

# Ready to Learn

## *Before School, In School, and Beyond School in South Asia*

Tara Béteille, Namrata Tognatta, Michelle Riboud,  
Shinsaku Nomura, and Yashodhan Ghorpade





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SOUTH ASIA DEVELOPMENT FORUM

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TARA BÉTEILLE, NAMRATA TOGNATTA,  
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## South Asia Development Forum

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Home to a fifth of mankind, and to almost half of the people living in poverty, South Asia is also a region of marked contrasts: from conflict-affected areas to vibrant democracies, from demographic bulges to aging societies, from energy crises to global companies. This series explores the challenges faced by a region whose fate is critical to the success of global development in the early 21st century, and that can also make a difference for global peace. The volumes in it organize in an accessible way findings from recent research and lessons of experience, across a range of development topics. The series is intended to present new ideas and to stimulate debate among practitioners, researchers, and all those interested in public policies. In doing so, it exposes the options faced by decision makers in the region and highlights the enormous potential of this fast-changing part of the world.





# Contents

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<i>Foreword</i>	<i>xix</i>
<i>Acknowledgments</i>	<i>xxi</i>
<i>About the Authors</i>	<i>xxiii</i>
<i>Abbreviations</i>	<i>xxv</i>
<b>Overview</b>	<b>1</b>
Celebrating South Asia’s Successes	3
Outlining South Asia’s Challenges	6
How Can South Asia Do Better? Overarching Principles	13
From Principles to Action: Sector-Specific Recommendations	19
Outline of the Report	22
Notes	23
References	23
<b>PART I: EDUCATION IN THE SOUTH ASIAN CONTEXT</b>	<b>25</b>
<b>Chapter 1 Is South Asia’s Education System Preparing Young People to Succeed?</b>	<b>27</b>
Access to Education Has Improved Considerably	28
Student Learning Outcomes in School Are Weak, but Learning Assessments Need Improvement to Pinpoint Why	38
A Certificate, Diploma, or Graduate Degree May Not Bestow Much-Needed Skills	46
What Factors Explain Low Learning Levels?	49

	How Can South Asia Do Better on Access and Measuring Outcomes?	50
	Notes	52
	References	53
<b>Spotlight 1</b>	<b>Access to Basic Education in Afghanistan and Bangladesh</b>	<b>55</b>
	Gender Gap	55
	Government Efforts to Expand Access to Education	56
	Challenges: Equity, Quality, and Monitoring	58
	Notes	60
	References	60
<b>Chapter 2</b>	<b>Public Financing of Education in South Asia</b>	<b>61</b>
	The Structure of Public Financing in South Asia	62
	Are South Asian Countries Spending Adequately on Education and Skills?	63
	Education Spending by Functional Classification	67
	Is Education Spending in South Asia Efficient?	71
	Equity of Public Spending on Education in South Asia	73
	How Can South Asia Do Better on Public Finance?	75
	Notes	76
	References	76
<b>Spotlight 2</b>	<b>Use of Information and Communication Technologies in Education</b>	<b>79</b>
	Factors Contributing to the Successful Integration of Technology	79
	Realizing the Potential of Technology Tools in Education	83
	References	83
	<b>PART II: EARLY CHILDHOOD DEVELOPMENT IN SOUTH ASIA</b>	<b>85</b>
<b>Chapter 3</b>	<b>Investing in Early Childhood Development in South Asia Is Crucial</b>	<b>87</b>
	Early Childhood Development in South Asia	88
	Policy Environment and Service Delivery Models of Early Childhood Development in South Asia	90
	Early Childhood Development from Birth to Preschool	92
	Nutrition and Health Interventions	98
	Responsive Parenting, Early Stimulation, and Parental Knowledge	98

Preprimary Education	101
Quality of Preprimary Education in South Asia	103
How Can South Asia Do Better on Early Childhood Development?	107
Notes	109
References	110
<b>PART III: IMPROVING TEACHER EFFECTIVENESS IN SOUTH ASIA</b>	<b>115</b>
<b>Chapter 4 South Asia Has Too Few Effective Teachers</b>	<b>117</b>
Why Teachers Matter, and What Do Effective Teachers Do?	118
Teachers in South Asia Have Inadequate Conceptual and Teaching Skills	119
Weak Professional Norms Make Teaching a Second-Class Profession	122
Note	128
References	128
<b>Chapter 5 Managing the Quality of Teaching in South Asia Has Been Difficult</b>	<b>131</b>
The Dramatic Expansion in Schooling Has Been Accompanied by a Large Expansion in the Teaching Workforce in Many Countries	132
Rapid Schooling Expansion Increased the Supply of Qualified Teachers but Not the Quality of Teachers	138
Salaries and Benefits Are Good, but Only for Some Teachers, and Are Not Tied to Performance	143
Notes	150
References	150
<b>Chapter 6 Are South Asia's Teachers Prepared to Teach? Pre-Service and In-Service Training</b>	<b>153</b>
A Rapid Increase in Pre-Service Programs of Inadequate Quality, with Few Links to Universities and Research	154
Weak Governance of Pre-Service Education Programs Underlies Poor Quality	160
In-Service Professional Development Programs Could Compensate for Some of the Deficits of Pre-Service Training But Suffer from Their Own Shortcomings	161
Notes	166
References	166

