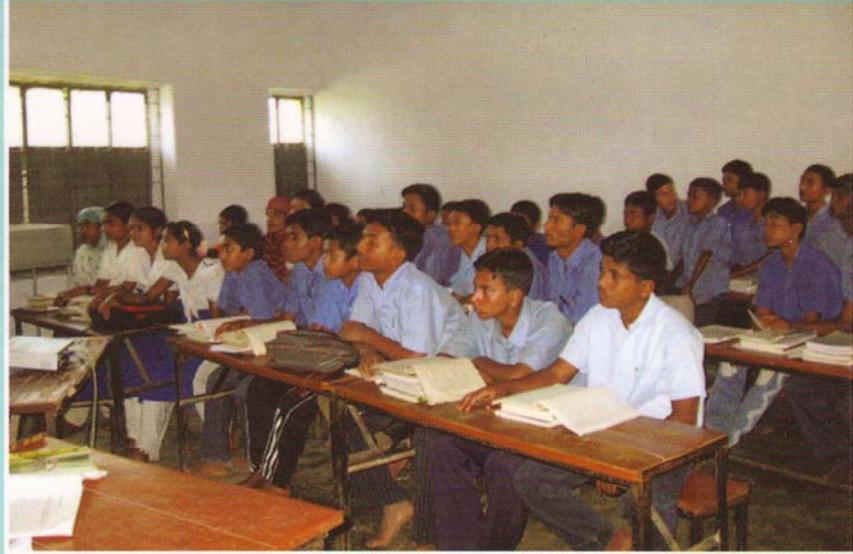


Education Watch 2005



The State of Secondary Education Progress and Challenges



Campaign for Popular Education (CAMPE)
Bangladesh

Education Watch 2005

The State of Secondary Education:
Progress and Challenges

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Dedicated to the memory of
A. N. M. Eusuf
Chairperson
Education Watch Advisory Board
1999-2006

Foreword

The work on basic education for all will not be complete until at least the lower level of secondary education of acceptable quality is available to all children, preceded by quality primary education for all. Secondary education qualification for barely five percent of the labour force in the country, as reported in the Labour Force Survey 1999-2000, clearly is not adequate for skills and adaptability demanded in today's competitive and globalised market.

Secondary education enrolment in Bangladesh has more than tripled and the number of institutions has more than doubled since 1980. The growth of girls' enrolment, spurred by social mobilization and incentives, such as stipends and tuition waivers for rural girls, has been spectacular. Girls now outnumber boys in secondary schools.

Relatively rapid expansion of secondary education in recent years still permits no more than 45 percent of the eligible children to enroll in secondary schools. Moreover, only one of five who start class six can survive up to class ten and earn the secondary school certificate. This study documents how expansion of the system, although not sufficient, has already aggravated quality problems. High rates of dropout and failure in public examinations indicate serious deficiencies in quality of education. Dropout rates averaged over 50 percent between grades 6 to 10 in recent years. On an average, only half of the candidates, even after they survived the gauntlet from class six to ten and the "test" examination in class ten, passed the SSC examination.

As in primary education, low quality in secondary education can be attributed to well-known causes, as shown in this study - deficiencies in teachers' skills and capability, inadequate facilities and learning materials, poor enforcement of rules and criteria for approval of government subvention, inadequate resources reflected in low per student expenditure, and poor governance and management of schools.

A substantial proportion of the secondary education enrollment is in madrasas - at least 14 percent in government assisted madrasas and another two percent in "ungraded" quomi madrasas, according to the present survey. This is a matter for concern because the curriculum and teaching quality in these institutions do not prepare young people as productive citizens.

Secondary education sector reform initiatives of the government supported with international assistance have been aimed at addressing the problems of quality and equitable opportunities in secondary education. The success of these initiatives will depend on understanding the dimensions and depths of the problems and designing actions that are realistic, implementable and responsive to specific needs and circumstances. The findings of this study and the policy implications presented are intended as a contribution to this end.

Dhaka
April, 2006

Fazle Hasan Abed
Chairperson
Campaign for Popular Education

Preface

The sixth *Education Watch* report for the year 2005 is the first one on the state of secondary education in Bangladesh. Its aim is to construct a baseline of basic indicators on how the sub-sector functions, especially in respect of provisions for services and their internal efficiency. In keeping with the objectives and practice for *Education Watch* studies, the aim also is to contribute to informed dialogue on policy and actions and to facilitate civil society participation in the development of education policies and strategies.

Education Watch reports in the past have focused on primary education and literacy. The five previous reports have helped to build a baseline of information on key quantitative and qualitative indicators on primary education and the literacy situation. While issues that still need to be researched and better understood in these areas have by no means been exhausted, the *Education Watch* constituency, especially the Advisory Board and the members of working groups and technical teams involved in various reports, have expressed the need to broaden the scope of the studies in line with a broad definition of basic education. Particularly keeping in view the national and international commitments to achieve the Education for All (EFA) goals.

The 2005 report, like the previous ones, is the result of a cooperative effort of a large number of people and institutions who have directly and indirectly contributed to the study. The research has followed the pattern of past studies in presenting findings and drawing policy conclusions based on original data collected through sample surveys. The surveys were designed to provide overall national estimates as well as appropriate breakdowns for geographical, gender and socio-economic variables.

The Advisory Board, the working group and the Technical Team, as in the past, have played a key role in determining the subject for the annual report, looking at and making suggestions regarding the research approach and methodology, reviewing progress of work including visits to observe data collection in the field, and providing feedback on drafts of the report and pointing out policy implications of the findings.

We wish to acknowledge with gratitude the leadership provided by Dr. Manzoor Ahmed, Director of the Institute of Educational Development at BRAC University (BU-IED), and Mr. Samir Ranjan Nath, Senior Research Fellow of BRAC in guiding the research effort and preparing the report. We thank Prof. James H. Williams of George Washington University for writing a chapter on the international perspective of secondary education for this report.

We wish to express our sincere thanks to Mr. Fazle Hasan Abed, Chairperson of BRAC and Chair of the CAMPE Council, for his deep interest in and continuing support for the *Education Watch* initiative since its inception. CAMPE is privileged to serve as the secretariat of *Education Watch* and its staff has been providing the necessary support for producing the annual reports and facilitating its dissemination.

We thank the reviewers of the Report, Dr. Kazi Saleh Ahmed, Mr. Shafiul Alam, and Ms. Simeen Mahmud for their valuable comments on the draft of the report and their advice for improving it. Our sincere gratitude to all those who participated in the various sharing sessions on the report and provided significant comments and suggestions on the design, approach and findings of the study.

Our appreciation will remain incomplete if we don't acknowledge the contribution and willing cooperation of the authorities of the institutions which were selected for survey. We thank the respondents in some 24,000 households who provided information to the survey team with the expectation that this would help improve their children's education.

Education Watch and its reports have been possible due to the generous support received from the Royal Netherlands Embassy (RNE), Swiss Agency for Development and Cooperation (SDC) and NOVIB of Netherlands. We acknowledge their assistance and express our deep appreciation.

Since the beginning of *Education Watch*, Mr. A. N. M. Eusuf has served as the chair of the Advisory Board of *Education Watch*. Our dear Eusuf Bhai is no more with us. He was a steady anchor for the unique civil society effort that is *Education Watch*. We dedicate the 2005 report to this memory of A. N. M. Eusuf.

Dhaka
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Acronyms

ADB	Asian Development Bank
AIDS	Acquired Immune Deficiency Syndrome
BANBEIS	Bangladesh Bureau of Educational Information and Statistics
BEd	Bachelor of Education
BpEd	Bachelor of Physical Education
BRAC	A national NGO (formerly Bangladesh Rural Advancement Committee)
CAMPE	Campaign for Popular Education
CIDA	Canadian International Development Agency
C-in-Ed	Certificate in Education
Dip-in Ed	Diploma in Education
DSHE	Directorate of Secondary and Higher Education
GER	Gross Enrolment Rate
GPA	Grade Point Average
HIV	Human Immunodeficiency Virus
HSC	Higher Secondary Certificate
ICT	Information Communication Technology
MEd	Master of Education
MOE	Ministry of Education
MP	Member of Parliament
MPO	Monthly Payment Order
NAEM	National Academy for Education Management
NGO	Non-governmental Organization
NORAD	Norwegian Agency for Development Cooperation
NTRCA	Non-government Teacher Registration and Certification Agency
PPS	Probability Proportionate to Size
PRSP	Poverty Reduction Strategy Programme
SESIP	Secondary Education Sector Improvement Project
SMC	School Managing Committee
SSA	Sub-Saharan Africa
SSC	Secondary School Certificate
TQI	Teaching Quality Improvement
UNESCO	United Nations Education Scientific and Cultural Organization
US	United States
USSR	Union of Soviet Socialist Republics

Overview

This overview recapitulates the purpose of the study on the state of secondary education in Bangladesh, the research approach, the key findings and the policy implications of the findings.

The sixth *Education Watch* report is the first one on the state of secondary education in Bangladesh. Its aim is to construct a baseline of basic indicators on how the sub-sector functions, especially in respect of provisions for services and their internal efficiency. In keeping with the objectives and practice for *Education Watch* studies, the aim also is to contribute to informed dialogue on policy and actions and to facilitate, for this purpose, civil society participation in the development of education policies and strategies.

A. Introduction

Education Watch reports in the past have focused on primary education and literacy. The five previous reports have helped to build a baseline of information on key quantitative and qualitative indicators on primary education and the literacy situation. While issues that still need to be researched and better understood in these areas have by no means been exhausted, the *Education Watch* constituency, especially the Advisory Board and the members of technical and working teams involved in various reports, have expressed the need to broaden the scope of the studies in line with a broad definition of basic education.

The specific objectives of *Education Watch 2005* are as follows:

- Estimate gross and net enrolment rates at the secondary level and indicate variations in these rates by gender, region and socio-economic status.
- Provide information about the basic infrastructure and educational facilities and teachers in the secondary level educational institutions.
- Estimate students' attendance, promotion, retention, survival and completion rates; and their differences by school type and gender; assess the performance of students and institutions based on SSC examination results.
- Estimate the household expenditure for secondary schooling and explore aspects of school budgets and the stipend programme for girls in secondary schools.
- Examine institution level management, especially the profile and role of the school managing committees.
- Consider policy and strategy implications of the findings.

This report is divided into nine chapters in addition to this overview. Following the introduction (chapter 1), chapter 2 presents major international trends and issues in secondary education development. Chapter 3 describes the methodology adopted for the study including the sampling design, instruments, field work, quality control and

strengths and limitations of the study. The analyses of data and findings begin with Chapter 4, which presents the status and trends in participation in secondary education. Chapter 5 deals with learning provisions including physical infrastructure, learning facilities and teachers in secondary education. Chapter 6 presents analyses of promotion, dropout and repetition and performance of students in public examinations. Conclusions are drawn about internal efficiency in secondary education by examining retention and the completion of the cycle by students. Chapter 7 examines finance issues including private costs, institutional level finance, and girls' stipends. Chapter 8 looks at institution level management in secondary education focusing on the work and role of school managing committees. Chapter 9, the final chapter of the report, recapitulates the major findings of the study. Drawing on the findings, policy and strategy implications are also presented. Annexes of the report provide relevant tables which were not included in the main text as well as the instruments and methodological notes.

B. The research methodology

Data for this study were drawn from two sources – a household survey and a survey of secondary level institutions. The household survey addressed objective 1 above and most of objective 4. The institution survey covered objectives 2, 3, part of 4 and 5.

The sampling strategy adopted for *Education Watch* 1999 and 2001 was followed in this study with minor modifications. Current enrolment status of the children aged 11-15 years (because this is the official age range for secondary education) was the key variable in determining sample size for the household survey

Because of known variations in the educational attainment among geographical regions in the country, sampling design provided for separate estimates for the following eight strata:

Rural Bangladesh: Rural Dhaka division
 Rural Chittagong division
 Rural Rajshahi division
 Rural Khulna division
 Rural Barisal division
 Rural Sylhet division

Urban Bangladesh: Metropolitan cities
 Municipalities

A four-stage sampling procedure was adopted for each stratum. At the first stage, in each rural stratum 30 upazilas and in each urban stratum 30 thanas/municipalities were selected through systematic sampling technique with probability proportionate to size (PPS) of population. At the second stage, one union (ward for urban strata) for each selected upazila/thana/municipality was selected through simple random sampling. At the third stage, four villages (mahallah for urban strata) were randomly selected from each of the selected union/ward. This means that 120 (30x4) villages/mahallahs were selected for each stratum, totalling 960 (120x8) for the whole of Bangladesh. It turned out that all 64 districts of the country were represented in the sample.

The household survey was carried out in 25 households in each of the selected village/mahallah. This number was fixed on the basis of the experience of household surveys done for the first and the third *Education Watch*. It was calculated that the survey of such a number of households in each village could produce required numbers of children aged 11-15 for valid estimates at the stratum level.

This study was limited to six types of schools: junior secondary school, government school, non-government school, combined school and college, dakhil madrasa, and alim madrasa. The non-government school and the dakhil madrasa were the most numerous and served 87 percent of the secondary level students. For these two categories, 30 institutions were selected randomly for each stratum; which resulted in a sample of 240 non-government schools and 240 dakhil madrassas. For the other four categories, 30 institutions were selected randomly from each type, totalling 120. Thus, a total of 600 secondary level educational institutions were included in the sample of institutions for this study.

A total of 23,971 households from 1,088 villages/mahallahs was covered under the household survey. The total population in these households were 122,006 with a sex ratio 101.2¹. Of them 14,663 were aged 11-15 years old and 9,316 were secondary school students. Information from 9,556 teachers and 6,162 managing committee/board members was also collected during the school survey. Tables 1 and 2 provide the sampling details.

¹ Sex ratio is the number of males against each 100 females.

Table 1. Sample for the household survey

Strata	No. of villages	No. of HHs	Population in the HHs	Children aged 11-15 years	Secondary school student	Private cost survey	
						No. of HHs	No. of students
Rural Dhaka division	141	2,991	14,846	1,773	1,097	534	671
Rural Chittagong division	141	3,002	16,294	2,113	1,232	578	746
Rural Rajshahi division	130	2,999	14,078	1,702	1,150	555	666
Rural Khulna division	134	3,018	14,440	1,653	1,160	584	709
Rural Barisal division	131	2,973	14,865	1,867	1,192	534	652
Rural Sylhet division	154	3,004	17,796	2,185	942	466	616
Metropolitan cities	124	2,988	14,869	1,630	1,143	557	673
Municipalities	133	2,996	14,818	1,741	1,400	607	741
Total	1,088	23,971	1,22,006	14,664	9,316	4,415	5,474

Table 2. Sample for educational institution survey

School type	Number of schools	No. of teachers	No. of SMC members
Junior secondary	30	267	267
Non-govt. secondary	240	3,863	2,334
Government secondary	30	544	-
School and College	30	936	296
Dakhil madrasa	238	3,402	2,900
Alim madrasa	30	544	365
Total	598	9,556	6,162

Note: There is no provision of school managing committee (SMC) in the government secondary schools

C. Growth and quality in conflict

Secondary education enrolment in Bangladesh has more than tripled and the number of institutions has more than doubled since 1980. The growth of girls' enrolment, spurred by social mobilization and incentives, such as stipends and tuition waivers for rural girls, has been spectacular. Girls now outnumber boys in secondary schools.

This study documents how expansion of the system has aggravated quality problems. High rates of dropout and failure in public examinations indicate serious deficiencies in quality of education. Dropout rates averaged over 50 percent between grades 6 to 10 in recent years. On an average, half of the candidates, even after they

survived the gauntlet from class six to ten and the “test” examination in class ten, passed the SSC examination.

Poor achievement of students and low quality in secondary education can be attributed to well-known causes, as shown in this study – deficiencies in teachers’ skills and capability, inadequate facilities and learning materials, poor enforcement of rules and criteria for approval of government subvention, inadequate resources reflected in low per student expenditure, and poor governance and management of schools.

Attention to poverty reduction, emphasized in the national Poverty Reduction Strategy, has brought out in sharp relief the high degree of inequity in respect of access and participation in education. Maintaining acceptable quality in education is a simultaneous concern, since access to education without the guarantee of a minimum level of quality is meaningless.

The global market has touched the lives of people in the remotest village and has created a demand for new skills and knowledge. Meeting this demand has to be a key issue in defining educational priorities, content and quality at both primary and secondary stages.

Development initiatives and an education sector reforms programme supported with international assistance have been aimed at addressing the problems of quality and equitable opportunities in secondary education. The success of these initiatives will depend on understanding the dimensions and depths of the problems and designing actions that are realistic, implementable and responsive to specific needs and circumstances. The findings of this study, summarized below, are intended as a contribution to this end.

D. Key findings

Participation in secondary education

- A steady growth in secondary education participation has been achieved in the last decade which has reached 45 percent on a net basis for the 11-15 year age children – from 33 percent in 1998.
- Enrollment of girls has surged ahead of boys by 11 percentage points at 50.6 percent compared to 39.6 percent for boys on a net basis. This has been a broad-based progress across geographical areas and socio-economic strata.
- There remains a large urban-rural gap of 10 percentage points – at 43.6 percent net enrolment in rural areas and 54.0 percent in urban areas. Slums in large urban cities fare the worst with only 18 percent net enrolment.

- Of those enrolled in secondary level, over three quarters went to non-government secondary schools. The next most popular category is the madrasa, with 14 percent of enrolment in government-assisted madrasas and another two percent in “non-graded” *quomi* madrasas.
- Economic status and parental education are most closely correlated with education participation. Children of households with “surplus” food availability have more than double the chance of being in school than children in “deficit” households. Three quarters of children of mothers with secondary education are in secondary school compared with 31 percent for mothers with no formal education.
- On reasons for non-participation, two responses stand out – “scarcity of money” or poverty, and children’s “dislike of school”, which indicates problems in respect of classroom practices. The third most frequent response was the need for the child to work, which is linked to poverty. Poverty appears to be the predominant cause of non-participation in secondary education. This probably is one explanation of the popularity of madrasas, some of which offer room and board to students and charge less fee than general secondary schools.

Learning provisions and facilities

- Non-government secondary schools and dakhil madrsas are the most numerous providers of secondary education serving respectively 76 per cent and 11 percent of all secondary level students. Including alim madrasas and “non-graded” madrasas, the religion-based institutions enrolls 16 percent of secondary level students.
- About a half of the schools had science laboratories of varying quality; 30 percent of the non-government schools had adequate laboratories; 87 percent of the madrasas did not have any.
- Only 15 percent of the institutions had a library with a collection of books that could be regarded as adequate judged by modest standards.
- Thirty-seven percent of the schools claimed to have computer education facility, but a fifth of the schools had only one computer and another fifth had 2-15 computers; the rest had none. Fifty-four percent reported having at least one teacher with training in computer use.
- Half of the secondary education institutions were found to have physical facilities (roofs, walls, floors, doors, and windows) in good or largely good condition, one third were in poor condition and 18 percent were in damaged or seriously dilapidated condition.
- Nearly 60 percent institutions had electricity connections, but two-thirds of classrooms and half of teachers’ rooms had no electricity.

- Most schools have clean water supply and toilets; three quarters with separate facilities for boys and girls; but a quarter of the toilets were in seriously unhygienic condition.
- Less than a fifth of the secondary teachers (17.9 percent) were women. Eighty-four percent of the teachers received government salary subvention.
- Low level of academic achievement of teachers was widespread. Eighty-four percent of secondary teachers had a bachelors or higher degrees; however, 57 percent of the teachers claiming the Bachelors degree were placed in the third division or some even did not take the degree examination. The same was the situation with 78 percent of those who claimed Masters' qualifications.
- Nearly half of the graduate teachers studied humanities; 20 percent studied science and 23 percent were madrasa graduates. More than half of the secondary teachers had no professional pedagogic training.
- The nominal student-teacher ratio was 29; however, with shortage of teachers for key subjects and absences of (10 percent on an average day), effective student teacher ratio was substantially higher. This was offset by student attendance rate of only 50 percent.

Internal efficiency of institutions

- Of children enrolled in class six, about half reached class ten, 40 percent passed the test prior to public examinations (SSC/dakhil) and only 20 percent passed the public examinations and thus successfully completed the secondary cycle.
- In contrast to advances in initial enrollment, girls lagged behind boys by 6 percentage points in reaching class ten, by 17 percentage points in passing the class ten “test” and by 11 percentage points in passing the public examination on average between 2001 and 2004. Boys were ahead of girls in completing the cycle and passing secondary examinations in all types of secondary institutions.
- On average 19.6 pupil years were required to produce one completer of the five year cycle. The investment of 25.1 years pupil years was needed to have a girl complete the cycle. This testified to serious inefficiency of the system and was an indication of serious quality problems.

Financing and resources

- Private household spending for secondary education was more than four times higher than public spending. On an average, Taka 8,874 per male child and Taka 7, 411 per girl child were spent annually by households for children's secondary education. By comparison, public spending per child per year was in the order of Taka 1500 in non-government secondary schools and Taka 1900 in dakhil madrasas.

- Household expenditure in urban areas were 71 percent higher for boys and 80 percent more for girls.
- Expenditures for private tutoring were the highest among all items of private expenditures across the board, accounting for about half of the total private spending
- The poor in the “food deficit” households spent less than half per child for secondary education than those in the “food surplus” households - Taka 3,891 compared to Taka 8,123 per child per year. It is remarkable that even the poor families are investing substantial resources for their children’s education, although the learning outputs and outcomes from these investments are far from assured.
- Government contribution in salary subvention and other grants constituted 60.5 percent of the income of non-government schools and 70.4 percent for dakhil madrasas.
- Average annual income of a non-government secondary school in 2004 was Taka 908,000 and for dakhil madrasas Taka 571,000. (Average enrolment per institution were respectively 555 and 292 in 2002, the latest year of published figures available from BANBEIS.)
- On an average, 54 percent of the girls enrolled in sample secondary schools and dakhil madrasas were stipend recipients.
- Variations were noted for different regions of the country in proportions of recipients of stipends among girl students – with a low of 42 percent recipients in rural Sylhet and high of 71 percent in rural Barisal.
- Girls’ stipends represented in 2003-4 financial year 57 percent of government development allocation for secondary education and 19 percent of total revenue and development expenditure for all secondary education institutions.

Management of institutions

- Almost all schools and madrasas, with the exception of the ones run by the government, have a managing committee. Average number of committee members was 12.7 for all types of non-government secondary institutions.
- Participation of female members in the SMC was very low; only 3.4 percent of all members, in spite of the fact that almost all rural schools are co-educational. Dakhil and alim madrasas had an even lower proportion of women in managing committees. The low percentage in a committee of 11 or more members meant that most secondary education institutions did not have any woman in their managing committees.

- About a third of the SMC members were teachers by profession (either member secretary or teacher representative or teachers of other institutions)
- A quarter of the SMC members were businessmen, 17.7 percent service holders, 14.2 percent farmers and 10.4 percent were social workers.
- Although, the managing committee is supposed to represent the community stakeholders in education, recent regulations and practice have made the selection process of the chair for the non-government secondary school committees beholden to the consent of the local M.P. The chair of the committee for all madrasas in an upozila is the Upozila Nirbahi (Executive) officer.
- Making selection of the chairperson of the SMC beholden to the local MP or a political personality has taken the process away from community choice. This has resulted frequently in placing this key responsibility in unfit hands.

E. Policy implications

As in past *Education Watch* reports, in keeping with the aim of promoting and facilitating informed discussion about policies and priorities, an attempt has been made to extract the implications for action of the findings about the state of secondary education. The defining theme is relevance of education to overarching national objectives of poverty reduction through equitable access to quality education, equipping young people with knowledge and skills for the competitive market place, and building a democratic polity. Within this framework, the practical questions of reconciling quality with wider and equitable access, making effective provisions for teachers and learning facilities, management and governance of institutions and resources, and enhancing accountability and responsibility have been given attention.

The following items have been identified as guidelines to be kept in focus in considering policy and programme priorities.

- ***Expanding opportunities.*** Expanding opportunities for secondary education with greater equity and better quality remain the central concern in secondary education, despite growth in enrolment and dramatic advances in bringing girls into the orbit of education.
- ***Growth with quality and equity.*** With increased participation and completion in primary education, a growing recognition of secondary education as a part of basic education and improvement in transition from primary to secondary level, the social demand for secondary education will continue to rise. The major challenge, therefore, is to find ways of combining growth with quality improvement. Elements of quality enhancement, including teachers, curriculum and learning materials, learning facilities, assessment of learning and school-level management, have to be built in as integral parts of plans and strategies for the expansion of the system.

- ***School level action targeted at the disadvantaged.*** On top of non-entry of more than half of the age group, high dropout and failure to complete the cycle mean that the poor are largely deprived from secondary education opportunities. Those of the poor or somewhat less poor who manage to enter into the system are hit the hardest by the low efficiency and quality of the system. Secondary education, as a result, is less a vehicle for social mobility than a means of reinforcing existing social divisions. Poorly performing madrasas serving mostly the poor and proprietary English medium schools serving the elites are potent symbols of the divisive system.

Two key strategies for making secondary education equity-inducing and pro-poor need to be: (a) Quality enhancement measures at the school level in non-government schools, serving the vast majority of children, which particularly target children of disadvantaged families; and (b) Modernising curriculum and teaching-learning practices in madrasas, the second most popular category of secondary education institutions.

- ***Protecting and consolidating gender gain.*** Advances in girls' enrolment is meaningful to the extent that this can be sustained until the end of the cycle and they realize the full benefits of education. Targeted efforts are needed, especially at the school level, to identify and remove the obstacles that hold girls back, and improve the quality of teaching and learning practices for both girls and boys.
- ***Improving teachers' capabilities and performance.*** Registration and certification of teachers are useful moves, if these can be implemented properly. These alone, however, do not address the problem of supply of qualified teachers and of expanding opportunities that are effective in teachers' professional development.

Creative initiatives are needed in these regards, which may include: contract and part-time deployment of people with required skills, who may not be professional teachers, innovative hands-on teacher skill development methods using NGO and business techniques and experience; and better quality control of growing private B.Ed courses.

- ***Preparing the ground for a unified system.*** Essential learning facilities including laboratories and libraries, teachers who are at least minimally qualified to teach key subjects, and school management mindful of quality assurance are essential prerequisites for implementation of a unified curriculum for all students up to grade ten. Progress has to be demonstrated in preparing this ground to allay the concerns of parents and students about what they may get in the bargain, how prepared students will be to cope with the separate streams at the higher secondary level, and whether they will lose a competitive edge in choosing their field of study in higher education.

Moreover, all streams of secondary education should be brought under reforms aimed at developing a unified system.

One category of necessary action would be to examine and revise the articulation, sequence, and academic load for all stages of secondary education from grade six to twelve and ensure better implementation of the curriculum. There is widespread anxiety that isolated change in the middle can be disruptive.

- ***Strategies to serve key objectives by combining private and public resources.*** Since private expenditures are several times larger than public spending in secondary education, mobilization and use of resources for expanding educational opportunities, promoting equity and improving quality need to be based on the premise of effectively combining public and private resources for promoting key objectives, rather than plan and allocate public expenditures in isolation. Mechanisms for combining the resources and using these well need to be explored and tried out by ceding greater authority with accountability to the school level.
- ***Re-thinking stipends.*** Stipends have boosted girls' enrolment, but, at least two critical questions are: a) Given the overall quality problems in secondary education and low per student expenditure, do stipends starve out important inputs necessary for quality improvement – such as, laboratories, libraries, teacher training and stronger supervision? And, b) Are conditions attached to this transfer payment, which the disadvantaged sections of the population (very poor, first generation learners and girls who have to work to help their families) have difficulty to meet, further aggravating disparity?
- ***Gender balance in managing committees.*** The School Managing Committee is seriously in default in gender balance - with a total representation of only 3.4 percent women in all observed schools, although the vast majority of schools enroll both boys and girls. Both regulations and practice must change to include more than symbolic participation of women and mothers in school management.
- ***Making managing committees responsive and accountable.*** Modification of regulations, awareness raising and active encouragement on the part of political and education authorities are needed to make the selection of the chairperson and members of the managing committees less beholden to local political personalities and more a genuine choice of the community. This key responsibility should not be placed in unfit hands who do not have the necessary capabilities or are not genuinely interested in education.
- ***Strategy to promote greater authority with accountability at school level.*** A central framework of regulations and standards is necessary, which appears to be the principal government response to the management problems and

huge waste of resources; but more important is impartial and objective application of these provisions. And even more critical is for individual institutions to become responsible and accountable for promoting and maintaining standards. This aim can be supported by the government by inviting and encouraging schools to take responsibility and demonstrate their capacity to do so on the basis of agreed criteria. Once it is established by independent assessment that the schools have lived up to their obligations, these schools can be rewarded, exempted from central control and allowed to develop and follow their own higher standards. This strategy of nurturing self-regulation is likely to be an effective incentive for greater school-level responsibility with accountability.

Chapter 1

Introduction

The theme of Education Watch 2005 is secondary education. This introductory chapter presents the rationale for selecting this theme and the background information on the Education Watch series. A background of secondary education in Bangladesh is provided and the government efforts to address the problems with international assistance are noted. Finally, the organization of the present report is indicated.

The sixth *Education Watch* report is the first one on the state of secondary education in Bangladesh. Its aim is to construct a baseline of basic indicators on how the sub-sector functions, especially in respect of provisions for services and their internal efficiency. In keeping with the objectives and practice for *Education Watch* studies, the aim also is to contribute to informed dialogue on policy and actions and to facilitate, for this purpose, civil society participation in the development of education policies and strategies.

A. Why the theme of secondary education

Education Watch reports in the past have focused on primary education and literacy. The five previous reports have helped to build a baseline of information on key quantitative and qualitative indicators on primary education and the literacy situation. While issues that still need to be researched and better understood in these areas have by no means been exhausted, the *Education Watch* constituency, especially the Advisory Board and the members of technical and working teams involved in various reports, have expressed the need to broaden the scope of the studies in line with a broad definition of basic education.

The Advisory Board noted that the lower secondary grades of six to eight are regarded as a part of primary or elementary education in many developing countries including most of the South Asian and Asian neighbours of Bangladesh. Indeed, the first Education Commission of independent Bangladesh, the Quadrat-e-Khuda Commission of 1974 and the National Education Commission of 2000 recommended that priority attention should be given to extending compulsory primary education up to grade eight. It was also noted that the demand for secondary education was rising as access, participation and completion in the five-year primary education programme increased and reached close to hundred percent. The point was not missed that secondary education qualification for barely five percent of the labour force in the country, as reported in the Labour Force Survey 1999-2000, was not adequate for skills and adaptability demanded in today's competitive and globalised market. (BBS 2002)

It was also noted that essential data for analyses of policy and strategy issues in secondary education were lacking. The reasons that prompted *Education Watch* to undertake surveys and studies of primary education and literacy to generate independent and objective data for informed policy discussion fully applied to the secondary education sub-sector.

B. An overview of secondary education provisions in Bangladesh

Secondary education in Bangladesh consists of two main streams – general and madrasa. In addition to these, there are English medium schools in the cities and larger towns, which prepare students for external credentials such as the British O

and A level examinations. Some English medium schools also follow the national curriculum. The English medium schools enroll less than one percent of the students at the secondary level. There are also vocational and technical education courses of various durations which begin after grade eight. These formal vocational and technical institutions serve under two percent of the students at the secondary level. The present study is concerned with secondary education, grades 6 to 10, in general schools and madrasas, which serve more than 93 percent of the students in these grades.

General secondary education follows five years of primary education and comprises seven years of schooling – three years of junior secondary school (grades 6 to 8), two years of secondary education (grades 9 and 10), and two years of higher secondary education (grades 11 and 12). Madrasas have equivalent grades and years known as the dakhil stage (grades 6 to 10) and the alim stage (grades 11 and 12). The primary equivalent of madrasas comprising five grades are taught in ibtidayee madrasas, many of which are part of the same madrasas that include the dakhil and alim stages. Enrolment statistics of Bangladesh Bureau of Educational Information and Statistics (BANBEIS) indicates that in 2002, at the secondary level (grades 6 to 10), 20 percent of the students were enrolled in dakhil classes of the madrasas. Incidentally, at the primary level, the ibtidayee madrasas enrolled in the same year 7 percent of the primary level students. It is evident that a substantial number of non-madrassa primary level completers are entering madrasas at the secondary level.

In the general secondary schools, from class nine onwards, students are required to choose one of four streams – humanities, science, commerce as well as the vocational stream, which has been introduced in some 900 secondary schools. Madrasa education constitutes another stream. Public examinations are held at the end of grade 10 (Secondary School Certificate Examination) and at the end of grade 12 (Higher Secondary Certificate Examination), which are organized by six Boards of Intermediate and Secondary Examination in different regions of the country. The equivalent dakhil and alim examinations for the madrasas are conducted by the Madrasa Education Board for the whole country.

General secondary schools may be organized in different ways – of 16,245 secondary schools in 2002, there were 3,287 junior secondary schools teaching grades 6-8 only. The rest offered grades 6 to 10 and a small number of them also taught higher secondary grades 11 and 12. The general pattern is that higher secondary grades are taught in separate institutions or in colleges offering an undergraduate programme. This is a holdover from the past when secondary education ended at grade ten with matriculation examination and students then enrolled in intermediate colleges.

BANBEIS reports that in 2002, the 16,245 secondary schools (including junior schools teaching only grades 6-8) and 5,536 madrasas enrolled respectively 8.2

million and 2.2 million students. This represented a gross enrolment rate of 57 percent for the secondary school age group of 11 to 15 years. Percentages of girls' enrolment were reported as 53.4 percent of total enrolment in general schools and 44.4 percent in madrasas. As will be seen in Chapter 4, survey data for 2005 from the present study vary somewhat from 2002 BANBEIS statistics. Over 98 percent of the secondary schools have been established with local initiative and are managed by a local school managing committee. These non-government schools receive government subvention for 90 percent of teachers' salary and periodic block grants for construction, libraries and laboratories. Only 317 schools were run by the government. Most non-government schools are coeducational; so are the madrasas. The government schools are mostly either for boys or girls only. The madrasas were also managed by local managing committees and received government subvention.

C. Growth and quality in conflict

Secondary education enrolment in Bangladesh has more than tripled and the number of institutions has more than doubled since 1980. The growth of girls' enrolment, spurred by social mobilization and incentives, such as stipends and tuition waivers for rural girls, has been spectacular. Girls now outnumber boys in secondary schools. (National Education Commission 2003)

Expansion of the system has aggravated quality problems. High rates of dropout and failure in public examinations indicate serious deficiencies in quality of education. Dropout rates averaged over 50 percent between grades 6 to 10 in recent years, and on an average, half of the candidates passed the SSC examination. (BANBEIS 2003)

Poor achievement of students and low quality of education are attributed to a number of major causes – deficiencies in teachers' skills and capability, inadequate facilities and learning materials, poor enforcement of rules and criteria for approval of government subvention, inadequate resources reflected in low per student expenditure, and poor governance and management of schools.

Attention to poverty reduction, emphasized in the national Poverty Reduction Strategy, has brought out in sharp relief the high degree of inequity in respect of access and participation in education. Maintaining acceptable quality in education is a simultaneous concern, since access to education without the guarantee of a minimum level of quality is meaningless. (GOB 2005)

At the secondary education stage, the net enrollment rate of 45 percent of the age-group and high dropout result in a low net participation rate of young people in education. By one estimate, of every hundred who enter class six, the first year of the secondary stage, only 15 received SSC and six received the higher secondary certificate. (World Bank, *Education Sector Review*, vol. II, Table 3.6, p. 70). In 2000, 3.2 million people in the active labor force of 60.3 million or 5 percent had SSC or

HSC qualifications. (BBS 2002). The global market has touched the lives of people in the remotest village and has created a demand for new skills and knowledge. Meeting this demand has to be a key issue in defining educational priorities, content and quality at both primary and secondary stages.

D. Secondary education reform initiatives

Development initiatives and an education sector reforms programme supported with international assistance have been aimed at addressing the problems of quality and equitable opportunities in secondary education. The major initiatives underway or contemplated are noted below.

Secondary Education Sector Improvement Project (SESIP). The main secondary education development effort of the government for the period 2000-2005, now extended by a year, has wide-ranging objectives: i) strengthening Ministry of Education institutional capacity to plan, manage and monitor the secondary education system, ii) expanding equitable access to secondary education through provisions in underserved areas and stipends for girls in rural areas, iii) strengthening curriculum development capacity, iv) privatizing textbook production, v) reforming the examination system, vi) improving teacher education, and vii) strengthening school management and supervision.

Under the umbrella of SESIP, in support of its multiple objectives, various initiatives have been undertaken, which are mentioned below. Anticipating the end of SESIP, a project focusing on teacher training, called Teaching Quality Improvement has been initiated (see below). A successor project to SESIP embracing a broader range of reforms in secondary education is also foreseen, but is yet to be formulated.

Enforcement of criteria of registration of schools. The Ministry of Education expects to appoint private sector evaluators to assess the eligibility based on established criteria of schools and colleges for registration and government subvention. The Directorate of Secondary and Higher Education will still be responsible for maintaining an oversight and the Boards of Intermediate and Secondary Education will conduct public examinations. Both of these bodies will have the assistance of the independent assessors in enforcing the criteria.

Monitoring schools at the local level and public disclosure of information. The Prime Minister has authorized in 2003 the establishment of district and upazila advisory committees with authority to monitor school performance and ensure public disclosure of information. Assistance is planned for enhancing knowledge and understanding of school managing committees (SMCs) about their roles and improving capabilities of district and upazila education officials.

Strengthening use of information for monitoring of performance and decision making. The capacity of BANBEIS for school mapping, tracking cohort flow, and

analyzing and interpreting data in support of DSHE and MOE decision making will be strengthened. Coordination between BANBEIS and the planning unit of MOE will be improved.

Coordination of teacher training and registration and accreditation of teachers. National Academy for Education Management (NAEM) will be restructured to become the base for coordinating teacher development at the secondary level by maintaining linkages with all concerned institutions including all teacher training institutions, the National University, and the Bangladesh Open University. In addition, a non-government teacher registration and certification agency (NTRCA) has been established.

Teaching Quality Improvement (TQI) Project in Secondary Education. Supported by the Asian Development Bank (ADB) and Canadian International Development Agency (CIDA), the overall goal of this major secondary education development initiative for the period 2005 to 2010 is to enhance the quality of secondary education by improving the quality of teaching. It has four components: (i) organizational development and capacity building of institutions for teacher training, (ii) improving teacher training facilities, (iii) strengthening in-service and pre-service teacher training, and (iv) increasing equitable access to secondary education and enhancing community involvement. Interventions will be at the central government level, at teacher training colleges and institutions, and on a pilot basis at the community level. (ADB, "Proposed Loan: Teaching Quality Improvement in Secondary Education Project – Bangladesh," 2004)

E. The Education Watch reports

Education Watch was set up in 1998 by a group of like-minded organizations and individuals concerned about education in Bangladesh. Its aim is to conduct periodic independent review of the state of basic education in Bangladesh through research, surveys, analysis and studies. A further aim is to disseminate its findings, enhance public awareness about education and promote public participation in education policy dialogue. The Campaign for Popular Education (CAMPE), a forum of over 500 NGOs involved in education programmes in the country, serves as the secretariat of *Education Watch*.

So far five *Watch* reports have been published since 1999. A variety of issues and indicators affecting primary and basic education have been taken up for investigation. These include in and out-of-school factors and those related to society at large. Table 1.1 presents the titles and the issues addressed in the previous reports.

The first five *Watch* reports have mostly followed the large-scale sample survey technique, in which structured questionnaires were the main means of investigation. An attempt was made to derive valid national, divisional, urban-rural and gender-wise

estimates. Qualitative techniques such as classroom observation and focus group discussions also were used to complement and illuminate quantitative information. The fifth report moved away from making national statistical estimates on selected indicators. Its aim was to complement earlier findings with a deeper knowledge of aspects of quality with equity in primary education based on quantitative and qualitative information collected from ten sample upazilas including urban locations. As explained in Chapter 3, the present study, the first one on secondary education, reverts to the survey methodology based on representative sampling of households and institutions in order to derive national and sub-national estimates on key indicators.

Table 1.1. Previous *Education Watch* reports and main issues addressed

Year	Title	Issues
1999	<i>Hope Not Complacency: State of Primary Education in Bangladesh</i>	Internal efficiency in primary education Level of basic competencies achieved
2000	<i>A Question of Quality: State of Primary Education in Bangladesh</i>	Competency-based learning achievement in primary education Teacher education
2001	<i>Renewed Hope Daunting Challenges: State of Primary Education in Bangladesh</i>	Internal efficiency in primary education Private expenditures in primary education Primary school budgets Literacy achievement
2002	<i>Literacy in Bangladesh – Need for a New Vision</i>	Exploration of literacy levels of the population
2003/4	<i>Quality with Equity – The Primary Education Agenda</i>	In-depth probe of participation, equity and quality in primary education in 10 upazilas

F. Organisation of the present report

Education Watch 2005 focuses on the state of secondary education in Bangladesh – grades six to ten in the two major streams, viz., general secondary education and the government regulated madrasas, which together serve over 86 percent of the students enrolled in secondary level education in the country.

This report is divided into nine chapters in addition to the overview of the report. Following the overview; the introduction (chapter 1) presents a brief description of secondary education structure and issues which have surfaced in discussion of problems and priorities in this sub-sector. Recent donor-assisted government initiatives to address the problems are also noted. Chapter 2 presents a brief account of the international trends in secondary education development.

Chapter 3 describes the methodology adopted for the study including the sampling design, instruments, field work, quality control and strengths and limitations of the

study. The analyses of data and findings begin with Chapter 4, which presents the status and trends in participation in secondary education. Chapter 5 deals with facilities and learning provisions including physical infrastructure, learning facilities and teachers in secondary education. Chapter 6 presents analyses of promotion, dropout and repetition and performance of students in public examinations. Conclusions are drawn about internal efficiency in secondary education by examining retention and the completion of the cycle by students. Chapter 7 examines finance issues including private costs, institutional level finance, and girls' stipends. Chapter 8 looks at institution level management in secondary education focusing on the work and role of school managing committees.

Chapter 9, the final chapter of the report, recapitulates the major findings of the study. Drawing on the findings and keeping in view critical issues in secondary education, the research team also indicates the policy and strategy implications of the conclusions and findings of the study. Annexes of the report present relevant tables which were not included in the main text as well the instruments and methodological notes.

Chapter **2**

Secondary Education in Perspective

To place the issues of secondary education in the context of international discourse on the subject, a brief overview of the international perspective is presented. The statement on the international perspective has been prepared for Education Watch 2005 by Prof. James H. Williams, chair of the International Education Department, Graduate School of Education and Human Development, George Washington University, Washington D.C., USA.

In order to examine and understand the secondary education situation in Bangladesh in relation to issues being faced and addressed in other developing countries, a review of international trends in secondary education is presented in this chapter. This comparative view sheds light on similarities and differences of the Bangladesh situation with the broad international trends.

A. The international perspective: an unfinished task

The work of mass basic education will not be completed even with the achievement of universal primary education. The developmental effects of education, at individual and societal levels really take effect fully at the secondary level. Active participation in the global knowledge economy requires that a significant proportion of the labor force be educated at the secondary level. Fertility declines and child health and mortality improve most significantly in conjunction with participation in secondary school. Only secondary school provides entry to tertiary education and the higher end of the formal economy. Secondary education provides an important means to reducing the spread of HIV/AIDS, of imbuing students with the civic skills and attitudes for life in democratic societies of diverse citizens, and of teaching the meta-cognitive skills of learning to learn, teamwork, and conflict resolution. Expansion of quality secondary education is increasingly recognized as a critical next step in national development.

