percent, \*\* 95percent, \* 90 percent

## Teacher placement

Placement of graduating teachers in Cambodia is, in principle, based on merit. Graduating teachers are asked to express assignment preferences, but posts are prioritized according to total scoring on a placement examination.<sup>6</sup> Additionally, female teachers have priority placement over males. The Provincial Offices of Education (POEs) are responsible for teacher deployment efforts and ensure transparency. While out-of-province recruitment is allowed, remote area provinces and cities—such as Koh Kong, Mondul Kiri, Pailin and Ratanak Kiri—have restricted out-of-province hiring to give priority to local teachers.

Only half of primary school teachers interviewed in PETS reported having applied for a post at their current school. However, this figure masks large regional differences: Teachers currently in urban

<sup>6</sup> There is anecdotal data about the existence of an informal market for teacher placements, where trainees essentially pay bribes in exchange for desirable teacher postings.

schools were significantly more likely to have applied to their current posting (61 percent) than those in rural and remote schools (50 and 36 percent, respectively). In other words, aspiring teachers appear to exhibit a preference for postings in cities. The attractiveness of urban jobs is likely linked to higher standards of living as well as larger opportunities for generating additional revenues in more densely populated areas, such as tutoring students.

POEs are perceived by teachers to wield the greatest influence in placement arrangements. According to the PETS survey, 47, 38 and 64 percent of urban, rural and remote teachers respectively reported that POEs are the institution with the greatest influence in determining teacher postings. Interestingly, an important share of teachers reported that the District Offices of Education (DOE) exerted the greatest sway in determining teacher postings. Approximately 35, 46, and 27 percent of urban, rural, and remote teachers respectively rate DOEs as having the greatest say in selecting teachers. Thus, while urban and remote teachers are more likely to ascribe POEs greater weight in teacher placement, rural teachers tend to ascribe greater authority to DOEs. MoEYS is the most influential institution in the eyes of 10 percent of urban teachers, compared to 5 and 4 percent of rural and remote teachers.

Consistent with these patterns, it is mostly primary teachers from remote schools who feel they had little or no say on their appointment to their current school (70 percent), compared to half of the teachers in urban and rural schools. In terms of teachers' views on the main reason that justifies their appointment at their current school, 42 percent of interviewees thought it was due to local shortages of teachers, while 18 percent cites proximity to their families and 17 percent justifies it as a judgment call from provincial authorities. Despite any differences of perception or opinion, a majority of teachers express that they want to stay at their current posting for the next school year. While satisfaction with current placement is substantially larger in urban schools (94 percent), it is not small in rural or remote schools—84 and 64 percent respectively.

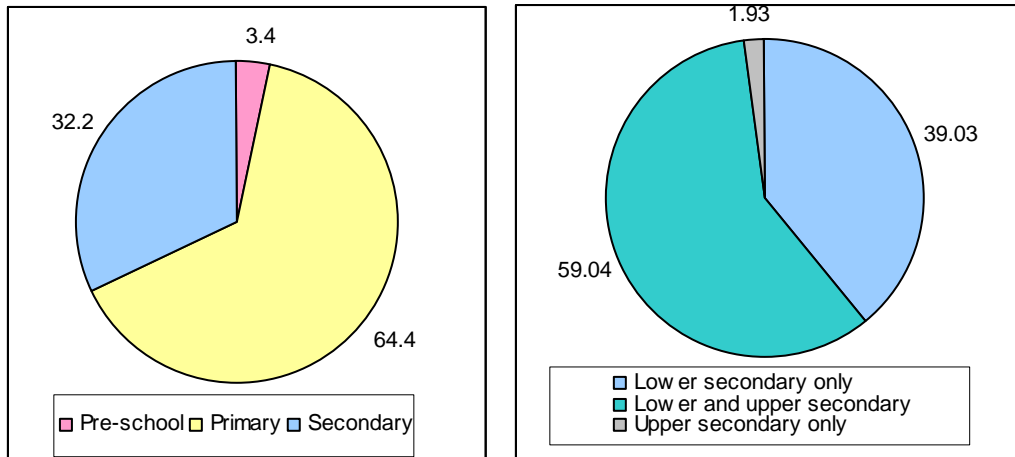
### ***Trends in teacher supply***

There has been a consistent and gradual increase in the number of teachers during the last decade. *Figure 2.8* presents data on the total number of teachers for school year 2004/05.<sup>7</sup> There were 77,897 teachers in Cambodia, with 64 percent of them working in primary schools. Secondary school teachers comprised 32 percent of the teaching profession, while preschool teachers encompassed the remaining 3 percent. These ratios are constantly changing, however, as the secondary school sector is undergoing a dramatic expansion.

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<sup>7</sup> A caveat is in order. Oftentimes primary and secondary establishments count non-teaching personnel—such as secretaries, librarians or accountants—as teachers. Thus, the total number of teachers reported in EMIS may be an over-estimate of the number of “classroom teachers” in the educational system. Occasionally non-teaching staff may act as substitute teachers. Individuals who are classified as “non-teaching staff” lose their right to the *Prime Pédagogique* allowance. Non-teaching staff are also required to work 12 months per year, as opposed to classroom teachers who work 10 months.

**Figure 2.8: Number of Teachers by School Level, 2004**



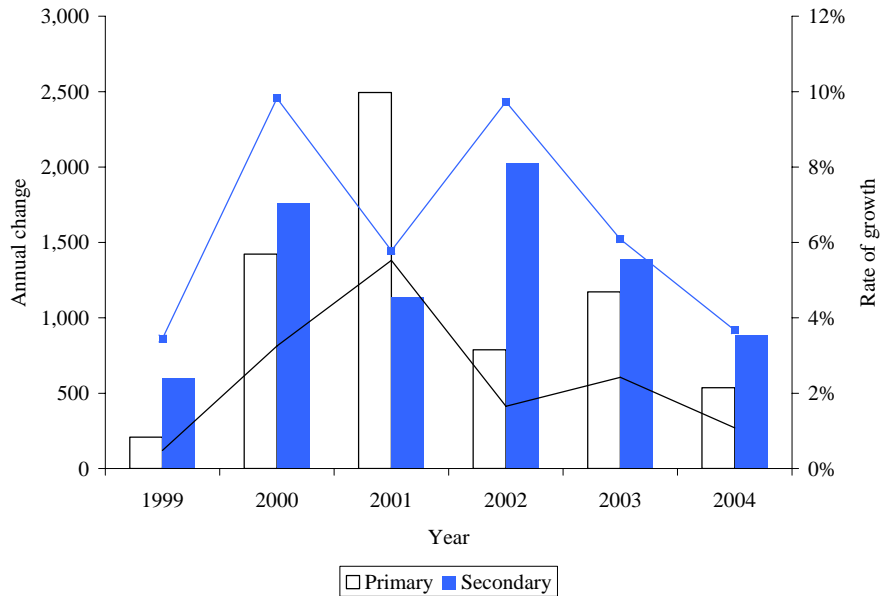
Source: EMIS 2004

The Council on Administrative Reform (CAR) determines every year an annual quota that establishes the number of teacher placements to be opened. *Figure 2.9* illustrates the annual change in the number of primary and secondary school teachers as well as their rate of growth.<sup>8</sup> It is apparent that both primary and secondary school teachers have experienced a remarkable increase. Since 1998, the number of teachers has expanded on average by 1,104 each year at the primary level and 1,299 at the secondary level. This represents an average annual growth rate of 2.4 and 6.4 percent for primary and secondary school teachers between 1998 and 2004 respectively. The rate of growth and, for all but one year, the increase in the number of secondary school teachers has been larger than that of primary school teachers. This is a reflection of the fact that the secondary subsector has been historically much smaller than primary education. Thus, it had a smaller foundation from which to grow from while at the same time the Royal Government of Cambodia (RGC) has dedicated increasing efforts towards its rapid development in response to a surge in demand.

The rates of growth of primary and secondary school teachers observe somewhat opposite paths. For all years except 2004, an increase in the rate of growth of primary school teachers coincides with a countervailing decrease in the rate of growth of secondary school teachers, and vice versa. This finding suggests a deliberate effort from government authorities to keep within recruitment targets set by CAR. Second, the declining trend in the magnitude of the teacher growth rate for both primary and secondary schools indicates careful management of the overall expansion of the teaching force and its concomitant recurrent budget burden.

<sup>8</sup> Preschool teachers were not included as data is only available starting in 2003.

**Figure 2.9: Annual Change and Rate of Growth of the Number of Teachers, 2004**



Source: EMIS 2004

Notes: Calculated by taking the number of teachers in year X and subtracting the number in year X-1  
 Bars refer to annual change and lines depict growth.

There is little job turnover among primary school teachers. About 59 percent of teachers interviewed reported they had taught at only one school throughout their teaching career, while 31 and 8 percent of teachers had taught at a total of two and three schools, respectively. The data also illustrates that teachers in urban and rural schools are more likely to have worked in more schools than teachers whose current post is in a remote school. The limited turnover in remote schools is a reflection that younger teachers, as a whole, reported having worked in fewer schools than older teachers. Instead, the cohorts from 30-49 year old teachers were more likely to have held two and even three different teaching posts during their careers. But even in these cases, turnover tends to take place in the early teaching years. Of those who had professional experience in multiple schools, the median teacher reported having moved to their current school at most three years after they started teaching (with an average of 5.4 years, driven by few teachers who had moved much later in their careers). Thus, the overall pattern that emerges is one where, within a few years of practice, primary teachers tend to remain within a same educational establishment for the long haul.

Teachers tend to work in or near the village where they were born. Of the primary teachers interviewed in the PETS survey, 48 percent work in the same village where they were born or in a neighboring village, 67 percent work in the same district where they were born, and 90 percent work in their province of birth. Limited transfers across educational establishments are likely related to the fact that a substantial share of teachers prefer to remain in close proximity to areas where they are likely to have stronger kin and social networks that can provide them with an informal social safety net.

In turn, at the lower secondary school level, there is greater teacher mobility. This is partially a reflection that lower secondary schools have been scarce in Cambodia and are only now beginning to grow. Nonetheless, a preference for working in the general vicinity of their place of birth remains among teachers. According to the CESSP survey, 13 percent of teachers work in the same village

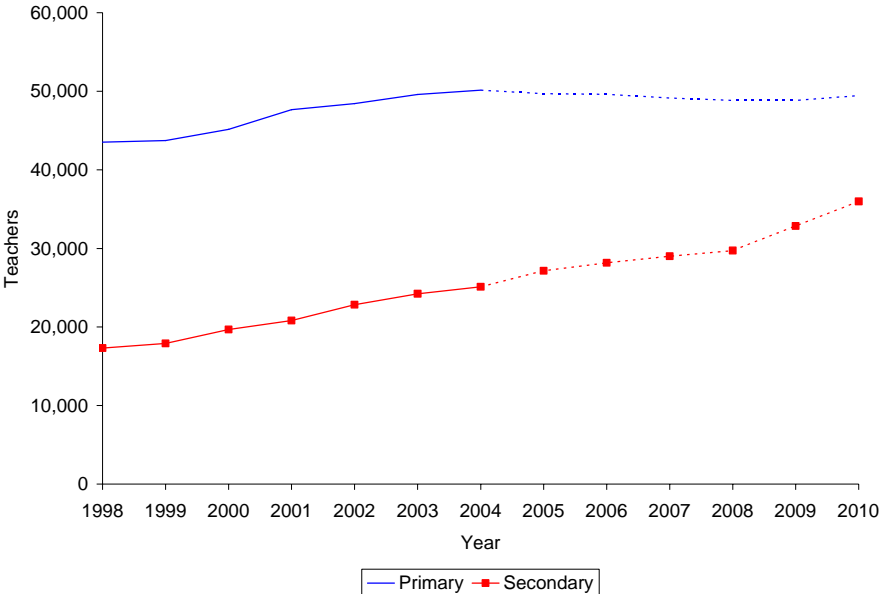
where they were born, while 24 percent originate within the same commune. There is little variation across school types. A slightly larger share of lower secondary principals (30 percent) was born in the same commune where they work and about four fifths of them (79 percent) were born in the same province.

Job turnover and migration patterns reveal valuable insights on teacher mobility. For example, a substantially larger proportion of teachers in urban schools have migrated out of their place of birth and moved to work at a school elsewhere. Sixty four percent of urban primary teachers have left their village of birth, 51 percent have left their district and 23 percent have left their province, compared to 47, 26, and 7 percent of rural primary teachers respectively. Moreover, primary teachers in urban schools who have left their village or district of birth have worked in significantly more teaching posts than those who work in their place of birth. No such differences are observed among rural primary teachers. This is consistent with a rural-to-urban pattern of migration of teachers who start their career in rural areas and later move into urban zones.

**Trends in teacher demand**

As discussed in Chapter 2, both the numbers of primary and secondary school teachers have been steadily growing in recent years. The rate of growth at the secondary level has been larger than that of the primary level. Based on projections from the latest *ESP 2006-2010*, the demand for primary school teachers will subside and begin to taper down (see *Figure 2.10*). On the other hand, the demand for secondary school teachers will continue growing and at increasing rates over the next years.

**Figure 2.10: Annual Number of Primary and Secondary School Teachers**



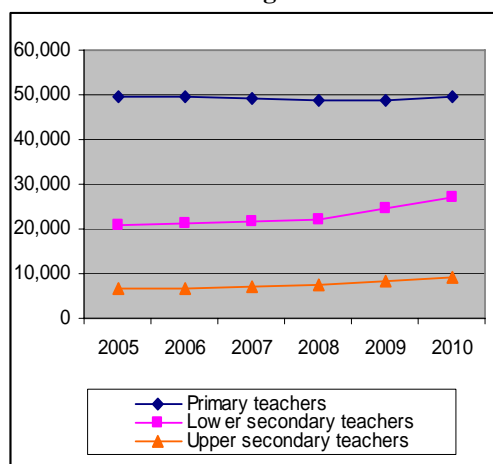
Source: Education Strategic Plan 2006-2010

Table 2.7 provides growth projections for teaching posts disaggregated by educational level. According to the *Education Sector Strategic Plan 2006-2010*, the number of primary school teachers will decline slightly over the next five years, while the number of lower and upper school teachers will increase rapidly. While the total number of primary school teachers is expected to remain the same

and even decrease by 0.5 percent between 2005 and 2010, the numbers of lower secondary and upper secondary school teachers are expected to grow by 31 and 39 percent respectively. In line with teacher growth patterns described above, projections predict a decrease in the pupil-teacher ratio for primary schools and an increase for secondary schools. These ratios assume that enrollment in primary schools will also slow down and even decrease, while enrollment in high schools will continue increasing.

Figure 2.12 illustrates recent trends in student growth that appear to be consistent with these patterns. It is important to note that the sector’s strategic plan projects the number of teachers that are expected to be required to meet the needs of a growing student population. Whether these figures will correspond to the effective number of teachers will depend on many factors, among others, on the availability of qualified teachers who are ready to take upon these posts as well as on the available resources to the education system and its flexibility to adjust to changes in demand.

**Figure 2.11: Projections on the Number of Teaching Post**

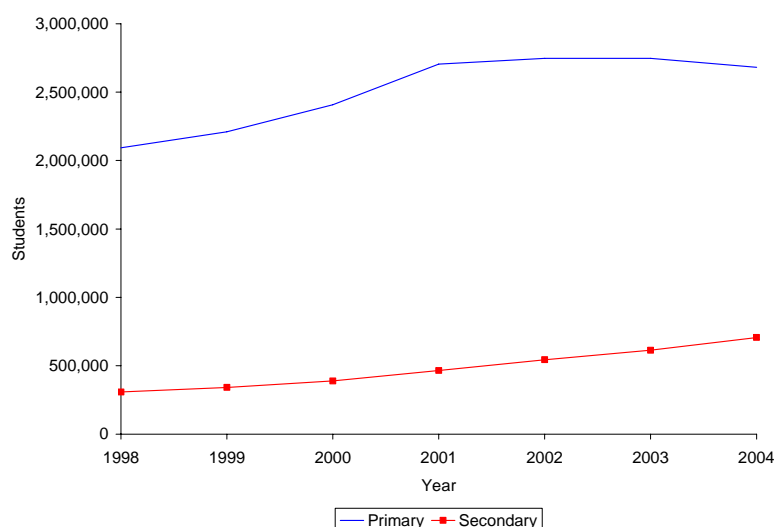


**Table 2.7 : Projections on the Number of Teaching Posts**

	2005	2006	2007	2008	2009	2010
<b>Primary Teachers</b>	49,703	49,612	49,142	48,845	48,846	49,446
<b>Pupil-teacher ratio</b>	53	52	51	50	50	50
<b>Lower secondary Teachers</b>	20,667	21,301	21,808	22,222	24,623	27,024
<b>Pupil-teacher ratio</b>	33	37	41	45	45	45
<b>Upper secondary Teachers</b>	6,471	6,861	7,201	7,500	8,231	8,962
<b>Pupil-teacher ratio</b>	33	35	38	40	40	40

Source: Education Sector Strategic Plan 2006- 2010

**Figure 2.12: Annual Number of Primary and Secondary School Students**



Source: EMIS 2004

Lastly, *Table 2.8* presents data on teacher shortages, both as school level averages as well as totals, disaggregated by location. Teacher shortage is defined as the difference between the number of classes offered and the number of teaching staff available. A positive number reflects a shortage while a negative one describes a surplus. Since this definition of shortage is best suited for primary schools, where teachers and classes have a one-to-one correspondence, the table includes only primary school data. *Figure 2.13* illustrates in a graphical manner similar information where teacher shortages are disaggregated by province.

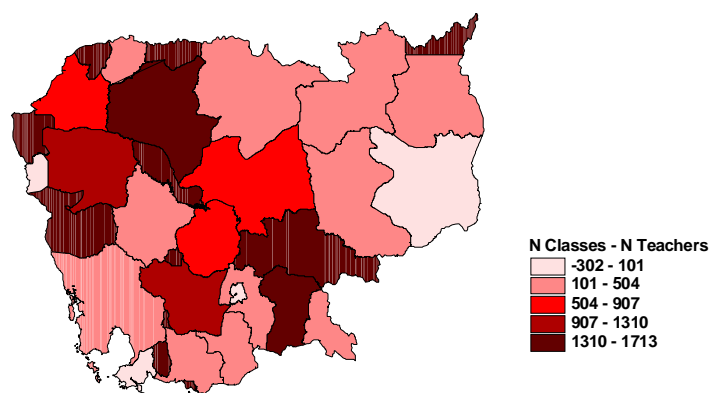
Teacher shortages are a salient issue for rural and remote schools. In turn, there are small teacher surpluses in urban schools. In terms of magnitude, the shortage problem is larger in rural schools. However, relative to the total size of the teaching staff, it is more severe in remote schools, where the number of teachers available is only 40 percent of what would have been needed to maintain a one teacher per class ratio. The corresponding figure for rural schools was 22 percent. In recent years, MoEYS has sought to promote the redeployment of teachers towards remote schools. The challenge has been not only to encourage teachers to move to remote areas, but also to retain them for prolonged periods and avoid large staffing turnovers. There has also been a growing practice of using community teachers in public schools as well as local recruitment efforts to attract remote area students into teacher training colleges (see Chapter 3).

**Table 2.8: Teacher Shortages in Primary Schools by Location, 2003-2004**

	Remote	Rural	Urban
<b>School-level data</b>			
Average shortage 2003	1.88	2.16	-.29
Mean number of teachers 2003	2.90	7.62	16.5
Average shortage 2004	1.99	2.13	-.19
Mean number of teachers 2004	3.18	7.70	16.2
<b>Regional data</b>			
Total shortage 2003	888	10,680	-186
Total number of teachers 2003	1,374	37,746	10,483
Total shortage 2004	916	10,317	-125
<b>Total number of teachers 2004</b>	<b>1,465</b>	<b>37,262</b>	<b>10,455</b>

Source: EMIS 2004

**Figure 2.13: Provincial Distribution of Teacher Shortages, 2004**



Source: EMIS 2004

Policy options propounded to promote teacher redeployment to remote areas have included monetary incentives—such as salary bonuses or allowances for hardship assignments—as well as in-kind incentives—such as the provision of housing (Quinn and Ratcliffe, 2003). In practice, there is only one main type of criteria for teacher deployment. Graduating teachers are assigned to a teaching post based on their examination results from the Regional Teacher Training College. Those with the highest marks merit choosing teacher postings first. The implication of this deployment method has been the historical assignment of teachers with the poorest marks to more marginal areas. This is a subject to which we will return in the next Chapter.

## **Synopsis**

From the sections above, the main characteristics of Cambodian school personnel can be summarized in the following manner:

1. **Teaching has been primarily a male-oriented profession, but is slowly becoming increasingly feminized.** Female teachers comprise the majority of school staff in primary urban schools, but represent a small fraction in remote secondary schools. The gender divide is starker for school managers. School principals are overwhelmingly male. Only a small minority of principals in primary and secondary schools are female. Urban schools are slightly more likely to employ a female school principal than rural or remote schools.
2. **A majority of teachers are young.** About 40 percent of primary teachers are below the age of 30, while secondary teachers are slightly older on average. Remote area schools have the largest concentration of young teachers. Three quarters of educators in these schools have less than 30 years old.
3. **Teacher levels of education are low.** About a quarter of primary teachers hold an upper secondary degree, while about two thirds hold a lower secondary degree. Educational attainment for secondary school teachers is greater. Almost two thirds of secondary school teachers have completed at least grade 12, while 18 percent had some post-secondary education. Younger teachers tend to have achieved higher educational attainment.
4. **Most teachers have completed preservice training requirements.** Four fifths of primary school teachers have received their teaching certification, while practically all lower secondary school teachers have graduated from teacher training colleges. In-service training has remained largely insufficient and professional development opportunities have been relatively scant. Only 15 percent of lower secondary teachers report having attended an in-service training session during the 2005/06 academic year, regardless of school type.
5. **Teachers are more likely than other government workers to live in the village where they were born.** Two-thirds of primary school teachers work in their district of birth and 90 percent in their own province. Approximately one quarter of lower secondary school teachers and a slightly larger share of principals (30 percent) were born in the same commune where they work. Four fifths of lower secondary principals were born in the same province.



6. **Urban jobs are considered more desirable than rural or remote area postings.** Nonetheless, there is little job turnover. About 60 percent of primary school teachers have only taught in one school, while a mere 8 percent has taught in three schools throughout their professional career.
7. **The demand for teachers has steadily increased over the last decade and it is not expected to abate in the near future as secondary schooling continues to expand.** The average annual growth rate between 1998 and 2004 was 2.4 and 6.4 percent for primary and secondary school teachers respectively.
8. **While the total number of primary school teachers is expected to decline slightly over the next five years, the number of secondary school teachers will need to expand by over 30 percent.** Teacher shortages are a salient issue for rural and remote primary schools, while there are small teacher surpluses in primary urban schools.