<b>Chapter 7</b>	<b>School Principals Find It Difficult to Support Teachers</b>	<b>169</b>
	Principals Can Play a Key Role in Improving School Outcomes	169
	Who Are South Asia’s Principals?	171
	Principals in South Asia Multitask, Leaving Little Time to Support Teachers	175
	Private School Principals Differ from Public School Principals in Some Respects, But Outcomes Are Not Much Better	182
	Notes	185
	References	185
<b>Chapter 8</b>	<b>How Can South Asia Do Better on Teacher Policy and Practice?</b>	<b>187</b>
	Make Teaching an Attractive Profession	187
	Manage the Teacher System Carefully	189
	Prepare Teachers before They Enter the Classroom	192
	Mentor Teachers and Upgrade Their Skills Throughout Their Career	193
	Strengthen School Leadership	195
	Notes	196
	References	196
<b>Spotlight 3</b>	<b>Leveraging Private Schools in South Asia</b>	<b>203</b>
	Notes	208
	References	208
<b>PART IV: SKILLS FOR JOBS IN SOUTH ASIA</b>		<b>211</b>
<b>Chapter 9</b>	<b>Growing Interest in Skills Development in South Asia</b>	<b>215</b>
	The Main Features of Skills Development Systems in South Asia	216
	Reasons for the Growing Interest in Skills Development in South Asia	220
	Notes	224
	References	225
<b>Spotlight 4</b>	<b>Twenty-First-Century Skills: A Shift in Learning Goals in South Asia?</b>	<b>229</b>
	Note	231
	References	231

<b>Chapter 10</b>	<b>Skills Development Strategies Are Promising, but What about Results?</b>	<b>233</b>
	Recent Changes in Skills Development Strategies	234
	What Have We Learned about the Results So Far?	242
	Notes	256
	References	257
<b>Chapter 11</b>	<b>How Can South Asia Do Better on Skills Development?</b>	<b>259</b>
	What Factors Are Slowing Progress?	260
	What Is Most Important to Do Next?	267
	Notes	279
	References	279
<b>PART V: HIGHER EDUCATION IN SOUTH ASIA</b>		<b>281</b>
<b>Chapter 12</b>	<b>Higher Education in South Asia: Rapidly Growing, Diverse, and Unequal</b>	<b>283</b>
	A Diverse System with a Complex Governance Arrangement	284
	Enormous Growth in Student Numbers	288
	Quality in Supply and Outcomes Has Not Kept Pace with the Increase in Demand	290
	Will Poor People Benefit from Growth?	295
	Notes	299
	References	300
<b>Spotlight 5</b>	<b>What Will It Take to Internationalize Higher Education in South Asia?</b>	<b>301</b>
	What Is the Internationalization of Higher Education?	301
	Stirrings of Cross-Border Internationalization in South Asia—with Some Signs of Progress	302
	Internationalization at Home—an Unexplored Agenda	306
	Notes	307
	References	308
<b>Chapter 13</b>	<b>Managing the Complexity and Growth of the Higher Education System Requires Strong Governance</b>	<b>311</b>
	Governing the Rapidly Expanding Higher Education System Will Be a Challenge for Governments in South Asia	312
	Too Much External Control Has Weakened Internal Governance	315