Yet secondary education has languished as a second or third tier priority for a number of years. Lewin, who has done much of the critical analytic work in this area, reports: “An analysis of 28 PRSPs [Poverty Reduction Strategy Programs] from SSA (sub-Saharan Africa) indicates that policy on secondary education is often an afterthought and a residual consideration. More than half these PRSPs devote little or no attention to secondary-level issues and identify no targets for secondary [education] (Lewin 2004: 8).”

B. Post-primary and secondary education: complex and contradictory functions

Differences with primary education. In many ways, primary education is much simpler than secondary education: Primary school-aged children are younger and more easily managed. The curriculum is simpler, typically organized around acquisition of the core skills of literacy and numeracy, skills that everyone is expected to acquire. Primary schools tend to be small, local institutions, tied to local communities, often utilizing teachers with less than full university training.

Post-primary and secondary education, by contrast, are more complex, related as they are to both tertiary and primary education. In most countries, secondary education has traditionally served primarily to prepare students for higher education. As a result, the structure, curriculum, and modes of instruction in secondary schools

are generally modeled after the university academic disciplines. However, in recent years, the broadening of access to primary education has led to increased demand for secondary education, especially the first years of lower secondary education, and lower secondary schooling increasingly comprises the final years of compulsory education¹. As such, lower secondary schools often more closely resemble primary schools than they do universities.

This duality is apparent in the complex functions of secondary education, which are both terminal and preparatory, compulsory and post-compulsory, meritocratic and compensatory (World Bank 2005).

Secondary education serves an older population, most of whom are adolescents, who think for themselves, assume adult gender roles, and often play a substantially greater economic role in their families and communities. The opportunity costs of adolescent participation are often higher.

As a result, secondary education differs from primary education in several dimensions:

- *Curriculum.* Secondary schools require more specialized curricula to meet differential and specialized needs, academic for university preparation, and vocational for the labor market. Secondary schools may track students into differentiated curricular streams, academic and vocational, science and arts. Secondary curricula need to be more responsive to changes in demand.
- *Personnel.* Because of the greater subject matter expertise needed, secondary school teachers require greater specialized training in particular subjects (entailing greater expense and greater external demand for their skills). School managers need more training for the greater autonomy and professional discretion needed to manage larger, more academic and diverse organizations.
- *School facilities.* Secondary schools tend to be larger in size but fewer in number. More sophisticated facilities are required to support the more complex, specialized and differentiated curricula.
- *Students and communities.* Secondary students are more heterogeneous in demographic character and learning needs, especially given the complex instructional mission of secondary schools. This heterogeneity increases noticeably as the system expands beyond elite provision. Secondary schools are often located far from students' homes, thus requiring students or schools to organize accommodations. Secondary education typically involves a certain degree of selectivity.

¹ Even at current participation rates in Africa, the number of primary school completers will at least double in the next five years in sub-Saharan Africa and triple by 2015 (Lewin, 2004; Ndoye, 2004).

- *Variations in structure and length.* Education systems vary greatly in the length and structure of primary and secondary education. One group of systems comprises two cycles—primary education with 4, 5, or 6 grades and secondary education, with 6, 7, or 9 grades. Another model also consists of two cycles—a long first cycle of 8, 9, or 10 grades, and a shorter second cycle of 2, 3, or 4 grades. A third model consists of 3 cycles of 5, 4 and 3 grades or 6, 3, and 3 grades (World Bank 2005).

Some systems do not separate primary and lower secondary school (India, Nepal, Republic of Korea, China). However, most systems do distinguish between lower and upper secondary school, with some systems—e.g., Germany—tracking lower secondary students into specialized tracks, while other systems holding off on tracking until upper secondary or beyond, e.g., Canada, England, and the U.S. (World Bank 2005). Upper secondary schools typically track students into general education and specialized tracks, some within the same institution, i.e., the comprehensive high school of the United States (also England, Canada, etc), others in different institutions (Germany, Japan, Republic of Korea, Singapore)

In many systems, especially those with shorter primary cycles, entrance to lower secondary school is open. In other systems, especially those with longer primary cycles and small secondary systems, and where demand for secondary education exceeds supply, admission to lower secondary school is a critical transition, guided by an examination, often with low pass rates and high repetition rates in the year or years preceding the examination. In systems where students are tracked, a critical transition is the point at which students are selected for more and less desirable tracks or schools. More typically, entrance to upper secondary school is the critical transition, though in some systems, the post-secondary examination or process for gaining university entrance is most critical.

Compulsory education varies in beginning and ending ages as well as duration. In Africa, compulsory education ranges from 6-9 years in age in Angola to 7-16 years in age in Guinea. North America starts children earlier with compulsory education ranging from age 5 or 6 (though as low as 4 in some cases) to 11 in a few countries such as Haiti to 16 or even 17 years of age in the US. In Asia, school is required from ages 5, 6, 7, or even 8, while upper ages range from 9 to 17 years. Of course, even where required by law, compulsory education is often unrealized in practice.

Differing in these ways, secondary education refers to many different educational experiences.

C. Worldwide issues in secondary education

Access

Participation rates vary considerably across and within regions and countries. An overall picture of participation can be gained by examining gross enrollment ratios (GER)². It is important to note, however, some of the limitations of GER. First, gross enrollment ratios include over- and under-age children in the total enrollment, and thus overstate the actual percentage of children of a particular age enrolled in school. Secondly, enrollment does not mean completion. In the primary grades in Bangladesh, for example, a gross enrollment ratio of 96 percent was reported (UNESCO Institute for Statistics 2005). The same report indicates a survival rate to grade 5 of only 54 percent, meaning that only 54 percent of those who begin primary school reach grade 5 in a timely fashion. Though “survival” might well be higher in secondary school, an enrollment rate of 70 percent, for example, does not mean that 70 percent of the population successfully receives a secondary education. Third, national enrollment rates mask considerable variation within country, by rural-urban, male-female, majority-minority and other groupings, as discussed in more detail in sections below. Finally, of course, enrollment statistics say little about the quality of education as offered, experienced, and acquired. Nonetheless, gross enrollment ratios permit a comparative snapshot of access in different contexts.

Table 2.1 presents average gross enrollment ratios for lower and upper secondary school by world region, based on national statistics collected by UNESCO.

In Africa, less than half the age group enrolls in lower secondary education, even with overage children. In upper secondary, only one in three boys enrolls. With girls the number drops to slightly more than one in four. In Asia, nearly four of five children enroll in lower secondary school, while less than half enroll in upper secondary school. Even in North America, more than one quarter of the population does not enroll in upper secondary school. In most regions, a greater proportion of boys enroll in secondary school than girls, the exception being South America, where girls’ enrollment surpasses boys, especially at the upper secondary level.

² Gross enrollment ratios (GER) are calculated by dividing the number of children in a particular level of school by the number of children in the appropriate age group for that level of school. In cases where over and under-age children are enrolled in other than the official age, GER may show an overestimate of the proportion of the age group enrolled. Not infrequently, gross enrollment ratios exceed 100. Net enrollment ratios (NER), where the number of children of appropriate age enrolled in school is divided by the age-specific population, provides a more accurate picture of enrollment, but figures are more difficult to obtain, and thus comparisons across regions more difficult.

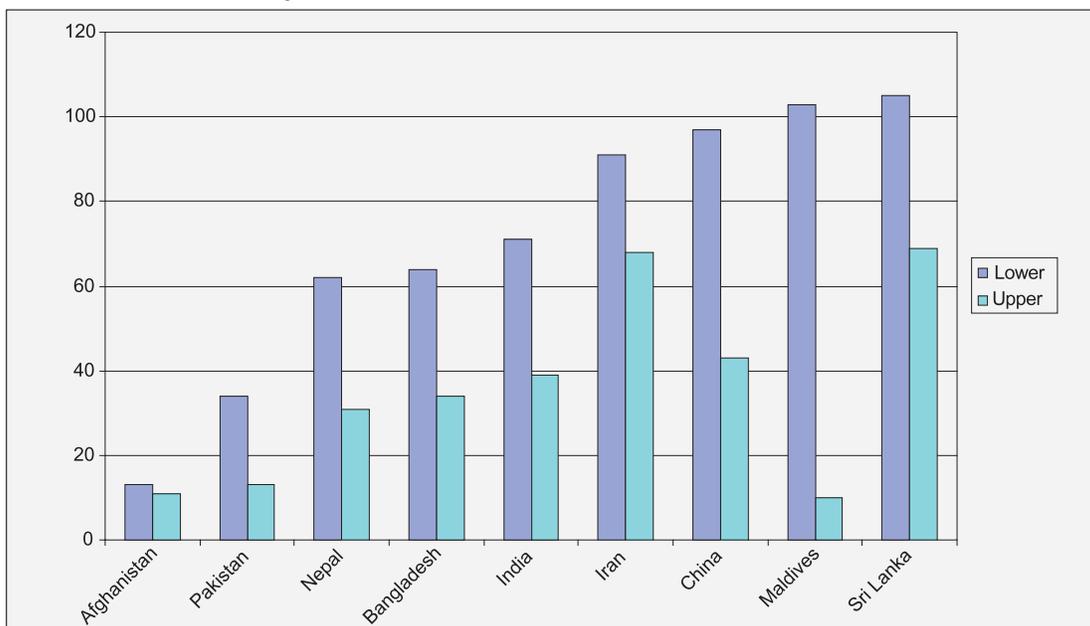
Table 2.1. Gross enrollment ratios for lower and upper secondary school by region, 2002/03

	Lower Secondary		Upper Secondary	
	Male	Female	Male	Female
AFRICA	49	40	30	27
ASIA	82	77	46	40
SOUTH AMERICA	108	112	74	86
NORTH AMERICA	95	98	72	73
EUROPE	101	100	109	117
OCEANIA	94	93	142	142

Source: UNESCO Institute for Statistics 2005: Table 5

Figure 2.1 presents total gross enrollment ratios for the countries of South Asia and Iran and China for comparison. Countries are presented in ascending order of gross enrollment in lower secondary school. For Bangladesh, these figures suggest a GER of 64 in lower secondary school and 34 in upper primary school. Overall secondary net enrollment ratios suggest that over half of Bangladesh's children do not enroll in secondary school. Even these figures, which are likely high in consideration of actual attendance and completion rates, are unlikely to represent educational provision sufficient to meet the social demand for secondary education or the economic development and competitiveness needs of the nation.

Figure 2.1. Total gross enrollment ratios (boys and girls) for lower and upper secondary school, South Asia, Iran and China, 2002/03



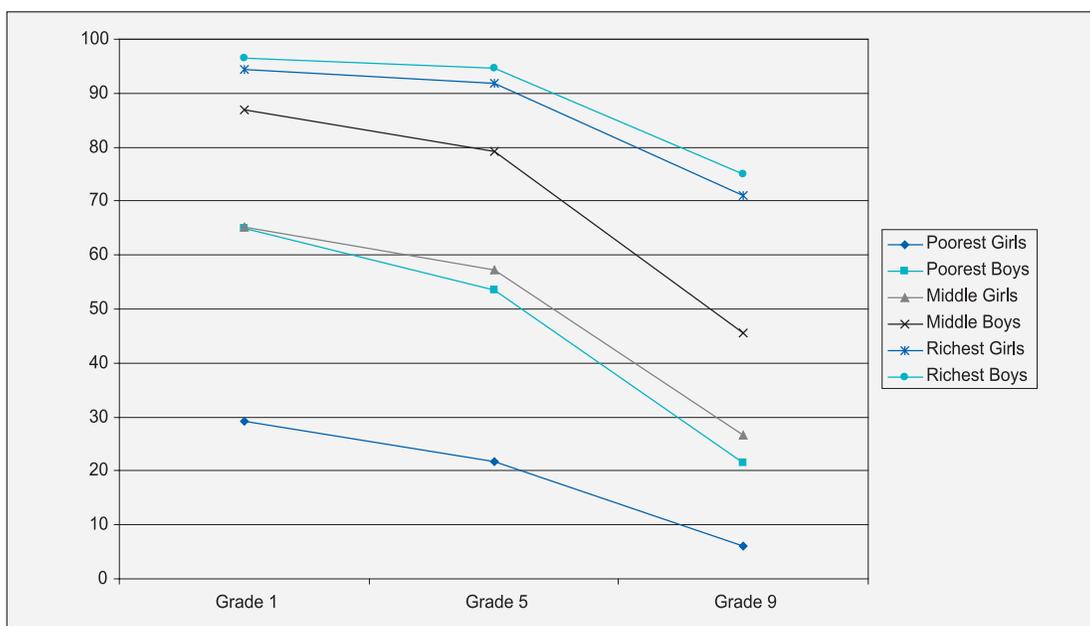
Source: UNESCO Institute for Statistics 2005: Table 5

Equity

There are no countries in which education is distributed equally across all groups within a population. In many contexts, rural students, girls, the poor, ethnic/linguistic minorities, the disabled, and other disempowered groups have less access to education than urban children, boys, children from wealthy families and majority groups and non-disabled students. Despite the universal nature of some degree of inequity, however, the extent and patterns of inequity vary and are subject to policy and programmatic intervention. In some contexts, for example, gender matters hardly at all, while in other contexts gender accounts for most of the variation in access within a country. Wealth is associated with educational disparities almost everywhere, but the extent of correlation varies significantly, and is subject, some evidence suggests, to policy change.

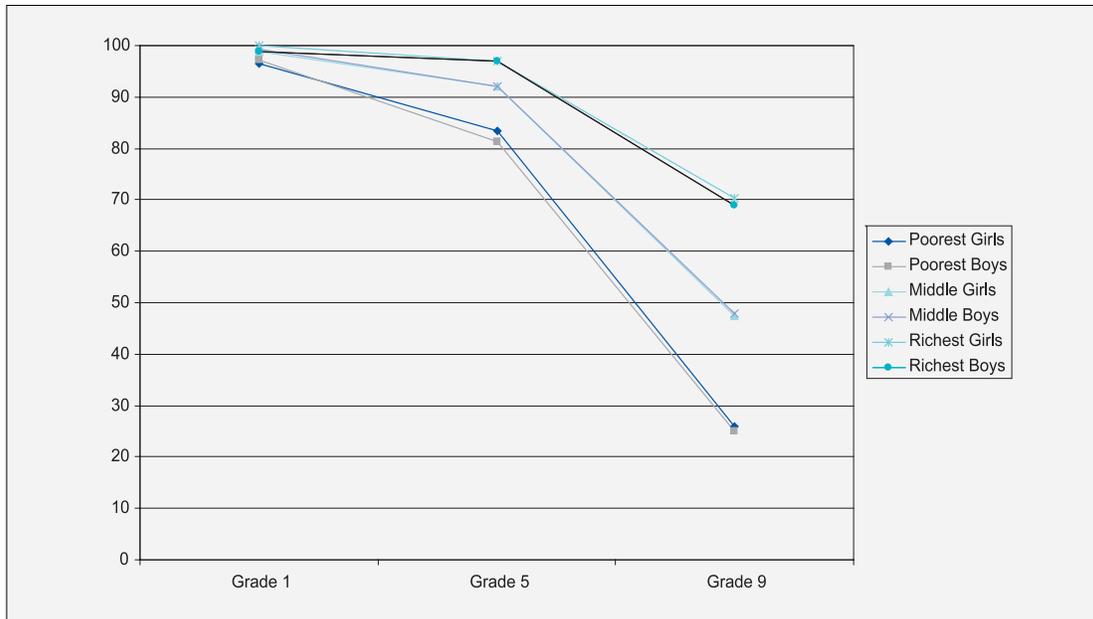
Figures 2.2 and 2.3, for example, show the percentage of youth, 15-19, who have completed at least grades 1, 5, and 9, in India and Indonesia grouped by income group and sex.

Figure 2.2. India, 1992/93: Percentage of youth, 15-19 who have completed at least 1st, 5th, 9th grades, by income group and sex



Source: Filmer and Pritchett, 1999

Figure 2.3. Indonesia, 1997: Percentage of youth, 15-19 who have completed at least 1st, 5th, 9th grades, by income group and sex

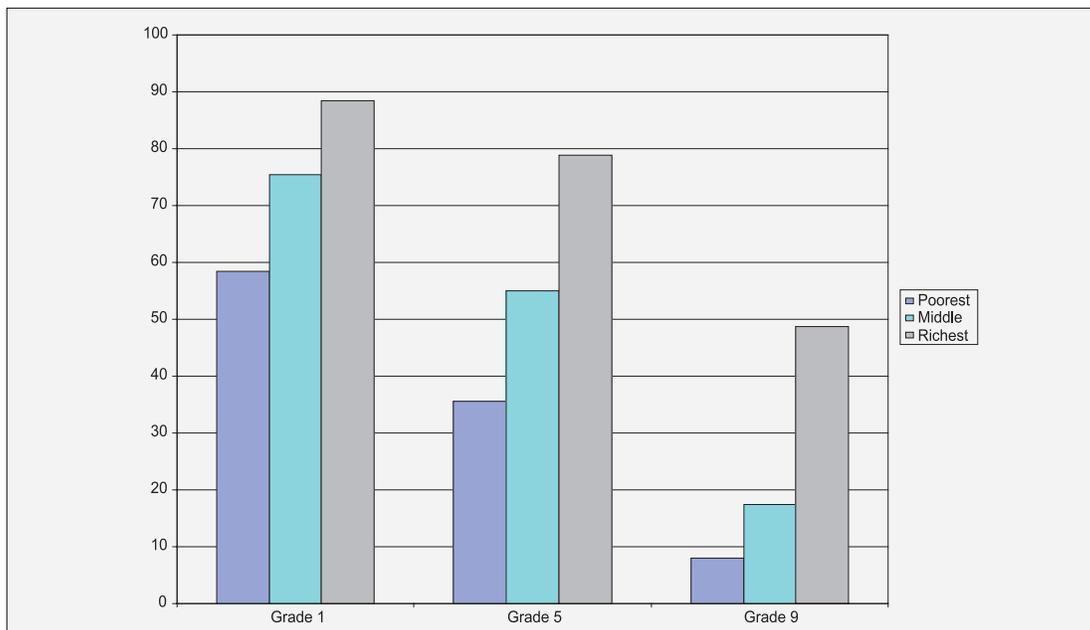


Source: Filmer and Prichett, 1999

Obviously, neither country has achieved universal enrollment in basic education, though Indonesia has effectively done so in Grade 1. In both cases, enrollment rates decrease by grade, especially after grade 5. In both cases, there is a substantial income effect, with the wealthiest children and youth most likely to have completed more years of education, followed by children from middle and low income families. India shows both an income and a gender effect, with girls at each income level receiving much less education than boys. Even at the beginning of school, an average poor Indian girl is over three times less likely to have completed grade 1 than an average girl from a wealthy family. (The same poor girl is 2.5 times less likely to have completed grade 1 than an average poor boy.)

Figure 2.4 shows the percentages of Bangladeshi youth 15-19, grouped by income, who have completed at least grades 1, 5, and 9 in 1996/97 (Filmer & Prichett, 1999). These data suggest that a wealthy Bangladeshi child is 50 percent more chance to have completed grade 1 than a poor child. Unfortunately, this gap increases over the years of basic education to the point where a wealthy child is 6 times as likely as a poor child to have completed grade 9. Even among the wealthiest group of youth, however, the odds are slightly against him or her having completed grade 9. From a perspective valuing high levels of participation in secondary education, these data imply a great deal of work is needed in terms both of access and of equity.

Figure 2.4. Bangladesh, 1996/97: Percentage of youth, 15-19 who have completed at least 1st, 5th, 9th grades, by income group



Source: Filmer and Prichett, 1999

Even so, the chances of the poor in Bangladesh appear to be improving slowly. Figure 2.5 compares the percentages of youth who have completed 9th grade in 1992/93 and 1996/97. The odds that an average poor Bangladeshi youth, aged 15-19 would finish 9th grade were 1.29 times greater in 1996/97 than in 1992/93. The improved odds for middle and high income youth were 1.21 and 1.17 respectively. Even with these improved odds, it must be recognized that participation rates, even among the well off, are low.

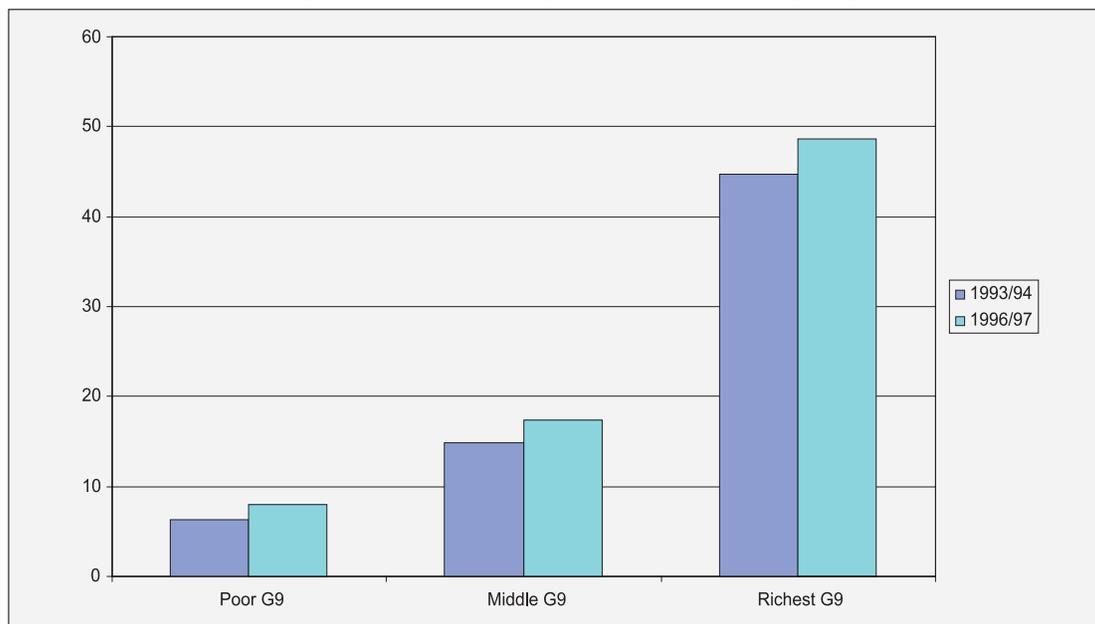
Similar inequitable patterns of educational attainment characterize secondary education in many countries, though the location of inequality, i.e., by gender, income or other group, and the extent of inequality, vary. The challenge of developing secondary education in many countries thus requires attention both to access and to equity.

D. Growth through transformation, not just expansion

It is becoming increasingly clear that education systems at the secondary and higher levels should not (and very likely cannot) grow simply by extending coverage of their current organization, structure, and curriculum to serve more students in more geographical areas. Development of secondary education in many countries entails a transformation of the current system into a larger, more open system of learning and teaching opportunities that better meet the range of development needs of individuals, families, and communities, the nation, and the markets. By this

criterion, broad as it is, many systems fail, even those of high quality, on grounds of elitism, serving the needs of a few, however well, and not attending to the needs of the many or the whole. New, differentiated models of provision and innovative approaches to finance will be needed, along with new ways of thinking about the role of secondary education in society.

Figure 2.5. Bangladesh, 1992/93 and 1996/97: Percentage of youth, 15-19 who have completed at least 9th grade, by income group



Source: Filmer and Prichett, 1999

In most countries, secondary education developed initially as preparation for higher education, access to which was extremely limited. Recognizing the need for additional educational opportunities beyond basic education but which did not lead to tertiary education, European countries developed various forms of tracking and vocational preparation. However, even as late as 1945, less than half of Europe's secondary age cohort enrolled in secondary school. The U.S. and later Soviet systems saw secondary education more broadly as a means of collective social advancement, "democratic uplift," in the United States (Brint, 1998) and development of a "new socialist man" in the U.S.S.R. The U.S. "model" involved public funding and provision; an open and "forgiving" secondary system in which there were few if any formal selection mechanisms, no early specialization or formal academic segregation; many local, fiscally independent school districts, many of which were quite small; and secular control of schools and school funds (World Bank 2005). The U.S. system, of course, was built in a context of comparative wealth. The Soviet system involved central control of curriculum and teaching, public funding and provision, and a strong emphasis on specialized technical and vocational training.

Japan, and later the newly industrialized nations of East and Southeast Asia have also used education for national as well as individual development. Broad provision of access to basic education coupled with selective public provision of upper secondary schooling, and development of a facilitating environment for private provision, have played a critical role in the economic growth with relative equity that now characterizes much of the region (World Bank 1993). In contrast, many developing countries have invested relatively little in building a broad-based, high quality secondary education system. Some countries have limited access to a small proportion of the population. Others have expanded access, but to a system in which the majority of schools are of low quality.

The traditional linkage of secondary education with university preparation has deeply shaped the organization and public conception of secondary education. Elite systems are of high quality, in part because of their selectivity and of the privileges enjoyed by the few chosen. Even in a society with expanding opportunities for economic and social mobility, the elite cannot, by definition, be a majority. The meaning of quality must also undergo a popular transformation in a mass education system, from a concept denoting the privileges of a select few to a more democratic and differentiated construct. Secondary education, its clients, and its providers must get beyond a “one best model” approach to aspiration and provision.

This transformation is not easy. Differentiated options for quality are needed with real economic and social opportunities associated with the different options. A society with few opportunities for advancement is unlikely to achieve greater equality with education alone. In such a context, expansion of the current system is likely to fuel only the aspirations of a greater number of people.

This transformation is likely to involve several dimensions. Expansion brings more students and greater diversity into the system, student populations, for example, that secondary schools may not be accustomed to dealing with effectively. Diversity implies greater variation in terms of a number of possible dimensions—ethnicity, gender, language, means of expression, learning styles, expectations, income, home and community resources to support learning, academic preparation, and physical and mental abilities. Attending to diverse needs may challenge the prevalent mental models of high quality education, models especially prevalent among decision makers educated in such a system. It is often true that expansion and diversification result in lower quality. At the same time, a broader understanding of quality may have to be developed, legitimately and indigenously, to support the learning needs of different kinds of students and for different purposes than simply university academics. In addition, schools may have to develop and provide a broader range of support services than that to which they are accustomed, and which their previously elite students were assumed to bring with them. These too are critical transitions for a system.

E. Quality and relevance for all

Transformation is also needed to improve schools in a system where access has been expanded but where education is of low quality, even by the simplest of conventional indicators:

- sufficient numbers of qualified, trained, and motivated teachers;
- sufficient facilities and equipment; and
- sufficient numbers of textbooks, developed from an integrated and well-planned curriculum.

Transformation is needed to provide educational opportunities relevant to the interests and needs of a full range of student citizens. The traditional academic orientation of tertiary-linked secondary education may not be appropriate to the economic and social needs of many. An academic, all-day, school-based education filled with tests may not appeal to a majority of students in a poor context with few prospects for middle class life. Secondary education as currently organized just doesn't work for a lot of people.

Transformation is also needed to meet the demands on secondary education placed by the global knowledge economy and global living. In addition to preparation for higher education at both university and in non-university settings, secondary education is tasked with providing students with preparation for work, for particular jobs as well as broad skills useful over a lifetime of employment. Overly rigid vocational programs, despite designers' intentions, may fail on this account. Secondary education is tasked with helping students acquire a variety of social and civic skills and values, ranging from HIV/AIDS prevention to good citizenship and tolerance for others. Social cohesion is a highly valued outcome of education in most societies, however framed and articulated. Secondary education is also charged with developing a wide range of meta-cognitive competencies and skills, such as the capacities to:

- Integrate formal and informal learning, declarative (knowing what) and procedural (knowing how) knowledge
- Access, select, evaluate knowledge in the knowledge rich world
- Work and learn effectively in teams
- Face, transform, and peacefully resolve conflict
- Deal with ambiguous situations, unpredictable problems, and unforeseeable circumstances
- Cope with multiple careers by learning how to locate oneself in a job market and to choose and fashion relevant education and training (World Bank 2005: 80).

Research on U.S. labor trends usefully categorize labor into five types (Murnane & Levy 1996, cited in World Bank 2005):

- 1) Expert thinking (solving problems which cannot be solved with rule-based solutions)
- 2) Complex communication (working with other people; using information to persuade, gather information, transmit ideas)
- 3) Routine cognitive tasks (work that can be carried out by invoking and following rules)
- 4) Routine manual tasks (physical work that can be carried out by following rules and procedures)
- 5) Non-routine manual tasks (physical work that is difficult to automate or performed based on prescriptive rules)

The authors find that in the U.S., occupations requiring expert thinking and complex communication have steadily increased in number since the 1960s, while occupations relying on non-routine manual tasks and routine (rule-driven) tasks have declined. While labor market needs vary by economy, the rote learning and teacher-centered instruction of many education systems are unlikely to be effective in developing students' capacities for expert thinking and complex communication associated with competitiveness in the global knowledge economy.

An ambitious pedagogical agenda such as this requires both curricular change, to support these new objectives, and instructional change, involving behaviour change on the part of teachers, and institutional behaviour on the part of schools and their supporting organizations.

Some of the teacher-related issues include poorly trained and motivated teachers; lack of knowledge of subject matter and pedagogy on the part of teachers; teacher attendance and retention; teacher incentives; private tutoring schemes on the part of teachers; even, survival of the teaching force in parts of the world where HIV/AIDS is decimating the teaching force. Curriculum overload is a problem in many countries along with the effects of high-stakes tests. Teacher behaviour is difficult to change, especially when teachers have limited exposure to different kinds of knowledge and diverse teaching methods and little incentive to change current practice.

Finally, of course, transformation of the system is needed, because simple expansion of the current system is not financially feasible.

F. Finance

Perhaps the greatest challenge to development of secondary education is finance. Increased access alone, not to speak of greater equity, and improved quality, cannot be attained with current cost structures and modes of delivery. No country feels it has large untapped sources of funding, and most countries have a full educational agenda, with primary, tertiary, and pre-primary education competing for the same funds, all with strong claims on public resources. Secondary education is more costly than primary education, given its more highly trained and specialized teaching staff, and its greater need for equipment and specialized facilities. Unit costs in Africa, for example, average about five times greater than for primary education (Lewin 2005: 8). Higher cost alone, of course, does not necessarily represent improved quality, for there are inefficiencies as well. Five general options are available, summarized in Table 2 (Lewin & Caillods 2001; World Bank, 2005; see also Tsang 1996):

Table 2.2. Options to finance expansion and development of secondary education

1.	Increase overall allocations to the education sector
2.	Shift resources from other levels within the education sector
3.	Reduce unit costs at secondary level and/or produce more graduates with existing resources
3a.	Reducing unit costs
	<ul style="list-style-type: none"> • Structural & Curriculum issues • Increasing pupil/teacher ratios and class size; Improving teacher utilization; Increasing teacher workload; Reducing average teaching costs; Limiting non-salary costs; Increasing school size • Cheaper inputs • Formula funding
3b.	Increasing efficiency
	<ul style="list-style-type: none"> • Reducing repetition and drop-out rates • Improving teacher management & effective school management
3c.	Reducing capital costs
3d.	Utilizing alternate modes of delivery, such as, ICT
4.	Utilizing cost recovery, community contributions, and partnership with non-state providers
5.	Calling on external assistance

Source: Primarily Lewin and Caillods, 2001; supplemented with World Bank 2005

Increased overall public allocations to the education sector are unlikely to follow in sufficient quantity to pay for substantial expansion of secondary school, given current and competing claims on public funds, and the relatively small size of the

tax base in many poor countries. Some additional funds might come from public-private partnerships with corporations, for example (World Bank 2005). However, such funding is unlikely to play a major role in expanding secondary school; still, it may have an important demonstration effect through funding of targeted interventions.

Similarly, reallocation from other sectors within education is unlikely in most countries to fund the kind of secondary education development needed. While primary and tertiary education have traditionally taken the larger share of education budgets, their claims are well-supported, rationally and politically, and unlikely to shift dramatically. Lower secondary education is often organized as part of basic education, of course, and has a similar claim on resources as primary education.

One essential area for financing secondary education is the reduction of secondary unit costs, that is, the cost of educating one student. As noted, secondary unit costs are naturally higher than primary unit costs. However, secondary unit costs are typically much higher in countries with low secondary enrollment ratios (averaging 3.5 times higher) than in countries with higher rates of secondary participation (less than twice the cost of primary). Under these conditions, expansion of secondary education can only be achieved if existing resources are used more efficiently, through structural or curricular changes or through more efficient and effective use of teachers, materials, and facilities. Cheaper inputs may also lead to savings, through better procurement. Other strategies such as formula funding (conditional block grants to institutions based on a standard formula) may improve the efficiency of inputs by allowing schools the flexibility to acquire needed inputs rather than relying on provision from central authorities³.

Reduced dropout and repetition rates can also improve efficiency as can a variety of management efficiencies. Capital expenses can be reduced and rationalized. And alternative modes of delivery developed, especially, it is hoped, through instructional technologies. Indeed, a number of innovative models have been developed in different parts of the world; some have grown to considerable scale and effectiveness⁴.

Another potentially promising area for finance is cost recovery, community contributions, and partnerships with non-state actors. Cost recovery is a complex and controversial topic, controversial primarily in its effect on equity and access. Cost recovery mechanisms run the gamut from tuition fees to taxes, voluntary fund-raising, contributions of labor or materials, to sale of school-made goods and

³ Obviously, formula funding requires a sophisticated accountability system as well as good information at the school level about the cost and value of competing inputs. It has been tried with some success in several poor countries (see World Bank 2005).

⁴ See, for example, Figueredo & Anzalone. (2003).

services (see Lewin & Caillods 2001: Table 10.2). Proponents suggest that school fees, if appropriately levied in the appropriate contexts may provide a useful source of funds without endangering equity and access⁵. The devil of course is in the details and the implementation.

The state has traditionally been understood as the primary, often the only, provider of education. As the limits of state capacity become more obvious, non-state actors may be involved in the finance and management of schools. Religious organizations in the West have long partnered with governments in different ways to finance and provide schooling. In countries with a close school-to-work articulation, businesses and industry have partnered with government in provision of education. Increasingly, governments are urged to see their role themselves as facilitators and regulators of access, equity, and quality in education rather than as sole providers. Certainly the mobilization capacity and potential effectiveness of non-governmental actors have been demonstrated in innovations throughout the world, some rivaling government in their scale and capacity.

Each country will develop its own approaches to financing development of secondary education, which are likely to include a combination of strategies⁶.

G. New models of provision

Closely related to finance is a need to develop new models for the provision of secondary education, models fitting the needs and resources of particular countries and specific communities within countries. It is unlikely that a single new model will become the worldwide norm. However, the experience of successful innovation, carefully studied, may be instructive to others. Innovation may come from governments, forced by necessity into invention. Innovation may also grow, as it has in the past, out of great need coupled with government inaction. Finally, the government along with international agencies may support innovation through targeted resources aimed at addressing the conundrums of secondary education in particular contexts. Innovations are likely to entail cost-effective strategies to deal with the persistent and contemporary issues facing post-primary education, including:

- Access
 - Expansion of quality secondary education, with equity
 - Expansion of non-formal post-primary education, and links to formal system and to employers

⁵ See Table 7.7, World Bank 2005, for a thoughtful discussion of when fees are and are not likely to contribute to efficiency, quality and equity.

⁶ See Lewin and Caillods 2001 for a discussion of several case studies of secondary education finance, from countries of widely varying means and challenges.

- Equity
 - Reduction of gender, income, and/or ethnic disparities
- Quality and relevance
 - Improvements in quality and relevance of curriculum & instruction, generally and for particular populations
 - Improvements to teacher preparation & ongoing development, especially *vis a vis* complex expectations
 - Improving teacher incentives
- Finance
 - Mobilization of latent resources
 - Better use of existing resources, reducing inefficiency, unit costs
 - Increased number of graduates with existing resources
 - Better management
- New Models
 - Development of new models of post-primary education
 - Innovative use of ICT

H. Concluding comments

The international perspective of secondary education issues and trends show the commonality as well as the particularities of the Bangladesh situation.

Progress in expanding primary education opportunities has intensified the demand for secondary education opportunities. Increased awareness about and recognition of the importance of skills and knowledge beyond what primary education can offer in the globalised market place has further heightened the pressure on post-primary education.

Bangladesh in recent years has been liberal in increasing secondary education places, through the expansion of the general education and the madrsasa system. This appears to have happened at the cost of applying and maintaining standards in educational provisions and outputs. Many countries, especially in Sub-Saharan Africa, have taken a more restrictive approach to widening the door for entry into secondary education, at least in part out of concern about the problems of assuring quality.

Closing the gender gap in primary and secondary education access has been a remarkable achievement in Bangladesh. However, the systemic low quality of

learning outcomes for both girls and boys and continuing gender inequities in survival to the end of the secondary cycle and transition into tertiary education remain major concerns.

Meeting the challenges of equity, ensuring that education becomes the vehicle for social mobility and the means of breaking the inter-generational chain of social and economic disparities, remain critical issues in Bangladesh as in many other developing countries.

As more children complete primary education, the demand for secondary places will continue to grow in Bangladesh. The present pattern of low cost and low yield will neither satisfy individual demands nor societal needs. Ways have to be found to mobilize larger resources from both public and other sources to pay for the essential quality inputs. At the same time, resources have to be used effectively to ensure acceptable learning outcomes through better governance and stronger accountability.

The findings of the survey in the present report shed light on the issues raised above. The policy and strategy implications of the findings will have to focus on these major concerns.

Chapter 3

Research Design and Methodology

This chapter presents the focus of the study, describes the instruments and methodology for data collection through household and institutional surveys, explains the sample design and indicates the field work procedure and the quality control measures used. It also points out the strengths and limitations of the study.

The objectives and focus of the study, the research methodology and sampling procedures, instruments for data collection, quality control measures and strengths and limitations of the study are presented in this chapter.

A. Focus of the study

Bangladesh has reached the threshold of universal access to primary education. The proportion completing the full cycle of primary education and knocking at the door of lower secondary education is rising. It is also being recognized that the scope of basic education extends beyond the five grades of primary schooling – a proposition that is widely accepted in the neighbouring Asian countries. The Advisory Board and the Technical Committee of *Education Watch*, therefore, decided that, having devoted five previous *Watch* studies to aspects of primary education and literacy, the next one should turn to secondary education. Being the first *Watch* report on the sub-sector, it was decided that it should attempt to construct a baseline of information on key indicators focusing on *internal efficiency* of the system. Under this general theme, the specific objectives of the study are as follows:

1. Estimate net and gross enrolment ratios at the secondary level and determine variations in enrolment by gender, region and socio-economic status.
2. Assess provisions for the basic infrastructure, learning facilities, and teaching personnel in secondary level educational institutions.
3. Estimate students' attendance, promotion, retention, survival and completion rates by school type and gender; assess internal efficiency based on completion of the cycle and public examination performance.
4. Explore private expenditures, institutional level finances, and the stipend programme for girls in secondary education.
5. Examine institutional level management, especially the functioning of the school managing committees.
6. Draw conclusions for policy and strategy implications from the findings for secondary education development.

B. The instruments

Data for this study was collected from two levels: household and educational institutions. Necessary steps have been taken to provide valid estimates at the national and regional levels with gender breakdown through representative sample surveys. Two sets of instruments were prepared for household and institutional surveys by the research team and then were validated through field-testing in several places and by undertaking a pilot study. The household survey questionnaire covered objectives 1 and most of 4. The educational institution survey covered objectives 2, 3, and parts of 4 and 5. A brief description of the instruments is provided below.

Household survey questionnaire

The household survey questionnaire has five sections. These are: basic profile of all members in the household, schooling status of children aged 4-20 years, educational information about the students, socio-economic profile of households, and private expenditure for schooling.

Basic profile of household members: This section of the questionnaire includes the names of all members, their age and sex. In addition, reported literacy status and years of schooling completed by each member were also included. The adult respondent in a household was asked to report the literacy status of all members of his/her household. The respondent was asked to use a dichotomous criterion (literate or not) following the national census definition whether *a person was able to read and write a letter*.

Schooling of children aged 4-20 years: Although this study intends to look at the secondary level, in order to have consistency with the earlier databases of the *Education Watch* and recognising that a good portion of the secondary school students are out of the official age range, schooling information about the population aged 4-20 years was collected. Current school enrolment status of each of the individuals aged 4-20 years was the focus of attention. Collected information included class of enrolment, school type, location of school, and school attendance of the currently enrolled individual; (for those no longer in school) last class passed, type of school last attended, time since dropping out and reason for dropping out; and causes of non-enrolment in the case of the never enrolled children. In addition, years of schooling completed by the parents of these children were also included in this section.

Educational information about students: This section included information about enrolled students only. These are: textbooks distribution, girls' stipend, stream of study for students of Class IX and X, private tutoring, participation in co-curricular activities, parental participation in school meetings, etc.

Socio-economic information: Four specific types of information about the surveyed households were included in this section. These are on yearly food security status, religious affiliation, ethnicity, and type of residence in urban areas (slum or non-slum).

Private expenditure for schooling: This section includes twelve expenditure heads. These are: admission/readmission fee, monthly tuition, buying/collecting textbooks, buying/collecting supplementary books, stationary, school dress, examination fees, various other fees (including religious festivals, social functions, recreation, etc.), transport for schooling, payment for private tutors, transport for private tutoring, and school tiffin. Any expenditure apart from the above heads was recorded as "others."

The respondents provided two figures for each heads – actual expenditure during first four months of 2005 and their own estimate of cost for rest of the year (eight months).

Educational institution survey questionnaire

This instrument was developed to collect information about the schools and madrasas. The questionnaire has ten sections: general information; physical infrastructure; educational facilities in school; co-curricular activities; teachers; school managing body and its members; income and expenditure of school; attendance and seating capacity in classrooms; promotion, dropout and repetition; and student performance in scholarship and secondary school certificate examinations (at the end of grade 10).

General information: This section contains four questions on the year of school establishment, distance between school and upazila town, whether the school is co-ed or not, and the number of grades taught in the school.

Physical infrastructure: A total of 15 questions on the number of school buildings and rooms, their use and quality, water and sanitation facilities, electricity facilities, and play ground comprised this section.

Educational facilities in school: This section of the questionnaire includes four sub-sections. These are on science laboratories, library facilities, computer education, and measures designed to improve learning environment and quality of education.

Co-curricular activities: Information on a variety of 11 activities was collected. These include arts and crafts, drawing, dancing, cultural functions, games and sports, debate, social work, religious festival, etc. In addition, information on school dress, assembly, singing of national anthem and hoisting of the national flag was collected.

Teachers: A wide range of information on the teacher was collected in this section. The personal information part included names of all teachers, their age and sex, ethnicity, religion and position (in the teaching hierarchy). The educational qualification part included teachers' years of schooling and performance in the public examinations. The training part included types of professional training received by the teachers. Information on length of experience (in years), levels and subjects taught, number of classes required to be taken in a week, attendance, and whether the teacher received government subvention (monthly payment order or MPO) was also collected through this section.

School managing body and its members: Whether there is any managing committee or governing board for the schools, size of the committee, number of meetings held, issues discussed are some general information were collected for each school under

survey. Besides, information including name of all members, their sex, religion, position, type of membership, educational qualification, occupation, and attendance in meetings was also collected.