**Annex 2.1: Age of Primary School Teachers by Province, 2004**

Province	Younger than 30	30-39	40-49	50 and above	Observations
Banteay Meanchey	53%	31%	12%	4%	978
Battambang	49%	33%	13%	4%	2048
Kampong Cham	37%	39%	15%	9%	2733
Kampong Chhnang	40%	28%	24%	8%	544
Kampong Speu	46%	32%	16%	6%	699
Kampong Thom	43%	37%	12%	9%	960
Kampot	36%	36%	15%	13%	992
Kandal	35%	32%	21%	12%	2405
Kep	70%	20%	4%	6%	50
Koh Kong	66%	24%	4%	6%	93
Kratie	46%	39%	6%	9%	672
Mondul Kiri	84%	14%	0%	2%	57
Otdar Meanchey	82%	16%	1%	1%	94
Pailin	87%	11%	2%	0%	63
Phnom Penh	25%	45%	21%	9%	2943
Preah Vihear	53%	39%	4%	4%	212
Prey Veng	31%	46%	14%	10%	1123
Pursat	46%	34%	14%	6%	573
Ratanak Kiri	67%	28%	5%	0%	97
Siem Reap	42%	37%	12%	8%	1213
Sihanoukville	57%	28%	9%	6%	272
Stung Treng	67%	26%	4%	4%	193
Svay Rieng	43%	28%	18%	11%	569
Takeo	29%	35%	24%	12%	1095

Source: EMIS 2004

**Annex 2.2: Age of Secondary School Teachers by Province, 2004**

Province	Younger than 30	30-39	40-49	50 and above	Observations
Banteay Meanchey	56%	39%	4%	6%	278
Battambang	46%	49%	5%	6%	658
Kampong Cham	33%	60%	7%	7%	821
Kampong Chhnang	37%	56%	7%	5%	216
Kampong Speu	38%	57%	5%	4%	281
Kampong Thom	50%	46%	4%	6%	339
Kampot	44%	51%	5%	5%	402
Kandal	38%	53%	9%	10%	724
Kep	91%	7%	2%	0%	43
Koh Kong	74%	23%	3%	3%	31
Kratie	45%	53%	2%	4%	258
Mondul Kiri	93%	7%	0%	0%	15
Otdar Meanchey	90%	10%	0%	0%	30
Pailin	100%	0%	0%	0%	23
Phnom Penh	27%	58%	15%	13%	1524
Preah Vihear	50%	48%	2%	2%	44
Prey Veng	40%	55%	5%	3%	495
Pursat	50%	39%	11%	4%	195
Ratanak Kiri	80%	20%	0%	0%	20
Siem Reap	34%	59%	6%	8%	317
Sihanoukville	59%	37%	4%	4%	113
Stung Treng	86%	14%	0%	0%	56
Svay Rieng	43%	52%	5%	7%	168
Takeo	44%	46%	11%	6%	360

Source: EMIS 2004

## Chapter 3 : The Working Conditions of Teachers

Teaching and learning practices do not occur in a vacuum. Understanding the school and classroom environment is a critical dimension of teaching quality. Adequate infrastructure and working conditions support the teaching function and enable student learning. Appropriate physical facilities and availability of teaching aids provide the basic elements for engagement in a teaching-learning relationship. A balanced teacher-student ratio allows teachers to dedicate sufficient attention to children’s individual needs. And the terms of contracting can shape job satisfaction and the attractiveness of the teaching profession. This Chapter presents a brief review of Cambodian teachers’ working environment and conditions as a context to the theme of teachers’ performance. The Chapter then proceeds to discuss the challenges posed by an increasing demand for teachers and policy responses to expand the existing teacher cadre into remote and rural areas.

### ***The Cambodian classroom***

As noted already in Chapter 1, MoEYS has made great efforts to expand and improve schooling infrastructure in recent years. According to EMIS data, in 2004 about a third of primary and secondary schools did not have toilets or access to clean drinking water. Ten to 15 percent of classrooms lacked an adequate roof or walls and about 5 percent of rural schools did not possess the most basic elements, such as desks or a blackboard. These indicators show a notable improvement in the overall quality of school infrastructure from past years, even if there is still room for improvement. Overall, primary schools fare better than secondary schools, while urban schools tend to be in better shape than rural or remote area schools.

The PETS 2004 survey data asked primary school teachers about their perceptions on the quality of classroom infrastructure. The results are summarized in *Table 3.1*. Teachers’ perceptions reflect that classroom infrastructure is considered to be generally adequate. The greatest concern captured in this survey is a lack of protection against adverse weather. This finding stands in contrast to community perceptions reported in Chapter 1. Poor school buildings were cited among the top three biggest school problems according to community leaders. School principals also appeared to share this perspective. As part of the PETS survey, principals were asked open-ended questions about the three biggest constraints faced by their schools. In rural schools, the top issues were insufficient classrooms, high dropout rates and teacher shortages. Urban teachers were relatively more inclined to mention old infrastructure and poor protection of school property due to lack of fences. Other issues that also appeared frequently were insufficient funds to provide adequate incentives to teachers as well as a lack of toilets.

**Table 3.1: Primary Teachers’ Perceptions of School Infrastructure, 2004**

	Urban	Rural/remote	U=R
Teachers whose students all have a desk and chair (%)	93.1	90.8	
Teachers whose classrooms have adequate lighting (%)	93.1	95.6	
Teachers whose classrooms have adequate ventilation (%)	96.9	96.4	
Teachers whose classrooms have adequate space (%)	96.9	92.0	**
Teachers whose classrooms have adequate weather protection (%)	67.3	72.3	

Source: PETS 2004

Notes: Asterisks refer to t-tests (\*\*  $p < 0.05$ ; \*  $p < 0.10$ )

According to the PETS survey data, the vast majority of primary teachers in urban, rural and remote schools report having their teacher’s guidebook for the subjects that they teach. Availability of guidebooks is slightly higher in urban (99.4 percent) than in rural schools (93.9 percent). A considerable percentage of teachers also reported that *all* of their students have the required textbooks for their classes, 86.8 percent of teachers in urban schools and 85.5 percent in rural schools. The distribution of this variable differs very little across urban and rural schools, suggesting that textbook supply does not have systematic regional biases.

Similarly, we find that there are no systematic differences across urban and rural schools in the likelihood to have received educational materials—such as notebooks, pens and pencils—from Government-sponsored programs. However, there is an overall considerable drop of about 20 percentage points in between school years 2002/03 and 2003/04. While in school year 2002/03, over 50 percent of teachers reported that their students received school materials from the Government, the following year this figure dropped to below 40 percent countrywide, highlighting a lack of predictability in the overall governmental resource allocation process (World Bank, 2005).<sup>9</sup>

**Table 3.2: Primary Teachers’ Reports on School Materials Received by Students, 2004**

	Urban	Rural/ remote	U=R
Teachers whose students received school materials in 2002/03 (%)	57.7	54.1	
Of those who received materials:			
Teachers whose students received notebooks in 2002/03 (%)	100	98.9	
Teachers whose students received pens and pencils in 2002/03 (%)	98.8	98.0	
Teachers whose students received school materials in 2003/04 (%)	38.0	36.5	
Of those who received materials:			
Teachers whose students received notebooks in 2003/04 (%)	100	97.9	
Teachers whose students received pens and pencils in 2003/04 (%)	96.7	96.6	

Source: PETS 2004

Notes: Asterisks refer to t-tests (\*\*  $p < 0.05$ ; \*  $p < 0.10$ )

These estimates largely concur with a more recent survey of grade 3 classrooms conducted in 2006. On average, teachers overwhelmingly reported having teacher guides, desks and geometry tools for mathematics instruction available. On the other hand, a significantly smaller share of teachers has access to a cupboard (49 percent) or bookshelves (32 percent). Large schools in urban and rural settings tend to be better resourced than smaller schools (see *Table 3.3*).

Teacher estimates of student reading skills are also provided at the bottom of *Table 3.3*. Teachers’ perceptions of student ability are another dimension of teaching conditions and the classroom environment. High ability students are “easier” to teach than students who face greater difficulties. The results are instructive. Only one third of teachers indicate that most of their students can read well. In small rural schools, about one in four teachers believes that few of their students can read adequately. Overall, Cambodian grade 3 teachers believe that their students perform below their expectations.

<sup>9</sup> On the other hand, anecdotal reports from NGOs and internationally-financed projects suggest that textbooks and educational material shortages are common.

**Table 3.3: Teaching Resources, 2006**

Variable:	Whole Sample Average	Sample Strata:			
		Small Rural	Large Rural	Small Urban	Large Urban
Teacher's classroom has:					
Teacher's guide	90.5	90.0**	92.1	94.5**	94.2**
Map	77.5	74.2*	81.1**	48.9**	66.4**
Cupboard	48.5	39.7**	45.1**	26.0**	64.0**
Bookshelf	32.3	14.5**	37.7**	17.6**	24.6
Desk	99.0	98.4	99.0	92.4**	100.0
Geometry tools	92.5	90.7	94.0**	90.8	85.8**
Student work on walls	85.0	81.4**	87.2**	79.6**	87.1**
Average	79.8	76.2**	80.2**	67.9**	78.8**
Teacher's evaluation of student reading ability:					
Few can read well	14.5	22.9	13.1	10.7	11.3
Half can read well	52.5	40.3	59.1	49.1	48.6
Most can read well	33.0	36.8	27.8	40.3	40.1

Source: MoEYS Grade 3 Assessment, 2006

Notes: Whole sample averages are computed using sampling weights. Asterisks refer to t-tests comparing each column average with the whole sample average (\*\*  $p < 0.05$ ; \*  $p < 0.10$ ). For **Teacher's classroom** each component refers to the percentage of teachers who answered yes. **Teacher's evaluation of student reading ability** is the percentage of teachers who chose each option.

## Student-teacher ratio

As Cambodia has transitioned from a period of reconstruction to development, children long out of school have flocked back to classrooms nationwide. There has been an impressive surge in the demand for education during the last decade. And while the number of students has grown dramatically, there has been greater difficulty in preparing and deploying teachers in sufficient numbers to satisfy a new generation of school children's thirst for learning. In 2006, Cambodia had a student-teacher ratio of 51 in primary school. This is by far the highest student-teacher ratio in the region. The Philippines, the next closest country, stood at 35 students per teacher. At the lower secondary level, the pupil-teacher ratio in Cambodia was the second highest in the region, almost 32:1, yet far larger than most other countries in East Asia.

**Table 3.4: Regional Teacher-Student Ratio**

	Teacher-Student Ratio	
	Primary	Secondary
Cambodia	50.8	31.7
China	21.0	19.0
Indonesia	20.0	14.0
Korea	31.0	18.0
Lao PDR	31.0	26.0
Malaysia	19.0	18.0
Mongolia	31.0	22.0
Philippines	35.0	37.0
Thailand	21.0	25.0
Vietnam	25.0	26.0

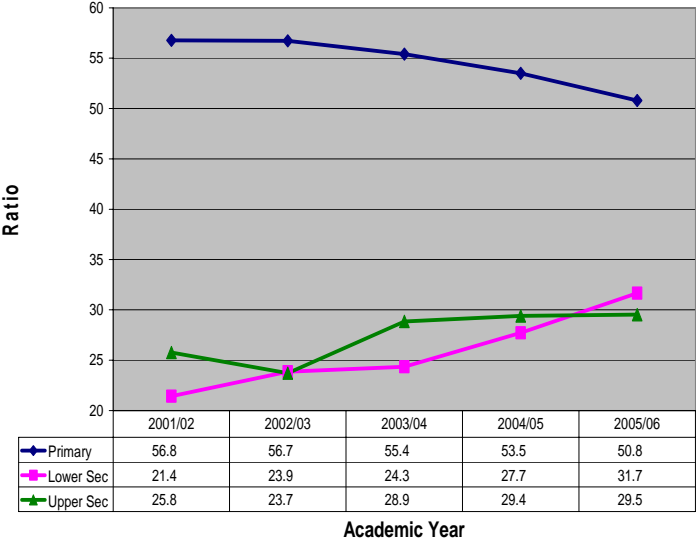
Source: Cambodian data come from EMIS 2006; for all other countries, Edstats

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

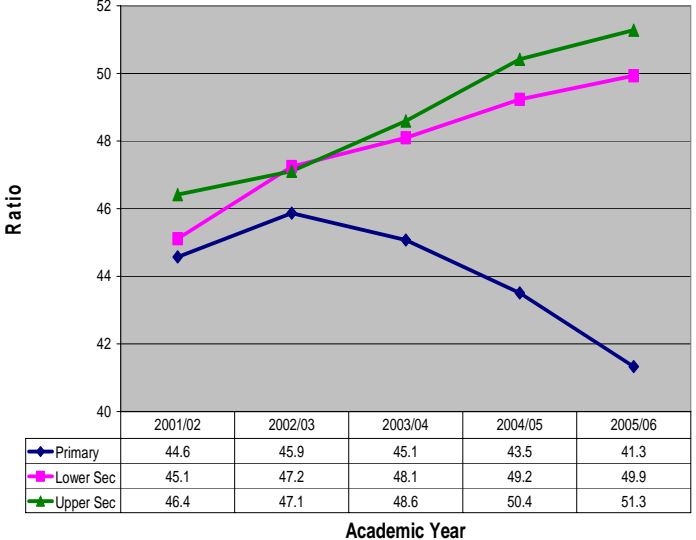
The shortage of teachers and classrooms has become more acute since the late nineties. Because many schools in Cambodia operate under a double shift (and even a triple shift in some cases), the pupil-class ratio is more informative than the pupil-classroom ratio. Student-teacher ratios increased substantially since 1997 both for primary and secondary schools (see *Figure 3.1* and *Figure 3.2*). In primary schools, the ratio experienced an encouraging decrease since 2002. However, in secondary schools it has continued to grow. Although there are fewer data points for the pupil-class ratio, a similar trend appears to be observed. The data suggests that it has decreased slightly in primary schools while increased in secondary schools.

Both student-teacher and pupil-class ratios illustrate that the average Cambodian classroom accommodates over 40 students. At the primary level, high student-teacher ratios emphasize the dire shortage of qualified teachers and the absolute necessity of schools to operate double and triple shifts to accommodate several cohorts of students being taught by one teacher. There is an insufficient number of primary teachers to meet the demands of the existing school population. On the other hand, at the secondary level, the demands for a diversified and specialized secondary school curriculum require a larger teaching cadre for a student cohort. Thus, the average student-teacher in secondary schools is significantly below that of primary schools. But the pupil-class ratio reveals that secondary school classrooms in fact face greater overcrowding than primary school classrooms.

**Figure 3.1: Student-Teacher Ratios, 2001-2006**



**Figure 3.2: Pupil-Class Ratios, 2001-2006**



Source: EC Technical Advisory Team (2006), p.47-48

There are large differences across groups, especially among primary schools. For example, rural primary schools exhibit substantially larger pupil-teacher ratios than urban primary schools—around 67:1. Differences in pupil-class ratios are also present, but smaller in magnitude. Similarly, primary schools in the poorest communes have substantially higher pupil-teacher ratios compared to those in the wealthiest ones—as high as 80:1. These disparities across locations and welfare quintiles are still present, but smaller in magnitude, among secondary schools with regards to student-teacher ratios. Overall, there is greater equity across socio-economic groups in terms of student cohort sizes per classroom at the secondary level than at the primary level, where inequities are large and noteworthy. Further compounding the problems of overcrowded classrooms, malnutrition is widespread in Cambodia and imposes important constraints in children’s ability to benefit from schooling and take

advantage of instructional time (World Bank, 2006). The PETS 2004 explored teachers' perceptions on whether students come to class with adequate food intake. Undernourishment is clearly a pervasive concern. A mere 14 percent of teachers believe that none of their students suffered from malnutrition, while 44 percent of interviewed teachers reported that *some* of their students consume insufficient food and 26 percent said *most* of their students came to school hungry.

### ***Terms of contracting***

Qualification standards for entry into the teaching profession have gradually increased as the country slowly emerged from the dramatic human resource crisis following the Khmer Rouge period. Professional entry requirements evolved progressively since 1980 increasing both the number of years of basic instruction as well as teacher preservice training needed. For primary education, it started from 3+1 (that is, three years of primary education and one year of teacher training) and moving to 4+1, 4+3, 5+3, 7+1, 8+1, 8+2, 11+2 and 12+2 at present. Lower secondary school teachers followed a similar pathway, starting with 7+3 through 12+2 today, while upper secondary school requirements shifted from 11+3 to 12+4+1 (a university degree) at present. Particularly in the early years, intensive upgrading programs of one or two months during vacation periods were developed to provide equivalency certification to under-qualified teachers.

Admission to TTCs is highly competitive. Entry into the civil service is a highly coveted assignment, with potential candidates far outstripping the vacancies available. Approximately 18,000 TTC applicants sat for the yearly teacher training selectivity exam in 2006. Only about 2,000 slots were awarded; that is, only one out of nine aspiring teacher trainees gained admission. This is a notable increase from 11,000 applicants who vied for 1,250 available slots in 2003 (Knight and McLeod, 2004). Regional as well as educational level disparities, however, are significant. According to Duthilleul (2004), at the Provincial Teacher Training College in Kampong Speu, 1195 applicants competed for 150 slots to become primary teachers in 2003. At the Regional Training College of Takeo, servicing 4 provinces, 3400 students applied for 215 vacancies for lower secondary school level training. On the other hand, about 350 upper secondary traineeships were disputed among 450 applicants.

As will be explained below, current regulations also allow for flexibility to respond to the needs of rural and remote areas, where notable shortages of secondary school graduates still exist. Applicants are required to have completed upper secondary education, but not necessarily to have passed the grade 12 certification exam. Remote area teacher trainee candidates can be admitted into TTCs with only nine years of basic education completed.

The degree of competitiveness to gain entry into TTCs may also vary from year to year. The size of TTC intake cohorts are largely driven by the annual quota of teacher placements determined by the Council of Administrative Reform. In other words, TTC vacancies are centrally planned to match the future expected level of demand. While past TTC applicant selection practices by district have been discontinued and replaced by a province/region-wide TTC competitive entrance exam, an overall fixed allocation remains. Thus, given the large supply of interested applicants to enter teacher training programs, it is apparent that current teacher shortages are not driven by a constraint in the potential supply of teachers, but rather by central planning efforts to limit the growth of the civil service. Upon graduation, TTC graduates are essentially guaranteed a job as a teacher.



MoEYS manages appointments, promotions and retirement of all teaching and non-teaching staff in Cambodia, with the exception of contract teachers that are managed at the provincial level. The first year is considered to be probationary (*stagiaires*) and teachers are paid only their basic salary. They are not entitled to other allowances and incentives. Probationary teachers usually receive their first pay with an approximate six-month delay.

There are four main steps to process a new teacher's salary payment: First, MoEYS must prepare all relevant documents to be sent to the Ministry of Public Function. Second, the Ministry of Public Function reviews these documents before submitting them to CAR. Third, CAR reviews and enters all data into their Human Resource Management Information System, which requires having a photograph for each teacher. Finally, CAR sends its approval to the Ministry of Economy and Finance (MoEF) to release salary funds. Efforts to reduce the period required to process each transaction should be an utmost priority.

Formal appointment follows by approval of a school-level technical committee. Occasionally, the probationary period may be extended into a second year for unsatisfactory performance. In theory, dismissal may ensue if performance continues to be unsatisfactory.

## **Contract teaching**

Contract teachers became increasingly common in Cambodia during the 1990s. Contract teaching was a response to increasing teacher shortages. As documented by Geeves and Bredenberg (2004; see also Duthilleul 2005), three factors led to increasing student-teacher ratios and a scarcity of teachers. The first factor was a political decision in 1996 to enforce over a brief period mandatory retirement at the age of 55 for men and 50 for women, which forced many teachers to abandon their posts over a short period of time. Even though a more flexible retirement policy was soon adopted, the damage had already been done and replacements to fill many of these vacancies in countryside locations went unfilled.

The second factor was the decision to raise the entry requirements into Provincial Teacher Training Colleges to 11+2 in 1994, severely limiting the potential applicant pool from rural areas. Attracting qualified urban teachers to rural postings has remained a challenge for a variety of reasons, as will be discussed below. Lastly, after 1993 and as civil conflict attenuated, new areas opened up that required government education services as well as a massive influx of out of school children came back into the classroom. All these factors resulted in teacher shortages, and these shortages have been more acutely felt in rural and remote areas.

The figure of contract teachers was an alternative mechanism to bring teachers into classroom. This system was in place between 1996 and 2002. At its peak, contract teachers comprised 9 percent of all teachers. It aimed to accomplish rapid recruitment of teachers among persons from local communities with some experience in children programs. It resulted in a very heterogeneous group of teachers, many of them without proper pedagogical and formal education qualifications. Moreover, it did not serve as a sustainable solution for teacher shortages. In 2002, the figure of contract teachers was eliminated, partially as a reflection of greater outputs from teacher training institutions as basic education became widespread and partially as a response to combat corruption in the local appointment process and ghost teachers on staff payrolls.

Today, contract teaching remains only in specific disadvantaged geographic areas—such as in Otdar Meanchey, Ratanak Kiri and Siem Reap—to address severe teacher shortages. According to the PETS 2004 survey, 98 percent of primary school teachers reported having regular contracts, while the remaining 2 percent answered being either contract or support teachers. No gender or location differences were identified across contracted and regular teachers.

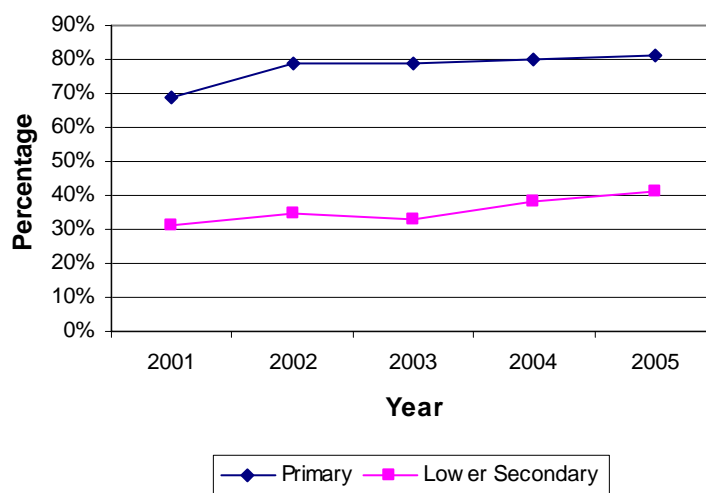
Contract teachers usually receive payment for services at irregular intervals or in a lump sum payment, oftentimes a year late. Thus, contract teachers generally covet to be converted into regular full-time teacher posts and may be willing to pay significant sums of money to join the civil service and its associated benefits. For example, according to the Cambodia Independent Teachers’ Association, hundreds of contract teachers in Battambang and Kampong Cham provinces lost about USD450 each in the hopes to secure a civil service post in a ruse that enriched unscrupulous education officials by the thousands of dollars (*Cambodia Daily*, 2006a).

In 2006, 693 contract teachers were approved by the Civil Service Secretariat to become civil servants through the entry exam organized by MoEYS. Contract teachers receive some in-service pedagogical and subject content training at a local TTC and must pass the teacher training exit exam. Contract teachers who do not pass the exam can continue to teach and receive in-service training but cannot be officially converted into regular teachers.

### Double shift teaching

Cambodian primary schools are usually organized around two daily 4-hour shifts. Approximately 81 percent of primary and 41 percent of lower secondary schools held two shifts in 2005, a considerable jump from past years. Shift teaching arose as a strategy to address infrastructure constraints and maximize efficient use of public school buildings. During the last decade, however, the practice for one teacher to take on teaching responsibilities in both morning and afternoon classrooms became another mechanism to address teacher shortages.

Figure 3.3: Double Shift Schools Share, 2001-2005



Source: EMIS 2001-2005

As Geeves and Bredenberg (2004) recount, double shifting signifies a large workload—at least eight hours of face-to-face teaching in addition to any needed administrative work, correcting homework or

lesson planning. Current legislation also prohibits teachers to teach the same grade on both shifts, further compounding the work burden. Longer school hours also deprive teachers from the opportunity to conduct alternative, more profitable income generating activities. Furthermore, the remuneration for the second shift usually arrives at the end of the academic year in a lump sum payment, and even worse, oftentimes only partially or late. Thus, double shifting is not popular among teachers. Furthermore, in its current guise, it overtaxes teachers, possibly putting at risk instructional quality.