	An Inefficient Affiliation System Hampers College Autonomy	318
	Weak Quality Assurance Systems Hamper Accountability	321
	Poor Targeting of Financial Aid and Little Support for First-Generation College Students Makes Leveling the Playing Field Difficult	324
	Notes	325
	References	326
<b>Chapter 14</b>	<b>How Can South Asia Do Better in Higher Education?</b>	<b>329</b>
	Toward a More Efficient Higher Education System	331
	Improving the Quality of Higher Education	334
	Tools to Meaningfully Expand Opportunity for All Students to Access Higher Education	339
	Notes	344
	References	344
<b>Chapter 15</b>	<b>How Can South Asia Do Better?</b>	<b>347</b>
	Political Commitment Is Indispensable in Translating Good Principles into Sound Policy	348
	Technical Solutions Reflecting Good Practice Are Essential	350
	Prioritizing by Balancing Quick, Effective Actions with Those Needed to Sustain Impact	353
	References	355
<i>Boxes</i>		
O.1	Outlining South Asia's Successes: Key Messages	2
O.2	Outlining South Asia's Challenges: Key Messages	6
O.3	How Can South Asia Do Better? Key Messages	14
1.1	Countries Are Conducting Many More Learning Assessments, but More Work Is Needed on Comparability	39
1.2	External Factors Affecting the Education System	49
1.3	Tips on Using Learning Assessments to Improve Student Outcomes	52
3.1	Bangladesh's Complex Early Childhood Development Service Delivery System	92
3.2	Preprimary Education Policy in Nepal	103
3.3	How to Advance Early Childhood Development Programs for Greater Impact in South Asia	107
4.1	What Do Teachers' Unions in South Asia Campaign For?	123
6.1	Key Features of Pre-Service Programs in Top-Performing School Systems	156
6.2	Process Evaluation of the National Mission for Secondary Education In-Service Teacher Training Program in India	165

7.1	The Story of One Woman's Journey to the Post of Principal in Rajasthan: 35 Years and 19 Transfers	173
7.2	Procedural Delays Extend the Time from Application to Final Posting as a Principal, Karnataka, India	174
8.1	Chile's Teacher Professional Performance Assessment System	192
8.2	Features of Successful Induction Programs	194
S3.1	Leveraging Private Schools to Increase Access and Improve Quality	207
10.1	Recent National Strategies for Skills Development in South Asia	235
10.2	The Sri Lanka Qualification Framework	237
10.3	Mandate of Sector Skill Councils	238
10.4	The India National Skill Development Corporation Mandate and Tools	239
10.5	Design Features of a Short-Term Training Program with High Employment Outcomes: The Nepal EVENT Project	247
10.6	International Evidence on the Impact of Short-Term Training Programs	251
11.1	Why Management Information System Data May Not Always Lead to Policy Changes	263
11.2	Monitoring Processes at the National Skill Development Corporation in India	270
11.3	How Chile Shared Labor Market Information with the Public	271
11.4	An Example of a Successful Partnership with Industry: The Government of India and Maruti Suzuki	272
11.5	Factors Found to Increase the Chances of Positive Labor Market Outcomes for Skills Training Programs	274
11.6	Generation: Matching Trainees and Programs and Working Closely with Employers	275
11.7	Some Examples of Successful Interventions by Sector Skills Councils in Chile	277
11.8	Broadening Occupational Standards: The Example of Germany	278
12.1	India's National Institutional Ranking Framework	295
S5.1	How the Internationalization of Higher Education Helped China Reach the Frontier of Science and Technology	305
S5.2	Assessments to Measure and Compare Content and Noncognitive Skills across National Contexts	306
13.1	Poor Governance Hinders Research at Higher Education Institutions in South Asia	318
13.2	The Logistics of Examinations in Affiliating Universities in Bangladesh and Pakistan	320
14.1	Strengthening Internal Governance in India's Higher Education Institutions	333
14.2	Data Transparency Is Key to Quality Assurance and Accountability	335
14.3	Lessons on Implementing Competitive Funds to Stimulate Innovation and Research in Bangladesh	338