School budget: Income and expenditure under different heads during the fiscal year 2002-03 were collected through this part of the questionnaire. It had three broad areas: income, values of fixed assets, and expenditure. Help from the audit reports were sought in collecting data.

Classroom information: This part included number of students in the register of each class, seating capacity in the classrooms, and a head count of students in classrooms. Information for boys and girls was collected separately.

Retention and dropout: Information on the number of students enrolled in each class at the beginning of 2004, number of students who dropped out during 2004, number of students who got promotion to the next class, and number of repeaters was collected. Provision for collecting gender-segregated data was made.

Students' performance: Data on student performance in the junior scholarship examination (at the end of grade 8) and the public examination at the end of grade ten (Secondary School Certificate or SSC and dakhil) for last four years were collected. Number of examinees, number of those who passed and number of students receiving scholarship were the information collected in the scholarship examination part. Moreover, the number of examinees, number of students who passed and their distribution by grade (grade point average or GPA) were collected for SSC and dakhil examinations. Separate information for boys and girls was collected.

The instruments are provided in Annexes 3.1 to 3.4.

C. The pilot study

The draft instruments were prepared based on the researchers' experience including that of earlier *Education Watch* studies. These were reviewed and suggestions were made by members of the *Education Watch* group (Advisory and Technical Committees). These were then tried out in a number of villages, schools and madrasas in and around Dhaka. This was helpful in assessing legibility of the instruments and in improving their reliability, especially the educational institution survey questionnaire, which was relatively new to the research team. The school/madrassa heads suggested a number of items to be added in the school budget section. Prior to the national survey, a pilot study was done in upazilas under Mymensingh district during March and April 2005. The piloting helped ordering the questions in the instruments and identifying areas needing special emphasis during training of investigators for the national survey.

D. Sampling

The sampling strategy adopted for the *Education Watch* 1999 and 2001 was followed in this study with minor modifications. Current enrolment status of the children aged 11-15 years (because this is the official age range for secondary education) was the key variable in determining sample size for the household survey. Considering enrolment as a dichotomous variable (currently enrolled or not) the minimum sample size of a valid estimate was calculated to be 768. We arrived at such a figure adopting 95 percent confidence limit and 5 percent precision level, and doubling the sample size in order to reduce design effects (Cochran 1977, Kalton 1983).

Because of known variations in the educational attainment among the geographical regions in the country, eight separate surveys were carried out, one in each of the following strata:

Rural Bangladesh: Rural Dhaka division
 Rural Chittagong division
 Rural Rajshahi division
 Rural Khulna division
 Rural Barisal division
 Rural Sylhet division

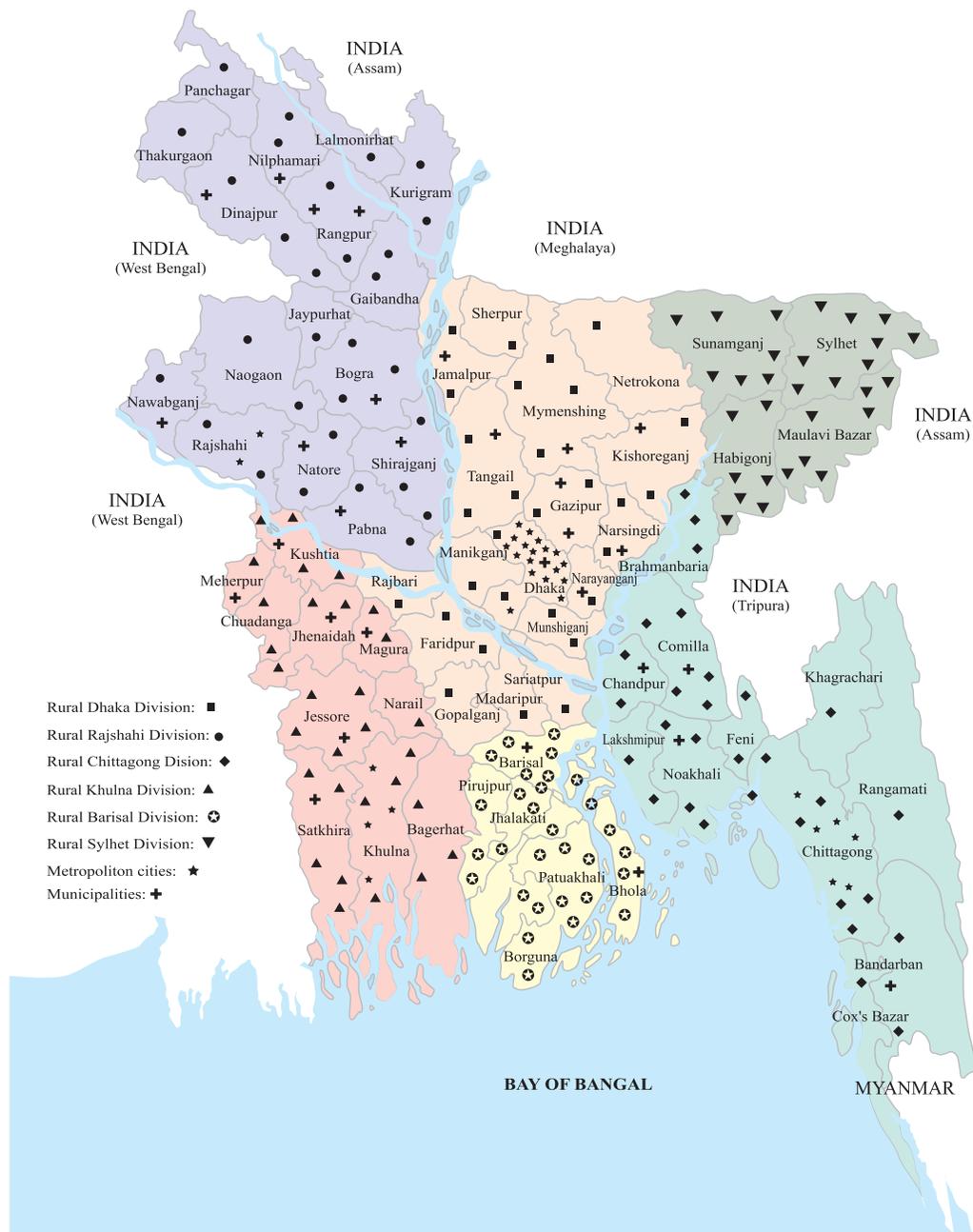
Urban Bangladesh: Metropolitan cities
 Municipalities

In order to allow separate estimates for boys and girls, it was necessary to double the above sample size again. This meant that 1,536 (= 768 x 2) children aged 11-15 years were needed to be brought under the survey in each stratum indicated above, totalling (1,536 x 8 =) 12,288 for the whole study.

A four-stage sampling procedure was adopted for survey in each of the stratum. At the first stage, in each rural stratum 30 upazilas and in each urban stratum 30 thanas/municipalities were selected through systematic sampling technique with probability proportionate to size (PPS) of population. At the second stage, one union (ward for urban strata) for each selected upazila/thana/municipality was selected through simple random sampling. At the third stage, four villages (mahallah for urban strata) were randomly selected from each of the selected union/ward. This means that 120 (30x4) villages/mahallahs were selected for each stratum, totalling 960 (120x8) for the whole of Bangladesh. Latest available census information (in most cases the 1991 census and partially 2001 census) produced by the Bangladesh

Bureau of Statistics (BBS) was used for this purpose⁷. It turned out that all 64 districts of the country were represented in the sample (Figure 3.1).

Figure 3.1.
Map showing the sample locations



⁷ Detailed information of Census 2001 was unpublished during the work and was not available. For sampling in rural areas Community Series of Census 1991 in districts volumes were the only source. Preliminary report (BBS 2001) and provisional report (BBS 2003) on Census 2001 was used for sampling in municipalities; and for metropolitan areas, unpublished information of Census 2001 was used.

The household survey was carried out in 25 households in each of the selected village/mahallah. This number was fixed on the basis of the experience of household surveys done for the first and the third *Education Watch*. It was calculated that the survey of such a number of households in each village could produce required numbers of children aged 11-15 for valid estimates at the stratum level. At this fourth stage of sampling, the households were selected through a systematic sampling procedure moving anticlockwise and taking every fifth households in the village/mahallah, starting from the northwest corner of the village. In order to identify the northwest corner, a sketch of the village/mahallah was drawn with the help of knowledgeable informants groups in the community. If the selected village/mahallah was too small to get the required 25 households, the nearest village/mahallah was chosen until the required number was surveyed. On the other hand, if the village/mahallah was too big the household survey ceased when the adequate number was reached. All members of the selected households were brought under the survey. One hundred forty eight villages/mahallahs had to be added with the initial sample due to inadequate number of households in the sampled villages/mahallahs.

The secondary level of education in Bangladesh is comprised of 7 (3+2+2) years of schooling. The first three years is referred to as junior secondary (grades VI to VIII), the next two years as secondary (grades IX and X) and the remaining two years as higher secondary (grades XI and XII). This study was confined to first five years of secondary education, i.e., junior secondary and secondary. There are different types of secondary level educational institutions in the country. These include government or privately managed, secular or religious, Bangla or English medium, and vocational. This study did not consider the cadet colleges (government managed residential schools which emphasized strict discipline), English medium schools and the vocational educational institutions.

Of the secondary schools in the country, the majority are privately managed. This study was limited to six types of schools: junior secondary school, government school, non-government school, combined school and college, dakhil madrasa, and alim madrasa. In the combined school and college and alim madrasa categories, the institutions included both secondary and higher secondary grades.

It was decided to make single national estimates for four types of institutions, viz., junior secondary school, government school, alim madrasa and combined school and college, because the total numbers of these institutions were relatively small and they enrolled a small proportion of students. The provision for eight separate estimates (one for each stratum mentioned above for household surveys) was kept for non-government secondary schools and dakhil madrasas, since these two

categories served over 86 percent of the secondary level students. For the first four categories, 30 institutions were selected randomly from each type, totalling 120. For the two other categories, 30 institutions per stratum were selected randomly for each stratum; which resulted in 240 non-government schools and 240 dakhil madrasas. Thus, a total of 600 secondary level educational institutions were included in the sample under this study. The full list of educational institutions prepared by the Bangladesh Bureau of Educational Information and Statistics (BANBEIS) in 2003 was used as the sampling frame for selecting the institutions.

A total of 23,971 households from 1,088 villages/mahallahs was covered under the household survey. The total population in these households were 122,006 with a sex ratio 101.2⁸. Of them 14,664 were aged 11-15 years old and 9,316 were secondary school students. The educational institutions survey was done in 598 schools. Survey of two dakhil madrasas was unsuccessful due to unwillingness of the heads of the institutions and their managing board chairs to participate in the survey. Information from 9,556 teachers and 6,162 managing committee/board members was also collected during the school survey. Tables 3.1 and 3.2 provide the sampling details.

Table 3.1. Sample for the household survey

Strata	No. of villages	No. of HHs	Population in the HHs	Children aged 11-15 years	Secondary school student	Private cost survey	
						No. of HHs	No. of students
Rural Dhaka division	141	2,991	14,846	1,773	1,097	534	671
Rural Chittagong division	141	3,002	16,294	2,113	1,232	578	746
Rural Rajshahi division	130	2,999	14,078	1,702	1,150	555	666
Rural Khulna division	134	3,018	14,440	1,653	1,160	584	709
Rural Barisal division	131	2,973	14,865	1,867	1,192	534	652
Rural Sylhet division	154	3,004	17,796	2,185	942	466	616
Metropolitan cities	124	2,988	14,869	1,630	1,143	557	673
Municipalities	133	2,996	14,818	1,741	1,400	607	741
Total	1,088	23,971	1,22,006	14,664	9,316	4,415	5,474

⁸ Sex ratio is the number of males against each 100 females.

Table 3.2. Sample for educational institution survey

School type	Number of schools	No. of teachers	No. of SMC members
Junior secondary	30	267	267
Non-govt. secondary	240	3,863	2,334
Government secondary	30	544	-
School and College	30	936	296
Dakhil madrasa	238	3,402	2,900
Alim madrasa	30	544	365
Total	598	9,556	6,162

Note: There is no provision of school managing committee (SMC) in the government secondary schools

E. Research assistants and their training

One hundred and twenty people were recruited in late April 2005 for the implementation of the surveys. All of them were university graduates and a good number of them was experienced in doing similar work under previous *Education Watch* studies as well as other socio-economic and educational surveys. One hundred and seven of them were finally selected for the fieldwork (88 males and 19 females) as they successfully completed the training workshops arranged for them and proved their competency in doing the surveys.

Training workshops were arranged for the recruited persons in two batches during first half of May 2005. Each training workshop continued for six days which included classroom discussion, role-play exercises, and practical exercises in household and school surveys. A detailed instruction manual describing all sections of the instruments was also used in the workshops (Nath 2005). Senior staff members of the BRAC Research and Evaluation Division and the Institute of Educational Development conducted the training sessions.

F. The field operation

Forty-six teams consisting of two Research Assistants in each conducted the fieldwork. A team of 15 supervisors supervised the field activities. One of the team members was made team leader and given the responsibility to distribute work to the other member and coordinate the team activity. Each team spent four days in a village/ward for the household survey and 2/3 days for the school survey (depending on number of schools include in the sample in the locality). The surveys were planned to be completed within two months of their start. However, it took more time than planned initially for several reasons. Based on the supervisors' report and investigation by the research team members, 13 research assistants had to be

withdrawn from the field due to their weak performance. This was done within two weeks of the inception of the fieldwork. Another 14 research assistants withdrew themselves at various stages of the fieldwork due to various personal reasons. Secondly, the educational institution survey was not possible in the madrasas during first three weeks of the survey and in the other secondary schools for the next three weeks because the institutions had a staggered time table for summer vacation. Each of these locations had to be visited twice. Thirdly, the situation in urban areas was different from that of the rural areas. The household survey in urban locations took more time, because access for interviewers to households took longer negotiation and explanation due to security concerns. In most cases, however, the interviewers convinced the respondents and completed the work successfully. The research assistants had to show their identity cards in most of these households. However, there was no such problem in the urban slums. In rural clusters, the research assistants stayed in the nearby BRAC offices.

The heads of the households were the principal respondents for the household survey and the interviews were held at the premises of the households. The criterion of principal decision maker in the households was maintained in deciding the heads of the households. If s/he was not available the spouse was chosen for the purpose. If neither was available, any adult member of the household was asked to provide information. Sometimes the respondents took help from other members of the households in responding to selected questions. Help was also sought from the neighbours especially in determining age. Age determination was the hardest job in the household survey because of absence of the birth registration system and, frequently, inability of parents to remember birth dates or age of their children. Events calendar was used in attempting to ascertain the age of the household members. In some 'conservative' households women were not prepared to talk with the male interviewers. In such cases, help was sought from the males of the neighbouring households. Survey was not possible in some households (under 3 percent) due to unavailability of the appropriate respondent or unwillingness of the head of the households to participate. On average, 20 minutes were needed to fill up a household survey questionnaire. Extra time was needed where private expenditure survey was done.

The heads of the institutions were the main respondents for the educational institution survey. Where the head of the sample institution was not available on the day of survey, the field team had to wait until s/he arrived. In no case, the other teachers including the assistant head were willing or able to provide us with information without the consent of the head teacher. However, in majority of cases, the head teacher formed a team of teachers (with the assistant head teacher along with one or two other teachers) to provide us information. Formation of such a team was helpful in gathering various types of information required in the survey instrument.

After completing each questionnaire, whether for the household or the educational institution, the research assistants carefully checked the filled up questionnaire to ensure that all the questions were asked and the answers were recorded properly.

Each supervisor was given the responsibility for three teams. The supervisor's tasks included seeing whether the teams went to the right places (villages/mahallahs or unions) and the research assistants worked as instructed. They also rechecked samples of the filled up questionnaires. For re-interviewing, 130 locations were randomly selected and re-surveyed on some selected indicators. The research team members made random visits to the sampled spots to check the quality of work. Contact was maintained regularly with field teams over telephone from the head quarter in Dhaka. The surveys were carried out during the months of May, June, and July 2005.

G. Data quality assurance

Several steps were taken to maintain the quality of data. As noted, a detailed supervision and quality control protocol was devised to ensure data quality.

In checking the quality of data, the findings of other recent studies, especially the earlier *Education Watch* studies were looked at to compare plausibility of variations in findings. Findings of national census 2001 and the Bangladesh Demographic and Health Survey 1999-2000 were also consulted. It was observed that sex ratio, age distribution, distribution of years of schooling completed, literacy rate, school enrolment rate etc. found in the present study were consistent with those found in the above studies.

There was an in-built post-enumeration check for the household survey. Re-enumeration was done in more than half of the randomly selected locations (villages/mahallahs); eight households were re-surveyed in each location. Total number of households resurveyed was 1,038. The re-surveyed data were then matched with the survey data. The matching showed that deviation between survey and resurvey data was less than 10 percent in most of the cases (Table 3.3). The deviation was found highest in the case of age. As already mentioned, age determination was the hardest job in the survey. Estimation of age between survey and re-survey data matched exactly for 56.3 percent cases for the total population and for 70.2 percent cases for those in the secondary school age. However, when one-year deviation in age was considered as acceptable, the rate of matching improved significantly. Age determination of the older population was harder than for the younger people. The matching rate in the estimation of food security status also increased a lot (67.5 percent to 93.7 percent) when such deviation was accepted. The matching rates, when the exercise of subjective judgment was not required, were very high. For example, 98.7 percent for sex of individuals, 97.4 percent for enrolment status of 11-15 year old children, 96.3 percent for literacy status of the

population, 97.9 percent for school type, and 96.3 percent for reasons for non-enrolment. The above analysis indicates the reliability of the data collected through the surveys.

Table 3.3. Proportion of matching between survey and re-survey for selected indicators

Indicators	Proportion of matching cases	
	Fully	With ± 1 unit
Sex of individuals	98.7	
Age of individuals		
All population	56.3	85.6
4-10 years	68.4	89.3
11-15 years	70.2	92.8
Enrolment status		
4-20 years	96.0	
11-15 years	97.4	
Literacy status of all population	97.8	
Years of schooling completed		
All population	93.1	95.3
4-20 years	95.6	96.4
11-15 years	96.0	96.8
School type of students	97.9	
Reason of non-enrolment	96.3	
Household size	94.3	97.2
Food security status of HH	67.5	93.7

H. Data analysis

Both bi-variate and multivariate analyses were done. The bi-variate analysis included estimation of rates and ratios, means and standard deviations for various sub-groups of the study population by socio-economic characteristics and school type. In the case of multivariate analysis, logistic regression analysis was undertaken.

Since strata population in terms of number of children aged 11-16 years varied substantially and number of schools by type or stratum were not equal, weights were used in making estimates for rural and urban areas and for the national level. A standard statistical procedure was followed to determine the weights for different strata (Cochran 1977). Population distribution data of the Bangladesh Bureau of Statistics (BBS 2003) based on census 2001 was used in determining weights for pooled estimates based on household survey. On the other hand, distribution of schools, students and teachers by school type and stratum found in the databases of the Bangladesh Bureau of Educational Information and Statistics (BANBEIS) was used in calculating weights for respective areas of school survey. The procedure followed for calculating weights is explained in Annex 3.5.

I. Strengths and limitations

Like any other survey-based research, this *Education Watch* study also has its strengths and limitations.

Strengths

1. The study design and methodology drew extensively on past experience and tested approaches of *Education Watch* studies. This first study on secondary education is comparable to the first *Education Watch* report on primary education produced in 1999. The objectives of the present study is also comparable to the earlier study in the sense that it seeks to establish the baseline for key internal efficiency indicators in secondary education. The original methodology for the first primary education study was tried out again and refined in the second study of internal efficiency of primary education in 2001.
2. The study design, the sampling procedure and the sample size permitted valid estimates regarding key secondary education indicators for the whole country as well as breakdowns for gender, urban and rural areas, metropolitan cities and municipal towns among urban areas, and six administrative divisions.
3. As described above, adherence to a careful, systematic and elaborate quality control protocol ensured the validity and reliability of the collected data, improved accuracy of analyses, and enhanced credibility of inferences drawn from the analyses.

Limitations

1. As the first report on the sub-sector, the study focused on establishing estimates for provisions, inputs and participation, rather than probing learning achievement and outcome except for the public examination results, which may be regarded as a limited measure of output and outcome of institutions. The scope of data collection and analyses in respect of finance and management of institutions was kept deliberately limited and systemic aspects in these areas were not addressed. Choices had to be made regarding the scope of the study. It is expected that the relevant variables left out from the study will be examined in the future.
2. Latest census information was not available for sampling the clusters and villages for the household survey. Information from the 1991 census had to be used, especially for sampling the rural clusters. However, latest census information was used in calculating the weighting factors for pooling the

estimates at the national level. Some errors cannot be ruled out due to use of old information for sampling.

3. Analysis of children's participation in secondary education assumes correct reporting of age of the children. As mentioned, estimation of age was the hardest job in the household survey. It was not always possible to estimate the correct age as shown by the comparison of the survey and the re-survey data. Although all standard measures including the use of events calendars were taken to obtain best estimates, some errors cannot be ruled out.
4. The educational institutions survey covered six types of secondary schools. These covered more than 93 percent of the students at the secondary level. Exclusion of the English medium and vocational schools and the cadet colleges, as well as the *quomi* madrasas, although representing a small proportion of the students, meant that the study was less than comprehensive.
5. Information collected from households on costs and expenditures are subject to misreporting. Moreover, in some cases the information on private expenditure for schooling was not collected from the right informant, such as the head of the household. The respondents were required to estimate expenditure for the future, which may have introduced unknown reporting error. It is also possible that allocated time for household interviews involving recall and estimation of expenditures for the duration of a year was inadequate for an unknown proportion of respondents.

Chapter **4**

Participation in Secondary Education

This chapter provides an overview of participation of children in secondary education. The situation of children's participation in the major categories of general secondary level institutions and madrasas are examined with special attention to the age group of 11-15 years, the designated age range for secondary education.

Participation of children in secondary education, reflected in gross and net enrollment, the geographical pattern of participation, and the socio-economic correlates of non-participation are presented to depict the status and trends in secondary education. A broad trend of enrolment growth in the last decade and a half has been found – with spectacular surge in girls’ enrolment surpassing boys by a substantial margin. Household survey has been used to make the estimates regarding participation.

A. Overall participation

Education Watch 2005 survey reveals several dimensions of participation of children in secondary education. Officially the children of age 11-15 years are the targeted population for secondary schooling in Bangladesh. These children are supposed to enroll in grades 6 to 10. However, for various reasons, mainly late enrolment at the primary level, a good portion of these children remain at primary classes. Important aspects of overall participation are explained below.

Gross and net enrolment. The gross enrolment ratio for Bangladesh at the secondary level, as revealed by the present survey, is 64.5 percent and the net rate is 45.1 percent. (Figure 4.1 and Tables 4.1 and 4.2) Gross enrolment ratio at the secondary level is the number of children of any age currently enrolled in classes 6 to 10 against every 100 children of age 11-15 years. This measurement includes all children enrolled in secondary schools irrespective of their age. It is to be noted that those who sat for the Secondary School Certificate examination in 2005 and awaiting examination results during the survey were included in this calculation, who added 1.2 percentage points to the calculation of gross enrolment ratio. Significant gender as well as area-wise variation was observed in gross enrolment. The girls were 8.8 percentage points ahead of the boys and the rural children were 13.3 percentage points behind their urban counterparts in gross enrolment ratio. The girls were ahead of the boys in both the areas. However, the gender difference was much higher in the rural areas than the urban areas (9.7 percentage points vs. 4.4 percentage points). (Annex Table 4.1)

Table 4.1. Gross enrolment ratio at secondary level by stratum and sex

Strata	Sex			Difference (Girls – Boys)
	Girls	Boys	Both	
Rural Dhaka division	69.3 (860)	54.9 (913)	61.9 (1773)	14.4
Rural Chittagong division	63.8 (1090)	52.4 (1023)	58.3 (2113)	11.4
Rural Rajshahi division	69.2 (838)	66.0 (864)	67.6 (1702)	3.2
Rural Khulna division	77.0 (784)	64.0 (869)	70.2 (1653)	13.0
Rural Barisal division	68.4 (923)	59.4 (944)	63.8 (1867)	9.0
Rural Sylhet division	45.6 (1115)	40.5 (1070)	43.1 (2185)	5.1
Metropolitan city	68.1 (860)	72.3 (770)	70.1 (1630)	-4.2
Municipalities	86.1 (870)	74.7 (871)	80.4 (1741)	11.4
Rural Bangladesh	67.4 (5610)	57.7 (5683)	62.5 (11293)	9.7
Urban Bangladesh	78.0 (1730)	73.6 (1641)	75.8 (3371)	4.4
All Bangladesh	69.0 (7340)	60.2 (7324)	64.5 (14664)	8.8

Figures in the parentheses indicate number of children aged 11-15 years

Source: Education Watch Household Survey, 2005

Table 4.2. Net enrolment rate at secondary level by stratum and sex

Strata	Sex			Level of significance
	Girls	Boys	Both	
Rural Dhaka division	51.2 (860)	36.0 (913)	43.4 (1773)	p<0.001
Rural Chittagong division	46.1 (1090)	34.2 (1023)	40.3 (2113)	p<0.001
Rural Rajshahi division	52.3 (838)	42.4 (864)	47.2 (1702)	p<0.001
Rural Khulna division	58.4 (784)	44.2 (869)	50.9 (1653)	p<0.001
Rural Barisal division	51.2 (923)	40.5 (944)	45.8 (1867)	p<0.001
Rural Sylhet division	33.7 (1115)	28.5 (1070)	31.2 (2185)	p<0.01
Metropolitan city	51.6 (860)	49.9 (770)	50.8 (1630)	ns
Municipalities	61.3 (870)	51.7 (871)	56.5 (1741)	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	
Rural Bangladesh	49.5 (2610)	37.8 (5683)	43.6 (11293)	p<0.001
Urban Bangladesh	57.0 (1730)	50.9 (1641)	54.0 (3371)	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	50.6 (7340)	39.6 (7324)	45.1 (14664)	p<0.001

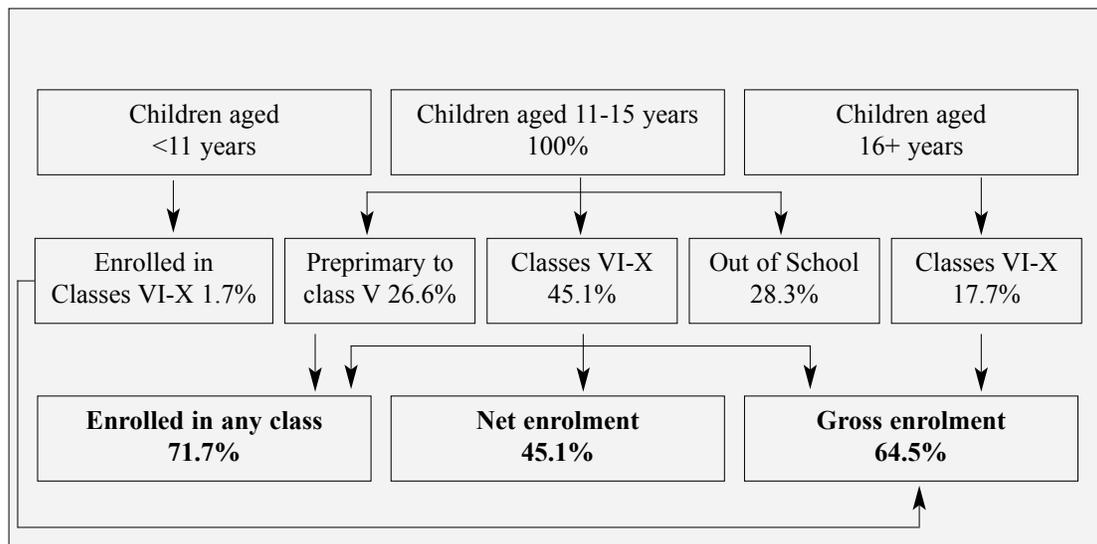
Figures in the parentheses indicate number of children aged 11-15 years; ns = not significant at p = 0.05

Source: Education Watch Household Survey, 2005

Non-enrolment in any type of institution of the 11-15 years age group. In the 11-15 year age-group, 71.7 percent are enrolled in schools including primary classes. Previous *Education Watch* surveys showed that 27 percent of the children in primary school were over the designated age of 6-10 years (Chowdhury *et al* 1999 and 2001). (Figure 4.1 and Table 4.5)

The household survey for *Education Watch 2005* shows that at the national level 71.7 percent of the 11-15 years old children were currently enrolled in schools (figure 4.1 and Table 4.3). Following the previous *Education Watch* household surveys, a child was considered as currently enrolled if s/he attended school at least for a day during last six months of the survey. Children who participated in the school final examination and were waiting for results were also considered as currently enrolled. The girls were more likely to be enrolled in schools than the boys (75.5 percent vs. 67.9 percent, $p < 0.001$). At the aggregate level, no statistically significant variation was observed among the children of rural and urban areas. Area wise variation existed among the boys as well as the girls, however, in opposite direction. Girls living in rural areas were ahead of those in urban areas, and the boys of urban areas were ahead of those in rural areas. Otherwise, statistically significant gender variation favouring the girls was observed in the rural areas (75.9 percent vs. 67.2 percent, $p < 0.001$), and the children of both sexes equally enrolled in urban areas. (Annex 4.21)

Figure 4.1. The enrolment scenario



Source: *Education Watch Household Survey, 2005*

A surge in girls' enrolment. Enrollment of girls at the secondary level has surged ahead of boys substantially. Gross enrollment ratio for girls is 69.0 percent compared to 60.2 percent for boys. The net rate are 50.6 percent for girls and 39.6

percent for boys. In respect of participation in any form of schooling for the 11-15 years age group, girls maintained the edge with 75.5 percent compared to 67.9 for boys. (Table 4.5)

Urban-rural gap in participation. A substantial gap in participation remains between urban and rural areas. The urban ratio of gross enrollment is 75.8 percent compared to 62.5 percent for rural areas. The net rate for urban areas is 54.0 percent against 43.6 percent for rural areas. (Table 4.2) Participation in any form of schooling showed an urban-rural gap that is not significant statistically – 72.7 percent for urban areas and 71.5 percent for rural areas. (Table 4.5) This can be explained by a relatively high proportion of over-age children enrolled in primary schools in rural Bangladesh.

Enrolment variation by regions. Gross and net enrolment varied substantially for different divisions in the country. Stratum wise analysis of gross enrolment shows that it was highest in the municipalities (80.4 percent) followed by rural Khulna division and metropolitan cities – both the areas were about 10 percentage points behind the highest rated stratum. The ratio was lowest in rural Sylhet division (43.1 percent). The difference between the highest and the lowest rated stratum was 37.3 percentage points. In other words, the gross enrolment ratio in the municipalities was 1.87 times higher than that in the rural Sylhet division.

Except the metropolitan cities, girls of other seven areas were ahead of their male peers. The boys of the metropolitan cities surpassed the girls of the same area by 4.2 percentage points. The highest gender difference was observed in rural Dhaka division (14.4 percentage points), followed by respectively rural Khulna division (13 percentage points), rural Chittagong division and the municipalities (11.4 percentage points).

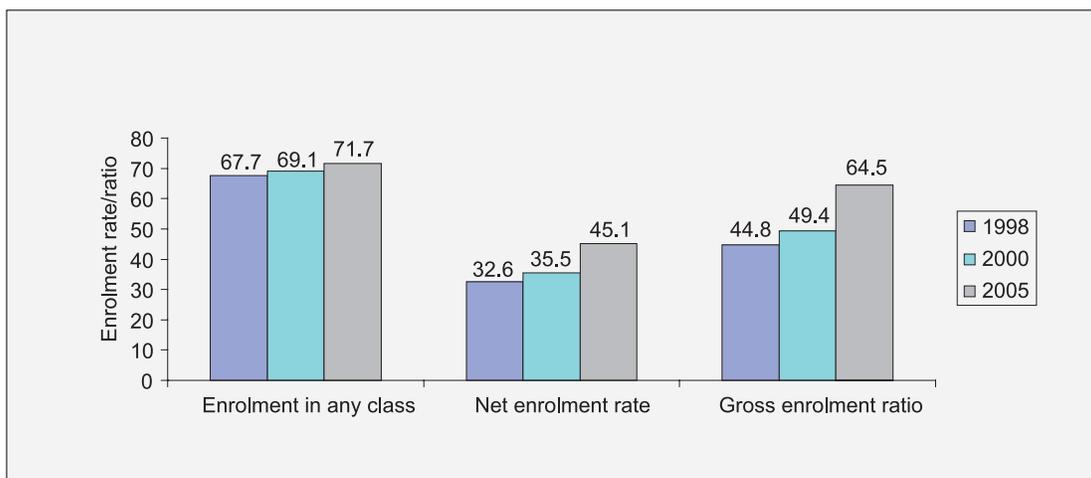
Stratum-wise net enrolment rate is also presented in Table 4.2. The highest net enrolment rate was in the municipalities (56.5 percent) and lowest in rural Sylhet division (31.2%) with a difference of 25.3 percentage points. The rate was lower than the national average in three areas - rural Dhaka (43.4 percent), Chittagong (40.3 percent), and Sylhet (31.2 percent) divisions. The girls in seven strata surpassed their boy counterparts in net enrolment rate. Statistically equal net enrolment of boys and girls was found in the metropolitan cities. The gender difference in favour of girls was highest in rural Dhaka division (15.2 percentage points), followed respectively by rural Khulna (14.2 percentage points), Chittagong (11.9 percentage points), Barisal (10.7 percentage points), and Rajshahi (9.9 percentage points) divisions, and the municipalities (9.6 percentage points).

B. A broad trend of enrolment growth

Education Watch survey data based on national samples collected since 1998 shows a steady growth in enrollment:

- i. Overall school enrolment of children, 11-15 years, increased from 67.7 percent in 1998 to 69.1 percent in 2000 and to 71.7 percent in 2005. (Figure 4.2)
- ii. Gross and net enrolment in secondary education also rose consistently – 19.7 percentage points in gross enrolment and 12.5 percentage points in net enrolment over the last seven years.
- iii. The enrolment for girls in secondary education increased at a faster pace than for boys between 1998 and 2005. The net rate grew from 35.3 percent to 50.6 percent for girls compared to 30.0 to 39.6 percent for boys. A similar trend applied to gross enrolment ratios. The increase was 46.3 to 69.0 percent for girls during this period and 43.3 to 60.2 percent for boys. (Annex 4.5)

Figure 4.2. Trend in enrolment, 1998 - 2005



Source: *Education Watch Household Survey, 1998, 2000 and 2005*

C. Participation by types of institutions

The status of participation in education of children in the age group 11-15 years, the designated age for secondary education, represented by enrollment in different types of institutions, or non-enrollment in any, is shown in this section. The data based on household survey vary somewhat from enrollment ratio reported by BANBEIS derived from data reported by schools. Particularly striking is the magnitude of difference in enrollment in favour of girls, although BANBEIS data for 2005 were not available for a direct comparison.

Table 4.3. Percentage distribution of 11-15 years old children by schooling status

Schooling status	All (14,664)	Girls (7,340)	Boys (7,324)	Rural (11,293)	Urban (3,371)
Pre-primary	0.1	0.1	0.2	0.1	0.1
Primary	24.4	23.9	24.9	25.6	17.3
Junior secondary	32.3	35.9	28.7	31.7	35.5
Secondary	12.9	14.8	11.0	11.9	18.5
Non-graded madrasas	1.9	0.7	3.1	2.1	0.9
Out of school	28.4	24.6	32.1	28.5	27.5
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of children aged 11-15 years

Source: Education Watch Household Survey, 2005

Of all 11-15 years age children, a quarter were enrolled in the primary or even pre-primary levels, 28.4 percent were out of school, about 2 percent were attending non-graded madrasas without a standard curriculum, and 45 percent were in different types of secondary institutions. (Table 4.3)

Table 4.4. Percentage distribution of students by type of school, area of residence and sex

School type	All Bangladesh			Rural Bangladesh			Urban Bangladesh		
	Girls	Boys	Both	Girls	Boys	Both	Girls	Boys	Both
Dakhil madrasa	10.7	11.5	11.0	12.0	13.3	12.5	3.9	2.4	3.2
Higher madrasa	2.8	3.7	3.2	3.1	4.2	3.6	1.4	1.7	1.5
Junior secondary	1.8	1.2	1.5	2.0	1.4	1.7	0.8	0.3	0.6
Non-govt. secondary	76.1	73.6	74.9	77.4	75.5	76.6	69.1	64.0	66.7
Government secondary	5.5	6.5	6.0	3.8	3.5	3.7	14.2	21.5	17.6
School & College	2.4	2.2	2.3	1.2	1.2	1.2	8.5	7.1	7.9
Others	0.7	1.3	1.0	0.4	1.0	0.7	2.2	2.9	2.5
n	4422	3751	8173	2178	2735	6013	1144	1016	2160

Others include English medium, vocational and trade schools

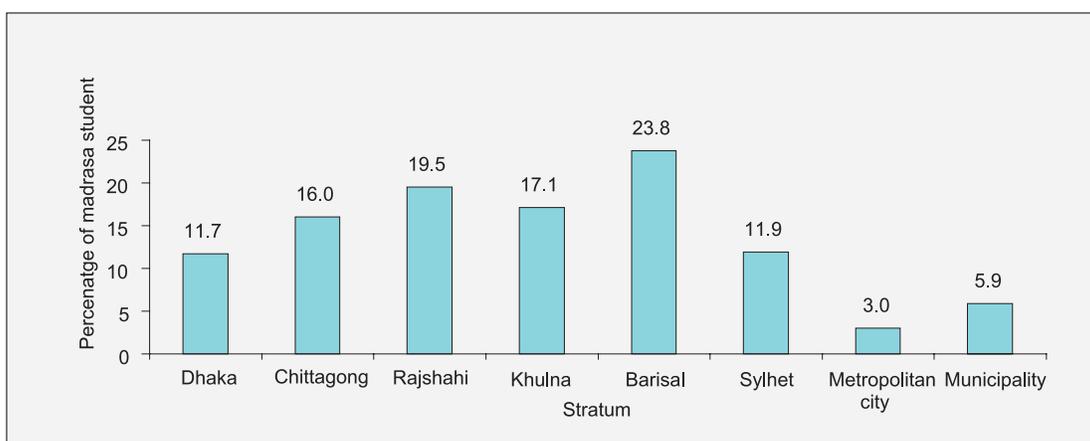
Source: Education Watch Household Survey, 2005

Of those enrolled in the secondary level, three quarters went to non-government secondary schools. The next most popular institution was the dakhil madrasa catering to 11 percent of the secondary level students. All other types of institutions served the remaining 14 percent. (Table 4.4) Madrasa enrolment varied substantially

for different divisions – approaching a quarter in Barisal and half of that in Sylhet (Figure 4.3).

Madrasas of dakhil and alim type altogether enrolled 14 percent of the secondary level students; in rural areas this proportion was 16 percent. Another 2 percent of the 11-15 year age-group enrolled in non-graded religious educational institutions, which operate outside government regulatory authority, such as quomi, kharizia and hafizia madrasas. (Table 4.3)

Figure 4.3. Percentage of secondary school students enrolled in the madrassas by stratum



Source: Education Watch Household Survey, 2005

Urban areas had a concentration of government secondary schools and the combined school-and-colleges, which led to a substantial lowering of proportion of students in madrasas, non-government secondary schools and junior secondary schools in urban areas, compared to rural locations. (Table 4.4)

D. Geographical distribution of secondary education participation

Whether secondary education opportunities varied based on where children resided obviously is an important policy concern. This section analyses enrollment of children in the age group 11-15 years for different geographical strata used in the present study. Variations for the rural areas of six divisions and for municipal and metropolitan urban areas as well as overall urban-rural differences are presented in Table 4.5. Consistent with national trend, girls are ahead in all strata except that boys surpassed girls in metropolitan areas.

A difference of 20 percentage points was found between the highest (municipalities with 77.5 percent) and lowest (rural Sylhet with 57.7 percent) rates of participation of 11-15 year olds in education in different strata. (Table 4.5) Metropolitan cities with participation rate of 66.6 percent lagged behind national average of 71.7 percent and many rural areas. This is explained by a low level of participation in

education by children in large urban slums. Analysis of data from sample households from urban slums showed a school enrollment rate of only 18 percent among 11-15 year old children.

Table 4.5 Proportion of 11-15 years old children currently enrolled in any educational institution

Strata	Sex			Level of significance
	Girls	Boys	Both	
Rural Dhaka division	77.1 (860)	66.8 (913)	71.8 (1773)	p<0.001
Rural Chittagong division	76.2 (1090)	68.6 (1023)	72.6 (2113)	p<0.001
Rural Rajshahi division	77.8 (838)	69.4 (864)	73.6 (1702)	p<0.001
Rural Khulna division	82.0 (784)	69.3 (869)	75.3 (1653)	p<0.001
Rural Barisal division	74.9 (923)	66.1 (944)	70.4 (1867)	p<0.001
Rural Sylhet division	58.9 (1115)	56.4 (1070)	57.7 (2185)	ns
Metropolitan city	64.4 (860)	69.2 (770)	66.6 (1630)	p<0.05
Municipalities	80.3 (870)	74.6 (871)	77.5 (1741)	p<0.01
Level of significance	p<0.001	p<0.001	p<0.001	
Rural Bangladesh	75.9 (5610)	67.2 (5683)	71.5 (11293)	p<0.001
Urban Bangladesh	73.1 (1730)	72.3 (1671)	72.7 (3371)	ns
Level of significance	p<0.001	p<0.001	ns	
All Bangladesh	75.5 (7340)	67.9 (7324)	71.7 (14663)	p<0.001

Figures in the parentheses indicate number of children aged 11-15 years; ns = not significant at p=0.05
Source: *Education Watch Household Survey, 2005*

E. Participation by socio-economic categories

Same as previous *Education Watch* studies on primary education, this study confirms the importance of socio-economic variables in school enrolment of children at the secondary level.

As a proxy to household income, yearly food security status of the households was collected. It was assessed by asking respondents to rate their households in a four-point scale considering last year's total income and expenditure. The respondents were asked to place their households in respect of availability of staple foods (food security) under one of four categories: always in deficit, sometimes in deficit, breakeven, and surplus.