For the most part, teachers prefer to work out-of-school, rather than take on a second shift. According to the PETS survey results, 68 percent of primary school teachers interviewed—and 74 percent of rural teachers—had a second job, while only 23 percent claimed a double shift salary allowance. Double shifting appears to be mainly a remote area phenomenon, where 70 percent of teachers worked a full day in primary school establishments. Just 6 percent of urban primary school teachers and 22 percent of rural teachers taught a double shift. These statistics, countered to the reality that 4 in 5 schools have in fact morning and afternoon classes, highlight how unpopular double shifting is in urban and rural localities where alternative income generation opportunities exist. Anecdotal evidence also suggests that occasionally double shift teachers combine classrooms, outsource teaching duties to contract teachers or reduce student contact hours in order to cope with double shifting obligations but spending less time in school. Our data confirms the plausibility of these appraisals. Over two-thirds of rural primary school teachers claim working a double shift, yet three-quarters of them also claim holding a second job, usually in farming (see *Table 4.6* in Chapter 4 for details).

There is much room to improve the existing double shift regimen in Cambodia. Allowances commensurate to income foregone from alternative second job opportunities as well as timely regular payments could help make double shift teaching a more attractive proposition and alleviate teacher shortages.

At the secondary level, shift-teaching has a different character. It is mostly confined to urban and densely populated rural areas. Rather than driven by teacher shortages, the relatively light workload of a subject teacher—18 fifty-minute periods per week—allows for additional class time. Existing MoEYS regulations allow LSS teachers to work up to 32 hours per week. The additional overtime is remunerated at a rate of approximately Riel2,500 (or USD0.60) per hour. A full workload translates in approximately a six-period work day for six days a week. Overtime contributes approximately USD15 per month, about one quarter of a teacher’s average take home pay of USD60 per month. The possibility of this type of “double shifting” further strengthens the attractiveness of central postings against rural or remote postings as it expands income generating opportunities within a half-time posting.

### ***Teachers in rural and remote areas***

Policies recently implemented to address teacher shortages in rural and remote areas in recent years have included: (a) redeployment of non-teaching staff into teaching, (b) redeployment of teachers into areas of high need and (c) allowances for hardship postings. However, these initiatives have only been mildly successful in promoting limited transfer of personnel into areas of high need. Teaching postings in hardship areas are, not surprisingly, not very attractive. Furthermore, low teacher pay makes it difficult for teachers to work in areas without support of an extended family, existing housing or land for subsistence farming.

Allowances for hardship posts amount to approximately R50,000 (or USD12.50) per month. And teachers posted in the 29 districts officially designated as “remote” receive an allowance of R60,000 (or USD15) per month. It is estimated that over 15,000 teachers receive these types of allowances. Nonetheless, it is generally considered that the top-up amounts have proved insufficient to compensate for living in a more challenging environment and, thus, have failed to be an attractive bait to lure new qualified teachers from urban centers into disadvantaged localities (Geeves and Bredenberg, 2004). More generous resettlement incentives—ranging from R300,000 to R1.5 million—offered in the past elicited a limited response from urban teachers and administrative staff for voluntary redeployment to remote area postings. In 2000, non-teaching staff amounted to 22 percent of MoEYS employees. This share was reduced to 15 percent in 2005. In this period, an estimated 4,000 administrative staff were redeployed into Cambodian classrooms. Moreover, between 2003 and 2006, about 2,650 teaching staff in service agreed to be reassigned to schools facing teacher shortages (albeit four fifths of this group moved within or across communes in the same district) (Perez de Tagle, 2006).

In order to address a chronic shortage of teachers in underserved areas, MoEYS has sought to promote local area teacher recruitment as a means to match teacher supply and demand. In order to address historical barriers to entry to Provincial Teacher Training Colleges, MoEYS has waived grade 12 entry requirements for potential candidates from provinces and districts where upper secondary education options are unavailable.<sup>10</sup> 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.

As noted in Chapter 2, as Cambodian educational opportunities expand and a new generation of teachers enters the classroom, traditional assumptions about teacher distribution are challenged. 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 PTTCs 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 usually go unfilled. Nonetheless, active recruitment efforts appear to have started to pay off as the number and spread of young teacher recruits is expanding to small isolated schools nationwide.

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<sup>10</sup> The 9+2 teacher training program has a different curriculum and examination requirements than the regular 12+2 program, but in principle it prepares and certifies teachers to perform at a similar standard.

## **Multigrade classrooms**

Multigrade classrooms are characteristic in rural and remote areas where incomplete primary schools are predominant. They bring together students of multiple ages and abilities into one class and under the supervision of one teacher. Data from the PETS survey indicates that approximately 20 percent of teachers in Cambodia are responsible for a multigrade classroom.

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 Cambodia, teachers are scarce.

Teaching a multigrade classroom, on the other hand, implies a greater challenge than teaching a unigrade classroom. Multigrade classrooms in Cambodia are on average more crowded. And teachers must divide their time across children at different stages of cognitive development and undertaking different 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. 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.

There have been a few pilot programs to trial multigrade methodologies in Cambodia, but these have been primarily small scale. There has been a recent review of the multigrade curricula, resource materials and training modules. This is an encouraging beginning, but further capacity building and proficient supervisory support to model and guide instruction will be crucial for these investments to pay dividends in terms of instructional quality. Adequate experience and preparedness on multigrade classroom experiences and methodologies among TTC and administrative staff is an essential precondition for teacher upgrading programs to succeed.

Multigrade teachers receive an allowance equivalent to 60 percent of their basic salary at the end of the year for a double-grade class and 80 percent of their basic salary for a triple-grade class.

## **Job satisfaction**

PETS 2004 survey data reported in previous sections reflect that—along different dimensions—primary school teachers express satisfaction with their jobs. Virtually all interviewed teachers (96 percent) reported entering teaching as their first choice as a profession. Moreover, most of them were driven to teaching because they enjoyed the activities it entails or they believe in the importance of education for society.

As noted earlier, there is limited job turnover among teachers. Most teachers—and especially those in urban schools—expressed wanting to remain at their present posting for the next school year.

The PETS survey also asked interviewees about the least liked aspects of their profession. Each teacher was asked to rank the top three issues they disliked most about their jobs. Low pay was identified as the top issue by 81 percent of primary school teachers. Other aspects frequently cited were: excessive workloads, students not coming to class, low recognition, few opportunities for professional development and delays in salary payments (see also Chhinh, 2003; King, 2003; VSO, 2007). The subject of teacher remuneration will be the main focus of the next Chapter

## **Synopsis**

The working conditions of teachers may be succinctly described in the following terms:

1. **Classroom conditions are perceived to be adequate.** Although there is certainly room for improvement, teachers generally consider school infrastructure and availability of teaching materials and textbooks to be adequate. Urban teachers are more inclined to express dissatisfaction with classroom conditions than rural teachers.
2. **Cambodia has the largest student-teacher ratio in East Asia at 51 in the primary level and 32 in the lower secondary level.** At the primary level, the high teacher-student ratios are driven by the sheer shortage of qualified teachers due to the massive expansion of educational opportunities in the last decade. Lower ratios in secondary schools are a reflection of the demands of a diversified and specialized curriculum. However, on average, secondary school classrooms experience greater overcrowding than primary school classrooms. Likewise, rural primary schools tend to have higher concentration of students per classroom than urban primary schools.
3. **Teaching remains a highly attractive profession and there is great demand for admission into Provincial and Regional Teacher Training Colleges.** Teacher shortages are not a product of constraints in the potential supply of teachers, but rather of central planning efforts to limit the growth of the civil service.
4. **Contract teaching represents a very small fraction of the teaching force and it is at present circumscribed to specific disadvantaged areas to address severe teacher shortages.** Contract teachers receive payments irregularly and late. Regular full-time appointments are highly-coveted.
5. **Double shift teaching is a common strategy to address teacher shortages.** It is more common in primary than in secondary schools. It is a highly unpopular approach, especially in urban primary schools, since it is poorly paid and it deprives teachers from more lucrative alternative income generation activities. Allowances commensurate to income foregone and timely payments could make double shift teaching a more attractive proposition.
6. **Staff redeployment efforts to rural and remote areas have not been successful.** Allowances for hardship postings have been insufficient to elicit demand. Low teacher pay makes it difficult for teachers to work in areas without support of an extended family, existing housing or land for subsistence farming.

7. **Local area recruitment has been espoused as a policy initiative to address chronic shortages of teachers in underserved areas.** Quotas and lower entry requirements to teacher professional training have been promoted for candidates in these localities. Attracting candidates with strong ties to underserved communities will increase the uptake of hardship postings and reduce teacher turnover. Active recruitment efforts appear to have started to pay off.
  
8. **Multigrade expands 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 Cambodia, teachers are scarce. Although multigrade teaching is more difficult than monograde teaching, these classrooms are usually led by teachers with the least experience or capacity. Moreover, school facilities usually lack essential materials and teaching aids to facilitate teaching.

## Chapter 4 : Teacher Pay and Education Finance

There is generalized discontent amongst teachers about teaching being poorly compensated. A common complaint is that teachers' salaries are not sufficient to cover their expenses. And there is broad consensus amongst educators, union leaders, administrators and society in general that this indeed the case. Former Secretary of State Pok Than acknowledged that teacher salaries are low and the Ministry of Education sought to negotiate with MoEF for pay increases (*Development Weekly*, 2006). Low wages have been anecdotally linked to poor motivation, fostering teacher absenteeism through the inability to cover basic transportation costs or, more disturbingly, turning rent seeking behavior into a routine aspect of school everyday life. Chhin (2003: 8) records the hopelessness of a teacher:

*We—the teachers—know that collecting money from pupils and selling foodstuff to pupils during school breaks show the immorality of the teaching profession and cause poor rapport between teachers and pupils and their parents. But that is not as important as our daily survival. Some teachers, including myself, even ask pupils for money on various occasions, such as when parents have to countersign their children's monthly record book or communication book. I ask pupils to put some money when the books are returned.*

Salary reform has been on top of the *ESP 2006-2010* agenda, as well as its several predecessors, and it is considered a critical stumbling block for improving educational quality. This Chapter documents trends in teacher remuneration and alternative sources of income. The second section of the Chapter focuses on broader education financing requirements to put into context the fiscal requirements for a generalized salary increase as well as presents ongoing efforts for salary reform.

### **How much are teachers paid?**

It is widely acknowledged that teacher salaries are low. Yet, we noted in past sections, teaching remains a very attractive profession.

The civil service salary structure was revised in 2002. New teachers are graded along four category bands and salary scales are determined on the basis of education qualifications. The Cambodia Civil Service Salary Classification is shown in *Table 4.1*.

**Table 4.1: Civil Service Salary Classification Table**

Category	Grade	Level													
		14	13	12	11	10	9	8	7	6	5	4	3	2	1
A	3	315	323	331	340	349	359	369	380	390	399	407	414	420	425
	2					361	373	387	402	419	437	454	467	478	487
	1									436	457	482	506	528	550
B	3	220	225	230	236	243	251	259	266	273	279	284	289	293	297
	2					252	262	272	283	295	306	316	325	333	340
	1									308	324	344	360	374	385
C	3	150	154	158	163	168	174	179	184	188	192	195	198	200	202
	2					173	178	185	193	201	208	215	222	228	233
	1									212	223	235	245	254	262
D	3	100	102	104	106	109	112	116	120	123	126	129	131	133	135
	2					113	117	122	128	134	139	144	148	152	155
	1									141	149	157	164	170	175

Source: *European Commission, 2006.*



The applicable salary categories for teachers are “A” for upper secondary teachers who possess a Bachelors degree and attended the one-year NIE training program, “B” for lower secondary teachers who graduated from Regional Teacher Training Colleges and “C” for primary teachers who graduated from Provincial Teacher Training Colleges. Salaries are calculated by multiplying the index units corresponding to a teacher’s salary category (specified in *Table 4.1*) by its corresponding base value. In mid 2007, the base value was R500, a 45 percent increase from R345 in 2005.

Teacher salaries have increased in recent years, while inflation has remained low—within one-digit figures. A primary teacher’s initial base salary in 2007 was approximately R176,000 (about USD44). This base salary is complemented with a series of supplements to acknowledge seniority, family allowances, special incentives, functional allowance and a prime for carrying out a pedagogic function. The latter is a salary bonus that other civil servants do not benefit from. It usually ranges between R6,000 and R12,000, depending on academic qualifications. The functional allowance equals to R80,000 (or USD20) approximately. Being a school director offers a small raise—only R2,000—over the base salary of a teacher in the corresponding level (European Commission, 2006).

After sixteen years of experience, salaries increase by about 20 percent. After twenty-eight years of service, they increase by about 30 percent *of the initial base salary*. As a point of comparison, in OECD countries, the average salary increases after 15 years of experience by 37 percent for primary school teachers, 38 percent for lower secondary school teachers and 41 percent for upper secondary school teachers (Duthilleul, 2004). In short, Cambodia has a flat salary structure and salary increase scheme.

Data from CSES 2004 allow us to compare teachers’ earnings to those of other paid employees in order to identify where teachers stand in the overall wage distribution. Paid employees constitute approximately one of every five persons in the employed labor force of Cambodia. *Table 4.2* shows average earnings for each quintile in the distribution. Earnings from the primary occupation as well as total earnings are presented. The last column displays the proportion of earnings from a primary job on total earnings for each row.

The data reveal that an average teacher lies at the top of the third quintile of the earnings distribution, both in terms of earnings from a primary job and total earnings. An average teacher receives lower earnings (both in total as well as from his/her primary occupation) than an average civil servant does, although the difference between the two is small. The gap between the earnings of a teacher and those of an average worker in all other economic sectors is larger (both total and from primary occupation), again with the teacher earning less. Furthermore, the earnings teachers receive from teaching, their primary job, represent a larger share of their total earnings than they do both for other civil servants as well as for the average worker in other sectors.<sup>11</sup>

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<sup>11</sup> Some caution is warranted in interpreting these results. As will be noted later in this Chapter, our lower secondary survey reveals that teachers essentially double their take home salary through alternative jobs. At the primary level, tutoring (an occupation popular among urban teachers) can represent about two thirds of total pay.

**Table 4.2: Earnings Distribution of Paid Employees (Thousands of Riels per Month)**

	Primary job A	Total B	A/B
<b>By earnings quintiles</b>			
First	27.5	40.6	0.68
Second	98.3	114.9	0.86
Third	145.7	175.4	0.08
Fourth	205.7	267.1	0.77
Fifth	476.3	690.0	0.69
<b>By sector</b>			
Teachers	158.4	186.6	0.85
Other civil servants	165.3	217.3	0.76
All other workers	186.3	260.6	0.71

Source: CSES 2004

While the returns to teachers' education may not be reflected in high salaries, the teaching profession is still relatively attractive in relation to other jobs as it stands above the median of the distribution of earnings of paid employees.

Decomposed information on salaries, as reported by primary school teachers in the PETS 2004 survey, is presented in *Table 4.3*. It is important to recall that primary school teachers earn a lower base salary. Therefore, the mean teacher salaries among primary school teachers are expected to be lower than the national average among all teachers. *Table 4.3* compares the different components of teachers' salaries across primary schools from urban, rural and remote schools.<sup>12</sup> The data in the table illustrates that—in terms of its magnitude—the base salary is the main component of teachers' remuneration. However, double shift teaching can also be an important source of additional earnings. The extra income gained is, in magnitude, close to the base salary. Double shift teachers are practically doubling their earnings.

On average, remote teachers earn significantly larger total salaries than rural teachers, and rural teachers earn substantially more than urban teachers. However, when looking at each separate salary component, there are fewer statistically significant differences across groups. In fact, the average teacher in remote schools has a lower base salary than his/her rural school counterparts. A much larger fraction of rural and remote teacher earnings is comprised of additional salary components, such as allowances for teaching remedial classes,<sup>13</sup> double shifting and multigrade classes. The implications of these regional differences, however, must be interpreted with care: A considerable number of teachers—and in particular urban teachers—complement their earnings with secondary jobs and tutoring, as will be documented below.

Another word of caution is also warranted. The data presented in *Table 4.3* are nominal salaries and are not adjusted by a regional price index. It is important to highlight that—if they were corrected by regional price differences—it is likely that disparities in real salaries would widen even further, as costs of living in remote and rural areas are likely to be lower than those in urban centers. Regional price differentials are large enough that the 2004 Cambodia Poverty Assessment established regional

<sup>12</sup> Means for each salary component are only computed among those teachers for whom each of the respective salary categories apply. Since not all salary categories apply to all teachers (since there are systematic differences across regions on the category and frequency of salary components), the number of valid observations is also reported in the three last columns on the right hand side of the table.

<sup>13</sup> Remedial classes were eliminated in 2005. In 2004, when the PETS survey took place, teachers responsible for remedial classes received a special allowance through a special Priority Action Program that earmarked funds. Remedial classes were substituted with quality improvements in teaching and longer teaching hours.

poverty lines at R2,351, R1,952, and R1,753 per capita per day in Phnom Penh, other urban areas, and rural areas respectively. This means that teachers in Phnom Penh earn approximately 1.8 times of the per capita poverty line, while teachers in remote schools earn 3.7 times of the per capita poverty line. In short, teachers who are sole income earners and sustain a family with children are likely to live in poverty if they were to rely only on their earnings from teaching, particularly in urban areas.

**Table 4.3: Annual Teachers' Salaries as Reported by Teachers (Thousands of Riels)**

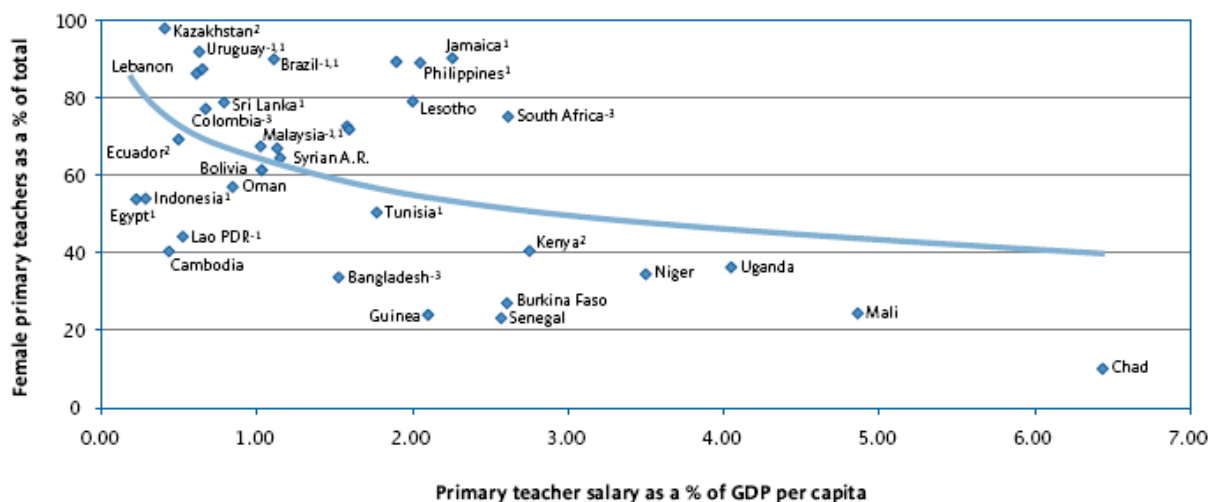
	Urban	Rural	Remote	1=2	2=3	Valid observations		
	1	2	3			1	2	3
Total salary	1,527	1,695	2,355	***	***	159	829	81
Base salary and basic allowances	1,422	1,411	1,280		***	158	809	78
Remedial	180	180	168		*	31	190	18
Double shift	1,218	1,136	1,095			10	182	57
Multigrade	0	0	0			7	161	50
Remote area	n/a	480	480			0	46	53
Other	41	21	0			8	31	5

Source: PETS 2004

Notes: T-tests are significant at \*\*\* 99%, \*\* 95%, \* 90%.

Likewise, international comparisons corroborate that primary teacher salaries in Cambodia tend to be at the lower end of the spectrum. Cambodian teacher salaries are below the GDP per capita average, suggesting that in the Cambodian labor market and pricing structure teacher remuneration is small. The starting salary for a primary teacher with minimum qualifications stands at 0.43 percent of GDP per capita. After 15 years of teaching, it increases to 0.53 percent, while the ending salary stands at 0.58 percent of GDP per capita. In a survey of 61 countries, Cambodia comes out last in terms of primary teachers' salaries at 893 international purchasing power parity dollars (UNESCO Institute for Statistics, 2006).

**Figure 4.1: Primary Teacher Base Salary as a Share of GDP per Capita, 2003**



**Notes:** Salaries are represented as a ratio to average GDP per capita and correspond to those paid to teachers with the lowest admissible qualifications at the beginning of their careers.

<sup>-1</sup> Data refer to 2002; <sup>-3</sup> Data refer to 2000.

1) Public institutions only.

2) GDP for 2005.

3) Starting salary with minimum qualifications.

**Source:** UNESCO Institute for Statistics database, 2006 and Annex 3, Statistical Table A3.9.

The CESSP 2006 survey of lower secondary schools provides some further insights on teacher remuneration. Lower secondary school teachers are paid more than primary school teachers. They report average monthly salaries of R238,000. Earnings are comprised almost entirely of a base pay (R187,000) and overtime (R62,000). Remote school allowances amount to approximately R8,000 per month on average. The overall salary is not significantly different by type of school.

Three out of every four teachers report paying a “facilitation fee” to receive their salary. The average fee of this type is R3,500, or approximately 2 percent of their base salary. Payment of “facilitation fees” is the main reason why only 16 percent of lower secondary teachers report being paid the complete amount of their salary. In contrast, almost 58 percent of teachers report *never* receiving their salary in full. Again, there are no significant differences across school types. Teachers and low ranking Government officials have recently requested that salaries be disbursed through an arrangement with the growing banking system to avoid graft opportunities. A teacher in Prey Veng reports that unscrupulous accounting officers “deduct R4,500 to R6,000 from my salary each month, for example, for associations, especially the Red Cross, but [I] have never heard of the Red Cross announce my name as a contributor” (*Xinhua Wire Service*, 2007). Further compounding this problem, roughly 80 percent of teachers report experiencing delays in receiving their salaries. In other words, some salary payment lapses appear to be generalized.

Once again, from an international perspective, Cambodian lower secondary school teachers are poorly remunerated. The starting salary for a lower secondary teacher with minimum qualifications represents approximately 0.64 percent of GDP per capita and it increases to 0.77 percent after 15 years of service. At the end of his/her career, the average lower secondary teacher earns approximately 0.86 percent of GDP per capita. Lower secondary teachers’ salaries stand around 1,310 international purchasing power parity dollars (UNESCO Institute for Statistics, 2006).

### ***The attraction to teaching***

Every year, the number of applicants to the teacher education programs largely surpasses the number of places available. So what reasons account for teaching to continue to be an attractive profession? Teaching is one of the few post-secondary education careers offered for free and hence attracts many students who cannot afford to pay university fees and the associated costs of tertiary education. The stability of the civil servant position continues to be appreciated in a country with high poverty, limited formal employment opportunities and a valid alternative to joining the army.

As everywhere else, teachers have a more work flexible schedule with a larger period of holidays. Moreover, the teaching profession still commands respect within communities. Anecdotal evidence suggests that prior to the Khmer Rouge years, the best secondary students wanted to become teachers. Today, the best students that can afford to go to university may prefer to enter higher pay professions such as law, medicine or business school. But for students who cannot afford to pay for university or who do not have the required qualifications for other programs, teaching persists to be an attractive and viable occupation (Duthilleul, 2004).

As noted above, teacher pay is competitive when compared to other paid employment. If we compare average total earnings across age cohorts in CSES 2004, we observe that, on average, all cohorts of

teachers receive lower earnings than do other paid employees.<sup>14</sup> Yet while the level of earnings is lower, there are at least two other aspects related to career and mobility that make the teaching profession relatively attractive. The first is related to the trend of average earnings. Average earnings peak after age 40 among teachers, with an important increase relative to the previous age group, likely due to seniority-based pay. On the contrary, average earnings for all other professions start to decline after age 40.