*Figures*

O.1	Over 25 Percent of Girls, Ages 10–17 Years, in Afghanistan, India, and Pakistan Are Not in School or Skills Development Programs	7
O.2	Many Primary and Lower Secondary School Students in Rural India and Pakistan Cannot Subtract or Divide, 2015 and 2016	9
O.3	Education Reform in South Asia Is Based on These Three Principles	13
1.1	Average Attendance Rates Among Primary and Secondary School–Age Cohorts in South Asian Countries Have Surged in Recent Years	29
1.2	The Gender Gap in School Attendance Has Narrowed Substantially in Some South Asian Countries, with the Sharpest Declines in Afghanistan and Nepal	30
1.3	Age-Specific Enrollment Rates Decline at Higher Levels of Schooling in South Asian Countries	31
1.4	The Supply of Firm Training in South Asia Varies with Firm Size, Latest Available Data	33
1.5	South Asia’s Higher Education System Is Expanding, 1970–2015	35
1.6	Children’s School Attendance and Work Status Differ across South Asian Countries	36
1.7	Over 25 Percent of Secondary-Age Girls Are Not in School or Training in Afghanistan, Bangladesh, India, and Pakistan	37
1.8	Many Primary and Lower Secondary School Students in Rural India and Pakistan Cannot Subtract or Divide, 2015 and 2016	42
1.9	Students in Disadvantaged and Minority Groups Show Lower Average Performance Levels in Bangladesh, India, and Nepal	43
1.10	The Variation in Learning Outcomes in Well-Developed School Systems Is Explained Mainly by Differences in Student Backgrounds, but the Variation in South Asia Is Explained Mainly by Education Inequalities across Schools	44
1.11	Performance Inequalities Are Large between the Highest- and Lowest-Performing Jurisdictions in South Asian Countries	45
1.12	Basic Digital Skills among Youth and Young Adults in India Are Low but Increase with Education, 2014	47
1.13	Overall, Just 16 Percent of Surveyed Workers in Sri Lanka, and under 4 Percent in Pakistan, Have Digital Skills, 2012	48
S1.1	Bangladesh Has Improved Access to Primary and Secondary School, Especially for Girls, 2005–16	56
S1.2	Community-Based Education Has Improved Student Learning in Afghanistan, 2016	58
2.1	Most South Asian Economies Underinvest in Education	63
2.2	Public Expenditures on Education as a Percentage of Total Government Expenditures in Most South Asia Countries Is Lower Than the Average of Countries at the Same Income Level	64



2.3	Government Expenditures on Education as a Share of Total Government Spending in South Asia Fluctuated between 2000 and 2015, Decreasing at First and Now Gradually Increasing	66
2.4	Public Spending on Secondary Education in Bhutan, India, and Sri Lanka Constitutes a Larger Share of Government Expenditures on Education Than Spending on Primary Education	68
3.1	Conceptual Map of Relationships Between Educational Outcomes and Early Childhood Development, Including 25 Key Interventions in Early Childhood	88
3.2	South Asia Has the Second-Highest Percentage of Children at Risk of Not Reaching Their Development Potential, 2010	89
3.3	Proportion of Children, Ages 3–4 Years, with Low Learning Scores on the Early Childhood Development Index	93
3.4	Proportion of Children, Ages 3–4 Years, with Low Socioemotional Scores on the Early Childhood Development Index	94
3.5	Bangladeshi Children’s Cognitive and Language Skills Begin to Decline at 12 Months, Relative to U.S. Children’s Mean Scores, on the Bayley Scales Score for Cognitive and Language Skills III, 4–18 Months and 28–40 Months	96
3.6	The Share of Children, Ages 36–59 Months, Who Are on Track with Early Childhood Development Index Milestones Is Higher in the Richest Quintile, by Poverty Status	97
3.7	Gross Enrollment Ratios in Preprimary Education Have Risen Rapidly in South Asian Countries, 1999–2014	102
3.8	Gross Enrollment Ratios for Preprimary Education in South Asia Differ Only Slightly by Gender	104
3.9	Gross Enrollment Ratios for Early Childhood Education in South Asia Show Large Gaps between Urban and Rural Areas and by Income Group	105
4.1	Afghan Teachers’ Math Skills Decline Precipitously as Difficulty Levels Rise, 2017	120
4.2	Primary School Teachers in Schools in Punjab, Pakistan, Spend a Large Share of Their Time on Nonteaching Tasks, 2018	125
5.1	Year-on-Year Growth of Primary Schools, Teachers, and Students in South Asian Countries Has Not Been Monotonic	134
5.2	Year-on-Year Growth of Primary School Teachers Has Varied in Government and Private Schools and across South Asian Countries	135
5.3	Teachers Are at Least as Qualified as Other Professionals in South Asian Countries, Latest Available Data	144
5.4	Government Teachers Are Paid Less Than Other Government Employees in Bangladesh, Pakistan, and Sri Lanka, Latest Available Data	145
5.5	Government Teachers Tend to Be Less Qualified Than Other Government Employees in Bangladesh, Pakistan, and Sri Lanka, Latest Available Data	146