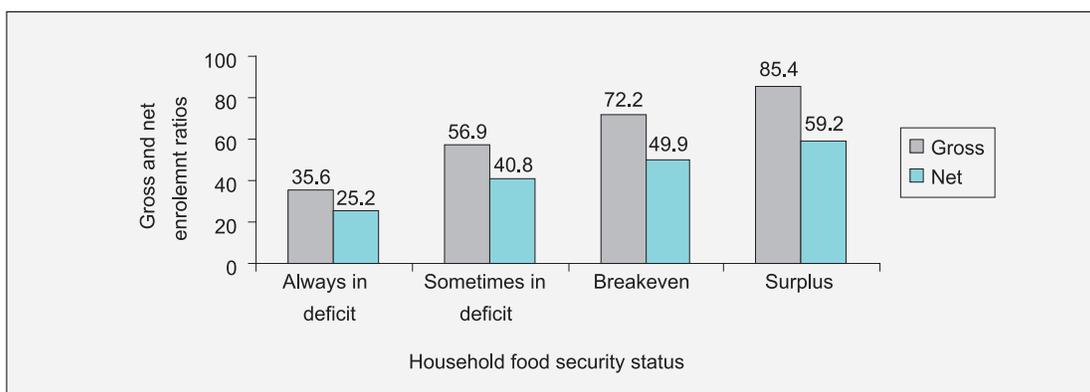
Table 4.6. Net enrolment rate by yearly food security status of household and sex

Food security status of household	Sex		Both	Level of significance
	Girls	Boys		
Always in deficit	29.4 (1167)	21.3 (1240)	25.2 (2407)	p<0.001
Sometimes in deficit	46.1 (2010)	35.8 (2045)	40.8 (4055)	p<0.001
Breakeven	56.0 (2400)	43.7 (2388)	49.9 (4788)	p<0.001
Surplus	64.0 (1742)	54.2 (1628)	59.2 (3370)	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of children aged 11-15 years

Source: Education Watch Household Survey, 2005

Statistically significant relationship between net and gross enrolment of children and annual food security status of their households was observed. (Table 4.6 and Annex 4.6). For instance, at the national level, parents in the ‘surplus’ status, had 59.2 percent of their children enrolled in any class of the secondary school. It dropped to 49.9 percent with ‘breakeven’ economic status, and went down further to 40.8 percent for ‘sometimes in deficit’ category, and to 25.2 percent for ‘always in deficit’ categories (p<0.001). The gross enrolment ratios for the four household categories from “surplus” to “always in deficit” were respectively 85.4 percent, 72.2 percent, 56.9 percent, and 35.6 percent (Figure 4.4). The figure also shows that the gap between gross ratio and net rate increased with the increase in household food security status.

Figure 4.4. Gross and net enrolment ratios at secondary level by household food security status

Source: Education Watch Household Survey, 2005

A statistically significant positive relationship between children’s enrolment in secondary schools and parental education was observed (Table 4.7). Mothers with tertiary or secondary education were more likely to send their children to schools

compared to those with a lower level of education. The net enrolment rate was 31.1 percent for those children with never-schooled mothers, 53.6 percent for those who had mothers with primary education, 74.6 percent for those who had mothers with secondary education and 85.7 percent children of mothers with tertiary education ($p < 0.001$). The net enrolment rates at secondary level were respectively 29 percent, 46.4 percent, 66.4 percent and 81.2 percent for similar levels of fathers' education ($p < 0.001$).

Table 4.7. Net enrolment rate by parental education and sex

Parental education	Sex		Both	Level of significance
	Girls	Boys		
<i>Mothers' education</i>				
Nil	36.6 (3570)	25.7 (3655)	31.1 (7225)	$p < 0.001$
Primary	60.9 (2165)	46.1 (2133)	53.6 (4298)	$p < 0.001$
Secondary	78.6 (1277)	70.6 (1261)	74.6 (2538)	$p < 0.001$
Tertiary	80.9 (155)	89.3 (171)	85.7 (326)	ns
Level of significance	$p < 0.001$	$p < 0.001$	$p < 0.001$	
<i>Fathers' education</i>				
Nil	34.0 (3003)	24.3 (3047)	29.0 (6050)	$p < 0.001$
Primary	53.3 (1671)	39.6 (1696)	46.4 (3367)	$p < 0.001$
Secondary	72.8 (1770)	59.9 (1710)	66.4 (3480)	$p < 0.001$
Tertiary	82.4 (606)	80.1 (629)	81.2 (1235)	ns
Level of significance	$p < 0.001$	$p < 0.001$	$p < 0.001$	

Figures in the parentheses indicate number of children aged 11-15 years; ns = not significant at $p = 0.05$

Source: Education Watch Household Survey, 2005

Late enrollment of children was related to socio economic disadvantages. Of 11-15 age group who are still in primary school have parents with a lower level of education and belongs to households with more insecure economic status. (Table 4.8)

Wide geographical disparity in participation is revealed from an analysis of location-wise data. Out of 240 unions, 10 had less than 20 percent gross enrolment ratio and 63 had a ratio of over 80 percent. (Table 4.9) Nine locations, five rural and four urban, had a gross enrollment ratio of over 100. The lists of these "outlier" locations are given in annexes 4.23A and 4.23B. The socio-economic characteristics of the households with secondary school age children in these locations are presented in Annex 4.24.

Table 4.8 Socio-economic characteristics of the 11-15 years old children by their level of education

Socio-economic status	School type	
	Primary (3,421)	Secondary (6,632)
Mean age	12.0	13.3
Sex		
Girls	51.3	44.2
Boys	48.7	55.8
Mothers education		
Nil	59.3	36.3
Primary	29.1	34.2
Secondary	10.7	26.3
Tertiary	0.9	3.2
Fathers education		
Nil	52.8	29.1
Primary	24.5	23.4
Secondary	18.4	34.3
Tertiary	4.3	13.2
Food security status		
Always in deficit	18.3	9.7
Sometimes in deficit	31.2	25.6
Breakeven	33.2	36.6
Surplus	17.3	27.8
Religion		
Muslim	89.5	84.9
Non-Muslim	10.5	15.1

Figures in the parentheses indicate number of children aged 11-15 years
Source: Education Watch Household Survey, 2005

F. Non-enrolled children

As noted, over 28 percent of the children in 11-15 years age group did not participate in any educational institution. Of those who enrolled in grade six, less than half reached grade ten and 20 percent passed SSC (as shown later in chapter 7). The characteristics of the non-enrolled and the dropout are described in this section.

Table 4.9. Distribution of locations (union) under study by level of gross enrolment ratio

Gross enrolment ratio	Number locations	Percentage	Cumulative percentage
<20	10	4.2	4.2
21–40	24	10.0	14.2
41–60	50	20.8	35.0
61–80	93	38.8	73.8
81+	63	26.3	100.0
Total	240	100.0	

Source: Education Watch Household Survey, 2005

- i. The non-enrolled children in 11-15 years age group (28.3 percent of this age group, as can be seen in Table 4.3) are clearly at a disadvantage in socio-economic terms compared to those in school in multiple ways. As expected, the survey showed a relationship between poverty and parental education with enrollment status.
- ii. Of children not enrolled in school, 27 percent of the dropouts and 34.5 percent of those who never enrolled were in the category of “always in deficit” in respect of household food security. (Table 4.10) This percentage was 13 percent for children enrolled in school.
- iii. Among children who never enrolled in a school, about 90 percent of the mothers and 82.6 percent of the fathers had no formal education. These percentages were respectively 72 percent and 64 percent in the case of children who dropped out. On the other hand, mothers with tertiary education had no children who never enrolled in school and only 0.1 percent of their children dropped out from school. (Table 4.10)
- iv. On reasons for non-participation, two responses stand out – “scarcity of money” or poverty, and children’s dislike of school, which indicates problems in respect of teaching-learning. A third most frequently mentioned item is the need for the child to work, which is related to poverty. Poverty appears to be the predominant cause of non-participation in education. (Table 4.11)
- v. Dislike of schools was mentioned two times more frequently as reason for non-participation by boys than girls. Child work was a more frequent obstacle to education for girls than for boys. (Table 4.11)

Out of the 28.3 percent overall out-of-school aged 11-15 years, the rate for girls was 24.5 percent and for boys 31.9 percent ($p < 0.001$). (See Table 4.3) Two types of children are in this group. A large portion – 22.7 percent of all children of age 11-15 years – consisted of drop-out from primary education classes or those who did not continue in secondary school; the remaining 5.6 percent never enrolled in school. (Annex 4.20). Distribution of children aged 11-15 years by current enrolment status, area of residence and sex is provided in Annexes 4.21 and 4.22. The highest rate of never enrolled children was found in rural Sylhet division (8.4 percent) followed by the metropolitan cities (7.5 percent); and lowest in rural Khulna division (3.1 percent).

Table 4.10. Socio-economic differentials of the children by school enrolment status

Socio-economic status	% of children by schooling status		
	Currently enrolled	Dropped out	Never enrolled
<i>Mothers education</i>			
Nil	44.7	72.0	89.9
Primary	32.3	23.6	8.5
Secondary	20.7	4.4	1.5
Tertiary	2.4	0.1	0.0
<i>Fathers education</i>			
Nil	37.6	64.1	82.6
Primary	23.9	22.5	12.6
Secondary	28.6	15.5	4.1
Tertiary	10.0	0.9	0.7
<i>Food security status</i>			
Always in deficit	12.9	27.0	34.5
Sometimes in deficit	27.7	30.9	30.2
Breakeven	35.4	28.2	21.8
Surplus	23.9	13.9	13.5

Figures in the parentheses indicate number of children aged 11-15 years

Source: Education Watch Household Survey, 2005

An analysis of socio-economic background of the children 11-15 years not in school is shown in Table 4.10. Evidently, the socio-economic background of the currently enrolled students was more advantageous than for those who dropped out or never enrolled. Further analysis by sex and area of residence is provided in Annex 4.23.

Household responses regarding reasons for secondary school age children not being in school are presented in Table 4.11. The informants were asked to indicate the most important reason that applied to a child. Further details are provided in Annex 4.24.

Table 4.11. Percentage distribution of out-of-school children by causes of non-enrolment, residence and gender

Causes	All Bangladesh			Rural Bangladesh			Urban Bangladesh		
	Girls	Boys	Both	Girls	Boys	Both	Girls	Boys	Both
School is too far from home	3.1	1.5	2.2	3.6	1.6	2.4	0.7	0.2	0.4
Scarcity of money	50.0	46.6	48.1	46.8	45.8	46.2	66.8	52.2	59.5
Admission refused	1.4	0.5	0.9	1.4	0.4	0.9	1.3	0.9	1.1
No use of education	1.5	2.2	1.9	1.5	2.3	2.0	1.7	2.0	1.9
Unsuccessful in exam	2.9	2.6	2.7	3.1	2.6	2.8	2.2	2.6	2.4
Child works at/outside home	7.2	11.1	9.4	7.7	11.9	10.1	4.6	5.1	4.8
Child's dislike of school	14.7	30.3	23.6	15.7	30.1	24.0	9.4	31.5	20.4
Security concerns	3.2	0.0	1.4	3.6	0.1	1.5	1.3	0.2	0.8
Marriage	8.3	0.2	3.7	8.8	0.2	3.8	5.7	0.0	2.9
Disability	2.0	2.3	2.2	2.4	2.2	2.3	0.4	2.6	1.5
Others	5.5	2.8	4.0	5.5	2.8	3.9	5.9	2.6	4.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of children									

Figures in the parentheses indicate number of never schooled children aged 11-15 years

Source: Education Watch Household Survey, 2005

A small difference can be noticed between the reasons of out of schooling of the boys and the girls. For instance, reasons like marriage and social insecurity have been mentioned mostly for the girls. Distance between school and home was cited for more girls than the boys. Again, disliking of school environment was mentioned for more boys than the girls and scarcity of money was an obstacle for more girls than the boys. Separate analysis of the reasons of dropping out is provided in Annexes 4.26 to 4.28.

Of the dropout children, only a fifth left school at the end of the academic year and the majority at the middle of an academic year. Although these children were at the secondary schooling age, two thirds of them did not go beyond the boundary of primary education and over a half dropped out from schools keeping their primary education incomplete (Table 4.12). Proportion of children dropping out before completing primary education was higher among boys than girls (57.1 percent vs. 44.9 percent), and in the urban areas than the rural areas (53 percent vs. 51.6 percent).

Table 4.12. Years of schooling completed by the drop-out children

Years of schooling	All (3470)	Girls (1559)	Boys (1911)	Rural (2729)	Urban (741)
Nil	5.6	3.7	7.0	5.4	6.6
I-IV	46.2	41.2	50.1	46.2	46.4
V	26.7	26.9	26.6	26.6	27.5
VI-VIII	18.9	24.1	14.9	19.0	18.2
IX-X	2.6	4.2	1.4	2.8	1.4

Figures in the parentheses indicate number of dropout children aged 11-15 years

Source: Education Watch Household Survey, 2005

G. Multivariate analysis of participation

Multivariate analysis of participation data showed that among children of age 11-15 years, girls, of age 13-15 years, and having educated fathers were more likely to enroll in school. Father's education was found to be the most important predictor, which is also related to economic status of the family.

In order to explore the probability of school participation of the secondary school aged children (11-15 years) a multivariate analysis was undertaken. This analysis was intended to help determine the influence of one explanatory variable (or predictor) controlling the affects of others. Considering school participation as a dichotomous variable (participation in school or not), binary logistic regression was thought to be suitable for this analysis (Menard 1995, Hosmer and Lemeshow 1989). Three models were built for exploring three different situations of school participation. The situations are as follows.

- Model I: To predict probability of a child, among all 11-15 years, being enrolled in any class (primary or secondary level).
- Model II: To predict probability of a child, among all 11-15 years, being enrolled in secondary school (classes 6 to 10).
- Model III: To predict probability of a child, among 11-15 years who are currently enrolled in school, being enrolled in the secondary school (classes 6 to 10).

A set of carefully selected explanatory variables was considered. For instance, mothers' education was found highly correlated with that of fathers', and again, both parental education were correlated with household food security status. In order to reduce multi-collinearity in the model any one of the variables could be considered for the analysis. Based on findings of bi-variate analyses, father's education was chosen for this purpose. The other explanatory variables selected are: age and sex of the children, area of residence, and religion. Details of the variables are provided in Annex 4.29. A stepwise approach was followed and the final models were selected through a combination of forward selection and backward elimination. The regression coefficients and their odds ratios in the final models are provided in Table 4.13.

Of the five variables taken for analyses, the first two models considered four variables each and the third model considered all five. Religion did not come out as an important predictor of participation in the first model and area of residence in the second. In other words, among the children aged 11-15 years, both the Muslims and the non-Muslims had equal chance of being enrolled in school (Model I). And both rural and urban children of 11-15 years had equal probability of being enrolled in the secondary classes (Model II). The summary of the models are shown below.

Table 4.13. Logistic regression analysis predicting school enrolment of children

Explanatory variables	Model I		Model II		Model III	
	Regression coefficient	Odds ratio	Regression coefficient	Odds ratio	Regression coefficient	Odds ratio
<i>Sex</i>						
Boys	0	1.00	0	1.00	0	1.00
Girls	0.45*	1.57	0.53*	1.69	0.50*	1.65
<i>Age</i>						
11-12y	0	1.00	0	1.00	0	1.00
13-15y	-1.08*	0.34	0.92*	2.51	1.99*	7.29
<i>Area</i>						
Rural	0	1.00	NA		0	1.00
Urban	-0.32*	0.73			0.37*	1.45
<i>Fathers education</i>						
Nil	0	1.00	0	1.00	0	1.00
Primary	0.80*	2.23	0.78*	2.18	0.53*	1.69
Secondary	1.69*	5.42	1.64*	5.13	1.22*	3.40
Tertiary	3.26*	26.14	2.48*	11.99	1.73*	5.62
<i>Religion</i>						
Muslim	NA		0	1.00	0	1.00
Non-Muslim			0.29*	1.33	0.54*	1.72
Constant	0.85*	2.33	-1.77*	0.17	-1.35*	0.26
-2 log likelihood		14306.31		16641.57		10577.53
Cox & Snell R ²		0.14		0.18		0.24
Nagelkerke R ²		0.21		0.23		0.33

Model I predicts probability of a child being enrolled in any class among children aged 11-15 years

Model II predicts probability of a child being enrolled in secondary school (class VI-X) among children aged 11-15 years

Model III predicts probability of a child being enrolled in secondary school (class VI-X) among currently enrolled children aged 11-15 years

* p<0.001, NA = Not appeared in the model

Model I shows that among all children aged 11-15 years, boys, children aged 13-15 years, urban children, and those having fathers without any schooling were less likely to enrol in school than the others. Level of fathers' education came out as the most important predictor of school participation of children aged 11-15 years followed respectively by age, sex and area of residence.

Model II shows that among all children aged 11-15 years, girls, children aged 13-15 years, non-Muslims, and those having educated fathers were more likely to enroll in any class of the secondary school than others. Similar to model I, fathers' education came out as the most important predictor of secondary school enrolment of children followed respectively by age, sex and religion.

Model III shows that among the currently enrolled children of age 11-15 years, girls, children aged 13-15 years, urban children, non-Muslims, and those having educated fathers were more likely to enroll in secondary classes than others. Age of children came out as the most important predictor of currently enrolled children being enrolled in the secondary classes, followed respectively by fathers' education, sex, religion, and area of residence.

The above analysis shows, as might be expected, that fathers' education, which in fact represents education of both parents as well as the poverty status of the family, is the most important predictor of secondary school participation in Bangladesh. A girl over 13, reflecting late starting age in primary school, had a higher chance of being enrolled in secondary school than a boy of the same age.

Chapter 5

Secondary Education Facilities and Learning Provisions

This chapter provides information about physical and learning facilities, teachers, student attendance and working and learning environment in secondary level institutions.

The status of participation in secondary education has been described in the previous chapter. Some of the socio-economic variables associated with participation also have been presented. The factors related to operation of the school which influence children's participation and performance in school are presented and discussed in the following sections of this chapter.

A. Location, history and gender characteristics of schools

Some basic information about location of secondary schools, how long the school has been in existence, and the character of the school in terms of access for both boys and girls are presented in this section.

- i. All government schools and combined school-and-college institutions were predominantly located in urban areas and upazila centres. Non-government schools and madrasas were more dispersed in the upazilas.
- ii. The history of about 2 percent of the schools went back to over a century, 13 percent of the schools were established during the British rule, two thirds of the schools were built since independence of Bangladesh in 1971 and almost a quarter were built since 1990. This history indicates a rapid expansion of the system in recent years.
- iii. The schools, including the general stream and the madrasas, are predominantly co-educational. Only 14.5 percent of the schools were for only girls and 2.1 percent for only boys. Gender segregation is common in government schools.

The average distance of schools from the upazila town provides an indication of the concentration or dispersal of different types of institutions in the upazila. The average distance was 9.4 kilometres. All the government schools were situated in the upazila towns. Among other types of institutions, the school-cum-colleges were on average 6.1 kilometres away from the upazila towns, the non-government schools were 8.5 kilometres away, and the others (Junior secondary, and Dakhil and Alim madrassas) were more than 10 kilometres away from the upazilas (Annex 5.1).

Some of the schools were established much earlier than others. On average, 12.8 percent of the surveyed schools were established in the then British India including 1.8 percent in the 19th century (Annex 5.2). Among others, 22.7 percent of the total schools were established in the Pakistani regime, and majority in independent Bangladesh (41.1 percent between 1971–1990 and 23.4 percent since 1991). The government schools were relatively older than others; half of these were established before 1947. On the other hand, 93.3 percent of the junior secondary, 15.4 percent of the non-government, and 31.4 percent of the dakhil madrasas were established after

1990. It appears that a new school starts as a junior secondary school and gradually adds grades to become a full secondary school. The majority of the schools and madrasas were co-educational (83.4 percent); 14.5 percent of the institutions were only for girls and 2.1 were only for boys (Annex 5.1). Among government-run schools, 36.7 percent were only for boys and 56.7 were only for girls.

B. Basic infrastructure

Essential physical facilities provide the environment for carrying out the functions of the school. Information about land and buildings and their condition is summarised below.

- i. With the exception of one dakhil madrasa in the sample, all educational institutions were established on their own land.
- ii. On an average, a secondary school or madrasa had 3.3 buildings with 13.7 rooms including 9.4 classrooms. (Annex 5.3)
- iii. About one-third of the school buildings were built fully of brick, another third built partially of brick, and the others were built with other materials including corrugated tin-coated iron sheets. (Table 5.1 and Annex 5.4)
- iv. A five-point classification of physical condition (of roofs, walls, doors, windows and floors) revealed that only 11 percent of the structures were in good condition, 39 percent were largely in good condition, 32 percent in poor condition and 18 percent were in damaged and dilapidated categories. (Table 5.1).
- v. Eighty-six percent of the schools had a playground.
- vi. Nearly three out of five secondary institutions had electricity connection; however, three quarters of the classrooms and about half of the teachers' rooms did not have electricity for light and fan. (Table 5.1)
- vii. Most schools had their own water supply provisions. Over 90 percent had their own tubewell in the school premises.
- viii. Nearly three quarters of the schools had the toilet facility. Overall, a quarter of the toilets were clean and hygienic, half hygienically inadequate, and a quarter in seriously unhygienic condition.

Table 5.1. Physical facilities in schools by type of school

Physical facilities	School type						All
	Junior	Non-govt.	Govt.	Sch.& Coll.	Dakhil	Alim	
<i>Structure and classrooms</i>							
Average number of structures	1.7	3.7	4.5	4.2	3.1	3.9	3.3
Average number of rooms	6.8	15.7	24.5	27.9	12.5	16.2	13.7
Average number of classrooms	5.0	10.2	13.4	18.5	9.5	12.2	9.4
Separate office for head teacher (% of schools)	23.3	70.0	100.0	93.3	27.5	50.0	52.0
<i>Construction of buildings</i>							
Fully brick made school buildings (% of schools)	7.8	45.8	69.1	52.8	21.6	28.4	36.6
Roof/door/windows are mostly or fully all right (% of schools)	10.0	67.5	90.0	83.3	34.6	56.7	50.4
<i>Electricity facility (% of schools)</i>							
Having electricity facility in school	16.7	73.8	100.0	96.7	46.2	80.0	58.2
Light and fan in teachers room	10.0	67.5	100.0	96.7	39.7	66.7	52.3
Light and fan in the classrooms	7.9	34.6	88.3	54.5	9.8	15.8	26.5
<i>Water and sanitation (% of schools)</i>							
Having tube well in school	83.3	93.4	96.7	100.0	86.4	96.7	90.5
Sex wise separate toilet facilities	50.0	79.7	96.7	96.7	71.7	90.0	74.0
Separate toilet for teachers	36.7	88.8	100.0	100.0	67.8	80.0	75.2
Hygienic toilet facility	34.2	26.1	54.6	30.9	21.6	28.6	26.5
<i>Play ground in school (%)</i>	86.7	91.7	90.0	100.0	77.5	70.0	86.3

Source: Education Watch School Survey, 2005

School structure and classrooms: Over 11 percent of the surveyed schools had only one structure, 21.3 percent had two, 30 percent had three, 20.2 percent had four, and 17.2 percent had five or more structures. In respect to the number of school structure and classrooms, the School & Colleges were wealthy than other type of schools, followed by the government schools. Condition of the non-government schools and the Alim madrassas were similar, which were better than the dakhil madrasas. The junior secondary schools had the poorest buildings.

All government schools had a separate office for the head teacher. Among others, 93.3 of the school & colleges, 70 percent of the non-government schools, 50 percent of the alim madrassas, 27.5 percent of the dakhil madrasas, and 23.3 percent of the

junior secondary schools had separate office rooms for the head teachers. All the schools under survey had teachers' common rooms.

School type-wise analysis shows that in respect of the overall condition of the infrastructure, government schools were the best and the junior secondary schools worst. Ninety percent of the overall infrastructures in the government schools were in good condition; this was the case with 83.3 percent in the school & colleges, 67.5 percent in the non-government schools, 56.7 percent in the alim madrassas, 34.6 percent in the dakhil madrasas, and only 10 percent in the junior secondary schools (Annex 5.4).

Playground: Eighty six percent of the surveyed schools had playground at their premises. This includes all the school & colleges, 91.7 percent of the non-government schools, 90 percent of the government schools, 86.7 percent of the junior secondary schools, 77.5 percent of the dakhil madrasas, and 70 percent of the alim madrasas.

Electricity facility: All the government schools, 96.7 percent of the school & colleges, 80 percent of the alim madrassas, 73.8 percent of the non-government schools, 46.2 percent of the Dakhil madrassas, and 16.7 percent of the junior secondary schools had electricity in the school premises (Annex 5.5). As noted, the large majority of classrooms did not have lights or fans, even if the school had electricity connection. (Annex 5.5)

Water and sanitation: Although most institutions had water and sanitation provisions, a quarter were without toilets; the dakhil madrasas and the junior secondary schools fared poorly in this respect (Annex 5.6).

C. Learning facilities

Learning facilities and provisions examined included science laboratory, library, computer education, co-curricular activities and supplementary tutoring. These items were included in the survey, because, these are regarded as important for creating a conducive learning environment, and in principle, adequacy of these provisions are conditions for government subvention to school.

Half of the schools had science laboratories of varying quality. The common practice is to have a combined laboratory physics, chemistry and biology. Seventy-one percent of the government schools, and 62 percent of school & colleges had such combined laboratory. Majority of the madrasas, over three quarters of the alim and 87 percent of the dakhil, had no science laboratory. The non-government schools, major providers of secondary education in the country, were lacking in adequate laboratory facilities, with only one-third having the combined laboratories (Table 5.2).

Table 5.2 Percentage distribution of schools with combined (physics, chemistry and biology) science laboratories

Nature of the combined science laboratories	School type					All
	Non-govt.	Govt.	Sch.& Coll.	Dakhil	Alim	
Furnished laboratory room with necessary instruments	32.6	70.6	61.9	6.5	0.0	31.7
Inadequate amount of instrument without laboratory room	54.7	5.9	28.6	67.7	71.4	54.5
Laboratory room with nil or very few instruments	12.7	23.5	9.5	25.8	28.6	13.8

Source: Education Watch School Survey, 2005

The large majority of secondary schools in the country lack complete library facilities. Only 15 percent of the surveyed schools had library with adequate books and reading facilities, 80 percent of the schools had some books in the bookshelves kept in the head teacher's room or in the teachers' common room, and 5 percent of the schools had no library (Table 5.3). The school & colleges were ahead of the others in providing library facilities to the students, followed respectively by the government schools, non-government schools, and the alim madrassas. Some libraries in the non-government schools were established with support from NGOs, with the aim of serving both the school and the community.

Table 5.3. Library facilities in schools by school type

School type	Type of library facilities		
	Library with reading facilities	Some books in bookshelves	No library
Junior secondary	3.3	83.3	13.3
Non-govt. secondary	20.9	74.6	4.6
Govt. secondary	56.7	33.3	10.0
School & college	56.7	43.3	0.0
Dakhil madrasa	5.9	93.2	0.8
Alim madrasa	16.7	83.3	0.0
All	15.0	80.0	5.0

Source: Education Watch School Survey, 2005

Thirty-seven percent of the schools claimed that they have provision for computer education in school, 42 percent had at least one computer, and 54 percent had at least one teacher trained in computer education (Table 5.4). A fifth of the schools had only one computer each, another one fifth had more than one computer ranging from 2-15, and the rest had no computer. Two thirds of the schools with computer teacher had only one teacher trained in this, and the rest had more than one ranging from 2-10 teachers. Among those providing computer education, the majority provide it for the students of classes 9 and 10. The survey did not provide information regarding the level of skills of teachers who were reported to be “trained” or the nature and quality of instruction they offered.

Table 5.4. Provision of computer education in secondary schools

School type	Proportion of schools having		
	computer education	at least one computer	At least one trained teacher
Junior secondary	6.7	10.0	30.0
Non-govt. secondary	52.1	59.2	67.5
Govt. secondary	63.3	93.3	100.0
School & college	83.3	86.7	90.0
Dakhil madrasa	24.2	25.0	40.7
Alim madrasa	30.0	30.0	43.3
All	37.3	42.3	54.4

Source: Education Watch School Survey, 2005

The commonest co-curricular activities were related to religious events, such as, *Eid-ul-Fitr* and *Saraswati puja* (organized by 87 percent of institutions). This was followed in order by annual sports (84 percent), cultural programmes (79 percent), games and athletics (70 percent), and debates (68 percent). Nearly 60 percent of the schools had scouts, girl guides, Rover and similar activities. Two thirds of schools reported participation in social service and relief activities on occasions of floods and emergencies; and involvement of development activities, such as, tree planting campaigns. (Table 5.5)

Table 5.5. Proportion of schools arranging co-curricular activities by type of activities and schools

Co-curricular activities	School type						All
	Junior	Non-govt.	Govt.	Sch.& Coll.	Dakhil	Alim	
Arts and crafts class	10.0	24.2	46.7	36.7	3.4	3.3	16.2
Arts and crafts competition	3.3	15.4	26.7	36.7	5.1	0.0	10.6
Singing and dancing class	13.3	19.2	16.7	20.0	6.8	10.0	14.7
Singing and dancing competition	10.0	35.0	50.0	33.3	14.0	20.0	25.4
Debate competition	70.0	67.1	80.0	80.0	64.0	93.3	68.4
Annual cultural programme	80.0	83.3	90.0	93.3	67.4	70.0	78.5
Annual sports	83.3	86.7	93.3	100.0	78.4	80.0	84.1
Other sports and games	63.3	75.4	80.0	83.3	58.1	76.7	69.5
Religious festival	73.3	87.5	100.0	100.0	94.5	93.3	87.4
Scout/ Rover/ BNCC/ Girl guides	26.7	80.0	93.3	83.3	38.0	46.7	59.9
Social work	56.7	70.0	73.3	63.3	62.9	83.3	66.8
Science fair	0.0	10.8	30.0	13.3	2.5	3.3	7.0
Study tour	30.0	50.4	63.3	73.3	37.6	53.3	44.5
Mean number of activities	5.2	7.0	8.4	8.2	5.3	6.3	6.3

Source: Education Watch School Survey, 2005

D. Supplementary tutoring

Most schools provide supplementary tutoring outside the regular class hours. Such tutoring is related to preparation of public examinations, such as junior scholarship examination and the SSC examination. The beneficiaries often are selected students who are considered good prospects for doing well in the public examination and thus bring credit to the school. This tutoring, organized by school usually with a modest payment by students, has to be distinguished from individual private tutoring on payment discussed later in Chapter 7 under household costs for education.

- i. Eighty-eight percent of the schools provided supplementary tutoring to junior scholarship examinees (at the end of grade 8).
- ii. Supplementary tutoring was organized by 83 percent of the institutions for SSC and dakhil examination candidates. (Table 5.6)

Table 5.6. Proportion of schools providing supplementary tutoring by school type

School type	General coaching		For junior scholarship examinees		For SSC/Dhakil examinees	
	% arranged	% on payment	% arranged	% on payment	% arranged	% on payment
Junior secondary	30.0	50.0	93.3	7.1	33.3	10.0
Non-govt. secondary	15.0	61.1	95.0	24.1	92.1	46.2
Govt. secondary	10.0	66.7	80.0	62.5	53.3	56.3
School & college	10.0	33.3	86.7	53.8	96.7	69.0
Dakhil madrasa	14.0	36.4	70.9	11.3	94.1	25.2
Alim madrasa	30.0	66.7	83.3	28.0	93.3	46.4
All	16.2	54.4	88.1	19.7	82.6	38.4

Source: Education Watch School Survey, 2005

E. Teachers – general information

The number of teachers in relation to the number of students, qualification and skills of teachers and their performance in the classroom are critical factors in students' learning achievement. Based on school survey data, basic information regarding teachers in secondary education are presented in this section.

- i. On an average, secondary institutions had 14.3 teachers; the mean number ranged from 8.9 for junior secondary schools to 31.2 teachers for school-and-colleges.
- ii. Less than a fifth (17.9 percent) of the teachers at the secondary level were female. Non-government schools, most numerous in the system, had 21 percent females in their teaching staff; dakhil madrasas had 9 percent. (Table 5.7, Annex 5.12)
- iii. More than 84 percent of the teachers received the monthly salary subvention (90 percent of the salary scale) paid by the government to teachers of non-government schools and madrasas through MPO.
- iv. On an average, about 10 percent of the teachers were absent from school on the day of the survey. The highest absenteeism (17.6 percent) was observed in Junior Secondary schools and the least (7.5 percent) in alim madrasas. (Table 5.7)

Table 5.7. Some general information about teachers by school type

	Mean number of teachers per school	Females (%)	Absent (%)	Ethnic minority (%)	Non-Muslim (%)	Receiving government subvention (%)
Junior secondary	8.9	16.9	17.6	0.0	13.5	46.8
Non-govt. secondary	15.3	20.6	8.1	1.5	24.0	89.2
Govt. secondary	18.1	37.5	10.8	1.3	22.1	na
School & college	31.2	33.3	11.5	0.4	17.0	76.7
Dakhil madrasa	14.3	9.4	11.8	0.0	1.5	78.0
Alim madrasa	18.1	8.8	7.5	0.0	1.8	92.5
All	14.3	17.9	9.5	0.9	16.2	84.3

na = Not applicable

Source: *Education Watch School Survey, 2005*

Average number of teachers per institution was the highest in the school & college category, the government schools and the alim madrassas (18.1 teachers in each). Distribution of number of teachers by school type is provided in Annex 5.11.

F. Teachers – educational qualifications and training

Teachers' educational qualifications and professional training are regarded as important determinants of their performance in the classroom. Information about years of formal education of teachers, qualifications they earned, disciplines they studied, their performance in higher education examinations, and their pedagogic training is analysed in this section.

On an average, secondary teachers had 14 years of schooling. Fifty eight percent of secondary level teachers had a bachelors' degree and 26 percent had a master's degree. On the other hand, 13 percent of the teachers had completed only the higher secondary certificate (HSC) and 3 percent had a qualification at SSC level or below. (Table 5.8.)

Table 5.8. Percentage distribution of teachers by educational qualifications and their placement by school type

Educational qualifications of teachers	Teacher placement by school type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
SSC/Dakhil or below	0.7	2.5	2.0	1.4	5.7	2.6	3.1
HSC/Alim	11.2	9.9	5.0	4.0	20.4	16.9	12.6
Bachelor/ Fazil	74.9	68.8	37.1	45.5	42.1	33.1	58.1
Masters/ Kamil	13.1	18.9	55.9	49.2	31.8	47.4	26.2
Average	14.0	14.1	14.9	14.8	14.0	14.5	14.1

Source: Education Watch School Survey, 2005

Nearly 44 percent of the graduate teachers (with bachelor or fazil degree) studied humanities for their graduate degree, a fifth studied science, 8 percent studied commerce, 6 percent studied social sciences, and over 22 percent studied the Islamic curriculum in madrasas. School-wise analysis shows that half of the graduate teachers in secular institutions studied humanities and 60 percent of the teachers in dakhil madrasas studied the madrasa curriculum (Table 5.9.).

Table 5.9. Percentage distribution of graduate teachers by disciplines they studied and their placement by school type

Disciplines in teachers' higher education	Placement of teachers by school type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
Humanities	57.0	50.6	50.3	48.0	25.3	26.9	43.8
Commerce	6.0	10.4	6.0	8.8	2.3	1.1	7.6
Science	14.9	24.2	28.1	29.6	8.9	10.5	20.0
Social science	9.4	6.7	10.2	8.7	3.2	3.4	6.1
Madrasa	12.8	8.2	5.4	4.9	60.2	58.0	22.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

The performance of teachers in public examinations indicates a low level of academic achievement of teachers at the secondary level. Fifty-seven percent of the teachers claiming a bachelor's level qualification either were placed in the third division or they did not take the final examination. Similarly, 39 percent of the teachers reporting HSC/alim qualification were either placed in the third division or did not sit for the final examination (Table 5.10.).

Table 5.10. Percentage distribution of teachers by their performance in public examinations

Teachers' performance in exam.	Type of public examination			
	SSC/Dakhil	HSC/Alim	Degree/Fazil	Masters/Kamil
First division/class	24.9	8.0	1.5	1.0
Second division/class	52.4	52.7	41.1	20.5
Third division/class	22.7	36.2	41.7	4.3
Not appeared in exam	-	3.1	15.7	74.2

Source: Education Watch School Survey, 2005

More than half of the secondary school teachers had no professional training. Nearly two in every five teachers had any formal training and 8.6 percent had short courses. Thirty four percent of the secondary school teachers had B.Ed degree, 2 percent had M.Ed, 0.5 percent had Dip-in-Ed, and 3.4 percent had B.P.Ed. (Table 5.11.). School-wise analysis shows low level of training of teachers for junior secondary schools and madrasas Further information about teachers' educational background is provided in Annexes 5.13 to 5.18.

Table 5.11. Proportion of trained teachers by type of training and their placement by school type

Teacher placement by school type	Type of training						All training
	C-in-Ed	B. Ed	M. Ed	Dip-in-Ed	Bp. Ed	Others ¹	
Junior secondary	0.4	20.6	0.0	0.0	5.2	13.9	37.1
Non-govt. secondary	0.8	47.5	2.2	0.6	3.4	8.4	59.1
Govt. secondary	2.2	66.9	16.9	0.7	4.8	10.7	77.8
School & college	0.7	39.0	5.1	2.2	2.6	6.1	50.6
Dakhil madrasa	1.3	6.9	0.2	0.4	3.1	8.4	19.7
Alim madrasa	0.9	10.5	0.2	0.0	2.9	7.9	21.9
All	1.0	34.1	2.0	0.5	3.4	8.6	46.3

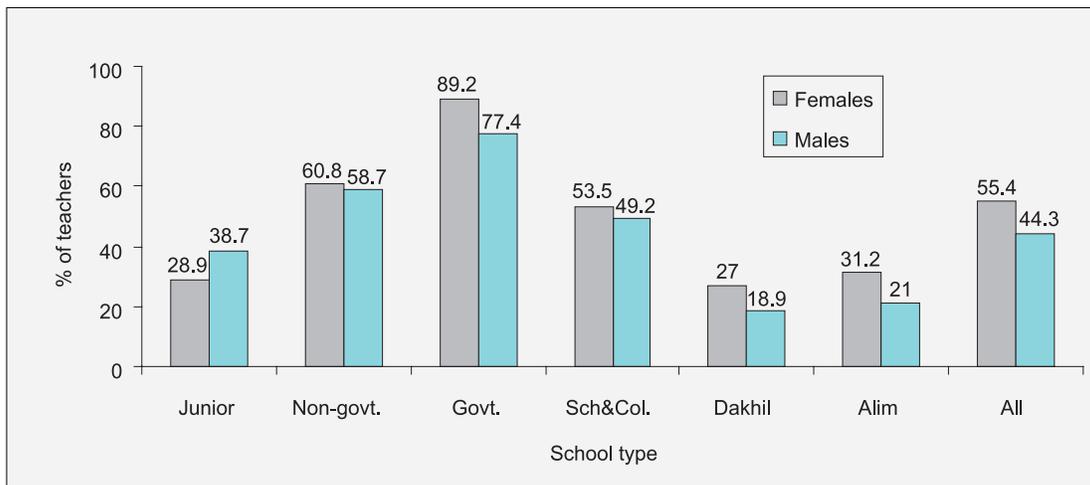
¹ Include short courses on computer or subject based training.

Source: Education Watch School Survey, 2005

On average, as shown in Figure 5.1, the female teachers were ahead of their male counterparts in receiving training (55.4 percent vs. 44.3 percent). The highest male female difference in favour of females was observed in the government secondary schools (12 percentage points), followed by the madrasas (10 percentage points). A similar trend was observed across school types except the junior secondary schools. Here, the male teachers were 10 percentage points ahead of their female

counterparts. Nearly 90 percent of the female teachers in the government secondary schools were trained. Annex 5.22 provides gender wise analysis of formal training and short courses.

Figure 5.1. Proportion of teachers having any training by school type and sex



Source: Education Watch School Survey, 2005

Length of service: On average, the secondary school teachers had 12.9 years of teaching experience, ranging from newly recruited to 44 years. Length of service was 13.8 years among the male teachers and 8.8 years among the female teachers. The teachers of government and non-government secondary schools, school & colleges, and dakhil madrasas were more experienced than those in junior secondary schools and the alim madrasas (Table 5.12).

G. Teachers – teaching load and student-teacher ratio

Adequacy of teachers in respect of their numbers determine student-teacher ratio and work load of teachers, which in turn affect teacher performance. Information about distribution of teachers among schools, teachers' workload, and number of students per teacher in categories of institutions is presented and discussed in this section.

As indicated in school's work schedule, on an average, a secondary level teacher had responsibility for 25.9 classes per week. (Table 5.13) Further analysis shows 18 percent of the teachers had 20 hours or less and 21 percent had 31 or more hours. (Annex 5.23)

Table 5.12. Length of service of teachers by school type and sex

School type	Average length (in year)			Range (in years)	
	Females	Males	Both	Females	Males
Junior secondary	4.5	7.1	6.7	0 – 21	0 – 35
Non-govt. secondary	9.1	15.7	14.4	0 – 40	0 – 44
Govt. secondary	14.6	13.0	13.6	0 – 35	0 – 37
School & college	11.0	12.2	11.8	0 – 38	0 – 41
Dakhil madrasa	4.9	11.0	10.4	0 – 23	0 – 40
Alim madrasa	5.9	14.2	5.9	0 – 13	0 – 44
All	8.8	13.8	12.9	0 – 40	0 – 44

Source: Education Watch School Survey, 2005

Table 5.13. Average number of classes a teacher had to per week by school type and sex

School type	Average number of classes per week			Range (in hours)	
	Females	Males	Both	Females	Males
Junior secondary	26.4	24.7	25.0	8 – 40	4 – 44
Non-govt. secondary	25.4	25.2	25.2	0 – 44	0 – 44
Govt. secondary	21.6	23.3	22.7	0 – 39	0 – 39
School & college	22.8	21.0	21.6	5 – 42	0 – 44
Dakhil madrasa	28.7	28.7	28.7	3 – 44	0 – 44
Alim madrasa	26.1	26.7	26.6	9 – 36	0 – 40
All	25.5	26.0	25.9	0 – 44	0 – 44

Source: Education Watch School Survey, 2005

Teachers were required to teach subjects which they did not study in their graduate courses. For instance, 8.1 percent of the teachers with commerce background, 5 percent with science, 7.2 percent with social science and 22.5 percent with madrasa background were teaching languages (Bangla or English) (Table 5.14). Again, the teachers with humanities background were taking a quarter of the mathematics classes, a fifth of the physical science classes and 12.6 percent of the business studies classes. On the other hand, the madrasa educated teachers were taking 17.2 percent of the social science classes. (See for details Annexes 5.24 to 5.27)

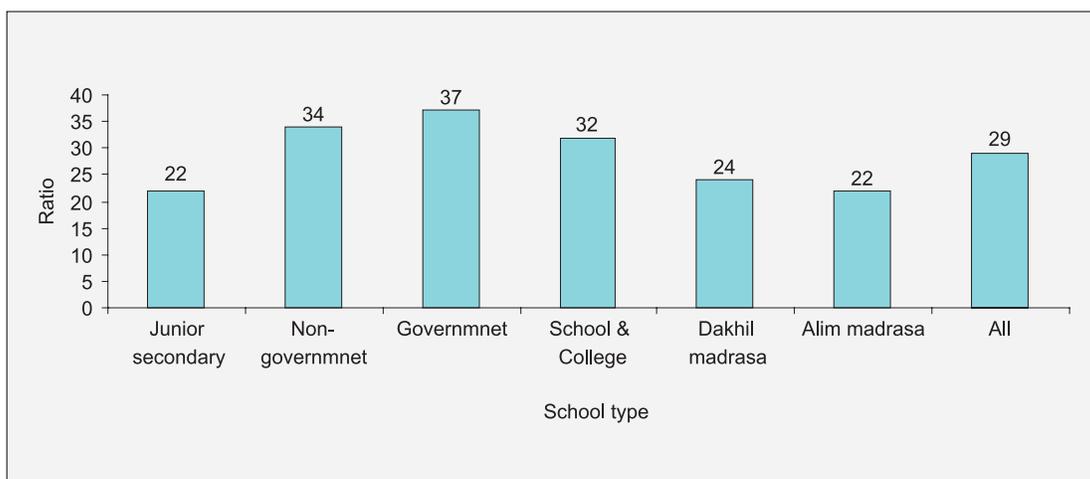
Table 5.14. Percentage distribution of graduate teachers (only those teaching secondary grades) by subjects they taught and their graduate studies

Subjects taught by teachers	n	Disciplines of teachers' graduate study					Total
		Humanities	Commerce	Science	Social science	Madrasa	
Languages	4472	57.2	8.1	5.0	7.2	22.5	100.0
Mathematics	1713	24.7	7.1	60.6	4.1	3.5	100.0
Physical science	1675	20.5	3.8	66.7	4.1	4.8	100.0
Social science	2594	57.7	7.7	9.4	8.0	17.2	100.0
Business Studies	357	12.6	81.4	3.3	2.8	0.0	100.0
Religion	1093	24.8	3.2	3.4	4.1	64.5	100.0

Source: Education Watch School Survey, 2005

Majority of the teachers in the surveyed schools teach at multiple levels. Thus it is difficult to calculate the number of students against each teacher at the secondary level. (See Annexes 5.24 and 5.25 for details) A straight comparison of all teachers and all students in an institution indicates that the student- teacher ratio was 29:1 at the aggregate level. School-wise analysis shows the highest student teacher ratio in the government schools (37:1) followed respectively by non-government schools (34:1) and School & Colleges (32:1). The madrasas and the junior secondary schools revealed a lower student teacher ratio (Figure 5.2).