The second aspect has to do with the ratio of the highest-to-lowest average earnings as an indicator of the relative increase in earnings through a worker's career history. For comparability, we compute the ratio of average earnings at ages 41-50 to average earnings at ages 21-24. Teacher average earnings are 21 percent larger, while for all other workers this increase is 18 percent. Again, complementing some of the evidence discussed in the previous section, *Table 4.4* illustrates that despite the magnitude of wages and relative to other professions, teaching does present some attractive features as a career.

**Table 4.4: Total Earnings of Paid Employees, by Age Cohort (Thousands of Riel per Month)**

Age	Observations	Total	Teachers	All other
10-18	1,231	171.0	n/a	170.2
19-20	825	229.2	n/a	231.3
21-24	1,858	257.0	192.9	260.8
25-30	1,526	290.8	196.0	297.1
31-34	1,055	265.2	178.9	274.9
35-40	1,039	302.2	176.1	310.9
41-50	1,484	302.0	233.5	307.2
50 and up	935	214.2	138.8	224.6

Source: CSES 2004

Notes: n/a when less than 30 observations in the cell

In summary, relative to other professions, teachers earn less but they have a stable career path. Furthermore, on average, they have better prospects of upward mobility in the wage distribution. On the other hand, in absolute terms teacher earnings are low. An urban teacher's salary would place a small family below the poverty line.

## **Incentives**

Teacher incentives encompass a broad set of instruments and activities. The PETS 2004 survey collected information on the participation by primary school teachers in other school activities to complement their salaries with additional revenues. Approximately 23 percent of primary school teachers taught remedial classes, 24 percent taught in double shifts and 20 percent taught multigrade classrooms. All of the teachers who led multigrade classrooms also taught in double shifts.

There were no differences in the likelihood to teach remedial classes between teachers from urban, rural and remote schools. On the other hand, participation in double shifts and in multigrade teaching was substantially larger in rural and remote schools (particularly in the latter) than in urban schools.

In addition to direct salary compensation, rural teachers often receive indirect benefits as incentives to take on difficult posts. An example of such benefits is free or subsidized housing. According to the PETS 2004 survey, only 8 percent of primary school teachers reported receiving free housing. When

<sup>14</sup> We recognize that ideally we should be tracking individual workers over time. However, such data is not existent in Cambodia. Furthermore, it is important to analyze these figures with caution, as they include increasingly small partitions of the survey across dimensions it was not necessarily designed to be representative.

disaggregating data by type of school, large differences were found. Only 4 percent of urban primary teachers received free housing compared to 7 percent of rural teachers and 30 percent of remote school teachers.

It was also noted earlier that younger cohorts of teachers increasingly report that the main reason for opting for the teaching profession is not interest or like for this activity, but a lack of better options. This suggests that incentives will become increasingly important to maintain younger cohorts in the teaching profession, as formal employment opportunities expand in Cambodia.

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#### **Box 4.1: International Experience on Teacher Incentives**

Teacher incentives can be broadly defined to include instruments that affect: (a) who becomes a teacher, (b) how long they stay in the profession and (c) what they do in class. This broad definition of incentives encompasses “general incentives” such as salaries and benefits, as well as “targeted” incentives such as bonuses given to teachers for their performance or for undertaking special activities (e.g. teaching in remote schools). Incentives can be monetary and non-monetary (e.g. status or career stability).

International experience provides fairly robust evidence that general incentives do have an impact on teaching quality and supply. The level and profile of teacher salaries, both in absolute terms and relative to the salary of comparable workers, matter. Chile’s more-than-doubling of average teacher salaries in the past decade is associated with an increase in the quality of students entering teacher education programs. Similarly, the increased and more equitable distribution of resources resulting from FUNDEF (Fund for Maintenance and Development of the Fundamental Education and Valorization of Teaching) in Brazil led to improvements in student outcomes. In Latin America, low teacher salaries and a flat wage profile are major factors contributing to the poor preparedness of teachers. Individuals that choose to become teachers often are not strong students, are not interested in teaching as a career and do not have the appropriate characteristics to succeed as teachers.

In theory, targeted incentives can be argued to be a superior policy tool to improve teaching quality than across-the-board salary increases on the basis of both fiscal and efficiency considerations. However, there has been very little experience with applying performance-based incentives. Targeted incentive reforms, such as merit pay, are relatively rare and existing plans are often small-scale and short-lived. Various teacher- and school-targeted incentive programs were implemented in the United States. The evidence on these programs’ effects is inconclusive.

Other countries like Chile and Mexico implemented national performance-based teacher incentive systems. A review of these and other Latin American countries’ experiences with targeted teacher incentives found that although teachers generally respond to incentives, they do not always do so in the expected way. Design flaws in performance-based incentive reforms were likely behind their lack of uniform success. In addition, many of the gains in student outcomes attributed to targeted incentive reforms have been small or short-lived. Cambodia has a small program recently introduced to recognize best teachers. Three teachers in each province receive a one-time award ranging from R80,000 to R120,000 (USD20-30).

Targeted incentive programs rewarding teacher for undertaking special activities, such as working in difficult areas are far more common than performance-based incentives. Beyond financial incentives,

several governments have introduced school-based management reforms giving local communities greater authority over schools, in the hopes of increasing teacher accountability and, as a result, student achievement. The general principle is that engaging communities in school matters makes teachers more accountable for what they do in class and also makes their work more appreciated, thus creating an incentive for teachers to work harder and better. A review of the evidence on school-based management reforms in Central America concludes that while the reforms have improved class size, teacher absenteeism, increased working hours and homework assigned, they did not have an effect on teaching practices.

*References:* McEwan and Santibañez (2004), Vegas (2005), and Villegas-Reimers (1998).

### **Alternative sources of income**

Teachers' workload and work schedule leave time for a second job. Second jobs can be very important sources of income to compensate for relatively low teacher pay. In fact, teachers seem to prefer having an out-of-school second job rather than teaching double shifts. This is likely due to possible larger earnings from a second activity. According to household data, on average, teachers have a larger number of occupations than all other workers.

**Table 4.5: Number of Occupations of Workers in Different Sectors of the Economy, 2004**  
(Means and standard deviations)

	Education	Health	Public Administration	Agriculture, Livestock and Forestry	Fishing	Other	1=3	1=All others
	1	2	3	4	5	6		
Number of occupations	1.36	1.23	1.24	1.21	1.12	1.09	***	***

Source: CSES 2004

Notes: Difference is significant at \*\*\* 99%, \*\* 95%, \* 90%. T-tests are done on un-weighted data.

The PETS 2004 survey indicates that 68 percent of primary school teachers have a second job. The likelihood of having a second job is substantially larger for rural teachers (74 percent) than for urban and remote teachers (59 and 36 percent respectively). Similarly, this likelihood increases with age. It is 1.8 times more common for a teacher who is 30 or older to have a second job than it is for one who is younger than 30 years of age. Additionally, secondary jobs are also more frequent among male than female teachers and among teachers with lower levels of schooling.

**Table 4.6: Second Occupation of Primary School Teachers, 2004**

Occupation	Total	Urban	Rural	Remote	<30	30-39	40-49	≥50
Percentage with a second job	68.5	58.5	73.6	35.8	44.4	81.2	82.7	83.0
Second occupation								
Farmer	69.6	43.0	73.4	72.4	61.8	66.8	68.1	85.9
Motorcycle driver	4.2	15.1	2.5	6.9	5.3	6.3	0	1.4
Small vendor	14.3	30.1	12.3	6.9	15.9	14.2	19.8	9.2
Crafts and services	6.6	6.5	6.6	6.9	8.2	6.7	7.7	3.5
Animal farm	5.3	5.4	5.3	6.9	8.8	6.0	4.4	0

Source: PETS 2004

Among primary school teachers who have a second job, the most common occupations are farming (70 percent) and sales (14 percent). As one would expect, there are important differences in the types of occupations across teachers of different characteristics. For example, farming is more common among older teachers and in rural and remote areas than it is in urban areas or among young teachers. Similarly, urban teachers are more likely to have jobs as drivers or vendors than do those in rural and remote regions. Gender differences in the choice of second occupation are evident. Female teachers are less likely to work as farmers than male teachers. Females are also more actively working in sales, while being a driver is an occupation that is more popular among male teachers. Finally, more educated teachers tend to be more engaged in sales and less involved in farming.

**Table 4.7: Second Occupation of Primary School Teachers**

Occupation	Total	Male	Female	Primary	Lower Secondary	Upper Secondary
Percentage with a second job	68.5	71.0	64.2	88.0	82.5	51.3
Second occupation						
Farmer	69.6	75.0	59.3	68.2	74.6	60.2
Motorcycle driver	4.2	6.3	0.4	0	3.0	6.8
Small vendor	14.3	8.6	25.3	4.6	12.6	18.5
Crafts and services	6.6	7.3	5.1	13.6	4.8	9.2
Animal farm	5.3	2.9	9.9	13.6	5.0	5.2

Source: PETS 2004

At the lower secondary school level, more than half of teachers reported in the CESSP 2006 survey working for another job in addition to teaching. In most cases, this is farming. The average income earned away from school for the entire sample, including those that do not report non-teaching work, is R217,000. This is almost the same salary earned from teaching, which in turn highlights the demands on teacher time away from school.

A common second occupation for teachers is to work as private tutors, particularly at the secondary level and in urban areas. A study by Bray and Seng (2004) documented that the costs of tutoring increase substantially after primary school. The same study reports that in urban areas of Cambodia, tutoring costs for a pupil in eighth grade can be up to 68 percent higher than those in the fifth grade.

According to the PETS survey, 13 percent of primary school teachers tutored students (*Table 4.8*). However, there are significant differences in the likelihood of working as tutors across those teachers who hold a second job out of education (9 percent) and those who do not (21 percent). Similarly, there are vast regional differences: while 42 percent of primary school teachers in urban areas reported working as tutors, only 8 and 7 percent of teachers in rural and remote areas, respectively, did so. This is consistent with lower participation rates by urban teachers in other secondary jobs depicted in *Table 4.6*. Lastly, it is apparent that participation in tutoring is strongly correlated to teachers' levels of schooling. Primary school teachers with upper secondary education are significantly more likely to work as tutors than those who have less education.



**Table 4.8: Teachers with Out-of-School Work as Tutors**

	Percentage		Percentage
Total	12.9	Primary schooling	0
With second job	9.2	Lower secondary	7.7
No second job	21.1	Upper secondary	19.6
Male	12.4	Age <30	16.7
Female	13.7	Age 30-39	14.1
Urban	41.5	Age 40-49	13.6
Rural	8.0	Age ≥ 50	2.3
Remote	7.4		

Source: PETS 2004

Earnings from tutoring can be significant. On average, primary school teachers charge R241 per hour and take 16.6 students. The median tutoring charge is slightly lower, at R200 per hour and 15 students per teacher, suggesting the presence of some extremely prolific tutors. The magnitude of these figures is consistent with those from household data presented by Bray and Seng (2004). Additionally, for the average teacher, tutoring earnings represent R78,000 per month, or about two thirds of their monthly average base salary with basic allowances.

At the lower secondary level, we observe a somewhat different picture. Approximately 87 percent of teachers report tutoring after hours. There are no differences across different types of school. However, only 69 percent of teachers claim to do so for free. According to the CESSP 2006 lower secondary school survey, 23 percent of teachers charge up to R300 for an hour of tutoring, while 8 percent charge larger fees.

### **Unofficial fees**

The opening quote in this Chapter alludes to a not uncommon practice in Cambodian schools: Although education is officially free of charge, school staff can levy a variety of unofficial fees. According to a recent study from the Economic Institute of Cambodia (2006: 18), unofficial fees are primarily an urban phenomenon, akin tutoring. Overwhelmingly, poverty appears to fuel this type of behavior. As expressed by a Siem Reap teacher:

*Some days, teachers' pockets are empty. They do not even have a penny. Thus, teachers do business in class because they are poor and need money to support their daily expense.*

Fees may be charged against registration and enrollment, classroom materials or examinations. Data from Kampong Cham indicate that each child pays approximately R100 to R200 per day on teacher fees. Lesson handout fees range from R1,000 to R21,000 and exam papers levies oscillate between R1,000 and R30,000 (NGO Education Partnership, 2007). Anecdotal evidence suggests that students who do not pay these levies may be penalized.

According to data collected through the grade 3 Assessment study, a distinct minority of students report paying extra fees, but it does not appear that extra charges are widespread throughout the primary school system. Furthermore, fees are concentrated in urban schools. For example, almost nine percent of the students in large urban schools report paying a bicycle parking fee, while none of the students in rural areas report this kind of charge. The most common charges are for extra classes and teacher support. Extra classes are reported in only 6.7 percent of small rural schools, but in more

than 40 percent of large urban schools. Fees also vary considerably, from less than R300 per class in small rural schools to more than R500 in big urban schools. Averages for teacher support fees—R292—roughly match teachers’ own estimates of income from private tutoring reported above.

**Table 4.9: Unofficial Fees as Reported by Grade 3 Students, 2006**

Outcome:	Whole Sample average	Small Rural	Large Rural	Small Urban	Large Urban
<i>Student reports:</i>					
Paying to park bike (%)	2.1	0.0**	0.0**	2.8	8.7**
Average fee (Riel)	133	----	----	358 **	128**
Paying for extra classes (%)	14.6	6.7**	10.3**	14.2	40.3**
Average fee per class (Riel)	453	259 **	244 **	491	513
Paying for teacher support (%)	15.2	11.6**	15.0**	22.0**	25.0**
Average support fee (Riel)	292	249 **	234 **	949 **	350**
Paying other fee (%)	18.1	17.2	16.9*	13.3**	25.8**
Average other fee (Riel)	318	522 **	227 **	703 **	303**
Average fees paid (Riel)	171	136 **	99 **	381 **	367**

Source: MoEYS Grade 3 Assessment, 2006

Notes: Whole sample averages are computed using sampling weights. Asterisks refer to t-tests comparing each column average with the whole sample average (\*\*  $p \leq 0.05$ ; \*  $p \leq 0.10$ ). **Paying to park bike, Paying for extra classes, etc.** refer to the percentage of students who indicate these charges exist in their schools. **The average fee** is then the total amount in Riel that they pay calculated only for those students who indicated that these charges exist. **Average fees paid** at the bottom of the table refers to all students and not just those that report paying fees. **Correlation with achievement** refers to the Pearson’s R correlation coefficient between – 1.00 and +1.00.

In response to public outcry, MoEYS launched an anti-corruption campaign to combat the “bribing” of teachers. With support from international partners, advertisements were placed in local media and banners in schools asserting “lesson selling, snack selling and paying teachers are prohibited.” On the other hand, acknowledging the reality that teacher salaries are low, MoEYS agreed not to punish teachers who disrespected the law (*Development Weekly*, 2006).

### **The education sector budget**

Government expenditure in education has increased significantly in recent years. As a share of GDP, education expenditure increased from 0.9 percent in 1997 to 1.5 percent in 2006. The share of the education sector recurrent budget has also experienced a notable rise. In 2006, the RGC allocated 18.9 percent of Government monies to education. In contrast, the budget in the late 1990s was approximately 10 percent. In other words, the recurrent budget nearly doubled in the course of a decade (World Bank and ADB, 2003).

On the other hand, Cambodia stands below regional averages in terms of education spending as a percentage of GDP (below 2 percent in Cambodia versus a regional average of 4.4 percent).

**Table 4.10: Public Education Share (as a Share of GDP), 2003**

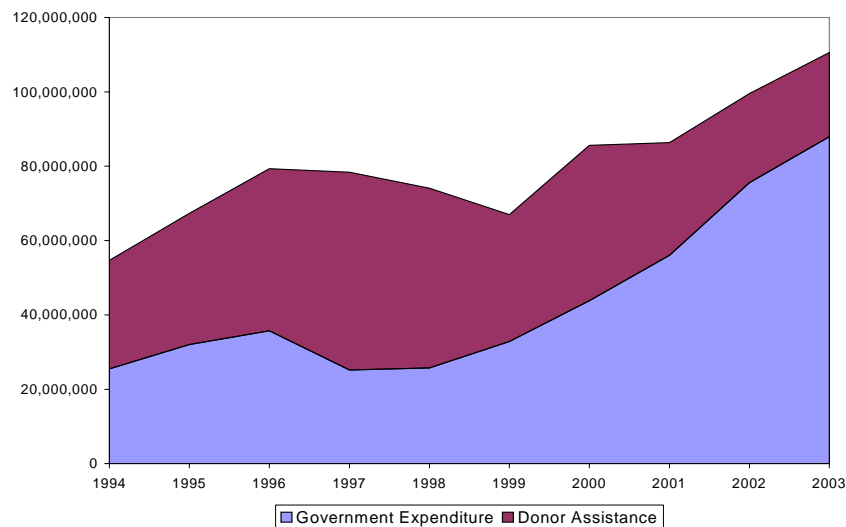
	% GDP
Cambodia	1.91
Indonesia	0.95
Korea	4.62
Lao PDR	2.26
Malaysia	7.95
Mongolia	7.32
Philippines	3.23
Thailand*	4.23
Vietnam	3.00

Source: Edstats

Note: Thailand, 2004; as reported in the text, the share for Cambodia in 2006 was 1.5%

Donor assistance represents a significant proportion of total spending in education. In the late 1990's, external financing actually surpassed government spending. This situation has at present been reversed. The government covers over 80 percent of expenditures. As *Figure 4.2* shows, MoEYS has increased spending significantly since 1998, while the volume and share of external financing has decreased. In 2005, external donor assistance to the education sector amounted to approximately USD40 million, while the amount budgeted for 2006 was estimated at USD63 million (Education Sector Working Group, 2006).

**Figure 4.2: Government and Externally Financed Expenditure (in USD) in Education, 1994-2003**



Source: Ministry of Economy & Finance

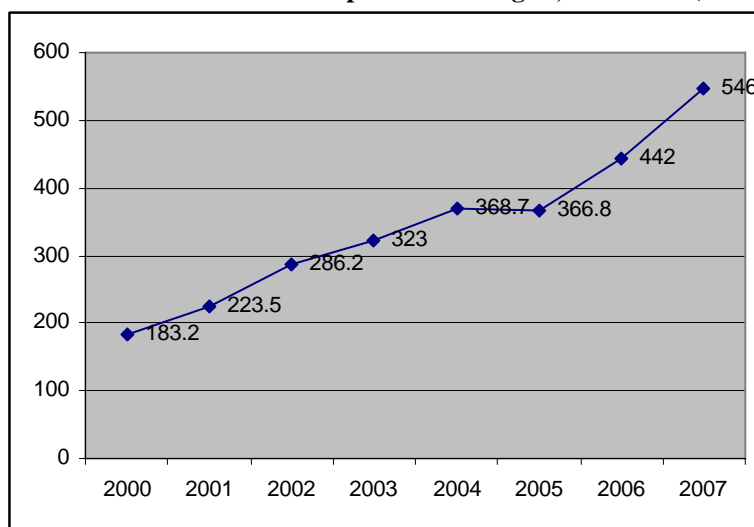
According to the *National Socioeconomic Development Plan 2006-2010*, the RGC's financial commitment to education will be maintained at the same levels through 2010. The projections available posit that education recurrent expenditures will remain around 18.5 percent, which will translate in approximately USD100 million to USD120 million during this period (Education Sector Working Group, 2006).

**Table 4.11: Recurrent Expenditure Budget, 2001-2007**

	2000	2001	2002	2003	2004	2005	2006	2007 (proposed)
As % of total government recurrent budget	13.6	15.0	18.4	17.1	18.7	17.8	18.3	19.2

Source: Education Sector Working Group, 2006

**Figure 4.3: Education Recurrent Expenditure Budgets, 2000-2007 (Billion Riel)**



Source: EC Technical Advisory Team, 2006

The lion's share of Government financing in education—over 98 percent—is devoted to recurrent expenditures. Capital expenditures have been primarily financed through donor assistance. The reduction over time in external financing contributed to a shift in the recurrent-capital ratio from 60:40 in 1997 to a ratio of 80:20 in 2003. While a higher recurrent-capital ratio was essential for the sustainability of investments, and is now more comparable with other countries in the region, the pendulum may have shifted too far in the other direction.

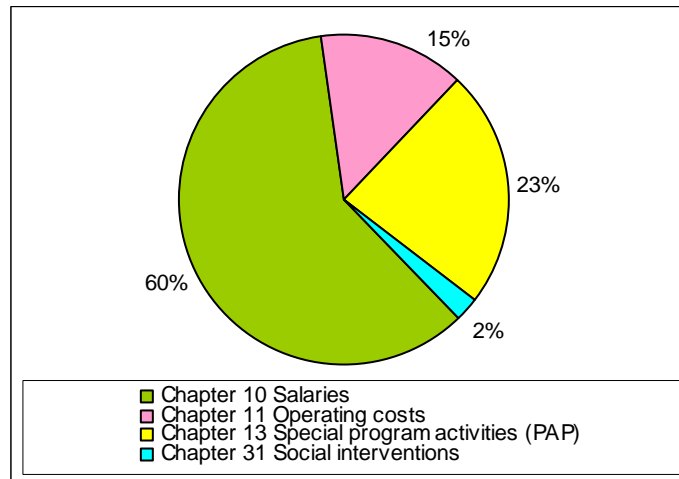
**Table 4.12: Public Expenditures in Education, 2000-2003 (in USD)**

	2000	2001	2002	2003
<b>Recurrent Expenditures</b>	<b>43,796,883</b>	<b>56,049,921</b>	<b>75,594,295</b>	<b>87,955,362</b>
Wages	31,967,248	34,888,537	42,470,153	50,899,894
Non-wages	11,829,635	21,161,384	33,124,142	37,055,468
- Administration	9,967,248	12,657,158	14,550,977	14,083,465
- Priority Action Program (PAP)	717,380	7,418,912	16,984,416	21,341,786
- Subsidies	1,145,008	1,085,314	1,588,748	1,630,217
<b>Capital Expenditures</b>	<b>42,890,650</b>	<b>34,859,218</b>	<b>25,013,207</b>	<b>23,692,552</b>
Government	1,068,410	4,580,824	1,056,524	1,056,524
Externally Financed	41,822,240	30,278,394	23,956,683	22,636,027
<b>Total Public Expenditures</b>	<b>86,687,533</b>	<b>90,909,139</b>	<b>100,607,501</b>	<b>111,647,913</b>

Source: Ministry of Economy and Finance

Since the scaling up of the Priority Action Programs, budget allocations and expenditure on wages as a share of education recurrent expenditure have fallen considerably—from 78 percent in 1997 to only 60 percent in 2005. This is low in comparison to both developed and developing economies where the wage share ranges between 70-80 percent. Accordingly, the non-wage share increased from 22 percent in 2002 to 40 percent in 2005 of recurrent expenditure, which is considerably high by international standards.

**Figure 4.4: Education Recurrent Budget, 2005 (Million Riel)**



*Source: Education Sector Working Group, 2006*

By economic classification, Chapter 13 contains expenditure on wages/staff remuneration that is budgeted and implemented separately from Chapter 10, Salaries. The wage elements of PAP (now known as Program Based Budgeting or PBB) include additional pay for remedial instruction, financial incentives to teach in remote areas, double shift and multigrade teaching allowances as well as management/leadership premiums. Although for individual teachers the PAP/PBB wage elements may represent a substantial increase in their remuneration, at the aggregate level they do not shift significantly the wage versus non-wage ratios of recurrent spending.

Overall, it is apparent that there is an imbalance in the composition of the education sector budget. Capital expenses are heavily dependent on foreign aid, while recurrent expenditures are strongly tilted towards non-wage expenditures. Both in relative and absolute terms, there is significant scope for improvement of the Cambodian wage bill.

### ***Towards teacher salary reform***

As noted throughout this Chapter, low salaries bring about wide distortions in education service provision (Kemmerer, 1999). Teachers are forced to undertake a second job or engage in questionable practices to secure supplemental income and make ends meet. Non-monetary incentives, such as subsidized housing, do not offset small salaries.