5.6	Government Teachers Tend to Work Fewer Hours Than Other Government Employees in Bangladesh, Pakistan, and Sri Lanka, Latest Available Data	146
5.7	Governments Teachers Are Less Likely Than Government Doctors in Pakistan and Sri Lanka to Have a Second Income, Latest Available Data	147
6.1	How Evaluated Teacher Training Programs in South Asia Compare with Top Evaluated Programs Worldwide	163
7.1	Student Competency in Bangla and Math Are Associated with Head-Teachers' Degree of Involvement in School Activities, Bangladesh, 2014	170
7.2	Less than 50 percent of Principals in South Asia Have a Master's Degree or Higher	172
7.3	Share of Principals with "a Lot of Voice" on Different Tasks, Afghanistan, Nepal, and Sri Lanka, 2017	177
7.4	Principals' Professional Development Training Only Weakly Aligns with the Areas in Which They Typically Engage, 2017	180
7.5	Many Principals in South Asia Work More Than Eight Hours a Day, 2017	181
8.1	Promising Interventions for Teachers	188
P4.1	Typology of Skills	212
9.1	Over the Next 5–15 Years, the Population of Young Adults of Working Age in South Asia Will Continue to Grow as Countries Experience a Demographic Transition, 2000–50	221
9.2	Unemployment in South Asia Is About Two Times Higher among Youth Than among Adults, and Higher among Women Everywhere, Except in Nepal, Latest Available Data	222
9.3	More Than a Third of 18-to-24-Year-Olds Are Not in School, Training, or Employment in India, Pakistan, and Sri Lanka, Latest Available Data	223
10.1	Proportion of Men and Women That Have Participated in Some Training, in Selected South Asian Countries by Age Group, Latest Available Data	243
12.1	Private Spending on Higher Education Substantially Outweighs Public Spending in Nepal and Pakistan, Latest Available Data	286
12.2	Gross Enrollment Rates Indicate Room for Growth in South Asia's Higher Education System, 1970–2015	289
12.3	Enrollment in South Asia's Higher Education System Is Projected to Grow Almost Linearly in Coming Decades, 2020–2100	290
12.4	The Share of Doctoral Students in the Total Student Population in South Asia Is Well Below the Level in the United States and the Russian Federation, Latest Available Data	291
12.5	The Median Wage Differential between Tertiary and Secondary Education Graduates Is Substantial in Nearly All South Asian Countries, Latest Available Data	292
12.6	Higher Wages for Graduates of Tertiary Education Than Secondary Education in South Asia Grow over a Lifetime, Latest Available Data	293

12.7	Job Prospects Are Not Automatically Better for People with Tertiary Education Than for Those with Secondary Education, Latest Available Data	294
12.8	Research Output from South Asian Universities Is Increasing, 1995–2015	296
12.9	Access to Higher Education in South Asia Is Highest for Indian Men and Women in Urban Areas, and Lowest for Maldivian Men and Women in Rural Areas, Latest Available Data	297
12.10	Boys in Richer Households Are More Likely to Access Higher Education in South Asia, Latest Available Data	298
12.11	The Probability of Accessing Higher Education in South Asia Rises with Parents' Education	298
S5.1	The Share of Outbound Students from South Asia Has Increased Sharply since 1999	303
13.1	Examination Fees Are the Main Source of Income for Bangladesh's National University, 2014/15	319

### *Tables*

O.1	Sector-Specific Recommendations	20
1.1	The Incidence of Training among 15-to-64-Year-Olds in South Asia Varies by Educational Level, Latest Available Data	32
1.2	Number of Students Enrolled in the Higher Education System, 2000 (or Closest Year), Latest Available Data and Average Annual Growth Rate	34
B1.1.1	National Learning Assessments Conducted by National or Subnational Governments in South Asia since 2003, by Grade, Year, and Subject	40
S1.1	Education Indicators for Bangladesh, Latest Available Data	59
2.1	When Compared to Countries with a Similar Share of School-Age Population and Income, South Asian Countries Spend Less on Education as a Share of GDP	65
2.2	Per-Student Spending, by Level of Education	69
2.3	Per-Student Spending Relative to per-Child Spending on Education	70
2.4	Trend in Component-Wise Allocations for Elementary Education in India	71
3.1	List of Key Early Childhood Development Policies in South Asian Countries	91
3.2	Percentage of Children, Ages 36–59 Months, Who Are Developmentally on Track, According to the Early Childhood Development Index and Its Domains	95
4.1	What Effective Teachers Do	119
4.2	Primary School Teachers' Use of Time in Afghanistan, 2017	125
4.3	Primary School Teachers Use of On-Task Time in Bangladesh, Grades 3 and 5, 2015, by Increments of Time Spent on Each Activity	126
5.1	Size of the Teaching Force in South Asia, Latest Available Data	133
5.2	Entry Requirements for the Teaching Profession in Selected South Asian and Other Countries, Latest Available Data	139