Figure 5.2. Student-teacher ratio by school type



Source: Education Watch School Survey, 2005

With 10 percent average absenteeism of teachers, a large proportion of teachers teaching subjects for which they do not have educational qualification, and multi-level schooling in many institutions, the overall arithmetic ratio does not represent effective teacher-student ratio in classrooms. Effective teacher-student ratio in the classroom, as casual visit and observation to a school will indicate, is substantially higher than the indicated aggregate number of 29:1.

H. Student attendance and classroom space

A head count of students in classrooms was conducted during the day of the school survey and the numbers were compared with the enrolment register to derive the attendance rate in schools. The overall attendance rate in secondary level institutions surveyed was 50.2 percent. The rate for girls was 51.5 percent and for boys 48.4 percent (Table 5.15). The attendance rate was highest in the government schools at 64.8 percent, followed by school & colleges at 58.7 percent. The lowest rate was for junior schools at 41.4 percent. Class-wise analysis showed higher attendance in class six and the lowest in class nine. Girls were ahead of boys in attendance in all categories. (See also Annexes 5.30-32).

Table 5.15. Student attendance rate by school type and sex

School type	Sex		
	Girls	Boys	Both
Junior secondary	41.7 (3429)	41.1 (2317)	41.4 (5746)
Non-govt. secondary	51.7 (61881)	48.2 (55279)	50.0 (117160)
Govt. secondary	65.3 (10612)	64.2 (6927)	64.8 (17539)
School & college	60.8 (11704)	55.8 (7904)	58.7 (19608)
Dakhil madrasa	47.8 (21082)	47.9 (15370)	47.7 (36452)
Alim madrasa	55.5 (2570)	48.2 (2803)	51.7 (5373)
All	51.5 (111278)	48.4 (90600)	50.2 (201878)

Figures in the parentheses indicate number of students

Source: Education Watch School Survey, 2005

Average classroom capacity, assessed by researchers on the basis of a modest criterion of 18 inches of space per student on a bench, was sufficient for accommodating 80 percent of the enrolled students. This was not an immediate problem, since only half of the enrolled children came to class. (Table 5.16. More details are provided in Annex. 5.31 to 5.33)

Table 5.16. Mean number of students enrolled, classroom capacity, and attendance by school type

School type	Number of classrooms surveyed	Mean number of students		
		Enrolled	Can seat with ease	Present in class
Junior secondary	122	47.1	35.4	19.5
Non-govt. secondary	1838	63.4	50.3	31.7
Govt. secondary	272	64.5	69.0	41.8
School & college	332	59.1	53.7	34.7
Dakhil madrasa	1224	30.2	22.9	14.4
Alim madrasa	150	35.8	28.0	18.5
All	3938	56.8	45.4	28.5

Source: Education Watch School Survey, 2005

The analysis above of student-teacher ratio, classroom space and daily student attendance shows serious inadequacies in respect of basic provisions such as sufficient numbers of teachers and classroom space to accommodate all enrolled student. The earlier part of this chapter indicated deficiencies in respects of teachers' academic preparation for teaching and their professional training necessary to equip teachers to discharge their responsibilities in the classroom.

Chapter 6

Internal Efficiency in Secondary Institutions

This chapter examines promotion, dropout, repetition and performance in public examinations at the end of grade ten as indicators of internal efficiency of secondary education. A reconstructed cohort analysis is done and coefficients of efficiency at the secondary level are calculated.

Participation of the designated age-group of children in secondary education, the facilities and provisions for education and how these as well as key socio-economic variables influenced participation of children in secondary education have been presented in the previous chapters. An attempt is made in this chapter to gauge the efficiency of the secondary education sub-sector as measured by survival of students up to grade ten and finally their acquiring secondary school certificate (SSC) awarded through public examination at the end of grade ten.

A. Promotion, dropout and repetition

School survey provided information on promotion, dropout and repetition collected from the school records.

Promotion rate. On average, the promotion rate between classes six and ten was 80.8 among students whose names appeared in the school registers at the beginning of 2004. The average dropout rate was 11.8 percent during the year and repetition rate 7.4 percent. While the promotion rate was over 81 percent between classes 6 to 9, it dropped to 70.2 percent in class 10. (Table 6.1)

Dropout. Highest dropout and repetition rates were found among students of class 10. The repetition rate in class 10 was two and half times higher than that of other classes (Table 6.1). Promotion, dropout and repetition for boys and girls by grades are given in Annex 6.1.

Gender difference. The average promotion and repetition rates were marginally higher for the boys than the girls; the dropout rate was substantially higher for the girls than the boys. The gap widened in class 10 - the promotion rate was 76.1 percent for the boys and 65.2 percent for the girls from class 9 to 10. The dropout rate of the girls of class 10 was 8.9 percentage points higher than that of the boys; and the repetition rate was two percentage points higher for the girls. The higher promotion rate for the girls in first two classes of the secondary school started to be reversed from class 8.

School type effects. School-wise analysis shows that the promotion rate was the highest among students of government schools (91.3 percent), followed respectively by school-and-colleges (86.5 percent), and the non-government schools (81.1percent). The promotion rate was 76.3 percent in the dakhil and 80.7 percent in the alim madrasas. Three quarters of the junior secondary school students were promoted during the reference year. The dropout rate was much lower in the government schools and the school-and-colleges than the other types of institutions (Table 6.2). Further details about grade-wise promotion, dropout and repetition are provide in Annexes 6.1 to 6.3.

Table 6.1. Promotion, dropout and repeater rates by class

Class	Number of students	Percentage of students			
		Promoted	Dropped out	Repeated	Total
Class 6	45,997	83.0	11.1	5.9	100.0
Class 7	40,326	82.7	10.9	6.4	100.0
Class 8	36,510	81.5	12.7	5.8	100.0
Class 9	33,679	83.4	11.0	5.6	100.0
Class 10	27,374	70.2	14.2	15.6	100.0
All classes	183,886	80.8	11.8	7.4	100.0

Source: Education Watch School Survey, 2005

Table 6.2. Promotion, dropout and repeater rates by school type

School type	Number of students	Percentage of students			
		Promoted	Dropped out	Repeated	Total
Junior secondary	5627	75.4	16.6	8.0	100.0
Non-government	102989	81.1	11.4	7.5	100.0
Government.	46494	91.3	2.4	6.3	100.0
School & college	17896	86.5	7.3	6.2	100.0
Dakhil madrasa	35835	76.3	17.6	6.1	100.0
Alim madrasa	5045	80.7	13.8	5.5	100.0
All	1,83,886	80.8	11.8	7.4	100.0

Source: Education Watch School Survey, 2005

It should be mentioned that the school heads failed to provide information about 6.5 percent of the students who were subsequently excluded from the analysis.

Table 6.2 presents the analysis for each type of school under study. The dropout rate was clearly much lower in the government schools and the school & colleges than the other types of institutions. Annex 6.2 provides school type-wise analysis by sex.

B. Performance in public examinations

Information on students' participation and performance in public examinations at the end of grade ten – Secondary School Certificate or SSC for the general stream and dakhil for the madrasas, for last four years (2001-2004) were collected from the records of the sample schools.

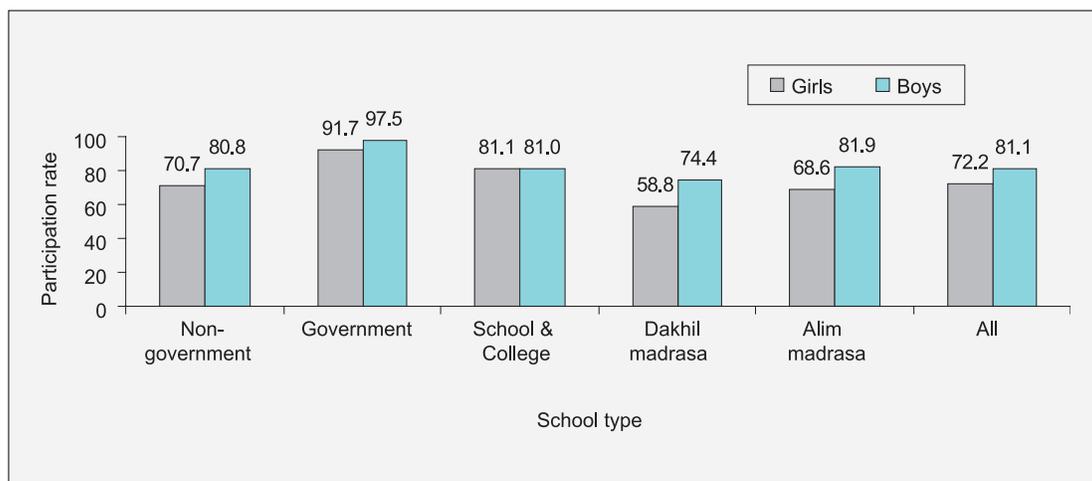
Participation in SSC examination. On average, nearly a quarter of the students of class ten did not participate in the public examinations held during 2001-2004; 27.8

percent among the girls and 18.9 percent among the boys. The overall rate of participation was 76.6 percent during 2001-2004. A portion of the non-participants dropped out from school and another portion repeated class ten in the following year.

Variation by institution type. The participation rate in the class ten public examinations was highest in the government schools (94.3 percent), followed respectively by school- and-colleges (81.1 percent), and the non-government schools (76.2 percent). This was 76 percent in the alim and 66.5 percent in the dakhil madrasas (Further analysis is shown in Annexes 6.3 and 6.4).

Gender effects. In contrast to aggregate enrollment advances of girls at the secondary level, boys in class ten were ahead of the girls in participation in public examinations – on an average by 9 percentage points. (Figure 6.1). Further analysis is provided in Annex 6.3.

Figure 6.1. Participation rate in secondary (class ten) public examinations by school type and sex, 2001-2004



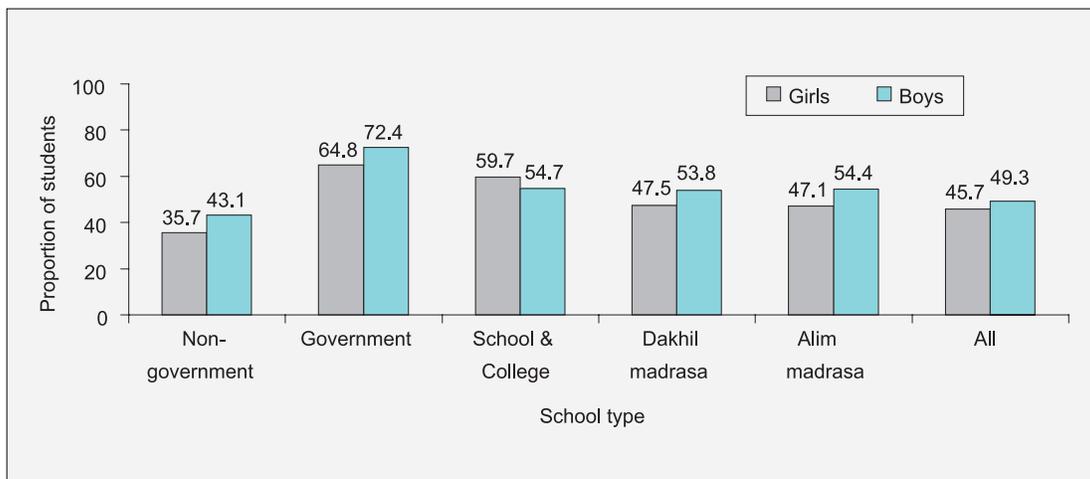
Source: Education Watch School Survey, 2005

Success rate in public examination. On average, 47.6 percent of the students who participated in SSC or dakhil examinations were successful in passing the examination. Grade point averages (GPA) of these students were between 1 and 5. (Annex 6.5)

Variation by institution type in SSC/dakhil. The students of government schools did much better than others. Their rate of success in the SSC examination was 67.9 percent, followed by 57.4 percent in school & colleges and 39.9 percent in the non-government schools. Half of the students in the madrasas were successful in the dakhil examinations during 2001-2004. (Annex 6.6)

Gender difference in examination success. Boys were ahead of the girls in success rates in public examinations in the four types of schools under study, viz., government, non-government, and dakhil and alim madrasas. The exception was school & colleges in which girls surpassed boys. (See Figure 6.2) Further analysis is provided in Annexes 6.6 and 6.7.

Figure 6.2. Proportion of students who got GPA 1-5 by school type and sex, 2001-2004



Source: Education Watch School Survey, 2005

Survival in grade ten. Overall survival Counting all students who reached class ten including those screened out in “test examination,” before students are finally selected by schools to sit for the public examination, 76.8 percent of class ten students on average took the SSC/dakhil examinations in 2001-2004. The average pass rate in public examinations, taking all class ten students as the denominator, turns out to be 36.5 percent. This is 33 percent among girls and 40 percent among boys (Annexes 6.3 and 6.5).

Performance of those who passed. In terms of distribution of grade point averages (GPA) in SSC results, one in five (19 percent) scored GPA 4 or 5 and one in eight (12.5 percent) scored the lowest GPA of 1 to less than 2. The rest, two-thirds of the students, were divided evenly between 2 < 3 and 3 < 4 (See Annexes 6 .7).

Urban-rural variation in examination success. Students in urban areas were clearly in an advantageous position in respect of GPA scores at SSC. In the top category of 4 and 5, proportion of urban students was double of the rural students’ proportion. In the highest category of GPA 5, urban proportion was eight times better than that for rural students. Students in all urban areas enjoyed the advantage, but the metropolitan cities had more than double the percentage of top scorers with GPA 5 compared to municipal towns (Annexes 6.8 and 6.9).

Intra-rural difference. There were no significant differences among the rural areas of the country in the six divisions in respect GPAs. They were equally disadvantaged compared to urban areas. There was also no substantial overall difference in scores of boys and girls who passed SSC examination (Annexes 6.8 and 6.9).

Information about the relative levels of achievement represented by GPAs was collected from sample general secondary schools for the SSC examination held in 2004.

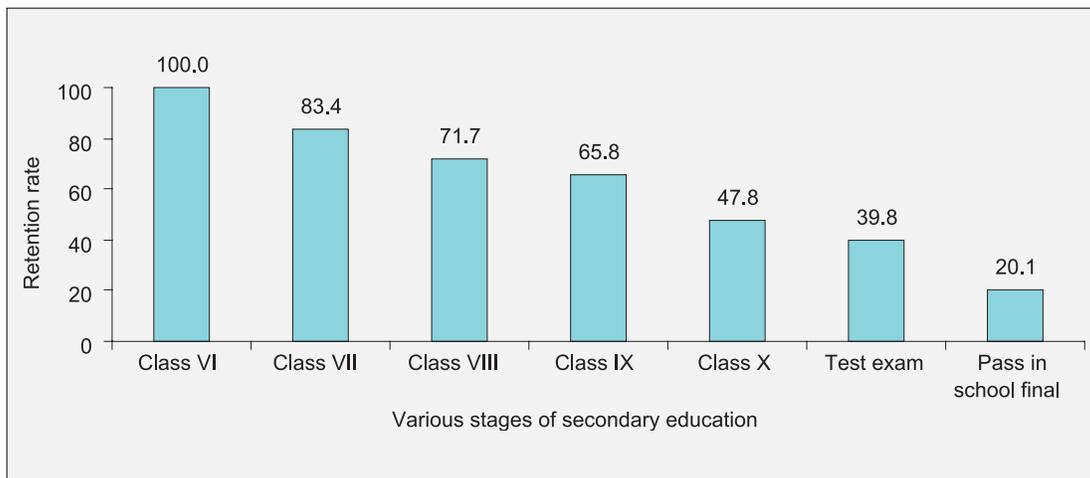
C. Retention and cycle completion – measures of internal efficiency

Retention of students in various classes and completion of full cycle of secondary education are two important indicators for assessing the internal efficiency of the system. In order to find the retention rates and the cycle completion rate, one ideally would follow a cohort of students for five consecutive years from class six to class ten and finally those students passing SSC/dakhil examinations. The data were not available for this exercise. Instead, a hypothetical cohort of students was created using cross-sectional data for 2004-05 (as shown in Table 6.3). This allowed making estimates of cycle completion and other internal efficiency indicators. Analysis of these data were done by using UNESCO-PROAP software called EduAnalysis. It may be noted the reconstructed cohort profile was based on promotion and retention data kept by schools and only provided a systematic approach to analysing and drawing conclusions from these data. Validity of the results and conclusions of this analysis depends on the reliability of the data source – in this case, the school records about promotion, dropout and repetition of students.

Table 6.3. Retention rates at various stages of secondary education by sex, 2004-2005

Stages	Sex		Both
	Girls	Boys	
Class 6	100.0	100.0	100.0
Class 7	84.4	82.1	83.4
Class 8	71.2	72.4	71.7
Class 9	63.6	68.8	65.8
Class 10	45.4	51.2	47.8
Pass in test exam	32.4	49.7	39.8
Pass in SSC/Dakhil exam	15.5	26.4	20.1

Source: Education Watch School Survey, 2005

Figure 6.3. Grade-wise retention rate based on reconstructed cohort analysis

Source: Education Watch School Survey, 2005

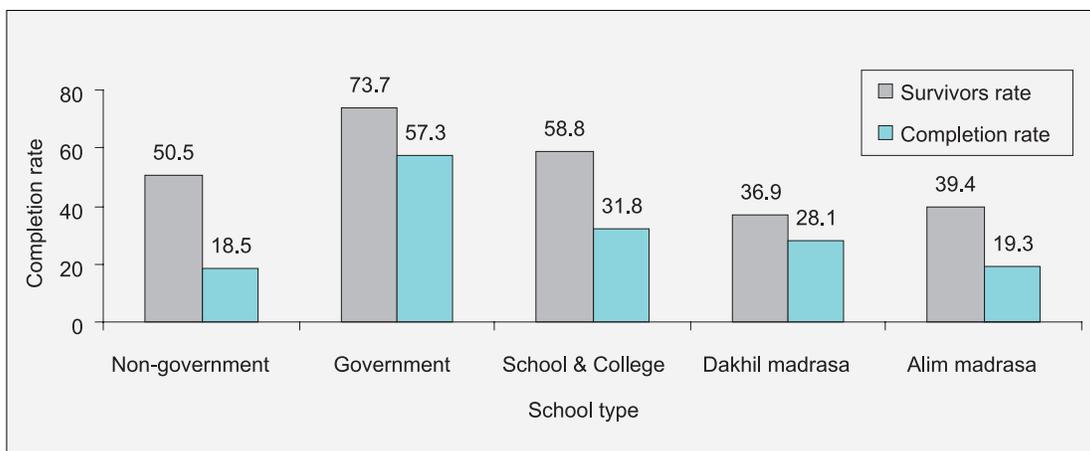
The following conclusions could be derived from this cohort analysis exercise.

- i. *Survival from grade 6 to grade 10.* Overall, of students enrolled in class six, less than 40 percent survived up to the stage of becoming eligible for SSC examination (after taking the test examination). Of class six students, 83.4 percent survived up to class seven, 71.7 percent up to class eight, 65.8 percent up to class nine, 47.8 percent up to class ten, and 39.8 percent could cross the barrier of test examinations taken in the schools prior to the end of grade ten public examinations (SSC or dakhil). Only these successful pupils are allowed to sit for the public examinations (Figure 6.3 and Table 6.3).
- ii. *Screening in grade 10.* Of the examinees selected after the “test,” only a half on average could pass SSC and equivalent dakhil examinations. In other words, only a fifth of the students enrolled in class six could successfully cross the full cycle of secondary education (Figure 6.3 and Table 6.3).
- iii. *Gender effects on survival at the secondary stage.* Girls lagged behind boys by 6 percentage points in surviving from class six to ten and by 11 percentage points in completing the cycle by passing the public examination. Of the pupils enrolled in class six, 45.4 percent of the girls and 51.2 percent of the boys reached class ten. The screening test in class ten before the public examinations resulted in further reduction in survival. In the end, 15.5 percent of the girls and just over a quarter (26.4 percent) of the boys passed the end-of-class-ten public examinations (Table 6.3).
- iv. *School-type effects on survival.* Retention rate or survival of students from class six to ten varied by school type. It was highest for government schools (73.7 percent), followed by school-and-colleges (58.8 percent), non-

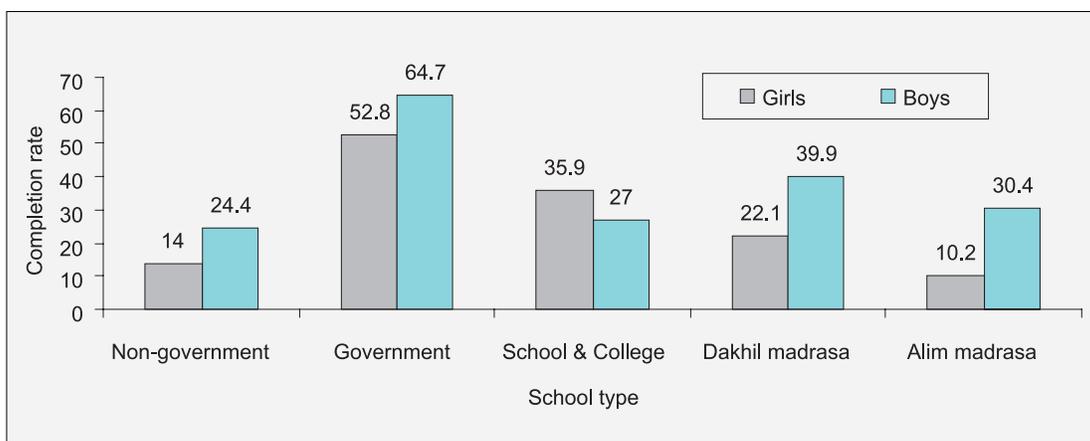
government schools (50.5 percent), alim madrasas (39.4 percent) and dakhil madrasas (36.9 percent) (figure 6.5).

- v. *School-type effects on completion.* Completion of secondary education (by passing SSC/dakhil examinations) varied considerably by school type – lowest for the non-government schools (18.5 percent of those enrolled in class six), which served 76 percent of the students and the highest for government schools (57.3 percent), serving 5.5 percent of the students (Figure 6.4).
- vi. *Gap between survival and completion.* The difference between survivors to class ten and completers, having passed the public examinations, was highest for non-government schools with 32 percentage points and the lowest for dakhil madrasas with 9 percentage points. It should be noted that SSC and dakhil examinations are not strictly comparable and are conducted by different authorities (Figure 6.4).
- vii. *Gender effects on completion.* The overall gender gap of 11 percentage points in completion was also seen in school types except for school-and-colleges. This gap was highest for madrasas - 17.8 percentage points for dakhil and 20.2 percentage points for alim madrasas. It was 10.4 percent for no-government schools (Figure 6.5).
- viii. *Pupil years required for graduation.* On an average, 19.6 pupil years were required to produce one graduate of the five year cycle – four times the normal expected time period. (Table 6.4) Average required pupil years for girls were 25.1 years and for boys 15.3 years. It also varied by school type – highest for alim madrasas and the lowest for government school (Tables 6.5 and 6.6).

Figure 6.4. Secondary education survivor and completion rates by school type, 2004-2005



Source: Education Watch School Survey, 2005

Figure 6.5. Secondary level completion rate by school type and sex

Source: Education Watch School Survey, 2005

Table 6.4. Hypothetical cohort analysis of secondary school students by school type, 2004-2005

Indicators	School type					All schools
	Non-govt.	Govt.	Sch & Coll.	Dakhil	Alim	
Survivors rate up to the end of class X	40.0	73.6	53.8	36.9	32.6	39.8
Completion rate	18.5	57.3	31.8	28.1	19.3	20.1
Dropout rate	81.5	42.7	68.2	72.9	10.7	79.9
Coefficient of efficiency	23.0	60.6	36.6	40.6	25.8	25.5
Pupil years invested per graduate	21.8	8.2	13.7	12.3	19.4	19.6

Source: Education Watch School Survey, 2005

Table 6.5. Hypothetical cohort analysis of secondary school students by sex, 2004-2005

Indicators	Sex		Both
	Girls	Boys	
Completion rate up to the end of class X	32.4	49.7	39.8
Completion rate	15.5	26.4	20.1
Dropout rate	74.5	73.6	79.9
Coefficient of efficiency	19.9	32.6	25.5
Pupil years invested per graduate	25.1	15.3	19.6

Source: Education Watch School Survey, 2005

Table 6.6. Hypothetical cohort analysis of secondary school students by school type and sex, 2004-2005

Indicators	School type				
	Non-govt.	Govt.	School & College	Dakhil	Alim
<i>Girls</i>					
Completion rate up to the end of class X	32.3	72.7	58.6	32.4	21.3
Completion rate	14.0	52.8	35.9	22.1	10.2
Dropout rate	86.0	47.2	64.1	77.9	89.8
Coefficient of efficiency	17.6	54.9	40.3	31.8	14.4
Pupil years invested per graduate	28.4	9.1	12.4	15.7	34.8
<i>Boys</i>					
Completion rate up to the end of class X	50.0	73.3	48.0	40.4	46.5
Completion rate	24.4	64.7	27.0	39.9	30.4
Dropout rate	75.6	35.3	73.0	60.1	69.6
Coefficient of efficiency	29.7	70.2	32.2	53.4	38.7
Pupil years invested per graduate	16.8	7.1	15.5	9.4	12.9

Source: Education Watch School Survey, 2005

Another aggregate measure of efficiency is the coefficient of internal efficiency. It is a ratio of expected pupil years required to complete the cycle and total pupil years actually spent expressed in percentage. This coefficient was 25.5 compared to the ideal number of 100 for secondary education as a whole; for girls it was 19.9 and for boys 32.6. The coefficient also varied for school types - the lowest for non-government schools (Tables 6.5 and 6.6).

It is clear that the internal efficiency of the sub-sector of secondary education (grades 6 to 10) is extremely low – with almost 20 pupil years spent to produce a completer of the five-year course. This indicates, as the technical jargon of coefficient of internal efficiency of 25.5 against the ideal number of 100 is supposed to show, the sub-sector is only one quarter efficient compared to what it could be. Moreover, in spite of a significantly higher aggregate enrollment ratio for girls than for boys, there is higher wastage in respect of girls' completion of secondary education – with 1.5 times longer pupil years required for a girl than for a boy to complete the secondary stage.

Chapter **7**

Financing Secondary Education

This chapter examines financing and resources for secondary education including household and institution level costs and expenditure and their variation by geography, types of institution, and socio-economic status of children.

Education for about 10 million children in over 22, 000 secondary education institutions is financed from two principal sources – public budget allocations and private household expenditures. Annual public budget provisions from revenue and development budgets are known, though there are discrepancies between allocations and actual spending. There are also always questions about how effectively and appropriately the funds are used. Private household expenditures, on the other hand, surpass public expenditures at least by a factor of three, as will be seen below, but do not usually figure in discussion of education financing and planning. It is necessary to know and understand the nature and magnitudes of private household expenditures in order to understand how the combination of public and private expenditures affects participation, quality, equity and outcome in education. There are possibilities of promoting public policies and priorities in education by understanding, assessing and adjusting the balance and complementarity of public and private spending in secondary education.

A. Private costs and expenditures in secondary education

Data collected from survey of sample households with children attending secondary education institutions in six rural divisions, municipalities and metropolitan cities have provided information about costs incurred by households and the main items of expenditure.

- i. *Household expenditure.* On an average, Taka 8,874 per male child and Taka 7, 411 per girl child were spent annually by households for children’s secondary education.
- ii. *Urban-rural variation in household expenditure.* Household expenditure in urban areas were 71 percent higher for boys and 80 percent more for girls.
- iii. *Private tutors’ costs.* Expenditures for private tutoring were the highest among all items of private expenditures across the board, accounting for about half of the total private spending. (Table 7.1)
- iv. *Socio-economic category effects.* Private spending varied substantially for households in four self-rated socio-economic categories. Per child annual expenditure in rural areas for families “always in deficit” was Taka 3,412 compared to Taka 5, 358 in families in the “surplus” status.
- v. *Urban-rural variation in socio-economic category effects.* A similar difference was also observed in urban areas among the “deficit” and the “surplus” families, although the level of expenditures was substantially higher than in rural areas in all categories. (Table 7.2.)

Table 7.1. Annual private household costs per child for secondary education by major items and sex, 2005 (N = 5420)

Major items	All Bangladesh (Taka)		Rural Bangladesh (Taka)		Urban Bangladesh (Taka)	
	Boys	Girls	Boys	Girls	Boys	Girls
Private tutor	4,294	3,401	3,643	2,846	6,098	5,105
Textbooks/Notes	835	748	778	712	925	860
Stationeries	825	782	723	698	1,107	1,040
School dress	491	463	459	467	582	452
Examination fees	235	231	216	220	287	264
Admission/readmission and monthly fees	789	509	514	253	1,554	1,296
Other	1,405	1,277	1,136	998	2,212	2,133
Total	8,874	7,411	7,469	6,194	12,765	11,150
% Private tutor/Total	48.40	45.89	48.77	45.95	47.77	45.78

Source: Education Watch household survey, 2005

Table 7.2. Annual private household cost per child for secondary education by location and self rated economic status, 2005

Location type	Annual costs per student by economic status of households (Taka)			
	Always in deficit	Sometimes in deficit	Breakeven	Surplus
Rural Bangladesh	3,412	4,037	4,378	5,358
Urban Bangladesh	6,045	7,875	10,097	13,163
All Bangladesh	3,891	4,928	6,122	8,123

Source: Education Watch household survey, 2005

- vi. *Grade level effects.* Household cost increased progressively by grade level – from Taka 5,758 in grade six to 9,108 in grade ten. Increase by grades applied to both boys and girls, though it rose more steeply for boys. (See Annex 7.1)
- vii. *School-type effects.* Per student household expenditure varied by school type. The highest expenditures were at school-and-colleges (Tk. 16,989) and government high schools (Tk. 12,063). The lowest was in the junior secondary schools (Tk. 3,140) and dakhil madrasa at Tk. 4,502. In the non-government secondary schools, serving the most numerous number of students, the expenditure was Tk 6,373. (Annex 7.2)

B. Secondary education institution level finance

Information about school budgets - income and expenditure – was collected from sample institutions in rural areas of six divisions, municipalities and metropolitan cities and analysed. Analysis of data from two types of institutions – non-government secondary schools and dakhil madrasas – the most numerous institutions serving 86 percent of the secondary stage students are presented here.

- i. *Annual school income.* Average annual income of a non-government secondary school in 2004 was Taka 908,000 and for dakhil madrasas Taka 571,000. (Average enrolment per institution were respectively 555 and 292 in 2002, the latest published figures available from BANBEIS.)
- ii. *Urban-rural variation.* The income for urban non-government schools were 30 percent higher than that of rural schools; for dakhil madrasas, the urban institutions had an 18 percent advantage in this respect.
- iii. *Government contribution.* Government contribution in salary subvention and other grants constituted 60.5 percent of the income of non-government schools and 70.4 percent for dakhil madrasas. (see Table 7.3)

Table 7.3. Secondary education institutional annual income by major items and location, 2004

Major items	All Bangladesh (Taka)		Rural Bangladesh (Taka)		Urban Bangladesh (Taka)	
	Non-govt. secondary	Dakhil madrasa	Non-govt. secondary	Dakhil madrasa	Non-govt. secondary	Dakhil madrasa
Govt. salary subvention	502,349	359,974	499,345	356,292	516,340	373,027
Monthly student fees	127,989	30,184	102,851	27,799	229,710	38,505
School property income	33,671	10,282	25,009	9,354	61,582	13,530
Community contribution	12,005	28,087	8,884	25,629	22,061	36,717
Grant from govt.	46,867	41,550	30,802	31,304	99,196	77,524
Examination fees	94,166	28,880	70,239	27,467	174,226	33,844
Other sources	91,295	71,715	118,036	65,552	877,105	93,608
Total	908,342	570,672	855,166	543,397	1,980,220	666,755
% Government contribution/Total	60.5	70.4	62.0	71.3	31.1	67.6

Source: Education Watch school survey, 2005

- iv. *Average per school expenditure.* Average annual expenditure per non-government secondary school in 2004 was Taka 837,260 and for dakhil madrasa Taka 520,860. (Table 7.4)
- v. *Urban-rural variation in school expenditure.* Urban non-government secondary schools had more than double annual expenditure than their rural counterparts. Urban madrasas spent 21 percent more than the rural madrasas.
- vi. *Teachers' salary – the largest item.* The largest item of expenditure was staff salary, which comprised 79 percent of total expenditure in non-government secondary school and 83.2 percent for the dakhil madrasa. (Table 7.4)

Table 7.4. Secondary education institutional annual expenditures, by major items and location, 2004

Major items	All Bangladesh (Taka)		Rural Bangladesh (Taka)		Urban Bangladesh (Taka)	
	Non-govt. secondary	Dakhil madrasa	Non-govt. secondary	Dakhil madrasa	Non-govt. secondary	Dakhil madrasa
Salary	659,934	433,150	641,778	426,032	751,849	458,386
Examinations	80,991	18,351	64,065	16,789	135,530	23,834
Co-curricular activities	10,603	4,532	8,156	3,409	18,487	8,477
Repair, Maintenance	29,164	23,338	17,221	21,524	68,373	29,853
Development	28,678	14,215	13,987	8,049	76,017	35,866
Other expenditures	82,725	31,835	58,128	26,815	165,818	49,461
Total	892,095	525,421	803,335	502,618	1,216,074	605,877
% Salary/Total	73.8	82.4	79.8	84.7	61.8	75.7

Source: Education Watch school survey, 2005

- vii. *Per student institutional expenditure.* Data from the sample institutions showed an average per student annual expenditure in 2004 in the institutions of Taka 1,160 for the non-government secondary schools and Taka 1,933 for dakhil madrasas. There was an expected higher level of expenditure in the urban institutions. (Table 7.5)

A relevant comparison is between per student institutional expenditures and per student household expenditures shown above, which were, even for families in the “always in deficit category,” of the order of three times of per child institutional expenditure. In fact, a part of the institutional income and expenditure, such as those related to various fees, is also a household expenditure.

Table 7.5. Average institutional expenditure per student by institution type and location, 2004

Location	Per student costs (Taka) by institution type	
	Non-govt. secondary	Dakhil madrasa
Rural Bangladesh	1,145	1,856
Urban Bangladesh	1,242	2,024
All Bangladesh	1,160	1,933

Source: Education Watch school survey, 2005

C. Secondary education girls' stipend

Female stipend projects were introduced in the mid-1990s in rural secondary level institutions including madrasas as an incentive to education for rural girls. Secondary education stipends for rural girls without doubt gave a boost to girl's participation in education at secondary as well as primary levels and was an important factor in the dramatic advances in girl's enrolment revealed earlier in this report.

Four different stipend projects were implemented with funding from the government's own resources and assistance provided by the World Bank, Asian Development Bank and NORAD. The monthly stipend varied from Taka 25 to 60 depending on the grade level. The stipend recipients also were exempted from tuition charges for which schools were reimbursed by the government. They also received additional one-time payments of Taka 250 in grades nine and ten for examination fees and books. Students are required to satisfy three conditions: at least 75 percent class attendance in a year, scoring 45 percent marks in school and remaining unmarried. In the face of complaints about management of the stipends both by schools and in the public media, it came lately under close government scrutiny, which resulted in a reduction in the number of stipend recipients.

In the revised budget of fiscal 2003-2004, Taka 4,325 million was allocated for girls' stipend. This represented 57 percent of total development allocation for secondary education and 19 percent of direct government allocation to secondary level institutions. While stipends helped attract girls to schools, at least two critical questions arise:

- a) Given the overall quality problems in secondary education and low per student expenditure, do stipends starve out important inputs necessary for quality improvement – such as, laboratories, libraries, teacher training and stronger supervision?
- b) Are conditions attached to this transfer payment - which the disadvantaged sections of the population (very poor, first generation learners and girls who

have to work to help their families) have difficulty to meet - further aggravating disparity?

- i. *Percentage of stipend recipients.* On an average 54 percent of the girls enrolled in sample secondary schools and dakhil madrasas were stipend recipients. (Table 7.6)
- ii. *Geographical variation in stipend distribution.* Variations were noted for different regions of the country – with a low of 42 percent recipients in rural Sylhet and high of 71 percent in rural Barisal. (Table 7.6)
- iii. *Variation in disbursement amounts.* The mean amount received in one installment varied somewhat for the recipients, but large standard deviations for a payment that is supposed to be made according a common prescribed formula may be due to management problems in the administration of the programme. (Table 7.7) A part of the standard deviation is explained by different rates of payments for different grades.

Table 7.6. Status of girl stipend by location, 2005

Strata	Sample of girls in secondary schools	Number of stipend recipients	Percentage of recipients
Rural Dhaka division	496	221	44.6
Rural Chittagong division	572	267	46.7
Rural Rajshahi division	440	253	57.5
Rural Khulna division	515	323	62.7
Rural Barisal division	506	361	71.3
Rural Sylhet division	434	183	42.2
Rural Bangladesh	2963	1608	54.3

Source: Education Watch household survey, 2005

Table 7.7. Girls stipend amount received during last installment by location, 2005

Location	Number of recipients	Average amount received (Taka)	Standard Deviation
Rural Dhaka division	221	233	129
Rural Chittagong division	267	243	168
Rural Rajshahi division	253	237	132
Rural Khulna division	323	285	195
Rural Barisal division	361	285	210
Rural Sylhet division	183	241	140
Rural Bangladesh	1608	258	173

Source: Education Watch household survey, 2005

D. Concluding comments

Financing of secondary education represents a *low-cost and low-yield* pattern. Per student expenditure from the government budget of around Taka 1,500 in non-government institutions or Tk 1,160 calculated from the sample school budgets are both low by any standard. In fact, in government-run secondary schools, per child government spending was three times higher at Taka 4,551 and in the cadet colleges (government residential institutions teaching grades 7 to 12), public spending per student was Taka 62,018 in 2002-3. (BANBEIS 2003). In contrast to the general global pattern in which per student secondary education expenditure is a multiple of per student primary education spending, in Bangladesh, public spending is roughly equal at the primary and the secondary level, at least for the dominant parts of the system, the non-government secondary schools and the dakhil madrasas. The low per capita and total cost is no reason for satisfaction, because, educational quality - judged in terms of learning outcome, the pedagogic process and essential inputs - is clearly the victim of this situation. There is a *mismatch of financing and objectives*.

In reality, total per student cost at the secondary level is substantially higher than in primary education, the difference being made up by household expenditure. As noted above, there is *at least three times larger household contribution for secondary education*, compared to public spending. The substantial household spending does not seem to be taken into account in government public financing strategy for advancing policy objectives such as equity and quality improvement. In principle, the system of subvention could be an important leverage for maintaining and enforcing quality standards and advancing equity objectives in the non-government institutions. In practice, it fails to work this way because of the weak capacity of the regulatory and supervisory organizations in the government, and intrusion of partisan politics in educational management. The use of about half of private expenditure for private tutoring for children is an indication of the job that is not performed effectively by schools and of an aggravation of the equity problem.

Staff compensation dominates the recurrent budget (79 percent in non-government schools and 83 percent in dakhil madrasas.) This leaves very little funds for other essential quality inputs such as learning materials, upgrading of teachers and academic supervision.

There are *high incentive expenditures* or conditional transfer payment in the form of stipends for girls and tuition waiver for girls in rural areas. The development budget expenditure of the government for secondary education is dominated by the payment of stipends. The important policy question is whether the benefits in terms of participation, equity and quality improvement would not be better achieved by spending directly on improving inputs and performance in school. (Knowles 2001)

Evidence from other sources support the finding of the present study that education finance arrangements reinforce *the pattern of inequity* in society. The share of benefits for households from public spending in education rises with income levels of households at all stages of education, but especially in secondary and tertiary education (World Bank 1998).

Chapter 8

Management of Secondary Education Institutions

This chapter examines school level management of secondary education institutions, especially the composition and role of managing committees, their activities, participation of women in managing committees and the profile and role of the headmaster. Conclusions are drawn for addressing management problems of secondary education institutions.

With 98 percent of secondary institutions being non-government and managed by a managing committee representing the local stakeholders, management of secondary education could be genuinely decentralized and responsive to community needs. In practice, management and administration of secondary education is highly centralized. The government exercises a high degree of authority through regulations associated with providing up to 90 percent salary subvention to teachers of non-government schools. The Directorate of Secondary and Higher Education (DSHE) and the six Boards of Intermediate and Secondary Education are the principal instruments of the government for extending its authority to individual institutions.

MOE regulations determine the composition and functions of secondary school and madrasa managing committees. According to the government's regulations regarding the managing committees of secondary schools promulgated in 1977, which remain the regulatory basis till today, the number of members in the managing committees of school, madrasas and colleges is usually 11. The indicated composition is:

The head teacher as the member-secretary,

Two teacher representatives elected by the teachers of the school,

Four guardian representatives elected by the guardians of students enrolled in the school,

One member representing the founder of the school (if applicable),

One member representing the principal "donors", and

A prominent "educationist" from the locality designated by the Divisional Office of the Directorate of Secondary and Higher Education.

The chair of the committee, according to the original regulations, was expected to be the Deputy Commissioner of the District or another senior official nominated by him/her for schools in the district town. For other secondary schools in the district, the committee itself, in its first session after being formed, is supposed to send nomination of a local "promoter of education" to the Directorate of Secondary and Higher Education. A vice chair is expected to be elected by the committee from its own membership.

The original regulations were amended by circulars from the Ministry of Education at various times, mainly in respect of the selection of the chair. Through various modifications and changes over the years, respected community representatives and "promoters of education" and even district officials became gradually sidelined and the local member of the parliament frequently became the government-designated chair of the committees of schools and colleges. A member of the parliament now can be the chair of the managing committee of several institutions at the same time. It became common practice to fill the position of the chair with the advice and consent of the local MP, especially if he belonged to the ruling party.

In the case of madrasas, there appears to be less interest on the part of politicians to take over the leadership of the managing committees. The government regulations that provide that the Upazila Executive Officer (UNO) would be the chair of the dakhil or alim madrasa managing committees in the respective upazila remain valid.