Unless teachers can earn a wage sufficient to cover their basic expenditures, it will remain difficult to attract and keep educators in the profession in rural areas for any reasonable period of time, professionalize the teaching force and provide better services to rural areas. Recognizing these problems, MoEYS has proposed and planned for “an agreed plan with MoEF and CAR on yearly increases in classroom teacher salary/allowances against agreed criteria and responsibilities” in the Sector Wide Policy Action Matrix of the ESSP 2006-2010. This is a promising start.

At present, the Government has pledged an across-the-board base salary improvement of approximately 15 to 20 percent to all teachers annually. Improved staff remuneration will also hopefully promote more equitable access to education services through the elimination of informal

payments by parents, an important constraint to educational access for poor children. As the economy grows and treasury revenues expand, enlarging the share of the wage bill should be plausible and must remain high in the Government's agenda for civil service reform.

But this is not enough. Even if these promises do materialize, resulting increases in remuneration in the medium term would only place a starting primary school teacher at the level of a minimum wage worker in the textile industry. In the long run, the salary scale will need decompression. And across-the-board increases, although necessary at present, need not act as a stimulus for improved efficiency and better service provision. Increases in the differences across civil service salary schedules combined with clear standards for promotion could allow for stronger linkages between remuneration and performance. MoEF has launched a Merit Based Pay Initiative (MBPI) under its Priority Mission Group (PMG) scheme for staff in the Public Financial Management Reform Program (see *Box 4.2*). MoEYS is currently exploring its application to administrative staff. Some of the MBPI principles may also serve as a useful model for application to MoEYS administrative and supervisory cadre.

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#### **Box 4.2: Incentives for Good Performance: Merit-Based Pay Initiative**

Cambodia's Rectangular Strategy for Growth, Employment, Equity and Efficiency commits MoEF to reforming public financial management practices and CAR to introducing administrative reforms to increase the efficiency and effectiveness of the civil service. Both are recognized as crucial to sustainable development. The Government's Public Financial Management Reform Program (PFMRP) comprises four stages over a ten year period.

Cambodia has agreed to deploy a PMG in support of its PFMRP. The PMG program provides a special allowance for civil servants working on high priority activities. The PMG program is a merit based tool used to target available resources to priority reforms with the flexibility to be tailored to specific circumstances. In order to secure sufficient qualified officials to implement the agreed program of PFMRP, Cambodia and several international development partners have developed a framework to enhance allowances to staff that would participate in the PMG for the PFMRP or other reforms specified in the Rectangular Strategy. The MBPI specifies a set of arrangements for an additional allowance—on average USD275—to be provided to highly qualified and dedicated staff.

Initially, contributions to PMG/MBPI are being substantially subsidized by the Australian Government's Overseas Aid Program (AusAID), the United Kingdom's Department for International Development (DFID), the Swedish International Development Cooperation Agency (SIDA) and the World Bank. Cambodia has committed to providing an annual contribution of 11 percent in 2007 and increasing the share of total costs of the PMG/MBPI annually to ensure sustainability.

The selection for participation is merit based, taking into account assessed skill and qualifications, satisfactory performance, and capacity to contribute to achievement of Cambodia reform program objectives. The results of the selection are endorsed by an inter-ministerial selection committee established under the PMG program. Approximately 15 percent of centrally located MoEF staff were selected to participate in the PMG—or about 300 full time staff participants—and all MoEF staff were eligible for consideration.

A functional analysis of MoEF will be completed within the framework of CAR operational review policy before Phase 2 commences, to inform strategy for organizational change to be implemented. At

the same time, CAR and internal stakeholders, particularly MoEF, have developed a program to phase out salary supplementation, rationalize existing departmental schemes, and improve practices on non-wage/allowance benefits and entitlements. Individual civil servants who are selected for the PMG do not receive salary supplements or other remuneration from any other MoEF, Government or donor-schemes, including department-specific schemes in MoEF (except normal civil service pay and allowances).

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Teacher pay should be strongly linked to educational attainment and on-going professional development. Furthermore, opportunities to reward teachers according to some specific performance criteria could be woven into the civil service salary schedule. But what criteria may be useful and appropriate for Cambodia? And what is the empirical evidence about teacher job performance in Cambodian classrooms? In the next Chapter, we turn our attention to these questions in order to better understand how Cambodian teachers fare on the job.

## **Synopsis**

Teacher pay has been a topic of high priority on the education reform agenda for more than a decade now, but little progress has been achieved. The key issues are:

1. **An average teacher lies atop of the third quintile of the earnings distribution**, both in terms of earnings from teaching as well as total earnings from other activities. But teachers receive on average lower earnings than civil servants or an average worker in all other economic sectors.
2. **Remote area teachers earn significantly larger total salaries than rural or urban teachers.** This is due to additional salary components and allowances, such as double shifting and multigrade teaching. Double shift teaching represents an important source of additional earnings (for about 24 percent of primary school teachers), in relation to a teacher's base salary. The extra income gained is close to the base salary in terms of magnitude. Rural teachers also receive indirect benefits as incentives to take on hardship posts, such as free or subsidized housing (for about 30 percent of remote area teachers).
3. **Teachers in Phnom Penh earn approximately 1.8 times of the per capita poverty line, while teachers in remote area school earn 3.7 times the per capita poverty line.** That is, teachers who are sole income earners and sustain a family with children are likely to live in poverty if they were to rely only on their earnings from teaching, particularly in urban areas.
4. **Cambodia has a flat teacher salary structure and salary increase scheme.** After 15 years of service, a primary teacher salary increases from 0.43 percent to 0.58 percent of GDP per capita, while a lower secondary teacher salary increases from 0.64 percent to 0.77 percent of GDP per capita.
5. **Second jobs can be very important sources of income to compensate for relatively low teacher pay.** About 68 percent of primary and 50 percent of lower secondary school teachers hold another paid job, such as farming or sales. A common second occupation, especially for urban primary teachers (42 percent at the primary level and 87 percent at the lower secondary

level), is private tutoring. Tutoring earnings can represent approximately two thirds of the monthly average base salary with basic allowances.

6. **Although education is officially free, school staff oftentimes levies unofficial fees.** Fees may be charged against registration and enrollment, classroom materials or examinations.
7. Over 98 percent of the Government financing in education is devoted to recurrent expenditures. **Expenditure on wages has fallen considerably over the last decade and represents only 60 percent of the education recurrent budget.** Both in relative and absolute terms, there is scope for significant improvement in the Cambodian wage bill.
8. **As the economy continues to expand and the labor market offers more employment options, unless teachers can earn a living wage, it will remain difficult to attract and keep high quality educators in the profession**—especially in rural areas—for any reasonable period of time, professionalize the teaching force and provide better services. At present, the Government has promised an across-the-board base salary improvement of approximately 15 percent to all teachers annually. In the long run, the salary scale will need decompression. **Increases in the differences across civil service salary schedules combined with clear standards for promotion could also allow for stronger linkages between remuneration and performance.**



## Chapter 5 : Teacher Performance

The quality of teaching is a key factor in keeping children in school. The legacy of the Khmer Rouge period represented a monumental setback to the education sector as the Cambodian teacher cadre suffered enormous casualties. During the reconstruction period, the number of trained primary and lower secondary school staff increased gradually and consistently, with an increased share of the teaching force having upper secondary education or graduate qualifications (see Chapter 2).

However, the quality of preservice training is low and the opportunities for professional development are limited. These are important barriers for acquiring mastery of curricular content knowledge or putting into practice pedagogically pertinent teaching practices. Distance from school, geographical isolation, a long rainy season as well as competition for time from other remunerated activities can also play a role in undermining teacher attendance patterns and reducing instructional time. All these factors combined, in turn, can have a negative effect on student performance and, directly or indirectly, affect student outcomes in terms of cognitive development, repetition and dropout.

In this Chapter, we first explore teacher practices at school and in the classroom. In particular, we examine teacher attendance rates and classroom pedagogical behavior patterns. Then, we analyze the relationship between teacher performance and student outcomes, as measured in terms of academic achievement. Finally, we review possible school and parental accountability practices that may promote quality assurance and enhance education service delivery.

### ***Teacher attendance***

Teachers are a central actor in the teaching and learning process. In countries like Cambodia, where qualified substitute teachers are rarely available, their absence implies a significant loss. Students not only miss out an opportunity to learn but this is also time taken away from engaging in productive activities at home. Loss of school days by teacher absenteeism further compounds the existing challenges posed by a short school day. Limited instructional contact hours constrain opportunities for academic achievement. Perhaps more importantly, repeated non-attendance reflects poorly on a school's reputation, demeans the intrinsic value of education in the eyes of the community and may induce student absenteeism.

Three recent surveys capture measures of teacher absenteeism in Cambodian primary and lower secondary schools.<sup>15</sup> The PETS 2004 survey collected indirect information about primary school teacher absenteeism. School directors reported whether a set of listed teachers was at school on the day of the interview. For those teachers who were absent, the director was asked the reason for absence. This survey was not specifically designed to measure and verify teacher attendance, and as

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<sup>15</sup> Readers may also be interested in the results from a survey conducted in 1998 to a small nationally representative sample of primary school teachers (CARE International, 1999). This study reports that Cambodian primary school teachers were absent 1.7 days per month on average. Remote area teachers had greater absenteeism rates than urban teachers. The most frequently cited reason was sickness, but field activities during the agricultural season were also common in rural areas.

such it was prone to suffer from underreporting by directors. Thus, these findings ought to be interpreted with caution and are likely to be downward biased estimates.<sup>16</sup>

Overall, 7.1 percent of primary school teachers were absent on the day of the interview. As a point of comparison, the 2004 Mongolia PETS documented 10 percent teacher absenteeism on the day of the survey. A cross country study on teacher absenteeism conducted in Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda documented an average absenteeism of 19 percent of teachers. It also found higher absenteeism in poorer regions and among higher-ranking school staff (Chaudhury *et al.*, 2006). This study included data only from unannounced visits to school and direct observation of the teachers' presence. Therefore, it is not strictly comparable to the Cambodia PETS data.

Table 5.1 illustrates reported absenteeism rates across primary schools and teachers of different attributes. Most groups do not exhibit differences that are statistically significant. For example, absenteeism rates appear to be similar across urban and rural schools. However, they are significantly higher among remote schools. Similarly, no differences were observed across male and female teachers, across regular and contract teachers, and across teachers with different schooling levels. Nor they appear to be correlated to teachers' place of birth or to their participation in out-of-school economic activities. Surprisingly, teachers who are not from the community or those who hold a second job seem to have lower (although not statistically significant) rates of absenteeism. Lastly, teacher absenteeism is not associated with the teaching load as measured by variables such as the likelihood of teaching a double shift or a multigrade class. Absenteeism rates appear to be significantly lower for remedial class teachers.

**Table 5.1: Teacher Absenteeism on Interview Day, 2004**

	% Absent	T-tests	% Absent	T-tests
<b>Total</b>	<b>8.1</b>		Teacher tutors after school	
School location			Yes	3.9
Urban	5.7		No	7.5
Rural	6.9	*	Teacher holds a second job	
Remote	12.2		Yes	6.4
Gender			No	8.1
Male	7.2		Teaches remedial classes	
Female	7.0		Yes	3.8
Type of teacher			No	8.3
Regular	7.1		Teaches double shift	
Contract	7.1		Yes	7.7
Teacher's education level			No	6.9
Lower secondary or less	6.2		Teaches multi-grade classes	
Upper secondary	8.3		Yes	7.5
Teacher's place of birth			No	7.0
Community where he/she teaches	10.2			
Other	6.7			

Source: PETS 2004

Notes: T-tests compare each cell with the one below. They are significant at \*\*\* 99%, \*\* 95%, \* 90%.

<sup>16</sup> Of the 1,200 teachers listed in the school director survey, the data set contained information for only 77 percent (924 teachers). Data was missing for 9.8 percent of urban teachers and for 24.3 percent and 31.4 percent of teachers in rural and remote schools respectively.

There is limited diversity as to the reasons provided for non-attendance. The vast majority of absent primary school teachers (86 percent) were either ill or taking care of family emergencies. When asked how long had these teachers been absent from school due to the same reason, 71 percent of teachers had missed three or less days. However, there were a few teachers who had been away for much longer periods of time, driving the mean number of days of absence up to 7.5.

A survey conducted on a representative sample of grade 3 classroom teachers in 2006 provides additional insights on the impact of teacher absenteeism. Like the PETS survey, the data presented below relies on teachers' own accounts about how many days they have missed school on the 2005/06 academic year. Thus, interpretation of these results warrants caution. On average, teachers report missing 11.5 days during the academic year. This represents approximately 5 percent of annual instructional time. Few patterns are noticeable across school strata. While urban primary school teachers in large schools report the fewest absences, urban primary school teachers in small schools report the highest number of absences. The most common reason for missing class is to attend administrative meetings. Teacher absences appear to be negatively correlated with student performance in mathematics and language tests. These correlations are very small. Nonetheless, it is worthwhile to highlight that loss of instructional time does appear to have consequences in terms of student learning.

**Table 5.2: Teacher Absences, 2006**

Variable:	Whole Sample average	Sample Strata:				Corr. With Achieve
		Small Rural	Large Rural	Small Urban	Large Urban	
Number of absences so far:						
For health reasons	2.4	2.2**	2.9**	2.6**	1.5**	-0.02
To go to training	2.3	1.7**	2.7**	1.4**	1.3**	-0.04
Due to weather	0.9	0.7**	1.1**	1.5**	0.5**	-0.06
Due to meetings	4.4	4.6*	4.9**	3.1**	3.7**	0.00
Due to family problem	1.0	0.8**	1.1**	1.5**	1.1	-0.07
Due to other reason	0.4	0.3**	0.3**	4.4**	0.1**	-0.02
Total absences	11.5	10.6**	13.1**	14.5**	8.1**	-0.05

Source: MoEYS Grade 3 Assessment, 2006 (p.14)

Notes: Whole sample averages are computed using sampling weights. Asterisks refer to t-tests comparing each column average with the whole sample average (\*\*  $p < 0.05$ ; \*  $p < 0.10$ ). **Number of absences** is measured in days and refers to the total for the 2005/06 school year. **Correlation with achievement** refers to the Pearson's R correlation coefficient between  $-1.00$  and  $+1.00$ . All information comes from individual teacher questionnaires.

The CESSP 2006 lower secondary school survey collected direct observational data from independent enumerators on teacher absenteeism in a nationally representative sample of schools as well as self-reported data from school principals. Schools report on average 24 days of closure during the 2005/06 school year, out of which 19 days were official holidays.<sup>17</sup> In a few instances, schools were not having classes on the day of the "surprise visits" conducted for data collection. In these cases, schools were primarily engaged in maintenance activities, such as cleaning the grounds.

<sup>17</sup> In only 30 percent of the schools this information came entirely from official attendance books. In most schools, it was a combination of attendance books and principal/teacher memory. However, anecdotal data suggests that unofficial school closings are significantly larger than reported and the figures presented here are a downward biased estimate.

Lower secondary school principals are frequently away from schools on official MoEYS travel or meetings. Approximately, 21 percent of directors report missing less than 10 days per year, the vast majority report between 11 and 30 absences per year, while another 11 percent report missing between 30 and 50 days. These proportions vary little by school type.

On the other hand, surprise school visits show that teacher absences are indeed a problem. About 15.6 percent of lower secondary school teachers were absent on the day of the survey, and at least one quarter of these absences were unauthorized. As a point of comparison, a similar survey conducted in Lao PDR revealed that 92 percent of lower secondary teachers were present on the day of an announced school visit.

Furthermore, only 14 percent of absent lower secondary school teachers had substitutes arranged for their class. When asked directly how they handle teacher absences, less than 40 percent of school directors cited finding a substitute (34 percent) or combining classes (4 percent). The share of classrooms where substitute teachers were actually observed was well below the reported estimates at 14 percent. In 13 percent of cases, principals stated that they left classrooms unsupervised but assigned classwork to keep students engaged, while in 19 percent of cases students were left unsupervised with no assignment (7 percent), played sports (2 percent) or were sent home (10 percent). In short, absent teachers usually imply that little or no learning takes place at school.

**Table 5.3: Teacher Absences, 2006**

	Percent
<b>Absent on day of visit</b>	15.6
<b>Reason for absence:</b>	
Official teaching -related duty (training, meetings, etc.)	2.6
Other non-teaching duty (union meeting/political meetings, etc.)	0.5
Sick and hence absent	11.4
Authorized/informed leave (personal, casual, etc.)	33.5
Unauthorized/uninformed Absence	24.6
Suspended	3.2
Other	15.8
Do not know	6.5
<b>Substitute for absent teachers</b>	14.0

Source: CESSP 2006

Notes: Whole sample averages are computed using sample weights. **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 was based on official record books (60 percent), a combination of official record books and memory of the staff member answering the questions (36 percent) or other sources (4 percent).

Further compounding the problem of teacher absenteeism, classroom and school ground observations indicate that actual instructional time is shorter than the official time schedule. Our findings, summarized in *Table 5.4*, show that after the initial bell there is a delay of roughly 10 minutes before students enter class. There are also some additional delays after breaks as teachers do not always

return immediately to their classrooms. The actual school shift, as measured by the time students first enter classrooms and then leave for home, is approximately 30 minutes shorter than the official schedule indicates. Classroom periods are roughly five minutes shorter. Rather than receiving 210 minutes of instruction per day, students are essentially in class for less than 190 minutes. These 20 minutes per day are roughly equivalent to 10 percent of the total official instruction time per year. In other words, students are losing an opportunity to learn equivalent of 20 days of class per year.

**Table 5.4: Time Use**

	<b>Totals</b>
Delay to enter class after bell (minutes)	9.8
How long are breaks?	
Break number 1	13.8
Break number 2	13.9
Teachers return to class after break (pct. of schools):	
All return immediately	21.9
Most return immediately	53.6
Most are late to return	24.5
Official shift length (minutes)	
Morning shift	253.4
Afternoon shift	249.6
Length of shift from bell to bell	241.2
Length of actual shift	225.7
Actual time of observed class	48.2
Official time of observed class	52.4

Source: CESSP 2006

Notes: Whole sample averages are computed using sample weights. All variables are based on observations made by enumerators during school visits. **Delay to enter class after bell** and **How long are breaks** are measured in minutes; **Teachers return to class after break** measured in percentages/proportions of schools; **Official shift length** is measured in minutes, from the time that the shift is officially supposed to begin to the time it is officially supposed to end. Schools that have only one shift that meets in both the morning and afternoon were excluded, due to lack of data on official break times. **Length of shift from bell to bell** measured in minutes from bell to bell (when applicable). **Length of actual shift** measured in minutes based on when students actually entered the classrooms and left for home, usually for one focus classroom; **Actual time of observed class** based on when teacher began and end instruction; **Official time of observed class** based on official time designated to this class. 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.

What are some of the determinants and outcomes of teacher absenteeism? A multivariate analysis based on actual observation of lower secondary teacher and student absences provides some suggestive, albeit tentative, evidence (see Annex 5.1). The strongest predictor of teacher attendance was the likelihood of providing extra tutoring sessions after school. This finding is also confirmed by teacher self-reported data on absenteeism. As noted in Chapter 3, 69 percent of teachers claim to provide lessons after hours for free. It may be plausible that this variable is capturing some measure of teacher motivation or commitment. It is also possible that schools that offer extra opportunities for out-of-class learning are in some unmeasured ways different from the remaining schools in the sample.

The more revealing finding was that, all else equal, student attendance is lower when teachers are absent more frequently. The effect sizes show that a standard deviation increase in teacher attendance

is associated with a 0.39 standard deviation increase in student attendance. This is a substantial impact. We must highlight, however, that our analysis does not necessarily confirm causality between teacher and student absenteeism. The possibility exists that these two forms of attendance are correlated without necessarily influencing one another directly. For example, weather problems could cause more teachers and students to be absent on the same days. However, we must also not rule out a direct effect of teacher absenteeism on student attendance. When teachers miss school more frequently, students may lose interest in going to school as the quality of service provision is poor, the internal rate of return of lower secondary education is low and the opportunity costs to education are higher as children get older.

Teacher self-reported data suggests three additional areas for further analysis (see *Annex 5.2*). First, lower secondary school teachers report fewer absences when they do not miss school in order to collect their pay. This is true both in large as well as in small schools. Second, teachers also report more absences in schools where they themselves report poor student behavior. This variable was created as an index based on teacher responses to 11 questions, such as prevalence of violence, cheating, intimidation, skipping class, etc. Finally, lower secondary school teachers report fewer absences when the school director reports higher levels of autonomy to take personnel actions. The school governance regime may potentially play a role in fostering teacher attendance. On the other hand, we found no evidence that teacher absences are lower when parents participate more in the school or are involved in monitoring teacher attendance.

### ***Teaching practices***

Teachers play a critical role in the learning process and their classroom behavior is an important dimension in a student's educational experience. In Chapters 1 and 3 we explored some of the challenges faced by teachers in relation to the school environment in which they operate—poor infrastructure, lack of teaching aids, crowded classrooms, long working days (due to the demands from holding a second job) and geographical isolation. On the other hand, effective teachers can and do make a difference in students' lives, even under difficult circumstances. Teaching practices—from the efforts devoted to class preparation and assigning homework to the classroom management and type of instructional activities espoused—create learning opportunities that can foster academic growth and instill positive social values.

According to the data collected through the grade 3 assessment in 2006, teachers report to work approximately 30 hours per week on average, mostly in the form of classroom teaching. Teachers in small rural primary schools claim longer working hours than their counterparts in large urban schools. They also appear to spend more time in administrative activities and preparing for class. The vast majority of teachers report assigning homework at least 3 to 4 days per week, and a substantial portion of teachers claim to do so even more frequently (see *Table 5.5*).

**Table 5.5: Teacher Workload, 2006**

	Whole Sample Average	Sample Strata			
		Small Rural	Large Rural	Small Urban	Large Urban
Hours per week spent:					
Preparing classes	1.8	2.6**	1.8**	2.7**	1.1**
Teaching	22.3	22.6	23.3**	24.9**	20.2**
Grading homework	3.0	5.4**	2.5**	4.4**	2.2**
Administrative activities	3.2	4.0**	3.0**	4.2**	3.4
Meeting with parents	1.5	1.7**	1.4**	1.3**	1.6**
Total hours	29.8	33.7**	30.7	30.8	24.8**
Frequency of homework					
1-2 days	6.7	10.9	5.4	6.4	4.8
3-4 days	53.5	49.5	59.5	46.1	49.2
5-6 days	39.7	39.6	35.1	47.5	46.0

Source: MoEYS Grade 3 Assessment, 2006 (p.77)

Notes: Whole sample averages are computed using sampling weights. Asterisks refer to t-tests comparing each column average with the whole sample average (\*\* $p < 0.05$ ; \* $p < 0.10$ ). **Frequency of homework** is the percentage of teachers who selected each option.

These estimates roughly concur with the data collected in primary schools in the PETS 2004 survey. In this case, an average teacher reported to spend 8.2 hours per week in class preparation, planning and other administrative duties (with a median of 7 hours). There were no significant differences in the number of hours devoted to preparing and planning class across teachers who taught multigrade classrooms or double shifts and those who did not. The average number of weekly hours spent grading tests and homework was 3.9 (with a median of 3). Not surprisingly, double shift teachers spent significantly more hours grading than regular teachers (4.7 versus 3.6 hours per week). Multigrade teachers also spent more time in grading activities when compared to single grade teachers (4.6 versus 3.7 hours per week).

On the basis of qualitative studies, Cambodian classroom pedagogy has been generally characterized as primarily focused on frontal teaching and rote learning. In 2005, MoEYS officially introduced the principles of Child Friendly Schooling—that is, a learning environment that is protective of children, centered on the child’s own ability to understand and know, academically effective, well-organized and managed, involved with families and communities, inclusive, gender-sensitive and health-promoting—as a new guiding principle for classroom pedagogy. However, there is little quantitative data regarding actual teaching and learning practices in Cambodian classrooms. Moreover, new expectations in terms of teacher classroom performance remain at present largely unmatched with regards to the modernization of the preservice teacher training curriculum to adequately prepare teachers to live up to these standards.