5.3	Teacher Pay in Government Schools Relative to Pay in Other Occupations in South Asia, Latest Available Data	143
6.1	Structure of Teacher Education Programs in Selected South Asian Countries	155
6.2	Common Quality Areas Covered by Teacher Education Programs in South Asia	157
7.1	Percentage of Students Achieving Grade-Relevant Competencies, by Degree of Involvement of Teachers and Head Teachers, Bangladesh, 2013	176
7.2	Mean Management Scores of Private and Public School Principals, 2016	184
S3.1	Median Fees Paid in Private Schools in India and Pakistan, by Household Expenditure Quintile, 2007/08 and 2014/15	204
9.1	Formal Long-Term Skills Development Training in South Asia Can Be Accessed as soon as Grade 8 Is Completed, and Can Last for 2–4 Years	217
9.2	More Than 70 Percent of Training Participants, Ages 15–59 Years, in India Are Concentrated in Five Training Fields, 2011–12	219
10.1	Regulatory and Coordinating Training Institutions Were Established in South Asian Countries	235
10.2	Employment Outcomes of Short-Term Training Programs in Selected Countries: Results of Tracer Studies, Latest Available Data	245
10.3	More Than Half of Polytechnic Graduates in Bangladesh Are Not Working One or Two Years after Graduation	254
10.4	Employment of Industrial Technical Institute Graduates in India Is Showing Some Progress over 10 Years, 2006 and 2016	254
11.1	Questions in Labor Force Surveys Pertaining to Technical and Vocational Training, Selected South Asian Countries	268
12.1	Size of the Affiliated College Sector in South Asian Countries, Latest Available Data	287
12.2	Distribution of Students in Higher Education in South Asia by Subject Area, Latest Available Data	288
S5.1	Policies Supporting the Internationalization of Higher Education in South Asian Countries	304
13.1	Institutional Matrix of College Education Governance in Bangladesh, 2016	316
13.2	Mean Expenditures on Higher Education, by Type of Institution in India, 2014	325
14.1	Key Ongoing Reforms in Higher Education in South Asia, by Country	330
14.2	Some Core Initiatives for Policy Reforms to Strengthen University–Industry Collaboration	340
14.3	Behavioral Solutions for Common Student Barriers in South Asian Higher Education	342
15.1	Sector-Specific Recommendations	350
15.2	Prioritization Strategies	354

## Foreword

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South Asia's progress in expanding access to early childhood education, schools, skills development, and higher education in the past decade is noteworthy. But two factors dampen this progress. First, there remains a large percentage of school-age children out of school. The challenge is especially stark in Afghanistan and Pakistan, which have yet to make primary education universal. In both countries, girls are far less likely to attend school than boys, a colossal waste of potential. Second, the region accounts for approximately 20 million children who are “learning poor”; that is, 10-year-olds who cannot read and comprehend an age-appropriate paragraph. Without being able to read, young people are unlikely to thrive.

The World Bank's Human Capital Project aims to accelerate more and better investment in people, enabling them to operate as productive members of society and contribute to sustained economic growth. At a time when economic growth in South Asia is slowing, the need to invest more effectively in people and take advantage of education's promise could not be greater. *Ready to Learn* is a timely resource for the region, providing policy and decision makers with strategic advice on how to prepare their education systems for the future.

*Ready to Learn* covers the entire spectrum of education: before school, in school, and beyond school. It argues that to improve, South Asia's education systems must focus on three critically important principles. First, countries must give all children a head start through adequate and effective investments in early childhood development. Second, countries must adopt an outcome-oriented approach and align education systems at every level toward learning. Third, countries should leverage the region's untapped resources—women, information and communication technology, and nonstate players (WIN)—to strengthen their education systems.

*Ready to Learn* makes an essential contribution to our understanding of education systems in South Asia, and how they can become more agile, effective, and equitable. It presents a wealth of analyses and evidence on what contributes to improving access and learning across the entire education spectrum. It provides concrete guidance on how to translate this knowledge into effective service delivery by meticulously documenting and drawing upon lessons from effective interventions in the region and beyond. At a time when countries in the region are struggling to achieve their economic aspirations, *Ready to Learn* provides them with invaluable guidance on how to revitalize their education systems and transform themselves into prosperous and inclusive societies.

Every time we visit South Asia, we are increasingly impressed by the dynamism of the region and the aspirations of its young people. While education's promise to transform lives is widely believed to be true, these benefits depend on the actual skills that students acquire. Families invest in education, but the time spent in school, training, and college does not matter if it does not result in learning. We hope that *Ready to Learn* will help policy makers and practitioners in South Asia transform their education systems and realize the promise of education.