In spite of the structured formation process and composition, effectiveness of the committee depends largely upon the concerted effort of the committee members and leadership and commitment demonstrated by them. It is also dependent on the committee members' knowledge, experience, and educational level, and their perception and understanding of educational development and school management.

A. The school management committee

While all non-government secondary schools must have a school management committee, government institutions receive management instruction and advice from the government education department hierarchy and do not have a management committee. *Education Watch 2005* survey provided basic information about existence and character of the managing committees of non-government institutions, which serve over 85 percent of secondary level students:

- On an average 98 percent of non-government secondary schools had an SMC; 99 percent of the dakhil madrasas and 93 percent of the junior secondary schools also had managing committees. (Table 8.1)
- Average number of committee members was 12.7 for all types of non-government secondary schools.
- Participation of female members in the SMC was very low. Only 3.4 percent of total SMC members were women.

Dakhil and alim madrasas had an even lower proportion of women- an average 1.3 percent for dakhil and 1.4 percent for alim madrasas. The highest percentage of female representation in SMC was found in the governing body of the school & college at 7.8 percent of total membership.

Table 8.1. Percentage of non-government schools with management committee, average size of the committee and percentage of female members by school type

School type	Observed schools (Number)	Percentage of school having SMC	Average size of committee	Percentage of total female members in SMC
Junior secondary	30	93.3	15.4	3.4
Non-govt. secondary	240	97.9	11.8	5.6
School and college	30	96.7	13.5	7.8
Dakhil madrasa	238	99.2	13.0	1.3
Alim madrasa	30	96.7	15.1	1.4
All	568	98.1	12.7	3.4

Source: Education Watch School Survey, 2005

B. Meetings of SMC of secondary schools and madrasas

SMC meetings are the main mechanism for the decision making process in secondary schools regarding school management and administration. Through this representative forum members can contribute to achieving better school performance in collaboration with the teachers of the institution. According to the government circular, non-government secondary educational institutions should have at least 6 SMC meetings in a year. The survey of institutions provided the following basic information about the functioning of SMCs (Table 8.2).

- During 2004, almost all secondary schools (except for dakhil madrasa) arranged more than one meeting in a month.
- Junior secondary schools arranged the highest number of meetings (17.4) during 2004.
- Lowest number of meetings (8.9) was held in the case of the dakhil madrasa.
- For most of the meetings, minutes were recorded and resolutions were prepared for all types of schools. (97.2 percent). Junior secondary schools showed a lower performance in this regard (93.3 percent) compared to other secondary institutions.

Table 8.2. Average number of SMC meetings held during 2004 and percentage of meetings with recorded resolutions by school type

School type	No. of observed schools	Mean number of meetings of SMC	Percentage of recorded minutes of SMC meetings
Junior secondary	30	17.4	93.3
Non-govt. secondary	240	11.3	97.1
School and college	30	13.9	96.7
Dakhil madrasa	238	8.9	97.9
Alim madrasa	30	16.5	96.7
All	568	11.0	97.2

Source: Education Watch School Survey, 2005

C. Education status of SMC members

- Two-thirds of SMC members had at least a secondary education; four percent had only primary education or less. (Table 8.3)
- A little over half of the junior secondary school management committee members had more than secondary education; this was 80 percent for committee members for school-and-colleges.

Table 8.3. Education status of the SMC members by school type

School type	Percentage of SMC members with years of schooling		
	0-5 years	6-10 years	11+ years
Junior secondary	6.6	40.9	52.5
Non-govt. secondary	3.1	31.7	65.2
School and college	0.7	19.6	79.7
Dakhil madrasa	5.3	29.7	65.0
Alim madrasa	3.6	29.0	67.4
All	4.2	30.4	65.4

Source: Education Watch School Survey, 2005

D. Women's participation in SMC

- Women comprised only 3.4 percent of all members of school managing committees. Their overall small representation was also reflected in positions, such as those of president and vice-president held by them in committees. (Table 8.4).

Table 8.4. Percentage of the female in the SMC by position in the committee

Position in committee	Sex of the SMC members	
	Male	Female
President	97.9	2.1
Vice president	99.2	0.8
Member secretary	96.6	3.4
General members	96.2	3.8
All	96.6	3.4

Source: Education Watch School Survey, 2005

E. Occupation of the SMC members

- About a third of the SMC members were teachers by profession (either member secretary or teacher representative or teacher of other institutions) (see Table 8.5)
- A quarter of the SMC members were businessman, 17.7 percent service holders, 14.2 percent farmers and 10.4 percent were voluntary social workers
- A large proportion (29.4 percent) of SMC members of junior secondary schools was farmers; for school-and-colleges this proportion was the lowest (8.6 percent).
- A smaller proportion of social workers were represented in the managing committees of madrasas and the junior secondary schools compared to other institutions. (Table 8.5)

Table 8.5. Percentage of SMC members by occupation and school type

School type	Occupation of the SMC members				
	Agriculture	Service	Business	Teacher	Social worker
Junior secondary	29.4	13.0	16.4	31.3	9.9
Non-govt. secondary	11.7	12.2	27.8	35.3	13.0
School and college	8.6	18.3	25.5	33.8	13.8
Dakhil madrasa	15.0	22.2	24.9	29.9	8.0
Alim madrasa	16.5	20.2	22.7	30.8	9.8
All	14.2	17.7	25.5	32.2	10.4

Source: Education Watch School Survey, 2005

Above information collected directly from school records of the sample schools surveyed provides a descriptive view of managing committees, but does not provide an analysis or assessment of performance of managing committees, which are the key instrument for ensuring effective functioning of the institution, making the institutions answerable and accountable to their constituencies of students and parents, and guaranteeing good learning outcomes.

F. The head teachers

The heads of secondary institutions, the head teacher in the case of general secondary schools, the superintendent in the case of madrasas, and the principal in the case of combined school-and-colleges, are the member-secretaries of the school managing committee, the chief operating officer and the academic leader of the institution. The leadership role played by the head teacher is vital for how an institution functions and performs its job. School survey data provided a basic profile of the heads of secondary level institutions in terms of their education and training, experience and some personal characteristics. This information is presented in Annexes 8.1 to 8.3. The highlights are noted below.

- i. *Gender characteristics.* Less than five percent of heads of institutions were women, although most institutions are co-educational. A little over one percent was from the ethnic minorities reflecting their proportion in the total population.
- ii. *Education background.* On average, the heads had 15 years of formal education with no difference between the males and the females. The large majority of them had a graduate degree from the university or the madrasa; about half had masters' degrees. However, a high proportion of the heads did poorly in terms of academic performance. More than a quarter were placed in the third division in SSc/dakhil examination; 44 percent passed the HSC/

alim examination in the third division; 57 percent were placed in the third division or class in their college degree or the madrasa equivalent fazil examination.

- iii. *Experience.* The heads on average had 20 years of experience in education and teaching, 6 years more than the average for all teachers. The women heads had slightly less experience. Over eighty percent of the heads had teaching experience at the secondary level. Over eighty percent of the heads had regular teaching responsibilities. On average, the headteachers taught 15.6 classes per week. (Annex 8.1)
- iv. *Professional training.* Three of every five heads had received some professional training. The training related both to pedagogy and administration and management.

G. Concluding comments

Information collected regarding managing committees point to a reasonably balanced body that includes principal stakeholders of education in the community, with a substantial representation of educated people and the main occupational categories, and with an understandable bias towards the teaching profession. *The committees, however, are seriously in default in gender balance - with a representation of only 3.4 percent in the observed schools. This implies that a significant proportion of schools had no women member in their committees.*

Common knowledge and information in the public domain point to other serious problems with the management of non-government institutions, which serve the large majority of children.

Making the selection of the chairperson beholden to the local MP or political personalities have taken the choice away from a genuine community process and have resulted frequently in thrusting this key responsibility in unfit hands who do not have the necessary capabilities or are not genuinely interested in education.

Enforcement of regulations and procedures for maintaining standards and creating acceptable conditions for teaching and learning in schools and madrasas, with substantial government subvention as a lever, is compromised by the lack of adequate capacity, especially in terms of professional capacity and skills of the central bodies – DSHE, the Secretariat of MOE, the relevant Board of Intermediate and Secondary Education (or the Madrasa Education Board) and the National Curriculum and Textbook Board. The enforcement of rules and regulations is further impeded by political interference and the consequent tolerance of mismanagement and corruption.

Rules of business and conduct, with functions and responsibilities of all concerned clearly stated in an updated Code for Educational Institutions do not exist. The Education Code, prepared 75 years ago in 1931, technically remains in force, since it has never been rescinded. Various circular and regulations have superseded provisions of the code, but these have not been made available in an accessible and user-friendly form.

An institution that functions effectively and performs well inevitably is led by a head who has the capability to manage a complex organization, provides academic and intellectual leadership and commands respect of colleagues, students, and the community with his/her intellectual and personal qualities. Academic performance and records of people placed in the leadership of institutions, though not the only criterion, is a key indicator of capability. By this measure, there are serious weaknesses in the selection of heads of institutions and their capabilities.

The government response to the management problems and waste of resources appears to be stricter and more central regulations – such as circulars and instructions from central authorities on formation and conduct of managing committees, recruitment of teachers, central registration and accreditation of teachers, uniform management of the curriculum and examinations and so on. More regulations and instructions by themselves cannot solve problems unless these can be applied and enforced effectively and impartially.

A central framework of regulations and standards is necessary; but more important is impartial and objective application of these provisions. And even more critical is to develop capabilities and creating conditions and incentives for individual institutions to become responsible and accountable for promoting and maintaining standards. This aim can be supported by the government by inviting and encouraging schools to take responsibility and demonstrate their capacity to do so on the basis of agreed criteria. Once it is established by independent assessment that the schools have lived up to their obligations, these schools can be rewarded, exempted from central control and allowed to develop and follow their own higher standards. This strategy of nurturing self-regulation is likely to be an effective incentive for greater school-level responsibility with accountability.

Chapter 9

Major Findings and Policy Implications

This final chapter recapitulates the findings of Education Watch 2005 household and institutions survey undertaken to construct a baseline of basic information on participation, learning provisions, internal efficiency and finance and management at the institutional level in secondary education. The policy implications in the light of the findings, focusing on access, equity and performance of the system is also presented in this chapter.

“The work of mass basic education will not be completed even with the achievement of universal primary education,” noted James H. Williams in providing an international perspective of secondary education for this report (Chapter 2). He asserted that “The developmental effects of education, at individual and societal levels, really take effect fully at the secondary level.

Secondary education enrolment in Bangladesh has more than tripled and the number of institutions has more than doubled since 1980. The growth of girls’ enrolment, spurred by social mobilization and incentives, such as stipends and tuition waivers for rural girls, has been spectacular. Girls now outnumber boys in secondary schools.

This study documents how expansion of the system has aggravated quality problems. High rates of dropout and failure in public examinations indicate serious deficiencies in quality of education. Dropout rates averaged over 40 percent between grades 6 to 10 and in recent years. On an average, half of the candidates, even after they survived the gauntlet from class six to ten and the “test” examination in class ten, passed the SSC examination.

Poor achievement of students and low quality in secondary education can be attributed to well-known causes, as shown in this study – deficiencies in teachers’ skills and capability, inadequate facilities and learning materials, poor enforcement of rules and criteria for approval of government subvention, inadequate resources reflected in low per student expenditure, and poor governance and management of schools.

Attention to poverty reduction, emphasized in the national Poverty Reduction Strategy, has brought out in sharp relief the high degree of inequity in respect of access and participation in education. Maintaining acceptable quality in education is a simultaneous concern, since access to education without the guarantee of a minimum level of quality is meaningless.

The global market has touched the lives of people in the remotest village and has created a demand for new skills and knowledge. Meeting this demand has to be a key issue in defining educational priorities, content and quality at both primary and secondary stages.

Development initiatives and an education sector reforms programme supported with international assistance have been aimed at addressing the problems of quality and equitable opportunities in secondary education. The success of these initiatives will depend on understanding the dimensions and depths of the problems and designing actions that are realistic, implementable and responsive to specific needs and circumstances. The findings of this study, summarized below, are intended as a contribution to this end.

A. Key Findings

Participation in secondary education

- A steady growth in secondary education participation has been achieved in the last decade which has reached 45 percent on a net basis for the 11-15 year age children – from 33 percent in 1998.
- Enrollment of girls has surged ahead of boys by 11 percentage points at 50.6 percent compared to 39.6 percent for boys on a net basis. This has been a broad-based progress across geographical areas and socio-economic strata.
- There remains a large urban-rural gap of 10 percentage points – at 43.6 percent net enrolment in rural areas and 54.0 percent in urban rates. Slums in large urban cities fare the worst with only 18 percent net enrolment.
- Of those enrolled in secondary level, over three quarters went to non-government secondary schools. The next most popular category is the madrasa, with 14 percent of enrolment in government-assisted madrasas and another two percent in “non-graded” *quomi* madrasas.
- Economic status and parental education are most closely correlated with education participation. Children of households with “surplus” food availability have more than double the chance of being in school than children in “deficit” households. Three quarters of children of mothers with secondary education are in secondary school compared with 31 percent for mothers with no formal education.
- On reasons for non-participation, two responses stand out – “scarcity of money” or poverty, and children’s “dislike of school”, which indicates problems in respect of classroom practices. The third most frequent response was the need for the child to work, which is linked to poverty. Poverty appears to be the predominant cause of non-participation in secondary education. This probably is one explanation of the popularity of madrasas, some of which offer room and board to students and charge less fee than general secondary schools.

Learning provisions and facilities

- Non-government secondary schools and dakhil madrsas are the most numerous providers of secondary education serving respectively 76 per cent and 11 percent of all secondary level students. Including alim madrasas and “non-graded” madrasas, the religion-based institutions enrolls 16 percent of secondary level students.

- About a half of the schools had science laboratories of varying quality; 30 percent of the non-government schools had adequate laboratories; 87 percent of the madrasas did not have any.
- Only 15 percent of the institutions had a library with a collection of books that could be regarded as adequate.
- Thirty-seven percent of the schools claimed to have computer education facility, but a fifth of the schools had only one computer and another fifth had 2-15 computers; the rest had none. Fifty-four percent reported having at least one teacher with training in computer use.
- Half of the secondary education institutions were found to have physical facilities (roofs, walls, floors, doors, and windows) in good or largely good condition, one third were in poor condition and 18 percent were in damaged or seriously dilapidated condition.
- Nearly 60 percent institutions had electricity connections, but two-thirds of classrooms and half of teachers' rooms had no electricity.
- Most schools have clean water supply and toilets; three quarters with separate facilities for boys and girls; but a quarter of the toilets were in seriously unhygienic condition.
- Less than a fifth of the secondary teachers (17.9 percent) were women. Eighty-four percent of the teachers received government salary subvention..
- Low level of academic achievement of teachers was widespread. Eighty-four percent of secondary teachers had a bachelors or higher degrees; however, 57 percent of the teachers claiming the Bachelors degree were placed in the third division or even did not take the degree examination. The same was the situation with 78 percent of those who claimed Masters' qualifications.
- Nearly half of the graduate teachers studied humanities; 20 percent studied science and 23 percent were madrasa graduates. More than half of the secondary teachers had no professional pedagogic training.
- The nominal student- teacher ratio was 29; however, with shortage of teachers for key subjects and absences of (10 percent on an average day), effective student teacher ratio was substantially higher. This was offset by student attendance rate of only 50 percent.

Internal efficiency of institutions

- Of children enrolled in class six, about half reached class ten, 40 percent passed the test prior to public examinations (SSC/dakhil) and only 20 percent passed the public examinations and thus successfully completed the secondary cycle.

- In contrast to advances in initial enrollment, girls lagged behind boys by 6 percentage points in reaching class ten, by 17 percentage points in passing the class ten “test” and by 11 percentage points in passing the public examination. Boys were ahead of girls in completing the cycle and passing secondary examinations in all types of secondary institutions.
- On average 19.6 pupil years were required to produce one completer of the five year cycle. The investment of 25.1 years pupil years was needed to have a girl complete the cycle. This testified to serious inefficiency of the system and was an indication of serious quality problem.

Financing and resources

- Private household spending for secondary education was more than four times higher than public spending. On an average, Taka 8,874 per male child and Taka 7,411 per girl child were spent annually by households for children’s secondary education. By comparison, public spending per child per year was in the order of Taka 1500 in non-government secondary schools and Taka 1900 in dakhil madrasas.
- Household expenditure in urban areas were 71 percent higher for boys and 80 percent more for girls.
- Expenditures for private tutoring were the highest among all items of private expenditures across the board, accounting for about half of the total private spending
- The poor in the “food deficit” households spent less than half per child for secondary education than those in the “food surplus” households - Taka 3,891 compared to Taka 8,123 per child per year. It is remarkable that even the poor families are investing substantial resources for their children’s education, although the learning outputs and outcomes from these investments are far from assured.
- Government contribution in salary subvention and other grants constituted 60.5 percent of the income of non-government schools and 70.4 percent for dakhil madrasas.
- Average annual income of a non-government secondary school in 2004 was Taka 908,000 and for dakhil madrasas Taka 571,000. (Average enrolment per institution were respectively 555 and 292 in 2002, the latest year of published figures available from BANBEIS.)
- On an average, 54 percent of the girls enrolled in sample secondary schools and dakhil madrasas were stipend recipients.

- Variations were noted for different regions of the country in proportions of recipients of stipends among girl students – with a low of 42 percent recipients in rural Sylhet and high of 71 percent in rural Barisal.
- Girls' stipends represented in 2003-4 financial year 57 percent of government development allocation for secondary education and 19 percent of total revenue and development expenditure for all secondary education institutions.

Management of institutions

- Almost all schools and madrasas, with the exception of the ones run by the government, have a managing committee. Average number of committee members was 12.7 for all types of non-government secondary institutions.
- Participation of female members in the SMC was very low at an average of 3.4 percent members in the committee, in spite of the fact that almost all rural schools are co-educational. Dakhil and Alim madrasas had an even lower proportion of women in managing committees. The average low percentage in a committee of 11 or more members meant that most secondary education institutions did not have any women in their managing committees.
- About a third of the SMC members were teachers by profession (either member secretary or teacher representative or teachers of other institutions)
- A quarter of the SMC members were businessmen, 17.7 percent service holders, 14.2 percent farmers and 10.4 percent were social workers.
- Although, the managing committee is supposed to represent the community stakeholders in education, recent regulations and practice have made the selection process of the chair for the non-government secondary school committees beholden to the consent of the local M.P. The chair of the committee for all madrasas in an upozila is the Upozila Nirbahi (Executive) officer.

B. Policy implications

As in past *Education Watch* reports, in keeping with the aim of promoting and facilitating informed discussion about policies and priorities, an attempt has been made to extract the implications for action of the findings about the state of secondary education. The defining theme is relevance of education to overarching national objectives of poverty reduction through equitable access to quality education, equipping young people with knowledge and skills for the competitive market place, and building a democratic polity. Within this framework, the practical

questions of reconciling quality with wider and equitable access, making effective provisions for teachers and learning facilities, management and governance of institutions and resources, and enhancing accountability and responsibility have been given attention.

The following items have been identified as guidelines to be kept in focus in considering policy and programme priorities.

- ***Expanding opportunities.*** Expanding opportunities for secondary education with greater equity and better quality remain the central concern in secondary education, despite growth in enrolment and dramatic advances in bringing girls into the orbit of education.
- ***Growth with quality and equity.*** With increased participation and completion in primary education, a growing recognition of secondary education as a part of basic education and improvement in transition from primary to secondary level, the social demand for secondary education will continue to rise. The major challenge, therefore, is to find ways of combining growth with quality improvement. Elements of quality enhancement, including teachers, curriculum and learning materials, learning facilities, assessment of learning and school-level management, have to be built in as integral parts of plans and strategies for the expansion of the system.
- ***School level action targeted at the disadvantaged.*** On top of non-entry of more than half of the age group, high dropout and failure to complete the cycle mean that the poor are largely deprived from secondary education opportunities. Those of the poor or somewhat less poor who manage to enter into the system are hit the hardest by the low efficiency and quality of the system. Secondary education, as a result, is less a vehicle for social mobility than a means of reinforcing existing social divisions. Poorly performing madrasas serving mostly the poor and proprietary English medium schools serving the elites are potent symbols of the divisive system.

Two key strategies for making secondary education equity-inducing and pro-poor which should be given attention are: (a) Quality enhancement measures at the school level in non-government schools, serving the vast majority of children, which particularly target children of disadvantaged families; and (b) Modernising curriculum and teaching-learning practices in madrasas, the second most popular category of secondary education institutions.

- ***Protecting and consolidating gender gain.*** Advances in girls' enrolment is meaningful to the extent that this can be sustained until the end of the cycle and they realize the full benefits of education. Targeted efforts are needed,

especially at the school level, to identify and remove the obstacles that hold girls back, and improve the quality of teaching and learning practices for both girls and boys.

- ***Improving teachers' capabilities and performance*** Registration and certification of teachers are useful moves, if these can be implemented properly. These alone, however, do not address the problem of supply of qualified teachers and of expanding opportunities that are effective in teachers' professional development.

Creative initiatives are needed in these regards, which may include: contract and part-time deployment of people with required skills, who may not be professional teachers, innovative hands-on teacher skill development methods using NGO and business techniques and experience; and better quality control of growing private B.Ed courses.

- ***Preparing the ground for a unified system.*** Essential learning facilities including laboratories and libraries, teachers who are at least minimally qualified to teach key subjects, and school management mindful of quality assurance are essential prerequisites for implementation of a unified curriculum for all students up to grade ten. Progress has to be demonstrated in preparing this ground to allay the concerns of parents and students about what they may get in the bargain, how prepared students will be to cope with the separate streams at the higher secondary level, and whether they will lose a competitive edge in choosing their field of study in higher education. Moreover, all streams of secondary education should be brought under reforms aimed at developing a unified system.

One category of necessary action would be to examine and revise the articulation, sequence, and academic load for all stages of secondary education from grade six to twelve and ensure better implementation of the curriculum. There is widespread anxiety that isolated change in the middle can be disruptive.

- ***Strategies to serve key objectives by combining private and public resources.*** Since private expenditures are several times larger than public spending in secondary education, mobilization and use of resources for expanding educational opportunities, promoting equity and improving quality need to be based on the premise of effectively combining public and private resources for promoting key objectives, rather than plan and allocate public expenditures in isolation. Mechanisms for combining the resources and using these well need to be explored and tried out by ceding greater authority with accountability to the school level.

- ***Re-thinking stipends.*** Stipends have boosted girls' enrolment, but, at least two critical questions are: a) Given the overall quality problems in secondary education and low per student expenditure, do stipends starve out important inputs necessary for quality improvement – such as, laboratories, libraries, teacher training and stronger supervision? And, b) Are conditions attached to this transfer payment, which the disadvantaged sections of the population (very poor, first generation learners and girls who have to work to help their families) have difficulty to meet, further aggravating disparity?
- ***Gender balance in managing committees.*** The School Managing Committees are seriously in default in gender balance - with a total representation of only 3.4 percent in all observed schools, although the vast majority of schools enroll both boys and girls. Both regulations and practice must change to include more than symbolic participation of women and mothers in school management.
- ***Making managing committees responsive and accountable.*** Modification of regulations, awareness raising and active encouragement on the part of political and education authorities are needed to make the selection of the chairperson and members of the managing committees less beholden to local political personalities and more a genuine choice of the community. This key responsibility should not be placed in unfit hands who do not have the necessary capabilities or are not genuinely interested in education.
- ***Strategy to promote greater authority with accountability at school level.*** A central framework of regulations and standards is necessary, which appears to be the principal government response to the management problems and huge waste of resources; but more important is impartial and objective application of these provisions. And even more critical is for individual institutions to become responsible and accountable for promoting and maintaining standards. This aim can be supported by the government by inviting and encouraging schools to take responsibility and demonstrate their capacity to do so on the basis of agreed criteria. Once it is established by independent assessment that the schools have lived up to their obligations, these schools can be rewarded, exempted from central control and allowed to develop and follow their own higher standards. This strategy of nurturing self-regulation is likely to be an effective incentive for greater school-level responsibility with accountability.

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ANNEXES

Annex 3.1. Contd.

শিক্ষার্থীদের তথ্য (প্রথম পৃষ্ঠার 7 নম্বর কলামে যাদের কোড 1, অর্থাৎ বর্তমানে স্কুলে যাচ্ছে, এই অংশে শুধু তাদের জন্য প্রযোজ্য)

ক্রমিক	প্রশ্ন	4-20 বছর বয়সী শিক্ষার্থীদের নাম ও লাইন নম্বর											
1	শিক্ষার্থী কি এ বছরের জন্য প্রয়োজনীয় সব পাঠ্যপুস্তক সংগ্রহ করতে পেরেছে? কোড: হ্যাঁ = 1, আংশিক = 2, না = 3, জানা নাই = 8												
2	এ বছর পাঠ্যপুস্তক সংগ্রহ করতে মোট কত টাকা লেগেছে? কোড: জানা নাই = 888												
3	এ বছরের শুরুতে ভর্তির সময় স্কুলের বার্ষিক ফি/সেশন চার্জ হিসাবে এককালীন কত টাকা দিতে হয়েছে? কোড: জানা নাই = 888												
4	শিক্ষার্থী কোন প্রকার বৃত্তি পেয়ে থাকলে তা কোন ধরনের? কোড: উপবৃত্তি = 1, ছাত্রী উপবৃত্তি = 2, মেধাবৃত্তি = 3, গায় না = 4												
5	যদি বৃত্তি পায়, তবে গত কিস্তিতে কত টাকা পেয়েছে?												
6	কোন বিভাগের শিক্ষার্থী (নবম ও তদুর্ধ্ব শ্রেণীর জন্য প্রযোজ্য) কোড: কলা/মানবিক/সাধারণ = 1, বিজ্ঞান = 2, ব্যবসাবিগ্ণ = 3, মুজাফিক/কোরআন = 4, জানা নাই = 8, প্রযোজ্য নয় = 9												
7	লেখাপড়ায় সাহায্য করার জন্য গৃহশিক্ষক থাকলে তিনি কে? কোড: আত্মীয়/প্রতিবেশি = 1, নিজ স্কুলের শিক্ষক = 2, অন্য স্কুলের শিক্ষক = 3, অন্য কেউ = 4, কোটিং সেটারে যায় = 5, ব্যাচে পড়তে যায় = 6, গৃহশিক্ষক নেই = 7, জানা নাই = 8												
8	গৃহশিক্ষক থাকলে মাসে কত টাকা দিতে হয়? কোড: প্রযোজ্য নয় = 999												
9	শিক্ষার্থী এ বছর সহশিক্ষাক্রমিক কার্যক্রমে অংশ নিয়ে থাকলে কোন কোন কার্যক্রমে অংশ নিয়েছে? কোড: অংশ নেয় না = 0, বিতর্ক = 1, সাংস্কৃতিক অনুষ্ঠান/বার্ষিক নাটক = 2, ক্রীড়া ও খেলাধুলা = 3, ধর্মীয় অনুষ্ঠান = 4, স্কাউট/রোভার/বিনেদিসি/গার্লস গাইড = 5, সমাজকর্ম = 6 বিজ্ঞানমেলা = 7, শিক্ষা সফর = 8, ছবি আঁকা = 9, উপস্থিত বক্তৃতা/বিতর্ক = 10, অন্যান্য = 11, জানা নাই = 88												
10	এ বছর শিক্ষার্থীর পিতা/মাতা বা অন্য কেউ তার স্কুলের কোন সভায় যোগ দিয়েছেন কি? কোড: হ্যাঁ = 1, না = 2, জানা নাই = 8	পিতা	মাতা	অন্য কেউ	পিতা	মাতা	অন্য কেউ	পিতা	মাতা	অন্য কেউ	পিতা	মাতা	অন্য কেউ

খানার আর্থসামাজিক তথ্য

ক্রমিক	প্রশ্ন	কোড			
		সবসময় ঘাটতি	মাঝে মাঝে ঘাটতি	সমান	উৎস
1	গত এক বছরে, এই খানার আর্থিক অবস্থা কী রকম ছিল? (খানা প্রধানকে জিজ্ঞেস করুন যে, গত এক বছরে বিভিন্ন খাত থেকে এই খানার যত টাকা আয় হয়েছে এবং বিভিন্ন খাতে যত টাকা ব্যয় হয়েছে তার তারতম্যের ভিত্তিতে গত বছর খানার আর্থিক অবস্থা কী রকম ছিল?)	1	2	3	4
2	এই খানার সদস্যরা কোন ধর্মাবলম্বী? কোড: মুসলিম = 1, হিন্দু = 2, বৌদ্ধ = 3, খ্রিস্টান = 4				
3	এই খানার সদস্যদের জাতিগত পরিচয় কী?	আদিবাসী	বাহালী		
4	খানার আবাসস্থল কোথায়?	বস্তিতে	বস্তিতে নয়		

তথ্য সংগ্রহকারীর নাম:

তারিখ:

Annex 3.3. Institutional Survey Questionnaire - 01

গোপনীয়: শুধু গবেষণার
কাজে ব্যবহারের জন্য

এডুকেশন ওয়াচ ২০০৫: শিক্ষাপ্রতিষ্ঠান জরিপ প্রশ্নপত্র

অংশ: ক

শিক্ষাপ্রতিষ্ঠানের নাম : -----

গ্রাম: ----- ইউনিয়ন: ----- উপজেলা: -----

জেলা: ----- বিভাগ:-----

শিক্ষাপ্রতিষ্ঠানের ধরন	
নিম্ন মাধ্যমিক	1
বেসরকারি মাধ্যমিক	2
সরকারি মাধ্যমিক	3
স্কুল ও কলেজ	4
দাখিল মাদ্রাসা	5
আলিম মাদ্রাসা	6

স্ট্রাটাম: (শিক্ষাপ্রতিষ্ঠানের ধরন কোড 2 অথবা 5 হলে এই অংশ প্রযোজ্য)			
গ্রামীণ ঢাকা	1	গ্রামীণ বরিশাল	5
গ্রামীণ চট্টগ্রাম	2	গ্রামীণ সিলেট	6
গ্রামীণ রাজশাহী	3	মেট্রোপলিটন শহর	7
গ্রামীণ খুলনা	4	পৌরসভা	8

ক. সাধারণ তথ্য

ক্রমিক	প্রশ্ন	উত্তর/কোড
1	এই শিক্ষাপ্রতিষ্ঠানটি কত সালে প্রতিষ্ঠিত হয়েছে?	
2	উপজেলা শহর থেকে এই শিক্ষাপ্রতিষ্ঠানের দূরত্ব কত কিলোমিটার?	
3	শিক্ষাপ্রতিষ্ঠানটিতে কাদের পড়ালেখার ব্যবস্থা আছে?	শুধু ছেলেদের 1 শুধু মেয়েদের 2 উভয়ের 3
4	এই শিক্ষাপ্রতিষ্ঠানে কোন্ শ্রেণী থেকে কোন্ শ্রেণী পর্যন্ত লেখাপড়ার ব্যবস্থা আছে?	----- থেকে -----

খ. ভৌত অবকাঠামো

ক্রমিক	প্রশ্ন	উত্তর/কোড
1	এই শিক্ষাপ্রতিষ্ঠান কি নিজস্ব জমিতে স্থাপিত?	হ্যাঁ 1 না 2
2	এই শিক্ষাপ্রতিষ্ঠানের মোট ভবন কতটি?	
3	ভবনগুলোতে মোট কতটি কক্ষ আছে?	
4	কোন ধরনের কাজে কতটি কক্ষ ব্যবহৃত হয়?	
	শ্রেণীকক্ষ পাঠাগার	বিজ্ঞানাগার
	শিক্ষকদের বসার ঘর	শিক্ষকদের কমনরুম
	অফিসরুম স্টোররুম	খালি আছে

Annex 3.3. Contd.

ক্রমিক	প্রশ্ন	উত্তর/কোড			
5	প্রধান শিক্ষকের জন্য আলাদা ঘর আছে কি?	হ্যাঁ	1		
		না	2		
6	বিদ্যালয়ে বিদ্যুৎ সংযোগ আছে কি?	হ্যাঁ	1		
		না	2		
7	শিক্ষাপ্রতিষ্ঠানের কতটি শ্রেণীকক্ষে বৈদ্যুতিক বাতি ও পাখার ব্যবস্থা রয়েছে?	শুধু বৈদ্যুতিক বাতি			
		শুধু পাখা			
		উভয়			
		কোনটিই নেই			
8	শিক্ষকদের বসার ঘরে বৈদ্যুতিক বাতি ও পাখার ব্যবস্থা আছে কি?	শুধু বৈদ্যুতিক বাতি	1		
		শুধু পাখা	2		
		উভয়	3		
		কোনটিই নেই	4		
9	শিক্ষাপ্রতিষ্ঠানের ভবনগুলো কী দিয়ে তৈরি?	পুরোটাই পাকা			
		কিছু পাকা আর কিছু টিন ও অন্যান্য সামগ্রী			
		পুরোটাই টিন ও অন্যান্য সামগ্রী			
		অন্যান্য			
10	শিক্ষাপ্রতিষ্ঠানের ছাদ, দরজা, জানালা ইত্যাদি সার্বিকভাবে কী অবস্থায় আছে?	পুরোটাই ঠিকঠাক	1		
		বেশিরভাগ ঠিকঠাক	2		
		আধাআধি ঠিকঠাক	3		
		বেশিরভাগ জীর্ণ	4		
		পুরোটাই জীর্ণ	5		
11	এই শিক্ষাপ্রতিষ্ঠানে পানীয় জলের কী ধরনের ব্যবস্থা রয়েছে?	স্কুলের নিজস্ব টিউবওয়েল/সাপ্লাই	1		
		পাশের বাড়ির বা অন্য প্রতিষ্ঠানের টিউবওয়েল/সাপ্লাই	2		
		মটকা/কলসিতে রিজার্ভ পানি	3		
		কোন ব্যবস্থা নেই	4		
12	এই শিক্ষাপ্রতিষ্ঠানে শিক্ষার্থীদের প্রস্রাব/পায়খানার কী ধরনের ব্যবস্থা আছে?	ছেলে ও মেয়েদের জন্য পৃথক	1		
		উভয়ের জন্য একই	2		
		শুধু ছেলেদের জন্য	3		
		শুধু মেয়েদের জন্য	4		
		কোন ব্যবস্থা নেই	5		
13	এই শিক্ষাপ্রতিষ্ঠানের শিক্ষার্থীদের প্রস্রাব/পায়খানার ব্যবস্থা কী রকম?	স্বাস্থ্যসম্মত	ছেলে	মেয়ে	একত্রে
		মোটামুটি স্বাস্থ্যসম্মত	1	1	1
		স্বাস্থ্যসম্মত নয়	2	2	2
		প্রয়োজ্য নয়	3	3	3
			9	9	9
14	এই শিক্ষাপ্রতিষ্ঠানের শিক্ষকদের প্রস্রাব/পায়খানার আলাদা ব্যবস্থা আছে কি?		হ্যাঁ	1	
			না	2	
15	শিক্ষাপ্রতিষ্ঠানের নিজস্ব খেলার মাঠ আছে কি?		হ্যাঁ	1	
			না	2	

Annex 3.3. Contd.

গ. শিক্ষার মানোন্নয়নে অতিরিক্ত ব্যবস্থা

স্বাভাবিক কার্যক্রমের বাইরে শিক্ষার্থীদের লেখাপড়ার মানোন্নয়নে এই শিক্ষাপ্রতিষ্ঠানে কী কী ধরনের ব্যবস্থা নেয়া হয়?

1	দৈনিক কোচিং ক্লাশ হ্যাঁ = 1, না = 2	শ্রেণী অংশগ্রহণকারী শিক্ষার্থী সংখ্যা	6	7	8	9	10	টাকা দিতে হয় কি? হ্যাঁ = 1, না = 2
2	জুনিয়র বৃত্তি কোচিং	হ্যাঁ = 1, না = 2	হ্যাঁ হলে অংশগ্রহণকারী শিক্ষার্থী সংখ্যা:					
3	এসএসসি/দাখিল কোচিং	হ্যাঁ = 1, না = 2	হ্যাঁ হলে অংশগ্রহণকারী শিক্ষার্থী সংখ্যা:					

ঘ. কার্যদিবস

1	গত বছর এই শিক্ষাপ্রতিষ্ঠানে মোট কতদিন ক্লাশ হয়েছে?	
2	গত বছর কী কী কারণে কতদিন ক্লাশ বন্ধ ছিল?	সাপ্তাহিক ছুটি সরকারি ছুটি ধর্মীয় উৎসব খেলাধুলা ও সাংস্কৃতিক উৎসব অন্যান্য (লিখুন)

ঙ. বিজ্ঞানাগার

1	এই শিক্ষাপ্রতিষ্ঠানে কোন্ কোন্ বিষয়ের বিজ্ঞানাগার আছে?	পদার্থবিজ্ঞান 1 রসায়ন বিজ্ঞান 2 জীববিজ্ঞান 3 সবগুলো এক সাথে 4 বিজ্ঞানাগার নাই 9																									
2	বিজ্ঞানাগারের অবস্থা কী রকম?	<table border="1"> <tr> <td></td> <td>পদার্থ</td> <td>রসায়ন</td> <td>জীব</td> <td>একত্রে</td> </tr> <tr> <td>প্রয়োজনীয় যন্ত্রপাতিসহ সুসজ্জিত বিজ্ঞানাগার</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>কিছু যন্ত্রপাতি আছে, আলাদা রুম নেই</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>আলাদা রুম আছে, যন্ত্রপাতি নেই</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>প্রয়োজ্য নয়</td> <td>9</td> <td>9</td> <td>9</td> <td>9</td> </tr> </table>		পদার্থ	রসায়ন	জীব	একত্রে	প্রয়োজনীয় যন্ত্রপাতিসহ সুসজ্জিত বিজ্ঞানাগার	1	1	1	1	কিছু যন্ত্রপাতি আছে, আলাদা রুম নেই	2	2	2	2	আলাদা রুম আছে, যন্ত্রপাতি নেই	3	3	3	3	প্রয়োজ্য নয়	9	9	9	9
	পদার্থ	রসায়ন	জীব	একত্রে																							
প্রয়োজনীয় যন্ত্রপাতিসহ সুসজ্জিত বিজ্ঞানাগার	1	1	1	1																							
কিছু যন্ত্রপাতি আছে, আলাদা রুম নেই	2	2	2	2																							
আলাদা রুম আছে, যন্ত্রপাতি নেই	3	3	3	3																							
প্রয়োজ্য নয়	9	9	9	9																							

Annex 3.3. Contd.

চ. পাঠাগার/বইপত্র

(সরেজমিন পর্যবেক্ষণ করে তথ্য লিপিবদ্ধ করুন)

ক্রমিক	প্রশ্ন	উত্তর/কোড
1	এই শিক্ষাপ্রতিষ্ঠানে কোন পাঠাগার বা বই-এর আলমিরা আছে কি?	পাঠকক্ষসহ পাঠাগার আছে 1 আলমিরাতে কিছু বই আছে 2 উন্নয়ন সংস্থা পরিচালিত পাঠাগার 3 কোনটিই নেই 4
2	এই শিক্ষাপ্রতিষ্ঠানের পাঠাগারে/বই-এর আলমিরায় কী কী ধরনের কতটি বই রয়েছে?	পাঠ্যপুস্তক সহায়কপুস্তক শিক্ষক নির্দেশিকা অন্যান্য পুস্তক
3	এই পাঠাগারে দৈনিক সংবাদপত্র/ম্যাগাজিন ইত্যাদি রাখা হলে এগুলোর সংখ্যা কয়টি?	দৈনিক সংবাদপত্র ম্যাগাজিন
4	এই পাঠাগার/বইপত্র সাধারণত কারা ব্যবহার করেন?	শুধু শিক্ষকরা 1 শুধু শিক্ষার্থীরা 2 উভয় 3 কেউ ব্যবহার করে না 4 প্রযোজ্য নয় 9
5	পাঠাগারটি কে পরিচালনা করেন?	গ্রন্থাগারিক 1 একজন শিক্ষক 2 কেরানি 3 প্রযোজ্য নয় 9
6	গত এক সপ্তাহে কতজন শিক্ষার্থী পাঠাগারটি ব্যবহার করেছে?	ছাত্র ছাত্রী

ছ. কম্পিউটার শিক্ষা

(সরেজমিন পর্যবেক্ষণ করে তথ্য লিপিবদ্ধ করুন)

ক্রমিক	প্রশ্ন	উত্তর/কোড
1	এই শিক্ষাপ্রতিষ্ঠানের শিক্ষার্থীদের কম্পিউটার শেখার কোন ব্যবস্থা আছে কি?	হ্যাঁ 1 না 2
2	এই শিক্ষাপ্রতিষ্ঠানে কয়টি কম্পিউটার আছে?	
3	কতজন শিক্ষক কম্পিউটার প্রশিক্ষণ পেয়েছেন?	
4	কোন শ্রেণীর কতজন শিক্ষার্থী বর্তমানে কম্পিউটার শিক্ষা পাচ্ছে?	ষষ্ঠ সপ্তম অষ্টম নবম দশম ছাত্র ছাত্রী

Annex 3.3. Contd.

জ. সহশিক্ষাক্রমিক কার্যক্রম

(শিক্ষার্থী ও শিক্ষাপ্রতিষ্ঠানের আশে-পাশের মানুষের সাথে আলাপ করে ও পর্যবেক্ষণ করে তথ্য লিপিবদ্ধ করুন)

ক্রমিক	প্রশ্ন	উত্তর/কোড
1	এই শিক্ষাপ্রতিষ্ঠানের শিক্ষার্থীদের নির্দিষ্ট পোষাক পরে স্কুলে আসার বিধান আছে কি?	হ্যাঁ = 1, না = 2
2	শিক্ষাপ্রতিষ্ঠানে প্রতিদিন জাতীয় পতাকা উত্তোলন করা হয় কি?	হ্যাঁ = 1, না = 2
3	শিক্ষাপ্রতিষ্ঠানে প্রতিদিন জাতীয় সঙ্গীত গাওয়া হয় কি?	হ্যাঁ = 1, না = 2
4	প্রতিদিন পিটি/প্যারেড ইত্যাদি হয় কি?	হ্যাঁ = 1, না = 2
5	এ বছর বার্ষিক ক্রীড়া প্রতিযোগিতা অনুষ্ঠিত হয়েছে কি?	হ্যাঁ = 1, না = 2

নিম্নলিখিত সহশিক্ষাক্রমিক কার্যক্রমের কোন্ কোন্টি গতবছর এই শিক্ষা প্রতিষ্ঠানে আয়োজিত হয়েছিল? আয়োজিত হলে কোন্ কোন্ শ্রেণীর শিক্ষার্থীর জন্য আয়োজিত হয়েছিল?