The 2006 grade 3 assessment included teacher self-reports on a variety of teaching techniques.<sup>18</sup> From the limited menu options provided in the survey, high-ability students working with weak ones and grouping students together appear to be widespread. The use of flash cards is rare. Methodologies seldom practiced include having students exchange work, assigning multiple choice questions and using teaching aids to illustrate lessons. Student academic results suggest that teachers who have students exchange their work with each other or use teaching aids tend to score higher in Khmer and

<sup>18</sup> We remind the reader to interpret these results with care since they rely on teachers’ own *perceptions* of the teaching techniques practiced in the classroom.

mathematics tests. These findings suggest that teaching methodologies can make a difference in student learning.

**Table 5.6: Teaching Methodology, 2006**

	Frequency:			Correlation with Achieve
	Never	Rarely	Often	
<i>How frequently do you use the following techniques?</i>				
High-ability students work with weak students	0.7	19.0	80.3	-0.02
Students exchange work	4.0	47.0	49.0	0.11
Call on weakest students in class	1.3	10.6	88.2	0.01
Assign multiple choice questions	3.3	39.0	57.6	0.01
Use flash cards in class	75.7	13.9	10.3	0.05
Show examples of mistakes	5.8	28.4	65.8	0.03
Students work in groups	1.4	13.2	85.4	0.05
Use teaching aids	1.3	47.7	51.0	0.07
Solve example problems	0.0	7.0	93.0	0.01

Source: MoEYS Grade 3 Assessment, 2006 (p.84)

Notes: **Correlation with achievement** refers to the Pearson's R correlation coefficient between -1.00 and +1.00

Finally, student perceptions of primary teacher performance can also be instructive. According to the 2006 grade 3 assessment, for the most part students view their teachers favorably. In other words, grade 3 teachers' performance repertoire is comprised of positive actions, including involving all students in class, checking their work and returning graded homework. It is unusual that teachers demonstrate anger towards students frequently. But these actions are not necessarily standard practice either. The majority of students report that they occur "sometimes," not "often." Furthermore, student test scores suggest that the more commonplace their occurrence, the higher student achievement is (see Table 5.7).

**Table 5.7: Classroom Characteristics**

	Frequency:			Correlation with Achieve
	Never	Sometimes	Often	
<i>How often do these things happen?</i>				
Teacher gets angry with students	58.3	40.6	1.0	-0.01
All students participate in class	14.1	71.3	14.6	0.10
Student solves problems at board	16.0	68.4	15.7	0.10
Teacher checks student work	6.0	65.0	29.0	0.06
Teacher returns graded homework	6.4	58.6	35.0	0.06
Teacher assigns math homework	1.3	56.3	42.4	0.03
Teacher assigns Khmer homework	9.7	58.0	32.3	0.04

Source: MoEYS Grade 3 Assessment, 2006 (p.73)

Notes: Whole sample averages are computed using sampling weights. Asterisks refer to t-tests comparing each column average with the whole sample average (\*\*  $p <= 0.05$ ; \*  $p <= 0.10$ ). **Correlation with achievement** refers to the Pearson's R correlation coefficient between -1.00 and +1.00. All information comes from individual student interviews.

Teacher performance at the lower secondary level has been subject of less research. The CESSP 2006 survey provides one of the first opportunities to carefully document actual teacher practices. In addition to administering school and teacher questionnaires, in each school two classes were observed, usually corresponding to grade 7 Khmer and grade 7 mathematics. A series of quantitative and



qualitative tools were applied by independent data enumerators to collect information on practices such as class time use, the use of questions and student engagement.

Only half of lower secondary school teachers had lesson plans readily available on the day of the unannounced classroom visits. Another 10 percent reported they had a lesson plan for that day but were unwilling to share it with the enumerator. This is a striking indicator of weak teacher preparation. In the absence of a lesson plan, teachers must rely on memory or the textbook to structure classroom activities. Part of the problem lies on the fact that the formal lesson plan outline adopted by MoEYS is complex, requiring completion of 15 cells of information in 5 steps. Anecdotal data suggests that lesson plans are of little practical use and do not necessarily relate to laying out clear learning objectives and devising means to meet pedagogical goals. Adoption of a more user-friendly and practical format could help to make lesson planning practices more common and fruitful.

Most Cambodian lower secondary classrooms are mono-activity driven. In other words, there is only one predominant activity taking place at any given moment. In the average grade 7 Khmer and mathematics lessons, most class time is exclusively devoted to instructional activities or recitation. As detailed in *Table 5.8* on the basis of direct observations conducted by independent enumerators, approximately 61 percent of a class period is spent receiving instruction in various forms, while another 20 percent is spent on recitation, involving mainly individual students responding to queries from the teacher. Furthermore, students spend roughly one-third of the total time receiving instruction—or 21 percent of the total class time—in copying activities. For the most part, this involves copying problems, activities or instructions from the blackboard or the textbook. Overall, these findings suggest that classes are highly structured, with at best limited opportunities for open interaction, creative thinking or exploratory exchanges. Student-initiated questions are infrequent.

The time spent in applied individual or group work is low. About 15 percent of a class period is spent on individual seatwork, resolving questions, reading or working in groups. Overall, this suggests a lack of balance in the average lower secondary class. While a lot of time is spent on going over any one activity, teachers tend to dominate the time-on-task through frontal instruction 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 problem solving activities. Moreover, study enumerators report that approximately *one quarter* of students are “not engaged” when individual work is assigned. This is a sizeable portion of the class, providing further evidence of a less than dynamic learning environment *within* the classroom.

The good news is that not much time is “lost” in non-learning activities at the lower secondary level. Teachers spend very little time taking attendance. Some time is dedicated to getting students settled in class initially, but once the work routine begins there is minimal wastage of class time. Only 3 percent of class time is classified as without instruction taking place and for the most part this takes place at the start-up of a period.

**Table 5.8: Class Time Use: Segment Summary, 2006**

Time Segment:	Whole Class	By Time Period (each 15 minutes)			
		0-15 Minutes	16-30 Minutes	30-45 Minutes	45-60 Minutes
<i>Class Management:</i>					
Teacher taking attendance	0.4	1.2	0.0	0.0	0.0
Teacher taking control of class	1.6	4.5	0.4	0.1	0.5
Teacher reviewing lesson	2.7	7.3	0.5	1.3	0.9
<b>Total:</b>	<b>4.7</b>	<b>13.0</b>	<b>0.9</b>	<b>1.4</b>	<b>1.4</b>
<i>Instruction Activities:</i>					
Students copying	21.9	18.0	22.6	25.0	21.2
Students receiving instruction	19.9	18.3	22.0	18.9	16.4
Students receiving general guidance	2.6	2.3	1.8	3.1	5.7
Students receiving instruction while copying	3.8	3.2	5.0	3.2	3.0
Students reading	4.5	5.9	4.9	2.9	2.2
Working on answer	3.2	3.6	3.6	2.7	1.7
Teaching giving exercise	4.9	4.9	4.8	4.7	4.1
<b>Total:</b>	<b>60.8</b>	<b>56.2</b>	<b>64.7</b>	<b>60.5</b>	<b>54.3</b>
<i>Recitation:</i>					
Students answering in chorus	1.6	1.9	1.4	1.6	1.0
Students answering individually	16.6	16.7	17.5	16.1	14.3
Student asking teacher questions	1.7	0.5	2.0	1.9	1.9
<b>Total:</b>	<b>19.9</b>	<b>19.1</b>	<b>20.9</b>	<b>19.3</b>	<b>17.2</b>
<i>Work Activities:</i>					
Individual Seatwork	3.0	2.1	2.7	4.0	3.5
Group Work	4.9	3.9	5.8	5.0	3.3
<b>Total:</b>	<b>7.9</b>	<b>6.0</b>	<b>8.5</b>	<b>9.0</b>	<b>6.8</b>
<i>Other Activities:</i>					
No instruction activities at all	3.2	3.2	2.9	3.8	2.8
Students in exam	1.5	1.2	1.5	1.7	1.8
<b>Total:</b>	<b>4.7</b>	<b>4.4</b>	<b>4.4</b>	<b>5.5</b>	<b>4.6</b>

Source: CESSP 2006

Notes: Whole sample averages are computed using sample weights. Enumerators received extensive training and practice in order to make sure consistent classification of time segments. Instruments were applied in real time in actual grade 7 classes. All variables refer to percentages of total time. For example, each of the numbers in bold in the column marked "Whole Class" refer to the percentage of the average class that is spent in each of the sub-components. The remaining columns refer to the average class divided into four 15-minute periods.

In most classrooms—80 percent—teachers do monitor student progress throughout the lesson, as evidenced by giving praise or encouragement at least one time (68 percent), asking students to give their opinion at least once (70 percent) and using student names usually or always (78 percent). There are few instances of scolding students (16 percent) or disruptions (17 percent). On the other hand, teachers rely mainly on simple questions put to individuals. Less than half of teachers ask questions that require students to use reasoning skills. Most questions demand factual recall of basic information. Only 23 percent of classrooms students asked questions to teachers. Overall, the picture that emerges is a teacher-centered classroom where students basically receive information and prompting but are not themselves active partners in the learning.

**Table 5.9: Teacher and Student Questions, 2006**

Variable	
Did the teacher ask questions?	
No	3.8
Yes	96.2
If Yes, what kinds of questions?	
Collective response (chorus)	35.4
Individual response	96.0
If Yes, did the questions require students to use reasoning?	45.3
If Yes, who answered?	
Boys only	7.0
Boys and Girls	79.4
Girls only	13.6
Did students ask the teacher questions?	
No	77.2
Yes	22.8

Source: CESSP 2006

Notes: Whole sample averages are computed using sample weights. 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.

In most lower secondary classes (64 percent) teachers report assigning homework only 0-2 days per week. This is a surprisingly infrequent use of homework and raises some troubling questions about the extent to which non-class time is used for learning activities in Cambodian lower secondary schools.

## Student learning

So what do we know about the impact of teachers on student learning in Cambodia? The grade 3 assessment in Khmer and mathematics administered in 2006 provides a unique opportunity to observe the interrelationship between student, school and teacher effects. Most of the discussion focuses on the covariates of student achievement in Khmer and mathematics. In both cases there are quite a few significant predictors, although compared with family background, school variables tend to be less powerful—not an unusual finding in this type of analysis.

Table 5.10 summarizes the most notable results from the Ordinary Least Squares (OLS) regression analysis. Separate estimations were carried out for Khmer language and mathematics.<sup>19</sup> Overall, there are quite a few significant predictors of student achievement in the CESSP data, but the effect sizes are generally not large. This is not an unusual finding in education policy research, since there are many determinants of student outcomes, like individual effort, while independent variables are frequently imperfect measures of the teaching and learning environment.

**Table 5.10: Covariates of Student Test Scores, Grade 3 Khmer and Mathematics**

<sup>19</sup> Annex 5.3 presents the full results, as well as extensions that include controls for provinces and school fixed-effects.

	Khmer	Maths
<i>Student Characteristics:</i>		
Age	0.12**	0.10**
Knows birthday	0.20**	0.23**
Female	0.03	-0.08**
Books in home	0.10**	0.06*
Socioeconomic Status	0.10**	0.07**
Number of grades failed	-0.07**	-0.04
Absences	-0.13**	-0.09**
<i>Reason for absences:</i>		
Family problems	-0.09**	-0.02
Work	-0.12**	-0.09*
<i>Teacher Characteristics:</i>		
Female	0.11	0.05
Age	-0.08**	-0.10**
Experience in grade 3	0.01	0.01
Attended University	0.09	0.08
From same community	0.16**	0.25**
<i>Pedagogical knowledge:</i>		
Didn't answer	----	0.16
0 points	----	-0.27**
1-2 points	----	-0.15
3-4 points	----	-0.19**
<i>Classroom Characteristics:</i>		
Fighting frequency	-0.11**	-0.10**
Participation	0.02	0.03*
Go to chalkboard	0.07**	0.08**
Number of students	-0.13	0.01
Sample Size	5,520	5,462
Explained Variance (R2)	0.186	0.185

Source: MoEYS Grade 3 Assessment, 2006 (p.105)

Notes: Dependent variables are measured in standard deviations. For continuous variables the coefficients are for a standard deviation change. Asterisks denote significance levels (\*\* $p < 0.05$ ; \* $p < 0.10$ ).

Overall, we observe a strong impact of student socio-economic background in student achievement, with poorer children performing below average. A composite index of socio-economic status as well as the number of books at home are significant predictors of higher scores in these tests. Similarly, children who “know their birthday” perform significantly better than children who do not know in which day they were born.

Another significant and relatively large predictor of test scores is the number of student absences. This is not surprising. In particular, students who indicated their absences were related to family problems or work experienced significantly lower academic achievement levels. Child labor rates are among the highest in South East Asia and are a source of great concern (UCW, 2006).

Repeaters are also less likely to excel academically (although this variable is only significant for Khmer language). It is of particular worry that significant groups of students in Cambodian primary schools are progressing through grades 1, 2 and 3 without mastering basic skills. Despite repeating as many as three or four times, these students exhibit significantly lower achievement levels. Remediation programs or special services for children are clearly lacking or ineffective.

The collective effects of student and family background are easily summarized: poverty matters. Thus, our ability to control extensively student background differences is essential to tease out and isolate the impact of school and teacher variables on academic excellence.

Student achievement is consistently lower in classrooms with older teachers (controlling the number of years of teacher experience working with grade 3). We can interpret the fact that older teachers are less effective as linked to a “vintage” effect. In light of Cambodia’s history, the quality of teacher training received in earlier periods was likely to be of much inferior quality. Also, it is not uncommon for the most able young teachers to seek and find other jobs and leave the profession, while those who remain may do so because they have fewer professional options.

The Government’s policy of local teacher recruitment appears not only to be paying a dividend in terms of securing teacher postings for rural communities, but it is having an important effect on student academic competency. When teachers belong to same district/city where they are teaching, student achievement is as much as a quarter of a standard deviation higher. This is an important effect size.

Furthermore, our study provides empirical evidence that teaching ability can also make a difference. First, our results suggest that academic performance is higher when teachers have attended a university program. Teacher education was a positive and substantial predictor of student test scores for Khmer language reading, sentence completion and paragraph writing areas specifically (although it proved not statistically significant for the Khmer and mathematics tests as a whole). More saliently, based on a set of questions that measured Pedagogical Content Knowledge (PCK), there is a significant relationship between teacher mathematics PCK and student achievement. PCK refers to the appropriate skills needed to teach a specific topic. It is based in part on subject-matter knowledge as well as relevant pedagogical methodology to make these topics accessible to students. Teachers with high levels of PCK are able to construct useful activities and explanations for their students; in other words, they have a profound knowledge of how to teach at this specific level. When a teacher scored zero points on the PCK questionnaire, students have a 0.27 standard deviation lower math score compared with students studying in classrooms where the teacher obtained five or six points (out of six) on these activities. This is a sizeable effect, and it reinforces a concept that is central to mathematics education research: Basic PCK is a necessary condition for quality instruction.<sup>20</sup> Furthermore, teachers with high levels of PCK—as well as more frequent use of homework and checking student work—conduct classroom assessments and give grades to students that are most closely in line with the results from this standardized grade 3 test. In other words, the appraisals of academic competency of the “highest ability” teachers tend to most closely match with the results from the external grade 3 assessment.

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<sup>20</sup> There is an extensive list of teacher variables which were not found to be significant in explaining student achievement differences. These include teacher support, use of homework, teacher absences, total instruction time, teacher training, textbook availability, frequency of technical meetings, classroom materials or teacher self-esteem. However, the absence of a correlation does not necessarily mean that these variables *do not matter*. But that as they were measured in this study they were not significant. These results reflect the difficulty of capturing critical elements of the teaching and learning environment using self-reported closed questions.

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### Box 5.1: How was Pedagogical Content Knowledge (PCK) measured?

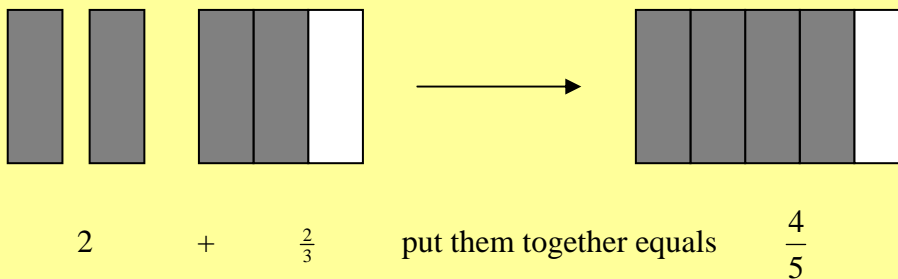
The 2006 grade 3 student assessment test in Khmer language and mathematics was administered in 210 schools. Every teacher with a student in the sample was asked to complete two teacher questionnaires, one covering basic background information (experience, education, etc.) and the other focused more on curriculum implementation. The design of the latter included a series of questions for measuring PCK in mathematics. In each content area, teachers were asked to give examples of errors made by students on some example items. We expected teachers with a better understanding of teaching mathematics at this level to provide more detailed examples of errors and cite reasons other than “do not pay attention” or “receive no help from parents.” The curriculum experts who designed the test blueprint and items were then asked to grade teacher responses on a scale from 0-3. Finally, teacher grades assigned to students in Khmer and mathematics were collected for each student taking the exams and compared to their standardized test scores.

Two sample questions are included below:

1. Some elementary teachers note that several students make the same mistake when computing 352 times 8. The students give as an answer 2, 406.

- Identify the mistake the student is making.
- Why do you think the students make this mistake?
- What would you do to help students not to make this mistake?

2. Hok says that  $2\frac{2}{3} = \frac{4}{5}$  and uses the picture below to support his conclusion. What is wrong with Hok’s reasoning? Do not just state the correct way to convert  $2\frac{2}{3}$ , explain why his reasoning is not valid.



- What is wrong with Hok’s reasoning?
- How would you show Hok the correct way to resolve this question?

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With regards to classroom characteristics, we find that the school climate affects learning. Even when controlling extensively for socio-economic background and other classroom characteristics, schools where students report more problems with fighting have significantly lower scores (see also Marshall,

2006; Sawada and Lokshin, 1999).<sup>21</sup> Additional significant effects on student achievement are established for the frequency students report participating in class and going to the blackboard to solve problems. These variables provide evidence of how in-class processes can help determine achievement differentials. They are consistent with an effective teaching methodology that focuses on student participation. However, the effects are not large and overall results cannot be easily synthesized in a way that identifies or distills an effective teaching style.

Overall, these results suggest that it is imperative that preservice teacher training as well as in-service professional development systems are bolstered to raise teacher subject and pedagogical content knowledge. Better lesson planning and classroom preparation must be encouraged and regularly monitored.

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### **Box 5.2: Enhancing Teacher Professional Development**

There is a growing literature on school-based professional development and the role local networks can play in in-service training for teachers. Some key principles to improve staff development for practicing teachers include:

1. School-based staff development requires more than just informative workshops. These represent only the initial stage of change for pedagogical practice and the understanding of concepts in the curriculum.
2. On-going support at the classroom level is essential as it creates conditions for sustained change in teaching. Such support can take a variety of forms—observing actual lessons, developing teaching aids from local materials or discussing various active learning strategies.
3. Education is a joint product of school and community. Thus, teachers’ ability to involve parents and community members in meaningful ways can help promote educational outcomes.

Under the project “Public Education for Disadvantaged Children” in Preah Vihear, Save the Children Norway (SCN) staff carried out a large program of formal training with education officials, teachers, communities and others (including local authorities and local staff of other government departments) as a key strategy in trying to improve educational quality. Based on their earlier experiences in Siem Reap and Otdar Meanchey, SCN staff adopted a workshop methodology which emphasized local participation in design, learning activities involving practical tasks during the workshop and planning of follow up activities for participants. After each workshop SCN staff compiled a document which included the outcomes of the discussions from training activities and distributed it to all education staff in the province.

The first step in the training process is a “Design” phase in which SCN Facilitators worked with education officials, teachers and other stakeholders to draft a plan for a general workshop. As well as building local ownership this also serves as a training of trainers exercise. The second step is the “Follow up Workshop” in which there is general participation. These are generally held at Cluster level although it can be offered in schools in very isolated areas. The Follow up Workshop introduces

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<sup>21</sup> The variable “fighting frequency” was created by taking the school average for student responses on individual questionnaires about how frequently there are problems with fighting in their school.

main ideas and content, then poses questions or sets practical tasks which provide participants with opportunities to apply and test understanding. The tasks in the workshop lead to subsequent activities at school level.

The most impressive example of this process seen during an independent evaluation was a training workshop on Education for All (EFA). After introducing participants to the concept of EFA, Facilitators talked about the roles schools could play in leading activities at local level to make EFA a reality. These activities included organizing small groups of teachers, children and community members to collect population and socio-economic data in a systematic way, family by family, in school catchment areas. As part of the workshop program, such groups were formed and carried out some data collection. This data was then compiled and presented in the form of simple statistical tables or graphs and then written up in a form which could be shared with others (such as on a flip chart). Subsequently, SCN staff wrote up the proceedings of the workshops for publication in the form of an illustrated booklet. Thirteen thousand copies were printed for distribution to all participants in Preah Vihear and beyond.

In schools, it is now common to observe population maps, yellow family information booklets (containing data collected by survey groups) and flipcharts on which the compiled data was written up using graphs and charts. At the District Office of Education (DOEs), sets of folders with information compiled school by school (drawing on the family data collected by schools) are found. The Provincial Office of Education (POE) had organized an installation at the entrance to the main building consisting of a large map showing all the schools in the province.

It is important to note the main differences between this way of working and the methodology which has been used in the MoEYS for many years (for example in the national Primary and Secondary Principals Training Program, 2003-2005). The first of these differences is that the Ministry uses a “knowledge transfer” model in which training courses follow closely an official document, drafted, edited, approved and authorized before the training takes place. Although these documents can contain exercises or tasks, these are usually desk activities and are designed to test participants' literal understanding of the content of the document, not the general concepts or ideas behind that content. A second major difference is that the training content is basically fixed by the document, there is very little room for participants to introduce their own experiences or ideas except insofar as they reinforce the content of the document. The methodology used by SCN is more open and inclusive. The workshop process encourages participants *to construct knowledge for themselves and develop their skills through their own efforts on tasks*, both in the workshop and following it.

*Source: Geeves et al. (2006)*

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## **Accountability**

Accountability mechanisms represent the variety of ways—formal and informal—in which school actors *give an account* of their actions to someone in a position of formal authority inside or outside the school. Mechanisms are *formal* when they are recorded in a policy handbook or official legislation. *Informal* mechanisms refer to a set of measures that school actors respond to, regardless of what bureaucratic rules and regulations in fact say, that are “organic” to that particular school culture.



Mechanisms can also vary in the consequences they carry for success or failure. They can be *low stakes*, resulting only in approval or disapproval by, for instance, the principal. Or they can be *high stakes*, involving public disclosure or financial sanctions and rewards. Teachers are subject to complex formal accountability mechanisms requiring adherence to a variety of bureaucratic rules and regulations. The principal of a school is usually charged with enforcing the external regulatory framework while the inspectorate is traditionally responsible to act as a quality assurance mechanism. Communities may also operate, in certain environments, as strong accountability systems, through community-based monitoring or involvement in staff hiring and firing decisions (World Bank, 2004).

### **School accountability mechanisms**

Cambodian schools could be characterized as being organized around a bureaucratic (external), low stakes accountability mechanism. There are a number of formal instruments to supervise and oversee teacher performance, but for the most part these are laxly enforced and seldom carry specific consequences. For instance, we noted on Chapter 4 that although commercial activities instigated by teachers have been officially banned from schools, MoEYS has agreed not to punish teachers who disrespect the law.