Hartwig Schafer  
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## Abbreviations

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AHEAD	Accelerating Higher Education Expansion and Development (Sri Lanka)
ASER	Annual Status of Education Report (India and Pakistan)
BANBEIS	Bangladesh Bureau of Educational Information and Statistics
BSID	Bayley Scales of Infant and Toddler Development
DISE	District Information System for Education (India)
ECD	early childhood development
ECDI	Early Childhood Development Index
EMIS	education management information system
EVENT	Enhanced Vocational Education and Training project (Nepal)
GDP	gross domestic product
GNI	gross national income
HCI	Human Capital Index (World Bank)
ICT	information and communication technology
MHRD	Ministry of Human Resource Development (India)
MPO	monthly pay order
MSDVT	Ministry of Skills Development and Vocational Training (Sri Lanka)
NEET	not in education, employment, or training
NGO	nongovernmental organization
NSDC	National Skill Development Corporation (India)
NSDC	National Skills Development Council (Bangladesh)

ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
PISA	Program for International Student Assessment
RMSA	Rashtriya Madhyamik Shiksha Abhiyan (National Mission for Secondary Education; India)
SABER	Systems Approach for Better Education Results (World Bank)
SSC	Sector Skill Council (India)
STEM	science, technology, engineering, and mathematics
STEP	Skills Towards Employability and Productivity (Sri Lanka)
TIMSS	Trends in International Mathematics and Science Study
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children’s Fund
USAID	US Agency for International Development
WDR	<i>World Development Report</i> (World Bank)
WIN	women, information and communications technology, and nonstate players

## Overview

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South Asia is home to 40 percent of the world's school-age population, and 34 percent of the world's youth population (ages 15–24). The region's education system has a lot to celebrate. The massive expansion in schooling over the past decade has reduced the number of out-of-school children considerably. South Asia's youth can access more skills development opportunities today than ever before, while access to higher education has nearly quadrupled since the early 2000s. Gender gaps in primary schooling have either closed or begun to close. In the workplace, some of the top global firms, such as Microsoft and Google, are led by persons of South Asian descent, many of whom are products of its public education system.

But South Asia also has a lot to worry about. The World Bank's Human Capital Index (HCI), which quantifies the productivity losses from inadequate human capital investment, paints a dismal picture for the region. A child born in Sri Lanka today—the top performer in the region, with a score of 0.58—will be only 58 percent as productive as he or she would have been with full health and education. Other countries in the region fare much worse. Afghanistan's HCI is 0.39, Bangladesh's is 0.48, India's is 0.44, Nepal's is 0.49, and Pakistan's is 0.39. Related calculations suggest that even though school completion rates have risen, the region may be losing the equivalent of 4.3 years of schooling due to low quality. The World Bank's newly launched Learning Poverty project shows that South Asia is home to nearly 20 million 10-year-olds who cannot read with proficiency.

South Asia's record is especially deficient in early childhood development—the most important investment a country can make for long-term human capital gains. Early childhood experiences have a profound impact on brain development, influencing a child's ability to learn at subsequent education levels. Today, 89 million children under age 5 in South Asia are at risk of not reaching their development milestones, a colossal risk for the region. This is no surprise, as governments spend only 1–3 percent of their education expenditures on early childhood care—although Maldives spends 10 percent. Consequently, millions of

children are off to a bad start even *before* they enter school. *In school*, low-quality teaching, inadequate teaching-learning material, and poor school management result in students learning little. Things do not improve much *beyond* school. When young people enter the world of work—whether after attending school, skills development programs, or higher education programs—many are reportedly unemployable.

The irony could not be greater: While governments across the region continue to invest in their schools by—for instance, hiring more teachers—the demand has shifted toward private schools. This is also true in higher education, with large numbers of students today either going to a private college or studying abroad. Such shifts reflect a general disenchantment with government efforts, and would benefit from closer scrutiny.

This report is noteworthy in that it makes policy recommendations for a strategic approach to building human capital through improved education in South Asia. The report argues that South Asia faces considerable challenges, exacerbated by large numbers and diverse population subgroups. While countries in the region have progressed on several fronts over the past 10 years, due to the efforts of the government and nonstate providers (see box O.1), many of these efforts operate in a piecemeal fashion—in some cases and

Governments spend a negligible portion of their education budget on early childhood education.

places, there is no effort at all.<sup>1</sup> The share of public expenditures on education is lower in most South Asian countries, compared to the average in countries at the same income level. Importantly, public expenditures are inefficient, neglecting areas with the biggest returns,

such as early childhood development (ECD). In the report, we suggest that a strategic approach to improving South Asia's education outcomes—before school, in school, and beyond school—must focus on three critically important principles:

- *Giving all children a head start:* Governments must increase their commitment to ECD through higher budgetary allocations, better regulations, and improving the capacity of early caregivers and trainers. By helping to increase the incidence and quality of ECD interventions, countries can have a significant impact on learning and life outcomes for South Asia's children.