ক্রমিক	কার্যক্রম	কোড	কোন্ কোন্ শ্রেণীর শিক্ষার্থীর জন্য?
1	চারু ও কারুকলা ক্লাশ	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
2	চারু ও কারুকলা প্রতিযোগিতা	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
3	সংগীত ও নৃত্যকলা ক্লাশ	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
4	সংগীত ও নৃত্যকলা প্রতিযোগিতা	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
5	বিতর্ক প্রতিযোগিতা	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
6	বার্ষিক সাংস্কৃতিক অনুষ্ঠান	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
7	বার্ষিক ক্রীড়া প্রতিযোগিতা	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
8	অন্যান্য খেলাধুলা	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
9	ধর্মীয় অনুষ্ঠান (নাম লিখুন: -----)	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
10	স্কাউট, রোভার, বিএনসিসি, গার্লস্ গাইড কার্যক্রম	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
11	সমাজকর্ম (নাম লিখুন: -----)	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
12	বিজ্ঞানমেলা	হয়েছে = 1, হয় নি = 2	6 7 8 9 10
13	শিক্ষাসফর	হয়েছে = 1, হয় নি = 2	6 7 8 9 10

Annex 3.3. Contd.

বা. শিক্ষকমতলী সম্পর্কিত তথ্য

ক্রমিক নং	নাম	লিঙ্গ	আজ উপস্থিত কি?	পদবী	জাতি পরিচয়	ধর্ম	সর্বোচ্চ শিক্ষাগত যোগ্যতা	পাবলিক পরীক্ষার ফলাফল			কী কী ধরনের পেশাগত ট্রেনিং পেয়েছেন	শিক্ষকতায় কত বছরের অভিজ্ঞতা রয়েছে?	কোন কোন বিষয় পড়ান	
								মাধ্যমিক	উচ্চ মাধ্যমিক	ডিগ্রী মাস্টার্স				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3. লিঙ্গ পুরুষ = 1 মহিলা = 2	5. পদবী অধ্যক্ষ/প্রধান শিক্ষক = 1 সহকারী প্রধান শিক্ষক = 2 সহকারী শিক্ষক = 3 প্রভাষক = 4 প্রদর্শক = 5	7. ধর্ম ইসলাম = 1 হিন্দু = 2 বৌদ্ধ = 3 খ্রিস্টান = 4 9-12. পাবলিক পরীক্ষার ফলাফল প্রথম বিভাগ = 1 দ্বিতীয় বিভাগ = 2 তৃতীয় বিভাগ = 3 জানা নাই = 8	8. শিক্ষাগত যোগ্যতা এসএসসি = 10 এইচএসসি = 12 বিএ = 14 বিএম = 15 বিএসসি = 16 বিএসএস = 17 এমএ = 18 এমকম = 19	এমএসসি = 20 এমএসএস = 21 দাখিল = 22 আলিম = 23 ফাজিল = 24 কামিল = 25 পিএইচডি = 26 জানা নাই = 88	13. প্রশিক্ষণের ধরন PTI/C-in-Ed = 1 B.Ed = 2 M.Ed = 3 Dip-in-Ed = 4 Bp.Ed = 5 কম্পিউটার = 6 অন্যান্য = 7 প্রশিক্ষণ নাই = 8	15. কোন কোন ভাষা ও সাহিত্য = গণিত = 2 ভৌতবিজ্ঞান = 3 সমাজবিজ্ঞান = 4 ব্যবসায়বিজ্ঞান = 5 ধর্ম = 6 কম্পিউটার = 7 চারু ও কারুকলা = ক্রীড়া ও খেলাধুলা :								

Annex 3.3. Contd.

বা. শিক্ষকমণ্ডলী সম্পর্কিত তথ্য

ক্রমিক নং	নাম	লিঙ্গ	আজ উপস্থিত কি?	পদবী	জাতি পরিচয়	ধর্ম	সর্বোচ্চ শিক্ষাগত যোগ্যতা	পাবলিক পরীক্ষার ফলাফল			কী কী ধরনের পেশাগত ট্রেনিং পেয়েছেন	শিক্ষকতায় কত বছরের অভিজ্ঞতা রয়েছে?	কোন কোন বিষয় পড়ান	
								মাধ্যমিক	উচ্চ মাধ্যমিক	ডিগ্রী মাস্টার্স				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3. লিঙ্গ পুরুষ = 1 মহিলা = 2	5. পদবী অধ্যক্ষ/প্রধান শিক্ষক = 1 সহকারী প্রধান শিক্ষক = 2 সহকারী শিক্ষক = 3 প্রভাষক = 4 প্রদর্শক = 5	7. ধর্ম ইসলাম = 1 হিন্দু = 2 বৌদ্ধ = 3 খ্রিস্টান = 4	8. শিক্ষাগত যোগ্যতা এসএসসি = 10 এইচএসসি = 12 বিএ = 14 বিকম = 15 বিএসসি = 16 বিএসএস = 17 এমএ = 18 এমকম = 19	এমএসসি = 20 এমএসএস = 21 দাখিল = 22 আলিম = 23 ফাজিল = 24 কামিল = 25 পিএইচডি = 26 জানা নাই = 88	13. প্রশিক্ষণের ধরন PTI/C-in-Ed = 1 B.Ed = 2 M.Ed = 3 Dip-in-Ed = 4 Bp.Ed = 5 কম্পিউটার = 6 অন্যান্য = 7 প্রশিক্ষণ নাই = 8	15. কোন কোন বি ভাষা ও সাহিত্য = গণিত = 2 ভৌতবিজ্ঞান = 3 সমাজবিজ্ঞান = 4 ব্যবসাবাগিষ্ঠা = 5 ধর্ম = 6 কম্পিউটার = 7 চারু ও কারুকলা = ক্রীড়া ও খেলাধুলা :								
4. উপস্থিতি হ্যাঁ = 1 না = 2	6. জাতি পরিচয় বাঙালি = 1 আদিবাসী = 2	9-12. পাবলিক পরীক্ষার ফলাফল প্রথম বিভাগ = 1 দ্বিতীয় বিভাগ = 2 তৃতীয় বিভাগ = 3 জানা নাই = 8												

Annex 3.3. Contd.

বা. শিক্ষকমডেলী সম্পর্কিত তথ্য

ক্রমিক নং	নাম	লিঙ্গ	আজ উপস্থিত কি?	পদবী	জাতি পরিচয়	ধর্ম	সর্বোচ্চ শিক্ষাগত যোগ্যতা	পাবলিক পরীক্ষার ফলাফল			কী কী ধরনের পেশাগত ট্রেনিং পেয়েছেন	শিক্ষকতায় কত বছরের অভিজ্ঞতা রয়েছে?	কোন কোন বিষয় পড়ান	
								মাধ্যমিক	উচ্চ মাধ্যমিক	ডিগ্রী মাস্টার্স				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3. লিঙ্গ পুরুষ = 1 মহিলা = 2	5. পদবী অধ্যক্ষ/প্রধান শিক্ষক = 1 সহকারী প্রধান শিক্ষক = 2 সহকারী শিক্ষক = 3 প্রভাষক = 4 প্রদর্শক = 5	7. ধর্ম ইসলাম = 1 হিন্দু = 2 বৌদ্ধ = 3 খ্রিস্টান = 4	8. শিক্ষাগত যোগ্যতা এসএসসি = 10 এইচএসসি = 12 বিএ = 14 বিকম = 15 বিএসসি = 16 বিএসএস = 17 এমএ = 18 এমকম = 19	এমএসসি = 20 এমএসএস = 21 দাখিল = 22 আলিম = 23 ফাজিল = 24 কামিল = 25 পিএইচডি = 26 জানা নাই = 88	13. প্রশিক্ষণের ধরন PTI/C-in-Ed = 1 B.Ed = 2 M.Ed = 3 Dip-in-Ed = 4 Bp.Ed = 5 কম্পিউটার = 6 অন্যান্য = 7 প্রশিক্ষণ নাই = 8	15. কোন কোন বি ভাষা ও সাহিত্য = গণিত = 2 ভৌতবিজ্ঞান = 3 সমাজবিজ্ঞান = 4 ব্যবসায়বিজ্ঞান = 5 ধর্ম = 6 কম্পিউটার = 7 চারু ও কারুকলা = ক্রীড়া ও খেলাধুলা :								
4. উপস্থিতি হ্যাঁ = 1 না = 2	6. জাতি পরিচয় বাঙালি = 1 আদিবাসী = 2	9-12. পাবলিক পরীক্ষার ফলাফল প্রথম বিভাগ = 1 দ্বিতীয় বিভাগ = 2 তৃতীয় বিভাগ = 3 জানা নাই = 88												

Annex 3.3. Contd.

বা. শিক্ষকমণ্ডলী সম্পর্কিত তথ্য

ক্রমিক নং	নাম	লিঙ্গ	আজ উপস্থিত কি?	পদবী	জাতি পরিচয়	ধর্ম	সর্বোচ্চ শিক্ষাগত যোগ্যতা	পাবলিক পরীক্ষার ফলাফল			কী কী ধরনের পেশাগত ট্রেনিং পেয়েছেন	শিক্ষকতায় কত বছরের অভিজ্ঞতা রয়েছে?	কোন কোন বিষয় পড়ান	
								মাধ্যমিক	উচ্চ মাধ্যমিক	ডিগ্রী মাস্টার্স				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3. লিঙ্গ পুরুষ = 1 মহিলা = 2	5. পদবী অধ্যক্ষ/প্রধান শিক্ষক = 1 সহকারী প্রধান শিক্ষক = 2 সহকারী শিক্ষক = 3 প্রভাষক = 4 প্রদর্শক = 5	7. ধর্ম ইসলাম = 1 হিন্দু = 2 বৌদ্ধ = 3 খ্রিস্টান = 4	8. শিক্ষাগত যোগ্যতা এসএসসি = 10 এইচএসসি = 12 বিএ = 14 বিকম = 15 বিএসসি = 16 বিএসএস = 17 এমএ = 18 এমকম = 19	এমএসসি = 20 এমএসএস = 21 দাখিল = 22 আলিম = 23 ফাজিল = 24 কামিল = 25 পিএইচডি = 26 জানা নাই = 88	13. প্রশিক্ষণের ধরন PTI/C-in-Ed = 1 B.Ed = 2 M.Ed = 3 Dip-in-Ed = 4 Bp.Ed = 5 কম্পিউটার = 6 অন্যান্য = 7 প্রশিক্ষণ নাই = 8	15. কোন কোন বি ভাষা ও সাহিত্য = গণিত = 2 ভৌতবিজ্ঞান = 3 সমাজবিজ্ঞান = 4 ব্যবসাবিজ্ঞান = 5 ধর্ম = 6 কম্পিউটার = 7 চারু ও কারুকলা = ক্রীড়া ও খেলাধুলা :								
4. উপস্থিতি হ্যাঁ = 1 না = 2	6. জাতি পরিচয় বাঙালি = 1 আদিবাসী = 2	9-12. পাবলিক পরীক্ষার ফলাফল প্রথম বিভাগ = 1 দ্বিতীয় বিভাগ = 2 তৃতীয় বিভাগ = 3 জানা নাই = 8												

Annex 3.3. Contd.

ঠ. বিভিন্ন শ্রেণীতে মাসিক বেতন ও সেশনচার্জ (টাকা), ২০০৫

খাত	ষষ্ঠ	সপ্তম	অষ্টম	নবম			দশম		
				মানবিক	বিজ্ঞান	বাণিজ্য	মানবিক	বিজ্ঞান	বাণিজ্য
মাসিক বেতন									
সেশনচার্জ									

ড. শিক্ষাপ্রতিষ্ঠানের আয়-ব্যয় সংক্রান্ত তথ্য, ২০০২-২০০৩

আয়ের খাত	টাকা	স্থায়ী সম্পদের মূল্য (বর্তমান বাজারদর হিসাবে)	টাকা
শিক্ষার্থীদের মাসিক বেতন		জমি ও স্কুলগৃহ	
শিক্ষক-কর্মচারীদের বেতনবাবদ সরকারি অংশ		আসবাবপত্র (বেঞ্চ, চেয়ার, টেবিল, আলমারি ইত্যাদি)	
ছাত্রী উপবৃত্তি খাতে প্রাপ্ত অর্থ		শিক্ষাসামগ্রী (ব্ল্যাকবোর্ড, বইপত্র, ল্যাবরেটরি সরঞ্জাম, অন্যান্য শিক্ষাসামগ্রী)	
নিজস্ব সম্পত্তির আয়		টিউবওয়েল, গাছ	
স্থানীয় জনগণ কর্তৃক সাহায্য		অন্যান্য স্থায়ী সম্পদ	
কোন কিছু ভাড়া দেয়া		মোট মূল্য	
সরকারি আবর্তক মঞ্জুরি		স্কুল পরিচালনার ব্যয়	
উন্নয়নমঞ্জুরি		শিক্ষক ও কর্মচারীদের বেতনবাবদ সরকারি অংশ	
উন্নয়নচাঁদা		শিক্ষক ও কর্মচারীদের বিদ্যালয়কর্তৃক প্রদত্ত বেতন	
পরীক্ষার ফি		ছাত্রী উপবৃত্তিখাতে প্রদত্ত অর্থ	
সেশন চার্জ		আনুষঙ্গিক ব্যয়	
খেলাধুলার ফি		মেরামত ও সংরক্ষণ ব্যয়	
মিলাদ ও উৎসব চাঁদা		সহশিক্ষাকার্যক্রমিক ব্যয়	
গত বছরের উদ্বৃত্ত		উন্নয়ন ব্যয়	
অন্যান্য (লিখুন)		পরীক্ষাবাবদ ব্যয়	
		অন্যান্য ব্যয়	
মোট আয়		মোট ব্যয়	
		উদ্বৃত্ত	

তথ্য সংগ্রহকারীর নাম: ----- তারিখ: -----

Annex 3.4. Institutional Survey Questionnaire-02

গোপনীয়: শুধু গবেষণার
কাজে ব্যবহারের জন্য

এডুকেশন ডায়ালগ ২০০৫: শিক্ষা প্রতিষ্ঠান জরিপ প্রশ্নপত্র

অংশ: খ

শিক্ষাপ্রতিষ্ঠানের নাম : -----

গ্রাম: ----- ইউনিয়ন: ----- উপজেলা: -----

জেলা: ----- বিভাগ: -----

শিক্ষাপ্রতিষ্ঠানের ধরন	
নিম্ন মাধ্যমিক	1
বেসরকারি মাধ্যমিক	2
সরকারি মাধ্যমিক	3
স্কুল ও কলেজ	4
দাখিল মাদ্রাসা	5
আলিম মাদ্রাসা	6

স্ট্রাটাম: (শিক্ষাপ্রতিষ্ঠানের ধরন কোড 2 অথবা 5 হলে এই অংশ প্রযোজ্য)			
গ্রামীণ ঢাকা	1	গ্রামীণ বরিশাল	5
গ্রামীণ চট্টগ্রাম	2	গ্রামীণ সিলেট	6
গ্রামীণ রাজশাহী	3	মেট্রোপলিটন শহর	7
গ্রামীণ খুলনা	4	পৌরসভা	8

ক. অষ্টম শ্রেণীর বৃত্তি পরীক্ষা

গত পাঁচ বছরে এই শিক্ষাপ্রতিষ্ঠানের কতজন শিক্ষার্থী মাধ্যমিক বৃত্তি পরীক্ষায় অংশ নিয়েছে, কতজন পাশ করেছে এবং কতজন বৃত্তি পেয়েছে?

সাল	ছাত্র			ছাত্রী		
	বৃত্তি দিয়েছে	পাশ করেছে	বৃত্তি পেয়েছে	বৃত্তি দিয়েছে	পাশ করেছে	বৃত্তি পেয়েছে
2000						
2001						
2002						
2003						
2004						

কোড: তথ্য জানা নাই = 88

খ. ছাত্রী উপবৃত্তি

বর্তমানে এই শিক্ষাপ্রতিষ্ঠানের কোন শ্রেণীতে কতজন ছাত্রী রয়েছে এবং তাদের কতজন ছাত্রী উপবৃত্তি পাচ্ছে?

শ্রেণী	ষষ্ঠ	সপ্তম	অষ্টম	নবম	দশম
মোট ছাত্রীসংখ্যা					
উপবৃত্তিপ্রাপ্ত ছাত্রীসংখ্যা					

Annex 3.4. Contd.

গ. শ্রেণীকক্ষে বসার ব্যবস্থা ও উপস্থিতি

শ্রেণী ও সেকশন	স্বাভাবিকভাবে কতজন বসতে পারে		ছাত্র		ছাত্রী	
			তালিকাভুক্ত (রেজিস্টার থেকে)	আজ ক্লাশে উপস্থিতি (মাথা গুণে)	তালিকাভুক্ত (রেজিস্টার থেকে)	আজ ক্লাশে উপস্থিতি (মাথা গুণে)
ষষ্ঠ	6	1				
	6	2				
	6	3				
	6	4				
সপ্তম	7	1				
	7	2				
	7	3				
	7	4				
অষ্টম	8	1				
	8	2				
	8	3				
	8	4				
নবম	9	1				
	9	2				
	9	3				
	9	4				
দশম	10	1				
	10	2				
	10	3				
	10	4				

ঘ. শিক্ষার্থীসংখ্যা

		ছাত্র	ছাত্রী	মোট
1	এই শিক্ষাপ্রতিষ্ঠানে শিক্ষার্থীর সংখ্যা কতজন?	প্রাথমিক		
		নিম্ন মাধ্যমিক		
		মাধ্যমিক		
		উচ্চ মাধ্যমিক		

Annex 3.4. Contd.

৩. উত্তীর্ণ, পুনরাবৃত্তি ও বারপড়া, ২০০৪

শ্রেণী	বিভাগ	ছাত্র						ছাত্রী					
		২০০৪ সালের মার্চ মাসে মোট কতজন তালিকাতুক্ত ছিল	এদের মধ্যে কতজন ২০০৫ সালের জানুয়ারীতে পরবর্তী শ্রেণীতে উঠেছে	কতজন মাঝপথে বারে পড়েছে	কতজন একই ক্লাশে রয়ে গেছে	অন্যান্য/ জানা নাই	২০০৪ সালের মার্চ মাসে মোট কতজন তালিকাতুক্ত ছিল	এদের মধ্যে কতজন ২০০৫ সালের জানুয়ারীতে পরবর্তী শ্রেণীতে উঠেছে	কতজন মাঝপথে বারে পড়েছে	কতজন একই ক্লাশে রয়ে গেছে	অন্যান্য/ জানা নাই		
১	২	৩	৪	৫	৬	৭	৮	৯	১০	১১	১২		
যষ্ঠ													
সপ্তম													
অষ্টম													
নবম	মানবিক												
	বিজ্ঞান												
	ব্যবসা												
দশম	মানবিক												
	বিজ্ঞান												
	ব্যবসা												

Annex 3.5. Weighting procedure

The equal sample size for each stratum in the household survey and educational institution survey required the use of weighing factors in order to derive rural, urban and national estimates from household survey and educational institution survey. The following formula was used for this purpose.

$$P = \sum S_i \times W_i$$

Where, P is the polled estimate, S_i s are the estimates for different strata or school type, and W_i s are the weights calculated from the respective population size. Here the weights are the proportions of population in different strata and type of educational institution. Latest available information on the population (educational institution survey 2003 of the BANBEIS, Census 2001 of BBS, and BANBEIS database) was considered for this purpose. Following tables provide the population size for estimating the factors. Size of the samples for educational institutions, teachers and students by stratum and school type are provided in the first table and the size of the population samples for strata is provided in the second table.

Strata and category of educational institutions	Number of institutions	Number of teachers	Number of students
<i>Non-government secondary</i>			
Rural Dhaka	2,533	30,573	13,89,259
Rural Chittagong	1,849	22,336	10,14,951
Rural Rajshai	3,802	46,096	20,94,686
Rural Khulna	1,583	19,167	8,70,986
Rural Barisal	1,062	12,831	5,83,057
Rural Sylhet	478	5,861	2,66,335
Metropolitan cities	605	7,287	3,31,119
Municipalities	1,175	14,257	6,47,840
Total for non-govt. secondary	13,087	1,58,408	71,98,233
<i>Dakhil madrasa</i>			
Rural Dhaka	1,173	13,768	4,25,014
Rural Chittagong	760	8,921	2,75,392
Rural Rajshai	2,040	23,885	7,37,270
Rural Khulna	737	8,640	2,66,718
Rural Barisal	778	9,132	2,81,897
Rural Sylhet	192	2,248	69,390

Strata and category of educational institutions	Number of institutions	Number of teachers	Number of students
Metropolitan cities	73	843	26,022
Municipalities	242	2,810	86,738
Total for dakhil madrasa	5,995	70,247	13,89,259
Junior secondary	3,981	21,587	7,41,776
Government secondary	317	6,954	2,22,125
School & College	219	5,366	65,266
Alim madrasa	1,220	18,428	5,32,601
Total	24,819	2,80,990	1,09,28,442

Stratum	Total population	Population aged 11-15 years
Rural Dhaka	3,00,95,822	35,63,345
Rural Chittagong	2,03,11,584	24,04,892
Rural Rajshai	2,69,99,544	31,96,746
Rural Khulna	1,25,08,963	14,81,061
Rural Barisal	74,31,067	8,79,838
Rural Sylhet	73,07,216	8,65,175
Metropolitan cities	86,69,578	10,26,478
Municipalities	1,05,27,345	12,46,438
Total	12,38,51,120	1,46,63,973

Annexes for Chapter 4

Annex 4.1. Percentage distribution of 11-15 years old children by schooling status and stratum

Schooling status	Rural Dhaka	Rural Chittagong	Rural Rajshahi	Rural Khulna	Rural Barisal	Rural Sylhet	Metro city	Municipality
Pre-primary	0.2	0.0	0.1	0.0	0.2	0.2	0.0	0.2
Primary	25.4	29.6	24.6	22.9	23.1	23.9	14.9	19.1
Junior secondary	32.5	30.5	33.6	35.3	31.3	22.9	32.4	37.9
Secondary	10.9	9.8	13.6	15.6	14.5	8.2	18.4	18.6
Non-graded Madrasa	2.7	2.5	1.5	1.3	1.2	2.4	0.7	1.0
Out of school	28.2	27.4	26.4	24.7	29.6	42.3	33.4	22.9
n	1773	2113	1702	1653	1867	2185	1630	1741

Source: Education Watch Household Survey, 2005

Annex 4.2. Percentage distribution of secondary school students by class

Area and sex	Number of students	Class					
		VI	VII	VIII	IX	X	X (old)
Bangladesh	9316	22.3	18.1	16.6	15.4	16.3	11.4
Girls	4951	22.5	18.6	17.4	15.3	16.5	9.7
Boys	4365	22.0	17.5	15.6	15.6	16.0	13.3
Rural	6773	22.9	18.3	16.8	15.3	16.1	10.6
Girls	3616	23.1	19.1	17.5	15.3	16.3	8.8
Boys	3157	22.6	17.5	16.0	15.3	15.8	12.7
Urban	2543	19.2	16.7	15.5	16.3	17.2	15.0
Girls	1335	19.5	16.3	17.0	15.5	17.4	14.3
Boys	1208	18.8	17.2	13.9	17.2	17.1	15.8+

Source: Education Watch Household Survey, 2005

Annex 4.3. Percentage distribution of students by type of school and stratum (excluding the SSC examinees)

School type	Rural Dhaka	Rural Chittagong	Rural Rajshahi	Rural Khulna	Rural Barisal	Rural Sylhet	Metro. city	Municipality
Dakhil madrasa	8.4	10.8	17.2	13.1	18.8	10.1	2.3	3.9
Higher madrasa	3.3	5.2	2.3	4.0	5.0	1.8	0.7	2.0
Junior secondary	1.8	0.7	3.3	1.4	0.6	0.4	0.9	0.3
Non-govt. secondary	80.8	79.8	67.8	77.8	73.4	83.9	62.3	69.7
Government secondary	4.5	2.4	5.5	2.0	1.5	2.5	15.1	19.3
School & College	0.5	0.6	2.7	1.4	0.3	0.7	14.9	3.2
Others	0.7	0.4	1.1	0.4	0.4	0.7	3.8	1.7

Source: Education Watch Household Survey, 2005

Annex 4.4. Enrolment rate by age, sex and area

Age (in years)	All	Girls	Boys	Rural	Urban
<i>Enrolment in any class</i>					
11	86.4	90.6	82.3	86.3	86.7
12	79.5	83.6	75.4	79.7	77.6
13	74.0	77.4	70.7	74.1	73.6
14	66.5	69.9	63.0	66.5	66.5
15	53.6	57.7	49.4	52.3	61.1
<i>Net enrolment</i>					
11	25.0	27.8	22.5	23.2	35.8
12	39.7	49.6	32.9	38.0	50.9
13	54.0	60.0	48.1	53.0	60.3
14	57.0	61.9	52.0	55.9	63.1
15	48.3	54.1	42.4	46.6	58.1

Source: Education Watch Household Survey, 2005

Annex 4.5. Trend in enrolment by sex, 1998 to 2005

Year	Enrolment in any class		Net enrolment rate		Gross enrolment ratio	
	Girls	Boys	Girls	Boys	Girls	Boys
1998	71.1	64.5	35.3	30.0	46.3	43.3
2000	72.2	66.2	39.3	31.8	52.6	46.4
2005	75.5	67.9	50.6	39.6	69.0	60.2

Source: Education Watch Household Survey, 1998, 2000 and 2005

Annex 4.6. Gross enrolment ratio by household economic status and sex

Household economic status	Sex		Both
	Girls	Boys	
Always in deficit	40.4 (1167)	31.3 (1240)	35.6 (2407)
Sometimes in deficit	61.7 (2010)	52.7 (2045)	56.9 (4055)
Balance	78.2 (2400)	66.3 (2388)	72.2 (4788)
Surplus	87.4 (1742)	83.3 (1628)	85.4 (3370)

Source: Education Watch Household Survey, 2005

Annex 4.7. Gross enrolment ratio by household economic status and area of residence

Household economic status	Area of residence	
	Rural	Urban
Always in deficit	35.5 (2050)	35.4 (357)
Sometimes in deficit	55.1 (3350)	66.7 (705)
Balance	70.3 (3621)	82.9 (1167)
Surplus	84.9 (2240)	87.9 (1130)

Source: Education Watch Household Survey, 2005

Annex 4.8. Net enrolment rate by household economic status and area of residence

Household economic status	Area of residence		Level of significance
	Rural	Urban	
Always in deficit	24.9 (2050)	28.0 (357)	ns
Sometimes in deficit	40.1 (3350)	47.1 (705)	p<0.001
Balance	48.6 (3621)	57.3 (1167)	p<0.001
Surplus	58.0 (2240)	63.5 (1130)	p<0.01
Level of significance	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 4.9. Net enrolment rate at secondary level by stratum and household economic status

Strata	Fathers education				Level of significance
	Always in deficit	Sometimes in deficit	Breakeven	Surplus	
Rural Dhaka	28.3 (361)	39.6 (513)	51.0 (606)	51.7 (286)	p<0.001
Rural Chittagong	20.2 (386)	32.9 (575)	45.0 (705)	60.2 (437)	p<0.001
Rural Rajshahi	27.6 (304)	47.0 (559)	50.5 (535)	61.3 (302)	p<0.001
Rural Khulna	32.0 (225)	47.3 (482)	54.9 (546)	60.5 (395)	p<0.001
Rural Barisal	28.7 (237)	40.5 (595)	46.8 (598)	60.6 (432)	p<0.001
Rural Sylhet	12.5 (537)	27.5 (626)	36.9 (631)	53.1 (388)	p<0.001
Metropolitan city	22.9 (144)	47.1 (280)	51.7 (594)	58.0 (610)	p<0.001
Municipalities	31.0 (213)	47.1 (425)	62.0 (573)	68.8 (520)	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 4.10. Gross enrolment ratio by parental education and sex

Parental education	Sex		Both
	Girls	Boys	
<i>Mothers education</i>			
Nil	50.2 (3570)	39.6 (3655)	44.8 (7225)
Primary	83.0 (2165)	70.2 (2133)	76.6 (4298)
Secondary	104.1 (1277)	102.6 (1261)	103.4 (2538)
Tertiary	101.0 (155)	122.5 (171)	110.2 (326)
<i>Fathers education</i>			
Nil	44.6 (3003)	37.0 (3047)	40.8 (6050)
Primary	72.6 (1671)	59.2 (1696)	65.8 (3367)
Secondary	101.3 (1770)	91.2 (1710)	96.4 (3480)
Tertiary	113.1 (606)	117.1 (629)	115.0 (1235)

Source: Education Watch Household Survey, 2005

Annex 4.11. Gross enrolment ratio by parental education and area of residence

Parentaleducation	Area of residence	
	Rural	Urban
<i>Mothers education</i>		
Nil	45.5 (6018)	48.9 (1207)
Primary	76.5 (3460)	77.2 (838)
Secondary	101.6 (1562)	113.3 (976)
Tertiary	108.7 (82)	117.7 (244)
<i>Fathers education</i>		
Nil	41.2 (5069)	38.3 (981)
Primary	66.6 (2783)	61.5 (584)
Secondary	95.7 (2511)	99.8 (969)
Tertiary	114.2 (555)	119.4 (680)

Source: Education Watch Household Survey, 2005

Annex 4.12. Net enrolment rate by parental education and area of residence

Parental education	Area of residence		Level of significance
	Rural	Urban	
<i>Mothers education</i>			
Nil	31.4 (6018)	27.8 (1207)	p<0.01
Primary	53.3 (3460)	53.3 (838)	ns
Secondary	71.9 (1562)	82.0 (976)	p<0.001
Tertiary	81.8 (82)	87.7 (244)	ns
Level of significance	p<0.001	p<0.001	
<i>Fathers education</i>			
Nil	29.2 (5069)	26.8 (981)	
Primary	46.7 (2783)	44.0 (584)	
Secondary	65.6 (2511)	70.1 (969)	p<0.01
Tertiary	76.9 (555)	87.8 (680)	p<0.001
Level of significance	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 4.13. Net enrolment rate at secondary level by stratum and mothers education

Strata	Mothers education			Level of significance
	Nil	Primary	Secondary +	
Rural Dhaka	30.7 (981)	54.8 (482)	70.9 (268)	p<0.001
Rural Chittagong	27.5 (1178)	49.5 (582)	69.2 (344)	p<0.001
Rural Rajshahi	38.4 (1017)	58.6 (464)	73.2 (183)	p<0.001
Rural Khulna	40.0 (803)	55.7 (566)	78.6 (243)	p<0.001
Rural Barisal	25.4 (692)	50.6 (805)	77.6 (343)	p<0.001
Rural Sylhet	18.2 (1347)	43.1 (561)	72.6 (263)	p<0.001
Metropolitan city	21.6 (587)	49.3 (337)	83.3 (639)	p<0.001
Municipalities	32.6 (620)	58.7 (501)	83.1 (581)	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 4.14. Net enrolment rate at secondary level by stratum and father's education

Strata	Fathers education				Level of significance
	Nil	Primary	Secondary	Tertiary	
Rural Dhaka	30.1 (905)	48.7 (347)	65.2 (353)	74.0 (100)	p<0.001
Rural Chittagong	24.4 (930)	40.6 (473)	60.3 (521)	76.0 (129)	p<0.001
Rural Rajshahi	34.2 (841)	54.1 (392)	69.6 (339)	79.4 (68)	p<0.001
Rural Khulna	37.3 (713)	53.1 (397)	72.8 (401)	78.6 (70)	p<0.001
Rural Barisal	24.1 (642)	44.6 (561)	68.4 (484)	84.7 (118)	p<0.001
Rural Sylhet	17.1 (1038)	33.1 (613)	58.4 (413)	72.9 (70)	p<0.001
Metropolitan city	20.6 (490)	39.4 (254)	68.5 (409)	87.8 (386)	p<0.001
Municipalities	32.0 (491)	47.0 (330)	71.1 (560)	87.8 (294)	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 4.15. Net enrolment rate by religion and sex

Religion	Sex		Both	Level of significance
	Girls	Boys		
Muslim	50.3 (6314)	37.8 (6326)	44.0 (12640)	p<0.001
Non-Muslim	52.6 (1026)	51.9 (998)	52.3 (2024)	ns
Level of significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 4.16. Gross enrolment ratio by religion and sex

Religion	Sex		Both
	Girls	Boys	
Muslim	67.7 (6314)	57.9 (6326)	62.7 (12640)
Non-Muslim	78.6 (1026)	75.9 (998)	77.0 (2024)

Source: Education Watch Household Survey, 2005

Annex 4.17. Gross enrolment ratio by religion and area of residence

Religion	Area of residence		Level of significance
	Rural	Urban	
Muslim	60.6 (9668)	74.3 (2972)	
Non-Muslim	75.3 (1625)	85.8 (399)	

Source: Education Watch Household Survey, 2005

Annex 4.18. Net enrolment rate by religion and area of residence

Religion	Area of residence		Level of significance
	Rural	Urban	
Muslim	42.5 (9668)	52.6 (2972)	p<0.001
Non-Muslim	50.3 (1625)	63.8 (399)	p<0.001
Level of significance	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 4.19. Net enrolment rate at secondary level by stratum and religion

Strata	Religion		Level of significance
	Muslim	Non-Muslim	
Rural Dhaka	42.5 (1546)	49.3 (227)	p<0.05
Rural Chittagong	39.7 (1831)	44.7 (282)	ns
Rural Rajshahi	46.2 (1514)	55.9 (188)	p<0.01
Rural Khulna	48.5 (1441)	67.5 (212)	p<0.001
Rural Barisal	43.4 (1648)	63.9 (219)	p<0.001
Rural Sylhet	29.7 (1688)	36.0 (497)	p<0.01
Metropolitan city	50.0 (1484)	58.4 (149)	p<0.05
Municipalities	54.8 (1491)	66.4 (250)	p<0.001
Level of significance	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 4.20. Percentage distribution of the children of age 11-15 years by enrolment status and sex

Enrolment status	Sex		Both
	Girls	Boys	
Currently enrolled	75.5	67.9	71.7
Dropped out	19.7	25.6	22.7
Never enrolled	4.8	6.4	5.6
Total	100.0	100.0	100.0

Source: Education Watch Household Survey, 2005

Annex 4.21. Percentage distribution of the children of age 11-15 years by enrolment status, area and sex

Enrolment status	Rural Bangladesh			Urban Bangladesh		
	Girls	Boys	Both	Girls	Boys	Both
Currently enrolled	75.9	67.2	71.5	73.1	72.3	72.7
Dropped out	19.6	26.1	22.9	20.5	23.1	21.8
Never enrolled	4.5	6.7	5.6	6.4	4.6	5.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Household Survey, 2005

Annex 4.22. Percentage distribution of children of age 11-15 years by stratum

Strata	Number of children	Current enrolment status		
		Currently enrolled	Dropped out	Never enrolled
Rural Dhaka	1773	71.8	22.1	6.1
Rural Chittagong	2113	72.6	21.0	6.4
Rural Rajshahi	1702	73.6	21.7	4.7
Rural Khulna	1651	75.3	21.6	3.1
Rural Barisal	1867	70.4	24.6	4.9
Rural Sylhet	2185	57.7	33.9	8.4
Metropolitan city	1628	66.6	25.9	7.5
Municipalities	1734	77.5	18.6	4.0

Source: Education Watch Household Survey, 2005

Annex 4.23. Socio-economic characteristics of the non-enrolled children of age 11-15 years

Socio-economic status	School type				
	All (4,347)	Girls (1,950)	Boys (2,397)	Rural (3,413)	Urban (934)
Mean age	13.6	13.7	13.5	13.6	13.5
<i>Mother's education</i>					
Nil	75.5	77.0	74.4	76.3	70.5
Primary	20.7	19.1	21.8	20.2	23.5
Secondary	3.8	3.8	3.8	3.5	5.9
Tertiary	0.1	0.1	0.0	0.1	0.0
<i>Father's education</i>					
Nil	67.7	68.3	67.2	68.6	61.5
Primary	20.6	20.2	20.8	20.2	23.0
Secondary	10.9	10.8	11.0	10.4	14.0
Tertiary	0.9	0.7	0.9	0.8	1.5
<i>Family food security status</i>					
Always in deficit	28.5	27.5	29.2	30.1	18.3
Sometimes in deficit	30.8	30.5	31.0	31.8	24.3
Breakeven	26.9	26.1	27.5	26.3	30.4
Surplus	13.8	15.8	12.3	11.7	27.1
<i>Religion</i>					
Muslim	87.0	86.4	87.5	86.4	90.6
Non-Muslim	13.0	13.6	12.5	13.6	9.4

Source: Education Watch Household Survey, 2005

Annex 4.23A Locations of Unions/Wards with secondary education enrollment ratio below 20 percent

Sl. No.	District	Upazila/Thana/ Municipality	Union/Ward
1	Netrokona	Kalmakanda	Rangchhati
2	Brahminbaria	Nasirnagar	Chatalpur
3	Brahminbaria	Sarail	Noagoan
4	Cox's bazaar	Maheshkhali	Saflapur
5	Noakhali	Hatiya	Jahajmara
6	Bhola	Bhola sadar	Rajapur
7	Habiganj	Lakhai	Lakhai
8	Sunamganj	Sulla	Atgaon
9	Sunamganj	Tahirpur	Dakshin Sreepur
10	Sylhet	Companiganj	Telikhal

Source: Education Watch Household Survey 2005

Annex 4.23B Locations of Unions/Wards with gross secondary education enrollment ratio of 100 percent or more.

Sl. No.	District	Upazila/Thana/ Municipality	Union/Ward
1	Munshiganj	Lauhajong	Baultali
2	Tangail	Delduar	Dubail
3	Natore	Bagatipara	Dayarampur
4	Barisal	Agailjhara	Gaila
5	Barisal	Babuganj	Dehergati
6	Sylhet	Sylhet Sadar	Ward No. 3
7	Chandpur	Chandpur Sadar	Ward No 2
8	Bogra	Sherpur	Ward No 1
9	Habiganj	Habiganj Sadar	Ward No 2

Source: Education Watch Household Survey 2005

Annex 4.24. Socio-economic characteristics of households in unions/wards with high and low secondary school enrollment.

Socio-economic characteristics of households with 11-15 years age children in sample unions/wards	GRE Below 20% (10 areas)	GRE 100% or More (9 areas)
<i>Food security status (%)</i>		
Always in deficit	24.4	10.1
Sometimes in deficit	29.2	20.3
Breakeven	33.6	37.6
Surplus	12.8	32.0
<i>Religion (%)</i>		
Muslim	91.4	74.2
Non-Muslim	8.6	25.7
<i>Ethnic minority (%)</i>	0.0	0.6
<i>Living in slums (%)</i>	0.2	0.1
<i>Adult literacy rate</i>	28.1	71.1
<i>% of fathers never schooled</i>	68.0	27.5
<i>% of mothers never schooled</i>	75.4	32.1

Source: Education Watch Household Survey, 2005

Table 4.25. Percentage distribution of households with 11-15 age group children in four food security categories

Category	%
Always in deficit	16.5
Sometimes in deficit	27.7
Breakeven	32.7
Surplus	23.1

Source: Education Watch Household Survey, 2005

Annex 4.26. Percentage distribution of out-of-school children by causes of non-enrolment and stratum

Causes	Rural Dhaka	Rural Chittagong	Rural Rajshahi	Rural Khulna	Rural Barisal	Rural Sylhet	Metro city	Municipality
School is away from home	1.8	4.1	1.6	0.5	5.6	2.0	0.2	0.8
Scarcity of money	47.4	47.4	42.9	41.0	40.8	54.9	68.5	49.6
School authority refused	1.8	0.2	0.7	0.2	0.5	1.0	1.3	0.8
No use of education	2.6	0.2	2.9	2.5	2.4	1.2	0.9	2.8
Unsuccessfulness in exam	3.2	3.3	1.6	4.0	3.5	1.9	1.3	3.6
Has to work at or outside	11.0	8.8	8.4	12.2	10.7	11.8	4.1	5.7
The child does not like	22.8	29.7	23.8	24.4	20.9	19.2	16.4	24.9
Social insecurity	2.0	0.9	2.0	1.0	1.5	1.2	0.7	0.8
Marriage	2.0	1.4	9.1	7.7	2.7	0.2	0.4	5.7
Disability	2.4	1.7	2.4	3.5	2.6	1.5	1.1	2.1
Others	3.0	2.4	4.7	3.0	8.7	5.2	5.0	3.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of children	500	580	450	402	549	918	536	389

Source: Education Watch Household Survey, 2005

Annex 4.27. Percentage distribution of dropout children by causes, residence and sex

Causes	All Bangladesh			Rural Bangladesh			Urban Bangladesh		
	Girls	Boys	Both	Girls	Boys	Both	Girls	Boys	Both
School is away from home	2.7	0.9	1.7	3.1	1.0	1.9	0.9	0.3	0.6
Scarcity of money	49.3	45.9	47.4	46.5	45.2	45.8	64.3	50.4	57.1
No use of education	1.3	2.1	1.8	1.3	2.1	1.7	1.7	1.9	1.8
Unsuccessfulness in exam	3.7	3.2	3.4	3.8	3.2	3.4	2.9	3.2	3.0
Has to work at or outside	6.3	10.9	8.9	6.6	11.7	9.6	4.6	5.3	5.0
The child does not like	15.8	33.0	25.5	16.8	32.8	26.0	9.7	34.2	22.4
Social insecurity	3.8	0.1	1.7	4.2	0.1	1.8	1.4	0.3	0.8
Marriage	10.3	0.2	4.6	10.8	0.2	4.7	7.4	0.0	3.6
Disability	1.3	1.1	1.2	1.5	1.0	1.2	0.0	1.3	0.7
Others	5.6	2.8	4.0	5.2	2.8	3.8	7.1	3.2	5.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of children	1571	1933	3504	1209	1552	2761	362	381	743

Source: Education Watch Household Survey, 2005

Annex 4.28. Percentage distribution of dropout children by causes and stratum

Causes	Rural Dhaka	Rural Chittagong	Rural Rajshahi	Rural Khulna	Rural Barisal	Rural Sylhet	Metro city	Municipality
School is away from home	1.8	2.9	1.6	0.6	1.7	1.9	0.2	0.9
Scarcity of money	48.1	45.7	39.2	41.6	44.9	57.2	66.2	47.2
No use of education	2.3	0.2	2.4	2.0	2.4	1.2	1.0	2.8
Unsuccessfulness in exam	4.1	4.3	1.9	4.5	3.7	2.2	1.7	4.4
Has to work at or outside	10.2	7.4	8.9	11.6	9.8	10.7	4.6	5.3
The child does not like	24.3	33.1	25.9	25.8	24.4	19.3	18.9	26.3
Social insecurity	2.3	1.1	2.4	1.1	1.5	1.5	0.7	0.9
Marriage	2.6	1.8	11.1	8.8	3.3	0.1	0.5	6.9
Disability	1.0	1.4	1.6	0.8	1.5	1.0	0.2	1.3
Others	3.3	2.0	4.9	3.1	6.8	4.9	6.0	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of children	391	444	370	353	459	736	417	320

Source: Education Watch Household Survey, 2005

Annex 4.29. Mathematical expression of the regression models and definitions of variables used

Mathematical expression of the regression model

$$\ln [p / (1 - p)] = a + \sum b_i x_i$$

Where, p is the probability of a child being participated; a is the constant; b_i values are estimated regression coefficients; and x_i are the background characteristics of the children.