According to the CESSP lower secondary school survey conducted in 2006, about half of teachers (52 percent) report having their classes observed by the school principal on a monthly basis. However, at the other extreme, about one quarter of schools teachers receive principal visits once a year or less. A small minority of teachers considers these visits not helpful (8 percent), while the overwhelming majority views them as useful or very useful. The more striking finding is that while most teachers feel their school principals are approachable to discuss matters related to teaching, about 21 percent indicated that they did not feel comfortable discussing these matters with their directors.

A vast majority of lower secondary school teachers (87 percent) also report attending technical meetings at their school. In most cases, the school principals attend these meetings, which last on average about 102 minutes. Technical meetings are usually focused around teaching methodology issues, lesson planning or how to improve learning. In 30 percent of cases, teachers also opted to write a different topic from the ones listed in the questionnaire, suggesting that technical meeting topics are not uniform.

**Table 5.11: Lower Secondary Technical Group Meetings, 2006**

	Percentage
School has technical meetings	86.6
How often does the Director attend?	
No meetings to attend	16.4
Never attends	3.8
Rarely attends	9.2
Usually attends	25.5
Always attends	45.1
Length of last technical meeting (minutes)	102.3
Primary topics at meetings:	
Teaching methodology	41.7
Lesson planning	14.4
How to improve learning	13.3
Other topic	30.6
How useful are these meetings?	
Useless	0.0
Not very useful	0.0
Useful	28.7
Very useful	71.3

Source: CESSP 2006

Notes: All variables are based on answers given by 298 teachers on teacher questionnaire. **School has technical meetings** is the percentage of teachers who indicated that in their schools there are technical meetings between school personnel. **Primary topic of meetings** included options given to respondents to choose as well as answers written by teachers. **How useful are these meetings** refers to the percentage of teachers who chose each option. 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.

Informal support mechanisms in Cambodian lower secondary schools are not widespread. For example, only half of the teachers report having informal conversations with other teachers about teaching processes on a weekly basis, while a quarter of teachers indicated they *never* have these kinds of discussions or do so very infrequently. Teachers almost never observe each other teaching. About 57 percent of teachers report never visiting another classroom, compared with only four percent who report daily or weekly visits to observe other teachers. A sizable share of lower secondary school teachers (41 percent) reports the existence of a system for visiting each other’s classrooms, especially in larger LSS. In practice, few teachers appear to be taking advantage of this opportunity.

Teachers have surprisingly few visits from MoEYS officials from the DOE, POE or the Inspectorate General. Even allowing for some confusion regarding from what agency external observers may come from, it appears that roughly half of all teachers sampled reported *no official visits to their classrooms* during the school year. There is no variation between urban and rural schools.

At the primary level, the most common form of teacher support and quality assurance is also regular technical meetings. According to the data collected through the grade 3 assessment, these take place on average once a month or even once a week. (New MoEYS regulations require this practice to take place at least 3 times a month.) Primary school teachers are also more likely to report frequent informal discussion opportunities with other teachers (see *Table 5.12*). By comparison, there are

notably fewer instances of classroom visits by principals. Over one quarter of teachers (26 percent) report that the school director never visits their classroom. There are no significant differences across school types. About two years ago, MoEYS has launched a small Principal Leadership Development program to support school directors to understand the key elements of good leadership and lead changes in their schools to instill educational excellence in teaching and learning (Morefield, 2004).

**Table 5.12: Primary Teacher Support and Accountability Mechanisms, 2006**

	Whole Sample average	Small Rural	Large Rural	Small Urban	Large Urban
Frequency of technical meetings:					
Never	3.2	6.7	1.3	5.1	0.0
Once per quarter	4.1	4.4	3.7	8.5	6.9
Once per month	64.9	64.9	69.8	72.0	55.2
Once per week	25.5	20.8	23.9	14.3	33.9
Other	2.3	3.2	1.3	0.0	4.0
Frequency of demonstration classes:					
Never	28.2	35.2	27.5	36.7	23.6
Once per quarter	18.6	14.7	24.0	14.7	11.3
Once per month	46.1	47.7	43.0	39.8	50.2
Once per week	6.7	2.4	5.2	8.7	15.0
Frequency teachers have discussions:					
Never	1.1	4.8	0.0	0.0	0.0
Rarely	11.8	10.1	11.7	37.6	14.1
Once per month	59.5	59.9	59.5	43.2	58.5
Once per week	26.9	23.7	28.8	19.2	27.4
Frequency classrooms visited:					
Never	25.9	23.5	27.8	38.9	29.3
Rarely	19.2	17.7	21.4	13.8	14.7
Once per month	41.3	43.3	40.5	42.5	36.7
Once per week	10.8	11.1	7.7	4.8	19.3

Source: MoEYS Grade 3 Assessment, 2006 (p.79)

Notes: Whole sample averages are computed using sampling weights. Asterisks refer to t-tests comparing each column average with the whole sample average (\*\*  $p <= 0.05$ ; \*  $p <= 0.10$ ). All variables refer to the percentage (0-100) of teachers who chose each response.

In contrast to lower secondary schools, grade 3 teachers report being visited by a provincial inspector about once a month. A small minority (3 percent) claim to never to be inspected. District supervisor visits take place with considerably less frequency. Nonetheless over half of primary school teachers sampled cite being observed by a DOE officer at least two to three times per year.

**Table 5.13: Primary Teacher Supervision**

	Whole Sample average	Small Rural	Large Rural	Small Urban	Large Urban
Frequency of inspector visits:					
Never	3.1	6.5	1.6	6.6	3.9
Once per quarter	17.0	11.0	22.0	27.7	13.1
Once per month	68.2	74.3	61.7	60.5	76.9
Once per week	11.7	8.1	14.8	5.2	6.2
Frequency of district supervisor visits:					
Never	8.1	5.3	6.8	10.1	16.1
One time/year	27.1	19.4	28.5	23.7	30.5
Two-three times/year	54.2	57.2	56.9	53.7	40.9
More frequently	10.6	18.0	7.8	12.5	12.6

Source: *MoEYS Grade 3 Assessment, 2006 (p.80)*

Notes: Whole sample averages are computed using sampling weights. Asterisks refer to t-tests comparing each column average with the whole sample average (\*\*  $p \leq 0.05$ ; \*  $p \leq 0.10$ ). Both variables refer to the percentage of teachers (0-100) who chose each response.

Overall, primary school teachers appear to be under frequent oversight and there are fairly strong informal support networks for professional development. The actual impact of supervisory activities by school principals and MoEYS officials on teaching performance and behavior, though, cannot be precise. These variables are not strongly correlated with higher levels of student achievement in Khmer language and mathematics.

School inspections and teacher reviews should play a supportive role in enhancing teacher performance, including expected personnel actions to improve education service delivery, such as in the area of teacher absenteeism. Teacher technical meetings should continue to be nurtured and assistance for enhancing their technical depth and effectiveness, for instance through providing expert facilitators, could be made available on an occasional basis.

## Community accountability mechanisms

Greater parental participation and community monitoring have been consistently championed in Cambodia as an important avenue to improve educational quality during the past decade. Cambodia has recently espoused a Child Friendly School approach, striving to foster greater community involvement in school level planning and decision-making through School Support Committees (SSC). A new financial planning and accountability system for school operating budgets was also introduced with the Priority Action Program reform, with explicit guidelines for involvement of parents and community management, building out from past successful pilot programs such as the Education Quality Improvement Project school grants program. While at the lower secondary level, local management committees have been involved in student selection and monitoring of the national scholarship program for poor children.

The PETS 2004 survey included a parents' module, where six parents were chosen randomly from each school included in the sample. Parents were asked about the frequency with which they had participated in school events and their familiarity with school teachers, principals and the members of the school management committee. About 61 percent of the parents reported that their children's school held an annual opening ceremony where parents could attend and meet teachers at the

beginning of the 2003/04 school year, and only 31 percent of those reported having attending it. The likelihood of having an opening ceremony was significantly larger in urban than in rural or remote schools, but remote area school parents had higher participation levels than urban or rural school parents.

Parent-teacher contact, however, is rare. On average, parents met with teachers only 0.27 time (with a median of 0 time) during the course of the 2003/04 school year. Parents met with school principals even less frequently (on average, 0.16 time). Finally, parents reported meeting school committee members even less frequently than school teachers and directors, only at an average of 0.07 times during the 2003/04 school year. Again, the frequency of meetings was significantly larger in rural and remote schools than in urban schools.

The PETS survey also found that the social accountability mechanisms established at schools to monitor school operational funds spending are not very effective, particularly in small schools. While it was generally believed that SSC provided significant civil society oversight of school management and spending, the survey results indicate otherwise. Moreover, the knowledge of teachers, SSC members, and parents about the Priority Action Program is limited. Although 83 percent of SSC members knew what PAP is, many fewer know about the PAP entitlement for the school and spending guidelines, and only 9 percent of parents knew about PAP. The survey also found that though SSCs are supposed to represent the community, effective parental representation is limited (World Bank, 2005).

**Table 5.14: Awareness of Teachers, School Support Committee Members and Parents about Priority Action Program**

Respondents	Know what PAP is	Know about the R6,000 per student component (out of those who know PAP)	Know about the R500,000 per school component (out of those who know PAP)	Know that there are spending guidelines (out of those who know PAP)	Know the details of the guidelines (out of those who know about the guidelines)
Teachers	97%	56%	25%	90%	21%
SSC members	83%	27%	14%	72%	7%
Parents	9%	0%	0%	n/a	n/a

Source: World Bank, 2005, p.x

We only have limited information at the lower secondary school level on community accountability issues. About three quarters of the schools in the CESSP 2006 survey had information boards for displaying school information. A calendar of school activities, data on pass rates and basic financial statistics are the most commonly displayed elements. Far fewer schools displayed information about scholarships (11.8 percent), the membership of the SSC (38.6 percent) or include year-by-year comparisons of student outcomes (35.4 percent). As noted earlier, teacher absences did not seem to be affected by the level of parental involvement or monitoring in school.

Overall, there is much room for strengthening the accountability of school management to parents and community members at the primary and lower secondary levels. Measures to empower parents by providing them with the necessary information to monitor school performance and participate in the management of schools could reduce the opportunities for funds misuse and could improve service delivery (Dufflo and Hanna, 2006). Parents and communities need information on school finances and other aspects of school performance, including teacher performance, and the ability to use this information to voice their expectations or concerns.

## Synopsis

This Chapter focused on teacher practices, their outcomes and the accountability environment in which they take place. The main characteristics observed may be summarized as follows:

1. **Lower secondary school teacher absenteeism is troubling.** Approximately 15.6 percent of teachers were absent on the day of a surprise visit. Estimates of primary school teacher absenteeism are lower (7.1 percent), but they rely on self-reported data that may downward bias estimates. On average, grade 3 teachers report to miss 11.5 days during the academic year. This represents approximately 5 percent of annual instructional time.
2. **The availability of teacher substitutes is rare. Absent teachers usually translates into little or no learning taking place at school.** Research evidence suggests that primary teacher absences are mildly negatively correlated with student achievement in Khmer and mathematics. This problem is compounded by unauthorized school closures (5 days) beyond the number of registered holidays (19 days). Effective use of classroom time is further shortened by 10 percent of the total official instruction time per year, due to delays after break times.
3. Lower secondary school teachers report fewer absences when they do not have to miss school to collect their pay. A positive classroom environment and greater principal autonomy to take personnel actions also appear to play a positive role. **Student attendance is lower when teachers are absent more frequently.**
4. **Lower secondary school teachers prepare weakly for class.** Only half of lower secondary school teachers had lessons plans readily available on the day of an announced visit. Class time is mostly exclusively devoted to instruction or recitation. The time spent in applied individual or group work is low. Overall, classes tend to be highly structured with limited opportunities for interaction or creative thinking. Teachers tend to dominate the time-on-task through frontal instruction or asking questions.
5. **There is a strong impact of student socio-economic background on student achievement, with poorer children performing below average.** The number of student absences is a strong predictor of weaker academic performance. Repeaters are also less likely to excel academically.
6. **Student performance is higher when teachers hold a university degree or have stronger PCK skills.** When teachers belong to the same district/city where they are teaching, student achievement is as much as a quarter of a standard deviation higher. Effective teaching methodologies that encourage student participation also appear to yield better results. **Overall, our results suggest that it is imperative that preservice teacher training as well as in-service professional development systems are bolstered to raise teacher subject and PCK.** Better lesson planning and classroom preparation must be encouraged and regularly monitored.
7. **Formal school accountability systems (such as principal oversight and school inspector visits) are stronger in primary than lower secondary schools.** However, they are laxly

enforced and seldom carry specific consequences. School inspections and teacher reviews should play a supportive role in enhancing teacher performance, including expected personnel actions to improve education service delivery. On the other hand, technical meetings—focused around teaching methodology issues—tend to be commonplace and appreciated by primary and lower secondary teachers alike. These should continue to be nurtured and assistance for enhancing their technical depth and effectiveness, for instance through providing expert facilitators, could be made available on an occasional basis.

8. **Parent-teacher contact is rare.** SSCs have little parental representation. Social accountability systems—to monitor school operational funds spending in primary schools or teacher absenteeism in lower secondary schools—are generally not very effective. Measures to empower parents by providing them with the necessary information to monitor school performance and participate in the management of schools could reduce the opportunities for funds misuse and improve service delivery.

**Annex 5.1: Covariates of Student and Teacher Attendance (Observed)**

	Average Teacher Attendance (Observed):	Average Student Attendance (Observed)	
<i>Teacher Characteristics:</i>			
Female teacher	-0.29 (-1.14)	-0.01 (-0.03)	0.13 (0.59)
Born in this commune (village)	-0.07 (-0.27)	-0.35 (-1.35)	-0.32 (-1.30)
Distance of school to home	0.06 (0.97)	-0.06 (-1.05)	-0.08 (-1.51)
Teacher age	0.01 (0.96)	0.001 (0.11)	0.003 (0.08)
Teacher total salary	0.0002 (0.28)	0.002* (1.82)	0.001 (1.47)
Never miss school to collect pay	0.39 (1.11)	-0.56** (-2.36)	-0.63** (-3.52)
Teacher tutors students	0.58** (2.29)	0.91** (3.58)	0.69** (3.24)
<i>School Conditions:</i>			
Average problems in school	0.23 (0.62)	-0.40* (-1.72)	-0.41** (-2.05)
School has technical group	0.18 (0.72)	0.24 (0.89)	0.17 (0.65)
Frequency director visits classroom	-0.10 (-1.38)	-0.17** (-2.72)	-0.16** (-2.84)
Frequency inspector visits classroom	0.03 (0.34)	0.11 (1.25)	0.10 (1.18)
Parental participation in school	-0.03 (-0.44)	0.15 (1.57)	0.16* (1.67)
Average director autonomy	-0.13 (-1.10)	----	----
Parents monitor teacher attendance	-0.13 (-0.69)	----	----
Litter on grounds	----	0.09 (0.60)	-0.01 (-0.01)
Availability of toilets	----	-0.04 (-0.30)	-0.20 (-1.56)
Can take library books home	----	0.37* (1.80)	0.37** (2.24)
Receive Report Card	----	-0.04 (-0.27)	-0.05 (-0.37)
Has information board	----	-0.05 (-0.60)	-0.03 (-0.24)
Afternoon Shift	----	-0.41** (-3.97)	-0.47** (-4.76)
Teacher Attendance (observed)	----	----	0.39** (4.14)
Sample Size	147	217	217
Explained Variance (R <sup>2</sup> )	0.141	0.304	0.425
F Test Probability	0.296	0.000	0.000

Source: CESSP 2006

Notes: T-statistics reported in parentheses using robust standard errors (where appropriate). Both 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 school strata and teacher work variables. Full results available upon request.



**Annex 5.2: Covariates of Teacher Absences and School Closings (Self-Reported)**

	Teacher Self-Reported Absences	School Self-Reported Closures
<i>Teacher Characteristics:</i>		
Female Teacher	0.06 (0.30)	0.04 (0.14)
Born in this commune/village	-0.18 (-0.88)	0.57 (1.60)
Distance of school to home	0.09 (1.63)	-0.04 (-0.69)
Teacher age	0.004 (0.05)	0.01 (0.50)
Teacher total salary	0.0001* (1.96)	-0.002 (-0.92)
Never miss school to collect pay	-0.39** (-2.16)	-0.16 (-0.63)
Teacher tutors students	-0.08 (-0.45)	-0.12 (-0.42)
<i>School Conditions:</i>		
Average Problems in School	0.53* (1.87)	-0.26 (-0.81)
School has technical group	-0.15 (-0.59)	0.29 (1.10)
Frequency director visits classroom	0.06 (1.02)	0.01 (0.06)
Frequency inspector visits classroom	-0.11 (-0.78)	-0.07 (-0.56)
Parental participation in school	0.02 (0.15)	0.09 (0.74)
Director autonomy to dismiss teachers	-0.16* (-1.87)	----
Average Director Autonomy	----	-0.33** (-2.48)
Parents monitor teacher attendance	0.11 (0.56)	----
Parents involved in administration of school	----	-0.61* (-1.88)
Private School	----	----
Sample Size	256	146
Explained Variance (R <sup>2</sup> )	----	0.213
F Test Probability	0.0002	0.063

Source: CESSP 2006

Notes: T-statistics reported in parentheses using robust standard errors (where appropriate). Self reported teacher absences are analyzed using an ordered probit model. School closings 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. Full results are available upon request.

**Annex 5.3: Covariates of Khmer and Mathematics Achievement**

	Khmer Language			Mathematics		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Student-Family Characteristics:</i>						
Time to complete test	-0.13** (-4.05)	-0.14** (-4.37)	-0.32** (-8.28)	0.08** (2.78)	0.09** (3.44)	0.22** (6.04)
Age	0.12** (5.32)	0.11** (5.37)	0.05** (2.48)	0.10** (4.28)	0.09** (4.02)	0.04** (2.17)
Knows birthday	0.20** (4.17)	0.20** (4.47)	0.17** (4.43)	0.23** (5.07)	0.21** (5.00)	0.20** (4.84)
Female	0.03 (0.81)	0.03 (0.96)	0.02 (0.52)	-0.08** (-2.29)	-0.08** (-2.46)	-0.08** (-2.89)
Number of siblings	-0.04** (-2.12)	-0.04** (-2.32)	-0.05** (-3.25)	-0.05** (-2.42)	-0.05** (-3.03)	-0.06** (-3.94)
Work frequency	-0.02 (-0.85)	-0.02 (-0.69)	-0.04** (-1.96)	0.02 (0.76)	0.02 (1.00)	0.02 (0.95)
Books at home	0.10** (2.40)	0.08** (2.02)	0.05 (1.49)	0.06* (1.63)	0.05 (1.58)	0.03 (0.89)
Socio-economic Status	0.10** (4.26)	0.10** (4.28)	0.08** (3.46)	0.07** (2.51)	0.07** (2.42)	0.05** (2.05)
Repeating grade	-0.07** (-2.76)	-0.09** (-3.45)	-0.07** (-3.25)	-0.04 (-1.41)	-0.04* (-1.78)	-0.05** (-2.14)
Extra classes	0.03 (0.31)	0.05 (0.67)	-0.02 (-0.34)	0.06 (0.66)	0.09 (1.08)	0.09 (1.27)
Absences	-0.13** (-3.86)	-0.13** (-5.23)	-0.16** (-6.28)	-0.09** (-3.40)	-0.10** (-3.99)	-0.17** (-5.73)
<i>Reason for absences:</i>						
Family problems	-0.09** (-2.30)	-0.06* (-1.78)	-0.06* (-1.88)	-0.02 (-0.47)	0.01 (0.03)	-0.01 (-0.33)
Work	-0.12** (-2.17)	-0.07 (-1.38)	-0.05 (-0.91)	-0.09* (-1.70)	-0.06 (-1.31)	-0.04 (-0.86)
Do not like the subject	-0.05 (-0.32)	-0.04 (-0.27)	-0.14 (-1.50)	-0.08 (-0.50)	-0.11 (-0.72)	-0.14 (-1.21)
<i>Teacher Characteristics:</i>						
Female	0.11 (1.08)	0.11 (1.25)	0.10 (0.57)	0.05 (0.57)	0.04 (0.60)	0.18 (0.86)
Age	-0.08** (-2.04)	-0.08** (-2.09)	-0.02 (-0.36)	-0.10** (-2.29)	-0.08* (-1.72)	-0.02 (-0.20)
Experience in grade 3	0.01 (0.16)	0.01 (0.05)	-0.03 (-0.34)	0.01 (0.29)	-0.01 (-0.14)	0.04 (0.60)
Attended university	0.09 (1.40)	0.06 (1.00)	0.14 (0.61)	0.08 (1.19)	0.09 (1.33)	0.07 (0.43)
From community	0.16** (2.08)	0.12 (1.59)	0.16 (1.21)	0.25** (3.69)	0.24** (3.39)	0.26** (2.04)
<i>Pedagogical knowledge:</i>						
Did not answer	----	----	----	0.16 (1.08)	0.09 (0.66)	0.47** (14.88)
0 points	----	----	----	-0.27** (-2.89)	-0.27** (-2.79)	-0.55 (-0.79)
1-2 points	----	----	----	-0.15 (-1.49)	-0.15 (-1.45)	0.03 (0.08)
3-4 points	----	----	----	-0.19** (-2.05)	-0.14 (-1.49)	-0.16 (-0.64)
<i>Classroom Characteristics:</i>						
Fighting	-0.11** (-2.29)	-0.11** (-2.63)	----	-0.10** (-2.62)	-0.11** (-3.00)	----
Participation	0.02 (1.11)	0.03 (1.31)	0.04** (1.96)	0.03* (1.64)	0.03 (1.53)	0.04** (2.76)
Go to chalkboard	0.07** (3.50)	0.07** (3.90)	0.06** (3.27)	0.08** (4.31)	0.08** (4.55)	0.08** (4.39)
Work checked	0.01 (0.62)	0.03 (1.38)	0.03** (2.01)	-0.01 (-0.40)	0.01 (0.52)	0.01 (0.763)
Number of students	-0.13 (-1.50)	-0.10** (-2.37)	0.02 (0.14)	0.01 (0.14)	-0.03 (-0.44)	-0.25 (-1.13)

<i>School-Community Characteristics:</i>						
Average SES	0.11** (1.96)	0.12* (1.90)	----	0.17** (3.34)	0.19** (3.03)	----
Date of testing	0.12** (3.68)	0.16** (2.01)	----	0.11** (3.31)	0.26** (2.46)	----
Large rural	-0.10 (-1.02)	-0.02 (-0.21)	----	-0.05 (-0.55)	-0.03 (-0.32)	----
Small urban	0.05 (0.41)	-0.08 (-0.56)	----	0.05 (0.38)	-0.08 (-0.51)	----
Large urban	-0.13 (-0.86)	-0.13 (-0.86)	----	0.01 (0.06)	-0.11 (-0.59)	----
Province Fixed Effects?	No	Yes	No	No	Yes	No
School Fixed Effects?	No	No	Yes	No	No	Yes
Sample Size	5,520	5,520	5,520	5,462	5,462	5,462
Number of Schools	198	198	198	198	198	198
Explained Variance (R <sup>2</sup> )	0.186	0.217	0.353	0.185	0.205	0.332

Source: *MoEYS Grade 3 Assessment, 2006 (p.162-163)*

Notes: Additional controls are included for parental education and student selection. Presented coefficients correspond to the standardized change in the dependent variable given a one standard deviation change in the independent variable (for continuous variables), with *t*-statistics in parentheses. Asterisks refer to significance levels of coefficients (\*\*  $p \leq 0.05$ ; \*  $p \leq 0.10$ ).