Dependent variables

Model I	Enrolment	1 = Currently enrolled children of age 11-15 years 0 = Out of school children of age 11-15 years
Model II	Enrolment	1 = 11-16 years old children currently enrolled at secondary level 0 = 11-16 years old children currently enrolled at primary level or stayed out of school
Model III	Enrolment	1 = 11-15 years old children currently enrolled at secondary level 0 = 11-15 years old children currently enrolled at primary level

Explanatory variables

Sex of children	1 = Boys, 2 = Girls
Age of children	1 = 11-12 years, 2 = 13-15 years
Area of residence	1 = Rural Bangladesh, 2 = Urban Bangladesh
Fathers education	1 = Nil, 2 = Primary, 3 = Secondary, 4 = Tertiary
Religion	1 = Muslim, 2 = Non-Muslim (includes Hindus, Buddhists and Christians)

Annexes for Chapter 5

Annex 5.1. Background information of the schools

	School type						All
	Junior	Non-govt.	Govt.	Sch.& Coll.	Dakhil	Alim	
Average distance between upazila town and school (in Km.)	11.5	8.5	1.0	6.1	10.4	10.1	9.4
Whether the school is established on its own land?	100.0	100.0	100.0	100.0	99.2	100.0	99.7
<i>Whether co-ed?</i>							
Only for boys	0.0	2.9	36.7	0.0	0.8	0.0	2.1
Only for girls	16.7	16.6	56.7	16.7	8.5	3.3	14.5
Co-ed	83.3	80.5	6.7	83.3	90.7	96.7	83.4

Source: Education Watch School Survey, 2005

Annex 5.2. Percentage distribution of schools by year of establishment and school type

Year of school establishment	School type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
1868 – 1900	0.0	2.1	10.0	0.0	0.8	3.3	1.8
1901 – 1946	0.0	15.8	43.3	20.0	1.7	16.7	11.0
1947 – 1970	3.3	34.2	36.7	33.3	9.7	26.7	22.7
1971 – 1990	3.3	32.5	10.0	43.3	56.4	53.3	41.1
1991 – 2002	93.3	15.4	0.0	3.3	31.4	0.0	23.4

Source: Education Watch School Survey, 2005

Annex 5.3. Structures, rooms, classrooms and playground by school type

School type	Average number of structure	Average number of rooms for various use	Average number of classrooms	Head teacher Office (%)	Playground in school (%)
Junior secondary	1.7	6.8	5.0	23.3	86.7
Non-govt. secondary	3.7	15.7	10.2	70.0	91.7
Govt. secondary	4.5	24.5	13.4	100.0	90.0
School & college	4.2	27.9	18.5	93.3	100.0
Dakhil madrasa	3.1	12.5	9.5	27.5	77.5
Alim madrasa	3.9	16.2	12.2	50.0	70.0
All	3.3	13.7	9.4	52.0	86.3

Source: Education Watch School Survey 2005

Annex 5.4. Construction materials and overall condition of school buildings by school type

Condition of school building	School type						All
	Junior	Non-govt.	Govt.	Sch.& Coll.	Dakhil	Alim	
<i>Construction material of school building (% of structure)</i>							
Fully brick made	7.8	45.8	69.1	52.8	21.6	28.4	36.6
Partially brick made	31.4	36.3	29.4	30.4	30.7	37.1	35.5
Fully made of tin and others	56.9	16.3	1.5	16.8	45.7	32.8	27.1
Any other material	3.9	1.5	0.0	0.0	2.0	1.7	1.8
<i>Overall condition of roof/doors/windows etc.</i>							
Fully all right	6.7	14.2	56.7	40.0	5.1	6.7	11.3
Mostly all right	3.3	53.3	33.3	43.3	29.5	50.0	39.1
Half all right	50.0	20.8	10.0	10.0	46.0	36.7	32.0
Mostly damaged	33.3	11.7	0.0	6.7	14.8	6.7	15.5
Fully damaged	6.7	0.0	0.0	0.0	4.6	0.0	2.2
Separate toilet facility for teachers	36.7	88.8	100.0	100.0	67.8	80.0	75.2

Source: Education Watch School Survey, 2005

Annex 5.5. Electricity facility in schools by type of school

Electricity facility	School type						All
	Junior	Non-govt.	Govt.	Sch.& Coll.	Dakhil	Alim	
Electricity facility in school	16.7	73.8	100.0	96.7	46.2	80.0	58.8
<i>Electricity facility in teachers room (% of number of school)</i>							
Only electric light	3.3	4.6	0.0	0.0	3.8	10.0	4.3
Only electric fan	3.3	1.3	0.0	0.0	1.3	3.3	1.6
Both light and fan	10.0	67.5	100.0	96.7	39.7	66.7	52.3
None	83.3	26.7	0.0	3.3	55.3	20.0	41.8
<i>Electricity facility in classrooms</i>							
(% of total number of classrooms)							
Only electric light	1.3	6.8	2.0	3.1	4.4	7.1	5.6
Only electric fan	0.0	6.3	4.5	7.4	2.4	6.0	4.7
Both light and fan	7.9	34.6	88.3	54.5	9.8	15.8	26.5
None	90.7	52.3	5.2	35.0	83.4	71.1	63.2

Source: Education Watch School Survey, 2005

Annex 5.6. Drinking water and toilet facilities in schools by type of school

Drinking water and toilet facility	School type						All
	Junior	Non-govt.	Govt.	Sch.& Coll.	Dakhil	Alim	
<i>Drinking water facilities in school</i>							
Own tube well	83.3	93.4	96.7	100.0	86.4	96.7	90.5
Neighbours tube well	13.3	5.0	3.3	0.0	8.1	3.3	6.9
Reserve water	3.3	1.2	0.0	0.0	5.5	0.0	2.5
No facility	0.0	0.4	0.0	0.0	0.0	0.0	0.1
<i>Toilet facilities for students</i>							
Separate for boys and girls	50.0	79.7	96.7	96.7	71.7	90.0	74.0
Combined for boys and girls	43.3	14.9	3.3	3.3	19.4	10.0	20.1
Only for boys	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Only for girls	0.0	4.6	0.0	0.0	7.6	0.0	4.2
No facility	6.7	0.8	0.0	0.0	1.3	0.0	1.7
Separate toilet facility for teachers	36.7	88.8	100.0	100.0	67.8	80.0	75.2
<i>Quality of toilet facility</i>							
Hygienic	34.2	26.1	51.6	30.9	21.6	28.6	26.5
Moderately hygienic	34.2	53.8	41.9	54.5	55.1	42.8	50.8
Not hygienic	31.6	20.1	6.5	14.5	23.2	28.6	22.7

Source: Education Watch School Survey, 2005

Annex 5.7. Percentage distribution of schools by condition of the combined (physics, chemistry and biology) science laboratories

Nature of the combined science laboratories	School type						All
	Junior	Non-govt.	Govt.	Sch.& Coll.	Dakhil	Alim	
Furnished laboratory room with necessary instruments	100.0	32.6	70.6	61.9	6.5	0.0	31.7
Inadequate amount of instrument without laboratory room	0.0	54.7	5.9	28.6	67.7	71.4	54.5
Laboratory room with nil or very few instruments	0.0	12.7	23.5	9.5	25.8	28.6	13.8

Source: Education Watch School Survey, 2005

Annex 5.8. Average number of books by school type and type of book

School type	Type of book				
	Textbook	Supplementary book	Teachers guide	Other book	Total
Junior secondary	249	57	8	162	475
Non-govt. secondary	218	145	21	385	769
Govt. secondary	347	385	78	2056	2866
School & college	752	804	37	1005	2598
Dakhil madrasa	394	90	12	259	745
Alim madrasa	744	195	17	302	1258
All	300	130	18	339	787

Source: Education Watch School Survey, 2005

Annex 5.9. Proportion of school libraries used and mean number of users by school type

Type of school	% of libraries used	Mean and standard deviation of number of users		
		Girls	Boys	Both
Junior secondary	61.5	20.4 (24.4)	8.9 (7.9)	29.3 (25.5)
Non-govt. secondary	59.1	23.1 (30.5)	21.3 (34.2)	44.4 (56.9)
Govt. secondary	51.9	19.3 (24.1)	34.3 (91.7)	53.6 (86.9)
School & college	66.7	83.0 (116.2)	52.2 (95.3)	135.1 (183.4)
Dakhil madrasa	52.2	14.4 (12.5)	11.8 (11.5)	26.2 (19.8)
Alim madrasa	60.0	13.4 (17.6)	14.7 (14.3)	28.2 (29.5)
All	57.6	20.8 (29.0)	17.3 (30.0)	38.1 (50.7)

Source: Education Watch School Survey, 2005

Annex 5.10. Proportion of schools having co-curricular activities by type of activities and class

Co-curricular activities	Class					All
	VI	VII	VIII	IX	X	
Arts and crafts class	15.7	16.0	15.9	4.6	4.6	16.2
Arts and crafts competition	10.4	9.7	9.9	5.3	5.3	10.6
Singing and dancing class	14.0	14.4	14.2	12.6	12.6	14.7
Singing and dancing competition	25.2	25.3	25.2	24.1	24.0	25.4
Debate competition	56.3	57.8	63.0	61.1	61.2	68.4
Annual cultural programme	78.4	78.4	78.5	70.5	69.1	78.5
Annual sports	83.4	83.5	83.5	75.5	74.3	84.1
Other sports and games	64.1	64.8	67.7	62.6	61.8	69.5
Religious festival	86.1	86.1	86.1	78.8	78.7	87.4
Scout/ Rover/ BNCC/ Girl guides	54.5	56.9	58.9	54.7	52.8	59.9
Social work	59.1	59.1	64.0	60.4	58.9	66.8
Science fair	5.2	5.2	5.3	6.9	6.8	7.0
Study tour	39.2	39.3	40.2	40.0	42.2	44.5

Source: Education Watch School Survey, 2005

Annex 5.11. Distribution of teachers by school type

Number of teachers	School type (percentages)						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
0 – 5	13.3	0.4	0.0	0.0	0.0	0.0	2.3
6 – 10	50.0	9.2	16.7	0.0	3.8	0.0	13.9
11 – 15	30.0	55.8	40.0	3.3	77.5	10.0	54.1
16 – 20	6.7	21.7	6.7	23.3	17.4	70.0	20.4
21 – 25	0.0	8.3	23.3	16.7	1.3	20.0	6.2
26+	0.0	4.6	13.3	56.7	0.0	0.0	3.0
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 5.12. Distribution of female teachers by school type

Number of female teachers	School type (percentages)						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
Nil	20.0	14.2	13.3	0.0	40.5	33.3	22.3
1	36.7	17.6	6.7	3.3	21.1	40.0	22.2
2	20.0	22.6	10.0	10.0	21.1	16.7	21.3
3	20.0	18.8	13.3	20.0	9.7	3.3	15.9
4	3.3	7.1	0.0	23.3	3.8	3.3	5.6
5	0.0	5.9	13.3	13.3	1.3	0.0	3.8
6+	0.0	13.8	43.3	30.0	2.5	3.3	8.9
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 5.13. Proportion of female teachers in non-government secondary schools and dakhil madrassas by stratum

Strata	Percentage of female teachers	
	Non-govt secondary	Dakhil madrasa
Rural Dhaka division	18.1	9.9
Rural Chittagong division	16.9	8.1
Rural Rajshahi division	18.3	9.4
Rural Khulna division	18.5	8.7
Rural Barisal division	15.2	6.5
Rural Sylhet division	14.4	5.0
Metropolitan cities	40.7	17.6
Municipalities	26.7	22.7
All	20.6	9.4

Source: Education Watch School Survey, 2005

Annex 5.14. Percentage distribution of teachers by education background and school type

Educational background of teachers	School type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
General education	88.4	92.8	95.0	95.4	46.0	47.6	78.3
Madrassa education	11.6	7.2	5.0	4.6	54.0	52.4	21.7

Source: Education Watch School Survey, 2005

Annex 5.15. Percentage distribution of schools by number of teachers with degree in humanities

Number of teachers	School type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
Nil	6.7	0.0	0.0	0.0	6.4	0.0	2.7
One	6.7	0.0	0.0	0.0	18.7	6.7	5.9
Two	10.0	3.8	6.7	0.0	24.7	16.7	10.3
Three	16.7	9.2	6.7	0.0	24.7	20.0	14.6
Four +	60.0	87.0	86.7	100.0	25.5	56.7	66.5
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 5.16. Percentage distribution of schools by number of teachers with degree in commerce

Number of teachers	School type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
Nil	70.0	20.1	36.7	13.3	78.8	86.7	45.5
One	13.3	43.9	33.3	20.0	18.6	10.0	31.0
Two	16.7	22.6	23.3	13.3	2.5	3.3	15.9
Three	0.0	8.4	6.7	20.0	0.0	0.0	4.8
Four +	0.0	5.0	0.0	33.3	0.0	0.0	2.9
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 5.17. Percentage distribution of schools by number of teachers with degree in science

Number of teachers	School type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
Nil	26.7	4.6	10.0	3.3	35.6	23.3	16.5
One	46.7	6.3	0.0	3.3	41.1	30.0	22.2
Two	13.3	23.0	20.0	6.7	16.9	33.3	20.3
Three	10.0	31.4	6.7	6.7	5.9	6.7	20.1
Four +	3.3	34.7	63.3	80.0	0.4	6.7	20.9
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 5.18. Percentage distribution of schools by number of teachers with degree in social science

Number of teachers	School type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
Nil	60.0	52.3	33.3	16.7	76.3	63.3	59.3
One	23.3	24.7	36.7	6.7	16.1	23.3	22.3
Two	13.3	13.8	6.7	33.3	5.5	13.3	11.7
Three	0.0	5.0	10.0	16.7	1.7	0.0	3.4
Four +	3.3	4.2	13.3	26.7	0.4	0.0	3.3
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 5.19. Percentage distribution of schools by number of teachers with Fazil or Kamil degree

Number of teachers	School type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
Nil	3.3	6.3	43.3	10.0	0.8	0.0	4.6
One	93.3	80.8	30.0	56.7	0.0	0.0	58.7
Two	3.3	10.0	20.0	23.3	0.8	0.0	6.5
Three	0.0	2.5	6.7	3.3	1.7	0.0	1.8
Four +	0.0	0.4	0.0	6.7	96.6	100.0	28.3
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 5.20. Percentage distribution of graduate teachers of non-government secondary schools by discipline and stratum

Teachers' education background (discipline)	Strata								All
	Dhaka	Chittagong	Rajshahi	Khulna	Barisal	Sylhet	Metro. city	Municipality	
Humanities	50.5	51.7	47.8	55.5	53.2	46.8	48.9	51.1	50.6
Commerce	11.4	13.9	8.1	12.1	11.0	10.0	9.8	8.5	10.4
Science	24.9	21.1	25.7	19.3	22.6	27.7	28.8	24.8	24.2
Social science	4.6	4.6	9.6	5.4	3.7	5.5	7.6	7.8	6.7
Madrasa	8.6	8.5	8.8	7.7	9.5	10.0	4.9	7.8	8.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 5.21. Percentage distribution of graduate teachers of dakhil madrassas by education background and stratum

Teacher's education background	Strata								All
	Dhaka	Chittagong	Rajshahi	Khulna	Barisal	Sylhet	Metro. city	Municipality	
Humanities	27.8	24.3	23.7	27.9	23.9	20.5	27.2	27.8	25.3
Commerce	2.2	2.5	2.6	2.5	1.4	1.5	3.0	1.9	2.3
Science	9.3	8.6	10.6	8.0	4.2	6.4	15.1	10.5	8.9
Social science	1.9	2.2	5.1	5.0	0.4	1.1	1.2	2.6	3.2
Madrassa	58.8	62.4	58.0	56.6	70.1	70.5	53.5	57.2	60.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 5.22. Proportion of teachers with any professional training by school type and stratum

Strata	Proportion of teachers having any training	
	Non-govt secondary	Dakhil madrasa
Rural Dhaka division	65.8	19.1
Rural Chittagong division	61.0	15.7
Rural Rajshahi division	53.0	20.7
Rural Khulna division	59.1	25.6
Rural Barisal division	49.1	16.9
Rural Sylhet division	50.8	10.0
Metropolitan cities	63.7	27.4
Municipalities	68.3	19.5
All	59.1	19.7

Source: Education Watch School Survey, 2005

Annex 5.23. Performance of teachers in various examinations by school type

Performance by teachers in public exams	School type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
<i>SSC/Dakhil</i>							
First division/class	29.0	26.0	45.9	34.4	19.0	19.7	24.9
Second division/class	58.0	50.7	45.3	53.5	56.3	52.6	52.4
Third division/class	13.0	23.3	8.8	12.1	24.7	27.8	22.7
<i>HSC/Alim</i>							
First division/class	7.6	7.8	27.0	14.7	5.4	7.4	8.0
Second division/class	65.6	50.7	53.1	58.4	53.9	53.3	52.7
Third division/class	25.6	39.1	18.0	25.4	34.9	36.8	36.2
Not appeared	1.2	2.4	2.0	1.4	5.9	2.6	3.1
<i>Degree/Fazil</i>							
First division/class	0.4	1.3	5.7	2.6	1.2	2.8	1.5
Second division/class	37.4	38.2	61.7	55.5	42.7	45.6	41.1
Third division/class	50.0	48.3	25.4	36.5	30.2	32.0	41.7
Not appeared	12.2	12.3	7.2	5.4	26.0	19.7	15.7
<i>Masters/Kamil</i>							
First division/class	0.0	0.6	4.5	3.0	1.1	2.6	1.0
Second division/class	8.4	14.0	47.3	41.0	26.4	37.7	20.5
Third division/class	3.4	4.2	3.5	4.5	4.0	7.0	4.3
Not appeared	88.2	81.3	44.7	51.4	68.4	52.8	74.2

Source: Education Watch School Survey, 2005

Annex 5.24. Performance of graduate teachers in various public examinations by discipline

Performance	Stream					All
	Humanities	Commerce	Science	Social science	Islamic	
<i>SSC/Dakhil</i>						
First division/class	24.2	19.2	46.5	39.4	11.6	26.4
Second division/class	54.4	49.9	44.4	56.6	58.8	53.2
Third division/class	21.4	30.8	9.1	3.9	29.6	20.4
<i>HSC/Alim</i>						
First division/class	6.9	8.8	15.4	14.4	4.7	8.7
Second division/class	55.1	50.3	55.1	65.8	58.0	56.0
Third division/class	38.0	40.9	29.5	19.8	37.3	35.3
<i>Degree/Fazil</i>						
First division/class	0.8	0.2	2.9	1.3	3.4	1.8
Second division/class	42.8	38.6	53.4	60.7	56.2	48.7
Third division/class	56.4	61.2	43.7	38.0	40.4	49.5
<i>Masters/Kamil</i>						
First division/class	0.3	0.3	1.7	0.7	2.9	1.2
Second division/class	13.5	16.6	13.8	31.4	55.4	24.3
Third division/class	3.9	3.8	1.8	5.7	10.8	5.1
Not appeared	80.3	79.2	82.7	62.3	30.9	69.4

Source: Education Watch School Survey, 2005

Annex 5.25. Proportion of teachers having training by school type

School type	Type of training		Any
	Formal training	Other training	
Junior secondary	25.9	13.9	37.1
Non-govt. secondary	52.9	8.4	59.1
Govt. secondary	76.8	10.7	77.8
School & college	45.4	6.1	50.6
Dakhil madrasa	11.7	8.4	19.7
Alim madrasa	14.4	7.9	21.9
All	39.4	8.6	46.3

Formal training includes C-in-Ed, B Ed, M Ed, Dip-in-Ed, and Bp Ed.

Others include short course on computer or subject based training organised by the government or non-government institutions

Source: Education Watch School Survey, 2005

Annex 5.26. Proportion of teachers with training by school type and sex

School type	Formal training		Other training		Any	
	Females	Males	Females	Males	Females	Males
Junior secondary	17.8	27.5	11.1	14.4	28.9	38.7
Non-govt. secondary	52.5	53.1	11.0	7.8	60.8	58.7
Govt. secondary	86.3	71.2	6.9	12.9	89.2	77.4
School & college	51.0	42.6	2.9	7.7	53.5	49.2
Dakhil madrasa	14.8	11.3	12.6	8.0	27.0	18.9
Alim madrasa	22.9	13.5	8.3	7.9	31.2	21.0
All	47.2	37.7	10.2	8.3	55.4	44.3

Formal training includes C-in-Ed, B Ed, M Ed, Dip-in-Ed, and Bp Ed.

Others include short course on computer or subject based training organised by the government or non-government institutions

Source: Education Watch School Survey, 2005

Annex 5.27. Percentage distribution of teachers by number of classes taught per week and school type

Number of classes per week	School type						All
	Junior	Non-govt.	Government	School & College	Dakhil	Alim	
≤ 20	24.3	19.2	24.7	36.4	11.9	11.4	18.0
21 – 25	30.3	24.9	47.9	37.3	12.5	23.5	23.3
26 – 30	21.7	40.2	21.5	15.8	37.4	46.3	37.7
31 – 35	16.1	12.0	4.1	8.9	26.7	16.4	15.6
36 – 44	7.5	3.7	1.8	1.6	11.5	2.4	5.4

Source: Education Watch School Survey, 2005

Annex 5.28. Proportion of teachers teaching at various levels by school type

School type	Level they taught			
	Primary	Junior Secondary	Secondary	Higher Secondary
Junior secondary	Na	96.6	55.4	Na
Non-government	5.5	82.8	89.8	9.7
Government	20.9	84.5	93.7	3.4
School & College	11.1	62.1	73.6	30.6
Dakhil madrasa	58.2	77.0	67.9	2.4
Alim madrasa	46.3	65.3	66.0	29.2

Source: Education Watch School Survey, 2005

Annex 5.29. Proportion of teachers teaching at various stages by their own educational level

Level of education of the teachers	Stages they taught			
	Primary	Junior Secondary	Secondary	Higher Secondary
SSC/Dakhil or below	52.7	57.3	40.9	0.7
HSC/Alim	42.4	77.1	51.5	0.4
Graduate/Fazil	14.8	86.1	88.1	1.5
Masters/Kamil	22.4	70.3	82.9	18.2

Source: Education Watch School Survey, 2005

Annex 5.30. Proportion of teachers teaching at various stages by their own educational level and school type

Level of education of the teachers	Stages they taught			
	Primary	Junior Secondary	Secondary	Higher Secondary
<i>Junior secondary</i>				
SSC/Dakhil or below	Na	100.0	0.0	Na
HSC/Alim	Na	100.0	33.3	Na
Graduate/Fazil	Na	96.0	58.5	Na
Masters/Kamil	Na	97.1	60.0	Na
<i>Non-government</i>				
SSC/Dakhil or below	17.6	61.5	64.8	1.1
HSC/Alim	6.1	85.1	66.7	0.0
Graduate/Fazil	4.2	85.3	94.0	1.2
Masters/Kamil	8.2	75.3	89.6	9.7
<i>Government</i>				
SSC/Dakhil or below	9.1	100.0	54.5	0.0
HSC/Alim	18.5	92.6	81.5	0.0
Graduate/Fazil	22.6	86.9	93.5	3.0
Masters/Kamil	20.3	81.7	96.3	4.0
<i>School & College</i>				
SSC/Dakhil or below	15.4	84.5	61.5	7.7
HSC/Alim	24.3	46.2	67.6	10.8
Graduate/Fazil	11.1	75.7	87.1	8.0
Masters/Kamil	10.0	83.5	62.0	53.7

Level of education of the teachers	Subjects they taught			
	Primary	Junior Secondary	Secondary	Higher Secondary
<i>Dakhil madrasa</i>				
SSC/Dakhil or below	89.1	49.7	16.6	0.0
HSC/Alim	80.0	65.9	36.2	0.1
Graduate/Fazil	53.7	87.3	78.5	0.6
Masters/Kamil	44.5	75.4	83.3	6.6
<i>Alim madrasa</i>				
SSC/Dakhil or below	85.7	64.3	28.6	0.0
HSC/Alim	82.6	72.8	43.5	1.1
Graduate/Fazil	48.3	81.7	72.2	7.2
Masters/Kamil	29.8	51.2	71.7	56.2

Source: Education Watch School Survey, 2005

Annex 5.31. Percentage distribution of graduate teachers by subjects they taught and their graduate studies (only those teaching at secondary level)

Subjects taught by the teachers	N	Discipline of teachers' graduate study					Total
		Humanities	Commerce	Science	Social science	Islamic	
<i>Literature</i>							
Non-govt. secondary	2055	70.0	11.1	4.5	7.7	6.6	100.0
Govt. secondary	315	67.5	7.1	7.8	11.5	6.1	
School & college	360	66.3	7.6	13.8	8.2	4.1	
Dakhil madrasa	1807	27.5	2.6	4.8	4.1	60.9	
Alim madrasa	271	32.5	1.6	5.8	5.8	54.3	
<i>Mathematics</i>							
Non-govt. secondary	986	20.8	7.7	67.4	3.5	0.6	
Govt. secondary	164	21.8	77.7	63.5	5.8	1.3	
School & college	145	24.6	1.4	71.7	2.2	0.0	
Dakhil madrasa	616	36.7	5.6	37.1	5.6	14.9	
Alim madrasa	82	32.8	3.1	46.9	7.8	9.4	
<i>Physical science</i>							
Non-govt. secondary	1013	18.0	4.0	72.6	3.7	1.7	
Govt. secondary	139	17.2	3.0	71.6	7.5	0.7	
School & college	179	25.3	0.6	68.4	5.2	0.6	
Dakhil madrasa	450	26.0	3.9	41.7	4.7	23.8	
Alim madrasa	60	32.6	2.3	53.5	7.0	4.7	

Subjects taught by the teachers	N	Discipline of teachers' graduate study					Total
		Huma-nities	Comm-erce	Science	Social science	Islamic	
<i>Social science</i>							
Non-govt. secondary	1315	67.4	9.7	9.9	8.0	5.1	
Govt. secondary	208	62.1	4.6	13.3	16.9	3.1	
School & college	258	58.9	4.8	21.4	11.3	3.6	
Dakhil madrasa	880	29.1	3.9	6.6	4.4	55.9	
Alim madrasa	137	31.4	1.7	7.4	5.8	53.7	
<i>Coomerce/Business</i>							
Non-govt. secondary	287	11.9	82.5	2.8	2.8	0.0	
Govt. secondary	30	33.3	50.0	10.0	3.3	3.3	
School & college	48	12.8	80.9	4.3	2.1	0.0	
Dakhil madrasa	Na	-	-	-	-	-	-
Alim madrasa	Na	-	-	-	-	-	-
<i>Islamic education</i>							
Non-govt. secondary	509	33.2	4.9	4.3	6.0	51.7	
Govt. secondary	84	47.4	3.9	11.8	5.3	31.6	
School & college	65	34.9	1.6	4.8	1.6	57.1	
Dakhil madrasa	432	3.4	0.5	0.5	1.4	94.2	
Alim madrasa	70	4.8	0.0	1.6	0.0	93.5	

Source: Education Watch School Survey, 2005

Annex 5.32. Mean number of students enrolled and headcount of attendance by school type and sex

School type	Girls			Boys		
	Enrolled	Attended	%	Enrolled	Attended	%
Junior secondary	28.3	11.8	41.7	23.6	9.7	41.1
Non-govt. secondary	41.6	21.5	51.7	41.3	19.9	48.2
Govt. secondary	68.0	44.4	65.3	55.0	35.3	64.2
School & college	45.9	27.9	60.8	40.7	22.7	55.8
Dakhil madrasa	18.2	8.7	47.8	14.6	7.0	47.9
Alim madrasa	17.1	9.5	55.5	19.3	9.3	48.2
All	36.5	18.8	51.5	35.1	17.0	48.4

Source: Education Watch School Survey, 2005

Annex 5.33. Mean number of students enrolled and headcount of attendance by class and sex

Class	Girls			Boys		
	Enrolled	Attended	%	Enrolled	Attended	%
VI	43.1	24.3	56.4	43.9	21.6	49.2
VII	38.9	19.7	50.6	37.6	17.7	47.1
VIII	35.6	17.7	49.7	33.4	16.3	48.8
IX	34.5	17.0	49.3	32.4	15.4	47.5
X	29.4	14.5	49.3	27.2	13.5	49.6
All	36.5	18.8	51.5	35.1	17.0	48.4

Source: Education Watch School Survey, 2005

Annex 5.34. Student attendance rate by grade and sex

Grade	Sex		
	Girls	Boys	Both
VI	56.4 (28439)	49.2 (23513)	53.1 (51952)
VII	50.6 (23938)	47.1 (19563)	49.1 (43501)
VIII	49.7 (21510)	48.8 (17328)	49.3 (38838)
IX	49.3 (20343)	47.5 (16526)	48.5 (36869)
X	49.3 (17048)	49.6 (13670)	49.5 (30718)
All	51.5 (111278)	48.4 (90600)	50.2 (201878)

Source: Education Watch School Survey, 2005

Annex 5.35. Student attendance rate by school type and stratum

Strata	Non-government schools			Dakhil madrasas		
	Girls	Boys	Both	Girls	Boys	Both
Rural Dhaka	56.3	52.1	54.5	48.1	48.2	48.1
Rural Chittagong	55.0	52.6	54.0	52.8	53.9	53.2
Rural Rajshahi	44.8	39.8	42.7	43.8	42.4	43.2
Rural Khulna	48.9	41.4	45.4	52.3	52.5	52.4
Rural Barisal	42.9	42.4	42.7	43.9	50.2	46.3
Rural Sylhet	54.7	41.4	49.3	59.8	45.8	52.8
Metropolitan cities	69.6	67.3	68.4	51.1	51.2	51.2
Municipalities	51.5	51.3	51.4	39.1	39.8	39.3
All	51.7	48.2	50.0	47.8	47.9	47.7

Source: Education Watch School Survey,

Annex 5.36. Student attendance rate by parental education and sex

Parental education	Sex		Both	Level of significance
	Girls	Boys		
<i>Mothers' education</i>				
Nil	61.4 (1533)	60.9 (1196)	61.2 (2729)	ns
Primary	61.6 (1553)	62.1 (1243)	61.8 (2796)	ns
Secondary	68.6 (1168)	70.1 (1101)	69.4 (2269)	ns
Tertiary	75.6 (132)	82.8 (173)	79.7 (305)	ns
Level of significance	p<0.001	p<0.001	p<0.001	
<i>Fathers' education</i>				
Nil	60.6 (1177)	59.4 (948)	60.0 (2125)	ns
Primary	61.9 (1036)	62.9 (833)	62.3 (1869)	ns
Secondary	66.3 (1549)	66.8 (1308)	66.6 (2857)	ns
Tertiary	67.7 (564)	74.0 (590)	71.0 (1154)	p<0.05
Level of significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 5.37. Mean number of students enrolled, seating capacity in class, and headcount of attendance by grades

Class	Number of classrooms surveyed	Mean number of students		
		Enrolled	Number who can seat with ease	Number present in classroom
VI	858	65.7	51.6	34.9
VII	801	59.3	45.3	29.1
VIII	786	54.4	43.3	26.8
IX	756	55.1	44.3	26.7
X	737	47.1	41.2	23.3
All	3938	56.8	45.4	28.5

Source: Education Watch School Survey, 2005.

Annex 5.38. Attendance rate by household economic status and sex

Household economic status	Sex		Both	Level of significance
	Girls	Boys		
Always in deficit	60.4 (395)	61.3 (315)	60.8 (710)	ns
Sometimes in deficit	60.9 (1080)	60.4 (924)	60.6 (2004)	ns
Balance	64.1 (1644)	64.6 (1344)	64.3 (2988)	ns
Surplus	66.1 (1283)	69.2 (1142)	67.6 (2425)	ns
Level of significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 5.39. Attendance rate by religion and sex

Religion	Sex		Both	Level of significance
	Girls	Boys		
Muslim	64.5 (3742)	66.1 (3126)	65.2 (6868)	ns
Non-Muslim	57.5 (679)	56.1 (622)	56.8 (1301)	ns
Level of significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Household Survey, 2005

Annex 5.40. Provision of computer education in non-government secondary schools by strata

Strata	Proportion of schools having		
	Computer education	At least one computer	At least one trained teacher
Rural Dhaka division	23.3	40.0	43.3
Rural Chittagong division	40.0	46.7	60.0
Rural Rajshahi division	63.3	70.0	83.3
Rural Khulna division	73.3	63.3	76.7
Rural Barisal division	63.3	66.7	66.7
Rural Sylhet division	23.3	33.3	36.7
Metropolitan cities	66.7	70.0	66.7
Municipalities	60.0	76.7	80.0
All non-govt. secondary schools	52.1	59.2	67.5

Source: Education Watch Household Survey, 2005

Annex 5. 41. Provision of computer education in dakhil madrassas by strata

Strata	Proportion of schools having		
	Computer education	At least one computer	At least one trained teacher
Rural Dhaka division	26.7	26.7	30.0
Rural Chittagong division	6.7	10.0	26.7
Rural Rajshahi division	24.1	24.1	48.3
Rural Khulna division	46.7	43.3	63.3
Rural Barisal division	20.7	20.7	31.0
Rural Sylhet division	0.0	13.3	23.3
Metropolitan cities	30.0	50.0	60.0
Municipalities	26.7	30.0	46.7
All dakhil madrassas	24.2	25.0	40.7

Source: Education Watch School Survey, 2005

Annexes for Chapter 6

Annex 6.1. Promotion, dropout and repeater rates by grades and sex

Class	Number of students	Percentage of students			
		Promoted	Dropped out	Repeated	Total
<i>Girls</i>					
VI	25875	83.8	11.4	4.8	100.0
VII	23112	83.1	11.0	5.9	100.0
VIII	21015	81.0	13.4	5.6	100.0
IX	19088	82.9	11.7	5.4	100.0
X	15079	65.2	18.3	16.5	100.0
All	1,04,169	80.2	12.8	7.0	100.0
<i>Boys</i>					
VI	20,122	82.0	10.8	7.2	100.0
VII	17,214	82.3	10.7	7.0	100.0
VIII	15,495	82.0	11.8	6.2	100.0
IX	14,591	84.0	10.3	5.7	100.0
X	12,295	76.1	9.4	14.5	100.0
All	79,717	81.5	10.6	7.9	100.0

Source: Education Watch School Survey, 2005

Annex 6.2. Promotion, dropout and repeater rates by school type

School type	Number of students	Percentage of students			
		Promoted	Dropped out	Repeated	Total
<i>Girls</i>					
Junior secondary	3,460	74.9	17.6	7.5	100.0
Non-government	56,759	80.6	12.3	7.1	100.0
Government.	10,259	90.4	2.3	7.3	100.0
School & College	10,170	86.8	6.8	6.4	100.0
Dakhil madrasa	21,074	75.2	18.9	5.9	100.0
Alim madrasa	2,447	79.3	15.4	5.3	100.0
All	1,04,169	80.2	12.8	7.0	100.0
<i>Boys</i>					
Junior secondary	2167	76.2	15.1	8.7	100.0
Non-government	46,230	81.7	10.2	8.1	100.0
Government.	6,235	92.7	2.7	4.6	100.0
School & College	7,726	86.1	8.0	5.9	100.0
Dakhil madrasa	14,761	77.9	15.6	6.5	100.0
Alim madrasa	2,598	82.1	12.2	5.7	100.0
All	79,717	81.5	10.6	7.9	100.0

Source: Education Watch School Survey, 2005

Annex 6.3. Proportion of students of grade ten who took SSC/Dakhil examinations by school type and sex, 2001-2004

Year	School type					
	Non-govt.	Government	Sch & Coll.	Dakhil	Alim	All
Girls	70.7	91.7	81.1	58.8	68.6	72.2
Boys	80.8	97.5	81.0	74.4	81.9	81.1
Total	76.2	94.3	81.1	66.5	76.0	76.8

Source: Education Watch School Survey, 2005

Annex 6.4. Proportion of the students of grade ten who took SSC/Dakhil Examinations by school type and year, 2001-2004

Year	School type				
	Non-govt.	Government	Sch & Coll.	Dakhil	Alim
2001	78.6	94.1	81.7	69.3	78.5
2002	80.3	95.0	81.2	65.2	75.7
2003	76.9	95.3	82.9	65.2	81.2
2004	68.3	92.6	78.4	66.4	69.1
Total	76.2	94.3	81.1	66.5	76.0

Source: Education Watch School Survey, 2005

Annex 6.5. Pass rate in SSC/Dakhil examinations, by school type and sex, 2001-2004

Year	School type					
	Non-govt.	Government	Sch & Coll.	Dakhil	Alim	All
Girls	35.7	64.8	59.7	47.5	47.1	45.7
Boys	43.1	72.4	54.7	53.8	54.4	49.3
Total	39.9	67.9	57.4	51.0	51.8	47.6

Source: Education Watch School Survey, 2005

Annex 6.6. Pass rate in SSC/dakhil examinations, by school type and year, 2001-2004

Year	School type				
	Non-govt.	Government	Sch & Coll.	Dakhil	Alim
2001	41.0	71.4	60.0	58.7	66.3
2002	41.5	70.7	59.9	52.9	47.4
2003	32.6	62.2	51.1	39.0	35.8
2004	46.3	67.8	59.0	53.8	59.0
Total	39.9	67.9	57.4	51.0	51.8

Source: Education Watch School Survey, 2005

Annex 6.7. Proportions of students achieving different grade point averages in SSC examination by school type, 2004

Grade Point Average (GPA)	School type						All schools
	Junior secondary (N=17)	Non-govt. secondary (N=1722)	Govt. secondary (N=198)	School & colleges (N=283)	Dakhil madrasas (N=854)	Alim madrasas (N=151)	
5	-	2.8	10.1	6.0	2.1	1.3	3.3
4-<5	-	15.1	26.3	15.5	16.5	15.9	15.9
3-<4	29.4	34.7	29.8	31.1	34.9	30.5	33.9
2-<3	52.9	35.7	25.8	32.5	33.6	33.8	34.4
1-<2	17.7	11.7	8.0	14.9	12.9	18.5	12.5

Source: Education Watch School Survey, 2005

Annex 6.8. Proportions of students achieving different grade point averages in SSC examination by location, 2004

Strata	Grade Point Averages (GPA)				
	5 (n=66)	4-<5 (n=401)	3-<4 (n=895)	2-<3 (n=902)	1-<2 (n=312)
Rural Dhaka	.08	13.5	33.7	38.9	13.1
Rural Chittagong	0.3	16.5	36.9	33.6	12.7
Rural Rajshahi	1.7	11.4	30.1	39.1	17.7
Rural Khulna	1.4	12.1	34.7	38.0	13.8
Rural Barisal	0.4	10.4	36.1	40.9	12.2
Rural Sylhet	0.4	11.3	36.7	38.9	12.7
Metropolitan cities	8.4	26.6	35.6	23.1	6.3
Municipality	4.0	16.0	34.6	33.7	11.7
Total	2.6	15.6	34.9	34.8	12.1

Source: Education Watch School Survey, 2005

Annex 6.9. Proportions of students achieving different grade point averages in SSC examination by gender, 2004

Grade Point Averages (GPA)	Sex		Both (N=3225)
	Boys (N=1647)	Girls (N=1578)	
5	2.9	3.5	3.3
4-<5	17.7	14.6	16.2
3-<4	34.7	33.1	33.8
2-<3	33.8	34.8	34.3
1-<2	10.9	14.0	12.4
All	100.0	100.0	100.0

Source: Education Watch School Survey, 2005

Annex 6.10. Rural-urban breakdown of students achieving different grade point averages in SSC examination, 2004

Grade Point Averages (GPA)	Residence		All students (N=2576)
	Rural (N=1787)	Urban (N=789)	
5	0.8	6.5	2.6
4-<5	12.8	21.9	15.6
3-<4	34.8	34.7	34.7
2-<3	37.9	28.4	35.0
1-<2	13.7	8.5	12.1

Source: Education Watch School Survey, 2005

Annexes for Chapter 7

Annex 7.1. Household annual costs per child in secondary education by grade and sex (Taka)

Grades	Sex			Level of significance
	Boys	Girls	Both	
Six	6637	5090	5758	P<.03
Seven	7031	5984	6461	ns
Eight	7396	6252	6733	ns
Nine	9953	7949	8924	P<.03
Ten	10108	8310	9108	P<.006

Source: Education Watch Household Survey 2005
 ns = not significant

Annex 7.2 Household annual costs per child in Secondary Education by school type and sex (Taka)

School type	Sex			Level of significance
	Boys	Girls	Both	
Non-govt. secondary	7035	5867	6373	P<.001
Govt. secondary	13784	10281	12063	P<.01
Junior secondary	2742	3298	3140	ns
School and college	17073	16081	16989	ns
Dakhil madrasa	4890	4167	4502	P<.04
Alim madrasa	6253	4879	5541	ns

Source: Education Watch Household Survey 2005
 ns = not significant

Annexes for Chapter 8

Annex 8.1. Profile of headmasters

Type of Institutions	Females (%)	Absent at the time of survey (%)	Ethnic minority (%)	Non-Muslim (%)	Mean years of exp.	Mean number of classes taught per week	Had at least one formal training
Junior secondary	6.9	6.9	0.0	10.3	9.3	19.9	55.2
Non-govt. secondary	5.5	10.2	2.1	25.5	25.6	14.5	94.5
Govt. secondary	57.7	26.9	3.8	23.1	25.4	8.9	100.0
School & college	6.7	3.3	0.0	13.3	23.6	11.6	72.4
Dakhil madrasa	0.0	11.1	0.0	0.0	14.8	15.9	2.2
Alim madrasa	3.3	26.7	0.0	0.0	20.1	14.8	6.7
All	4.9	10.9	1.2	15.6	20.1	15.6	61.5

Source: Education Watch School Survey, 2005

Annex 8.2. Head teacher's educational level by school type

Type of Institutions	Education		
	Mean years	Bachelor/Fazil	Masters/Kamil
Junior secondary	14.6	72.4	27.6
Non-govt. secondary	14.5	75.4	24.6
Govt. secondary	14.9	56.0	44.0
School & college	15.5	26.7	73.3
Dakhil madrasa	16.0	0.4	99.5
Alim madrasa	16.0	0.0	100.0
All	15.0	52.4	47.5

Source: Education Watch School Survey, 2005

Annex 8.3. Performance of headmasters in public examinations

Performance in examination	Type of public examination			
	SSC/Dakhil	HHS/Alim	Degree/Fazil	Masters/Kamil
First division/class	14.1	6.5	1.5	1.2
Second division/class	58.1	49.3	41.3	41.8
Third division/class	27.8	44.2	57.2	4.6
Exam not taken	-	-	-	52.4

Source: Education Watch School Survey, 2005

Education Watch is a civil society initiative to monitor the primary and basic education status in the country, disseminate findings and promote dialogue in this respect. This is the sixth report of this initiative. The previous reports addressed different aspects of primary education and the state of literacy in Bangladesh. These included internal efficiency, learning achievement of students, literacy level of the population, a probe into inter-connected factors bearing on performance of schools and children at primary level, and socio-economic correlates of primary education and literacy.

The sixth *Education Watch* report is the first one on the state of secondary education in Bangladesh. It attempts to construct a baseline of basic indicators on how the sub-sector functions, especially in respect of provisions for services and their internal efficiency. In keeping with the objectives and practice of *Education Watch* studies, the aim also is to contribute to informed dialogue on policy and actions, and to facilitate, for this purpose, civil society participation in the development of education policies and strategies.

The defining theme of *Education Watch* studies is making education relevant to overarching national objectives of poverty reduction by promoting equitable access to education, equipping young people with knowledge and skills for the competitive market place, and building a democratic polity. Within this framework, the practical questions of reconciling quality with wider and equitable access to secondary education have been given attention. Eleven items have been identified as key considerations in defining policy and programme priorities in the development of secondary education.

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