## Chapter 6 : Pathways to Teacher Reform

Comprehensive teacher reform must encompass three main domains:

- Teacher recruitment: A needed expansion of the teaching force
- Teacher pay: Earning a living wage
- Teacher performance: Delivering high quality education

### ***Teacher recruitment: A needed expansion of the teaching force***

The education sector accounts for 59.4 percent of all civil servants (exclusive of contractual employees). MoEYS total staff has increased from about 97,000 in 2006 to 105,000 in 2006 and again to 107,800 in 2007. That is, the education sector payroll has grown by over 10 percent in the past two years. The education sector has secured over two thirds of total new staff, showing strong Government commitment to increasing the human resources needed to satisfy greater demand for social services.

Yet, this level of staffing is insufficient for current system growth and has resulted in unsustainably high pupil-teacher ratios in primary education. As noted earlier, Cambodia has a comparatively average civil service both in terms of numbers and expenditure as a share of GDP. However, salary resources at the secondary level could be used more efficiently where student-teacher ratios have remained quite low.

MoEYS has made the improvement in the deployment of teaching and non-teaching staff, in terms of equity and efficiency, a priority. First, it has sought a targeted expansion of primary and secondary education opportunities to underserved and remote communes, as well as a more equitable deployment of subject specialists. Second, it has sought to improve education service provision through the replacement of retiring and contract teaching staff with better-qualified new TTC graduates.

Thus, the *Education Sector Support Plan 2006-2010* lays out as recurrent budget program priorities that:

- *95 percent of new graduates from TTCs will be assigned to work in disadvantaged and remote areas by 2008.*
- *Starting in 2006 onward, 1,500 student teachers will be recruited from remote areas sources and then assign them back to work at the source areas after they finish teacher training.*
- *MoEYS recruits 5,000 new teachers yearly for 5 years onward.*

These are ambitious goals and worthy of support. The numerical targets for teacher recruitment proposed are clearly well above the historical trend and will be hard to reach. Teacher growth rates have in fact been declining. Teacher Training College vacancies have remained relatively stable, well below the official goals stated. In 2005/06, about 3,700 TTC trainees were expected to graduate, while the 2006/07 cohort aimed to include 4,600 trainees. In the past academic year, while 2,000 teachers left the service—retired, died, resigned—4,500 new appointments were made, signifying a net increase of 2,500 posts (Education Sector Working Group, 2006).

There is still significant demand for entry into TTCs from aspiring trainees, so the potential for growth is there and, at present, could be met. But the attractiveness of the teaching profession may change as rapid economic growth continues to expand labor market opportunities, even in rural areas. An increasing number of teachers report opting to the profession due to lack of job alternatives.

Without an increase in the number of teachers, pupil-teacher ratios in primary education will continue to show unacceptably high levels. This will be exacerbated by the increasing pressures of a rapidly growing lower secondary sector. There are few solutions to this constraint other than to prioritize the social sectors in the allocation of establishment positions to provide teachers to schools at a rate sufficient to maintain a reasonable maximum student-teacher ratio in each school (e.g. 40-45). An expansion of contract teaching may also be a means to fill the existing gap as a short-term measure.

The expansion of the teacher cadre must take place with an appropriate balance between primary and secondary teacher needs in mind. The projected fall in primary enrollments as the education system stabilizes will likely not be sufficient to ease overcrowded classrooms, while the expansion of secondary enrollments may induce a migration of primary teachers to more coveted secondary posts. The changing educational landscape will demand that MoEYS plan for phasing out existing teacher posts where they may not be needed, set rigorous targeting criteria for the creation of new teacher posts and carefully map and monitor under- and over-staffed schools.

The option for staff redeployment has long been debated. About 20 percent of the staff in the education sector is non-teaching. On the aggregate, this is not high and would roughly correspond to one full-time administrative staff per primary school. However, the distribution is problematic with a high number of administrative staff relative to teachers in secondary education. In primary education, the teaching: non-teaching staff ratio averages 7:1, compared with a very low 2.5:1 in secondary education where clearly efficiency gains are possible.

To address teacher shortages and excess administrative burden, past versions of the *Education Sector Plan* have proposed incentives for redeployment of administrators back into the classroom. At best, this strategy would have only a marginal impact on service delivery as redeployment would concern at most 3,000 administrators and their willingness to return to the classroom has proven to be questionable. A redeployment scheme under the PASEC project in the late 1990s, for instance, failed to elicit the relocation of staff, and those who did move eventually returned to their original posts.

Thus, the emphasis on local area teacher recruitment is apposite and has already appeared to begin to pay off. Teacher qualifications are on average higher in remote areas than in urban and rural schools. And teacher pay in remote areas remains competitive, in part due to hardship posting incentives and lower costs of living. In some instances, remote area placements have been made more attractive through the provision of free housing. Increases in local area teacher recruitment would diminish the need for subsidized accommodation.

While remote area placements tend to have shorter spans, the overall teacher job market is relatively stable and there is overall limited job turnover. For the most part, teachers express the desire to stay in their current posting for the following academic year. Furthermore, student academic results in grade 3 show that in locations where we find local teachers, children tend to fare better in Khmer and mathematics tests. Locally recruited teachers are also able to better serve bilingual communities and are better aware of community customs and practices, making them more effective teachers (Watt, 2004).

The teacher posting system remains a challenge. Those TTC graduates who score highest in exit examinations have the right to first choice of teacher placements. Thus, those who receive the poorest marks have tended to be appointed to more marginal areas. This is not to say that it would be advantageous to do away with meritocratic posting assignments. Again, the promotion of local area recruitment may somewhat offset this trend as TTC graduates may actively opt to return to their areas of origin.

But local area recruitment initiatives are constrained by a limited supply of potential teacher trainees. There are not enough students graduating from upper secondary schools in remote localities. The first important step has been to introduce flexible TTC entry requirements for remote area students. Qualification demands for marginalized students were reduced to nine years of basic education, instead of twelve. Nonetheless, a reduction in quality standards can only be a short-term solution. Greater efforts will be essential to expand educational access through completing incomplete primary schools and building new secondary schools in marginalized communities. Providing subsidies to poor students in these areas will also increase their likelihood of attending and graduating from secondary school.

In the medium-term, teacher training services need to be accessible to potential teacher trainees from underserved areas where there are currently none, such as in Koh Kong, Mondul Kiri, Otdar Meanchey and Ratanak Kiri. Anecdotal evidence indicates that the living conditions for out-of-province students are poor. Underserved provinces will remain at a disadvantage unless preservice training opportunities better respond to the needs and characteristics of these students. As a stop gap measure to address immediate shortages in teacher supply, transitory alternative service provision mechanisms that may be worth considering include modular teacher training offerings being provided through existing upper secondary schools.

Furthermore, a stronger teacher support system will be required to counterbalance the isolation experienced by remote area teachers. Enhanced in-service training opportunities for teacher upgrading as well as continuous supervision from district and provincial officials can promote improvements in teacher competency as well as provide quality assurance avenues to decrease teacher absenteeism rates.

Delays in teacher payment are generalized, but this situation poses a heavy burden particularly for teachers deployed in remote areas where secondary job opportunities do not exist. During the first year of assignment, TTC graduates are not eligible to receive remote posting incentives until they become confirmed (*titulaires*) on their job upon review on their second year. Again, this imposes an undue burden for those who do not have other income opportunities (Fayaud, 2003). This policy could well be revisited.

### ***Teacher pay: Earning a living wage***

Teacher salaries are low. As part of civil service reform, a new salary scale was introduced in 2002, but it has fallen short of expectations. CAR has proposed an average annual increase of the basic salary of 15 to 20 percent in the education sector, which was budgeted and paid for in 2006. In real terms, the effective increase amounts to between 8 percent and 10 percent of the total take-home pay, when including allowances and incentives.

Even if these proposed improvements do materialize, living conditions for Cambodian teachers will remain difficult at best in the medium term. A teacher that must support a family of four, on average, must at least double his/her salary to live at the per capita poverty line. Teachers are paid worse than a minimum wage worker in the textile industry where they could earn about USD50 a month.

The low pay level necessitates other economic activities, thus decreasing motivation and the time available for teaching. Rural areas are particularly affected. In urban areas, teachers can supplement their meager income with other forms of paid work, particularly tutoring. Some private sector activities in certain areas (such as English language) can earn as much as USD12-15 per hour. Under these circumstances, MoEYS is lax concerning controls over absenteeism and informal fees. Further, there are no incentives to improve staff performance. Promotion is automatic, approximately after each two years of service. Pay increases are small due to the high level of compression of the salary scale.

As a start, timely payment of teacher salaries and incentives would be a notable improvement. The vast majority of teachers report being paid late. For example, 79 percent of lower secondary school teachers reported delays in payment in 2006. Contract or first-year teachers are paid at irregular intervals and oftentimes in the form of a lump sum payment. Furthermore, since salaries are paid in cash, they are prone to “facilitation fees” and other charges. Payments through the banking system could decrease the likelihood for graft and even reduce the incidence of teacher absenteeism. MoEF has recently launched a pilot to pay salaries through direct deposit with 500 civil servants. The National Treasury has announced commitments to institute direct deposit with all civil servants in Phnom Penh making more than USD100 per month and a pilot in 2 provinces for those earning more than USD50 per month.

The current ESSP 2006-2010 sets out as a goal:

- *to increase service remuneration and incentives linked to performance by agreeing on a reform plan for teacher salary/allowances against performances and responsibilities in co-operation with MoEF.*

But efforts to increase teachers’ salaries have not in fact been systemically linked to teacher performance to date. “Good teacher awards” account for less than 1 percent of total pay. At the primary level, the main change has been the conversion of three Thursdays a month from professional development days to regular classroom teaching. The pay increase purportedly aims to recompense for the additional workload required from additional hours of classroom teaching.

Performance-based pay reforms so far have been operationalized as incentives to encourage teachers to take on additional duties, including double shift and multigrade teaching. Allowances have been extended to school principals in incomplete primary schools to enable them to arrange for multigrade or double shift teaching so that the school can offer the full range of grades 1 to 6. In principle, the approach espoused is sensible, since double shift and multigrade teaching also have the potential to relieve existing teacher shortages and improve the efficiency of education sector spending. The size of the incentives has also been substantial in relative terms—almost doubling the basic salary for double shift teaching. But these incentives have remained unpopular, especially among urban and rural primary school teachers, since they cannot compensate for foregone income from other more lucrative activities in absolute terms.

The bottom line is that salaries and incentives must be raised to be rendered truly attractive. Previous iterations of the *Education Sector Plan* have sought an across the board remuneration increase to USD100 per month. These proposals, however, have not been prepared within a sustainable fiscal envelope and have been decoupled from broader civil service reform efforts. Ultimately, teachers cannot be treated differently from other public sector employees.

The education wage bill amounts to approximately 60 percent of the sector recurrent budget. This is low according to international standards. Thus, the fiscal space exists to review the overall balance of the education budget. As the economy continues to post record growth rates, the potential expands for significant wage increases, putting in place a decompressed salary structure. However, in order for these changes to be meaningful and truly improve the overall efficiency and effectiveness of education service delivery, they must occur within the broader framework of civil service reform and articulate a clearer vision of greater pay for higher performance.

In addition, other strategies may be potentially considered in the medium term to contain the growth of the wage bill by greater liberalizing the teaching labor market. These, for example, might include disconnecting recruitment into teacher training from recruitment into the civil service, introducing cost recovery and subsidies in teacher training for those who cannot afford to pay, and decentralizing teacher recruitment, salary setting and the salary budget to the district or provincial levels. Any of these measures would require careful scrutiny and analysis, including the risk of corruption and inclusion of ghost teachers into the payroll.

### ***Teacher performance: Delivering high quality education***

Pay reform must be embedded in the context of a policy framework for human resource management and development. The existing compression of the salary wage and lack of promotion opportunities call attention to the imperative need for laying out within the teaching profession long-term sustainable career pathways supported by an appropriate salary structure that links skills, professional development opportunities and performance outcomes with financial incentives (Education for Change *et al.*, 2006).

At present, the skeleton of such a system exists. But the system is broken. At the lower secondary school level, 69 percent of principals report using performance incentives for teachers in the form of salary increases, advancement within the MoEYS administrative structure and receiving more responsibilities at school. In principle, the vehicle for determining who receives these incentives is teacher performance evaluations, according to 75 percent of school principals. A handful of principals also report relying on student test scores (8 percent) or teacher qualifications (5 percent) to assess teacher outcomes (see *Table 6.1*). Yet, while principals posit the formal existence of performance-based incentives, less than 10 percent of teachers report having ever received a bonus through these evaluations. Furthermore, teachers are frequently critical about the lack of transparency through which incentive determinations are made.



**Table 6.1: Teacher Performance and Incentives as Reported by LSS Principals**

	Percentage
<b>Incentives for good performance are used</b>	69.1
<b>Types of incentives for good performance:</b>	
Salary increase (beyond normal salary increase)	53.7
Special financial reward	8.7
Career advancement (within school or Ministry)	75.2
More responsibility	87.6
Community recognition	40.1
<b>Most important criteria for evaluating good performance:</b>	
Achievement of students	7.8
Teacher performance Assessments	75.0
Years of experience	1.5
Teachers should be given higher salary/grade for enhancing qualifications	4.9
Completing in-service training Courses	0.8
Other	10.0

Source: CESSP 2006

Notes: **Incentives for good performance** is a Yes/No question and indicates the percentage/proportion of directors who indicated 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.

The absence of a functional teacher appraisal mechanism leaves a vacuum to resolve the problems identified in Chapter 5 with regards to teacher performance. Lower secondary school teachers come poorly prepared for lessons. Absenteeism rates are troubling. Subject and pedagogical content knowledge is weak. These factors are associated with lower levels of student participation and academic performance. These problems are further compounded by the absence of effective social accountability mechanisms that can act as a pressure point to demand improvements in education service delivery. These challenges are widely acknowledged by MoEYS administrators and teachers alike. Lower secondary school principals cite among the top needed areas for school performance improvement teacher attendance (24 percent) and recruiting better qualified teachers (12 percent).

**Table 6.2: School Development Needs according to LSS Principals**

	%
<b>School has a development plan</b>	96.5
Seen by enumerator	86.1
<b>Primary person responsible for plan:</b>	
School director	94.9
School Support Committee	1.4
District Education Officer	0.8
Other	0.3
<b>Others provide input/support to plan</b>	99.3
<b>Others who provide input/support:</b>	
School director / acting director	6.9
School Support Committee	37.0
Teachers	43.9
Parents	1.5
District Education Officer	1.2
Other	8.8
Do not know	0.7
<b>Most important factors in improving quality of schooling:</b>	
Improve teacher absenteeism	23.9
Recruit better qualified teachers	11.6
Performance-based financial rewards	2.0
Improved in-service training of teachers	7.9
Better textbooks & teaching guides	2.1
Pedagogic support by supervisory staff	1.5
Upgrading of essential infrastructure	10.1
Other	40.8

Source: CESSP 2006

Notes: **School has a development plan** is a Yes/No question, with Yes indicating the percentage/proportion of schools with a plan. Of those schools with a development plan, **Seen by enumerator** indicates the percentage/proportion of schools where the enumerator was able to see a copy of the development plan. **Factors most important for improving quality of education** are self-reported (i.e., the respondent was not provided with possible answers). Respondents reported up to three answers; their first answer is reported here. The majority of the responses (85.2%) are from school directors. The rest are from deputy directors (8.3 percent), acting directors (5.0 percent) and teachers (1.5 percent).

The ESSP 2006-2010 acknowledges the need for a stronger framework for monitoring and assessing teacher performance.

- *A comprehensive program of performance-based allowances is in place and will be strengthened through introduction of a nation-wide staff performance appraisal system and regulation of minimum standards of performance and work loads.*

In 2008, MoEYS has adopted a new Teacher Professional Code to regulate the professional ethics of teachers. This Code covers teacher general duties and their responsibilities towards students and their parents. It also stipulates that teachers are prohibited from conducting any business in the classroom. Although they have the right to conduct private teaching outside the official working hours, they cannot force students into tutoring with them.

With support from the Cambodia Education Sector Support Project, the Teacher Training Department of MoEYS has prepared a draft proposal for teacher standards using a process of consultation with Cambodian and overseas educators (adapted from Reynolds, 2006). It is being piloted with teachers in schools across 10 provinces. These standards strive to be not only a statement of what is valued, as laid out in the Teacher Professional Code, but also a measure of performance. They describe a range of competencies in language which is concise, describes behaviors which can be observed and thus evaluated, and refers to actions which impact on student learning. The overall framework that emerges is complementary to other policies recently espoused by MoEYS, such as the Child Friendly Schooling approach and the new Curriculum Standards.

This Teacher Standards Framework is organized around four domains: (a) Professional Knowledge, (b) Professional Practice, (c) Professional Learning and (d) Professional Ethics (see *Box 6.1*). Each domain contains two or more fields. Each field includes several standards regarding what is valued in one vital aspect of what a teacher knows and does. Each standard is broken down into a set of specific competencies expressed in terms of observable evidence of teacher actions that have an impact on students. This evidence can be used to appraise teacher performance or improve a school's instructional evaluation and planning. Standards include a range of competencies that denote different skill levels—some which are minimal and others which flag expectations which not all teachers can currently achieve. Every teacher can be expected to meet a minimal standard (e.g. *demonstrate commitment and dedication to the Teaching Profession*). Other standards represent what most teachers currently do (e.g. *provide a learning environment which is safe for all students.*). Still there are other standards that only some teachers are able to meet (e.g. *use information communications technology and library resources, as available, to make teaching more effective*). It is in this sense that the Teacher Standards Framework provides a scale of performance.

The Teacher Standards Framework was designed to apply across all basic education schools in Cambodia irrespective of year level or subject being taught. Once officially approved and mainstreamed into MoEYS activities it can serve a number of important functions. First, it will be a guiding light to review preservice and in-service teacher training programs in order to satisfy new performance expectations and better prepare teachers to meet these requirements. Second, teacher standards may help strengthen the substance of existing peer mentoring and cluster development networks operating through the existing and very popular teacher technical meetings. Third, it could be an instrument to assess TTC graduates and ensure they meet minimum standards as a precondition for accreditation. Registration of teachers could be a means of quality control at entry into the teaching profession. Fourth, it could lay down the path for meritorious teacher placement and career advancement. Progression into the teaching profession could be classified along a specific set of ranks (e.g. basic, proficient, advanced), determined on the basis of skill competency levels as measured by demonstrable behavior. These ranks could be ultimately adopted as part of the civil service career ladder. Fifth, teacher pay could be tied to observable teacher performance, both through salary banding tied to skill rankings as well as through specific incentives tied to participating in relevant professional development upgrading, incremental improvements in actual teaching skill or enhancing student performance. Remuneration tiers could be decompressed according to performance levels.

These functions may be constructed as a series of platforms for gradual implementation. Without doubt, they are part of a medium-term vision and should not be rushed to implementation. But the elements are there to begin to take significant strides in a direction that has the potential for comprehensive and sustained civil service reform. The first and foremost prerequisite will be the formal adoption of a final version of the Teacher Standards Framework which incorporates the lessons

### Box 6.1: Professional standards for teachers in Cambodia

KNOWLEDGE			PRACTICE			LEARNING	
STUDENTS	LEARNING CONTENT	HOW STUDENTS LEARN	PLANNING AND ASSESSING	MANAGING THE LEARNING ENVIRONMENT	TEACHING STRATEGIES	SELF-LEARNING	ENGAGEMENT IN THE TEACHING PROFESSION
<p>Know their students, their learning needs, capacities, histories and attitudes to learning;</p> <p>Are aware of home and other factors (i.e. gender, social and economic background, ethnicity) which affect their students' learning and know how to deal with them.</p>	<p>Understand educational policies, (national goals and purposes of each sector);</p> <p>Understand how to prepare a lesson plan;</p> <p>Understand the content of the learning program and be able to explain and teach it clearly;</p> <p>Understand how to integrate discipline knowledge from different subjects in ways that students learn more skills and enjoy learning better.</p>	<p>Understand the educational context of the classroom and school community;</p> <p>Understand how students learn;</p> <p>Understand differences in ability, rates and styles of student learning.</p>	<p>Prepare clear and effective lesson plans and teaching program;</p> <p>Prepare teaching aids and student materials to achieve student learning;</p> <p>Employ a variety of appropriate methods for assessing students;</p> <p>Monitor student participation and maintain records of student progress;</p> <p>Give feedback to students, parents or guardians about the development of student knowledge, skills and attitudes.</p>	<p>Provide a learning environment which is safe and challenging for all students;</p> <p>Help students to become increasingly responsible for their own learning;</p> <p>Participate in school development to support the learning and welfare of students and colleagues.</p>	<p>Use a range of teaching methods to facilitate student learning and to meet MoEYS Curriculum Standards;</p> <p>Cater for diverse student learning styles and needs through the appropriate application of a wide range of teaching methods;</p> <p>Prepare and provide problem-solving learning opportunities for students to engage in critical and creative thinking;</p> <p>Use Information and Communications Technology as available to make teaching more effective.</p>	<p>Regularly evaluate his/her own teaching and develop and use a plan for self-directed professional learning;</p> <p>Develop knowledge of information and communications technology and skills as they apply to teaching;</p> <p>Improve communication skills with students, parents, colleagues and the community.</p>	<p>Undertake professional reading and research to extend the range of knowledge to improve his/her teaching;</p> <p>Regularly interact with other teachers for various professional learning activities.</p>
<b>ETHICS</b>		<ul style="list-style-type: none"> <li>• Show care and concern for students and work always in their best interests and that of society;</li> <li>• Demonstrate commitment and dedication to the teaching profession;</li> <li>• Provide a positive example of moral behavior and harmonious relationships for students and the whole school community;</li> <li>• Use fairness and transparency in dealings with students, colleagues and others in the school community.</li> </ul>					

learned from the piloting process and follows an extensive consultation process with key stakeholders. Second in line will be the development of adequate teacher performance assessment instruments closely coupled with the Teacher Standards Framework. These instruments will need to be trialed and key MoEYS personnel at district, provincial, teacher development and inspectorate offices trained for their application.

It is also important to highlight that the Teacher Standards Framework ought not to be conceived as an instrument of “rewards and punishment,” but rather as a tool for the identification of teacher strengths and weaknesses that can then be linked to a capacity development plan to enhance teacher performance. The appraisal of teacher performance is only the initial step in a broader process. MoEYS must also undertake the commitment to ensure that adequate teacher support mechanisms are in place to facilitate and promote teacher upgrading as part and parcel of this appraisal. This will require revamping pre- and in-service curricula, modernizing Teacher Training Colleges and improving the technical capacity of TTC trainers and MoEYS administrative personnel while instituting a flexible and responsive in-service teacher development system, widening its scope and improving the quality of teacher support and supervisory functions at school, district, provincial and central levels. Functional continuous monitoring and accountability systems—provided by school principals, MoEYS administrative inspectors, school support committees and parents—can ensure that teacher standards are consistently applied and translate into visible improvements in education service delivery.

### ***Closing remarks***

Cambodia has achieved a tremendous transformation of its education system in the past decade. As access to educational services has steadily grown, the attention has begun to shift to educational quality concerns. In this realm, an important and pending assignment has been upgrading teacher skill levels, improving teacher performance and raising teacher pay. This has been the primary focus of this study. The empirical data presented here shows that much needs to be done and there is significant room for improvement. This report concludes by proposing an outline for an overhaul of the existing education civil service structure.

The first elements for change have begun to take shape. The Teacher Standards Framework represents a tangible element to begin to map a long-term agenda for teacher placement, capacity development, promotion and compensation.

This is an ambitious program. It is a product of the vision and determination of the MoEYS leadership to respond to the plight of the teacher cadre. The support of the whole RGC will be needed—particularly from agencies such as MoEF and CAR—to make it into a reality. Its full implementation will take time. But there is no time to waste when thousands of teachers nationwide are working under trying circumstances for the benefit of children across the nation. The next generation of Cambodians depends upon it.

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