#### BOX O.1 Outlining South Asia's Successes: Key Messages

- *More young people have access to educational opportunities at every level: early childhood education, K–12 schooling, skills development, and higher education.*
- *Gender gaps in access to schooling have narrowed across the region.*
- *The nonstate sector has played an important role in expanding access at every level of education.*
- *Countries have undertaken important accountability and quality-oriented reforms, such as Sindh's (Pakistan) School Monitoring System; Sri Lanka's School-Based Teacher Development Program; India's Sector Skills Councils; and Bangladesh's higher education innovation funds.*

- *Aligning education systems at every level toward learning:* In schools, for skills development and higher education systems to align toward learning, five things are essential: ensure all children are in school; find ways to better measure outcomes; address low capacity to deliver; minimize coordination failures across ministries; and ensure accountability for outcomes.
- *Leveraging South Asia's untapped resources: Women, information and communications technology, and nonstate players (WIN).* Improving the skills of women—comprising 50 percent of South Asia's population but under 30 percent of its labor force—will improve education outcomes for this and future generations, while improving productivity gains (WDR 2012). Information and communications technology (ICT) can transform education when used as part of a larger, coherent effort. Nonstate players have played a key role in increasing access, and should now be leveraged to provide more agile solutions to the quality challenge.

## Celebrating South Asia's Successes

South Asia has improved its coverage of early childhood care and education over the past decade. The proportion of children exposed to multiple risks—including poverty, malnutrition, poor health, and nonstimulating home environments—dropped from 65 percent in 2004 to 53 percent in 2010. Furthermore, roughly 55 percent of children between the age of three and six attend a preprimary center in South Asia, and their enrollment rates have risen rapidly in Bangladesh, India, Maldives, and Nepal. While the magnitude of the challenge remains large—89 million out of 168 million children under age 5 in South Asia are at risk of not reaching their development potential—the region has made steady progress in improving access to early childhood care as a result of governmental and nonstate efforts.

Over the last 10 years, governments in South Asia have increased access to general education, including policies to promote enrollment and retention, reduce dropout rates, facilitate the transition across grade cycles, and increase survival rates.<sup>2</sup> In six of eight countries in the region (Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka), more than 90 percent of the primary school-age cohort attend school, according to the most recent national household surveys. While Bhutan, Maldives, and Sri Lanka reached this stage by the early 2000s, Bangladesh, India, and Nepal have made rapid improvements over the last decade. Enrollment among the primary school-age cohort is gradually increasing in Afghanistan, in part due to the community-based education model. This program reaches nearly 400,000 children who cannot leave their community. The majority of students in the program are girls.

Secondary school attendance rates also show an upward trend. Countries that achieved near universal enrollment in primary school early on (Bhutan, Maldives, and Sri Lanka) have a secondary school enrollment rate of close to 90 percent. Bangladesh, India, and

Nepal have made substantial progress in recent years, nearly catching up to the early achievers. Although Afghanistan and Pakistan have also made gains in secondary school enrollment, they still need to catch up with the rest of South Asia.

The improvements in school attendance are driven, in part, by gains in girls' attendance. Gender gaps in school attendance have narrowed in Afghanistan, India, Nepal, and Pakistan. India has managed to shrink this gap to near-zero levels in recent years. In Bangladesh, girls' enrollment rates have long exceeded boys' (drawing attention to why boys are leaving school). These improvements are driven by policies targeted at improving girls' education, such as Bangladesh's Female School Stipend Program.

The nonstate sector—private for-profit and private not-for-profit providers—has played an important role in expanding access to schooling in South Asia. In primary schools, private school enrollment rose from 27 percent in 2007 to 38 percent in 2015 in India, from 13 percent to 17 percent in Nepal, and from 30 percent to nearly 40 percent in Pakistan. The increase has been large in secondary schools as well. In India, the percentage of students enrolled in private secondary schools grew from 18 percent in 2007 to 30 percent in 2015, while in Pakistan, it grew from 22 percent to 33 percent over

As with schools, the private sector has played an important role in the expansion of skills training opportunities for young people.

the same period (Gandhi and Bêteille 2018). Much of this growth was driven by supply-side factors such as entrepreneurship, and by demand-side factors such as changing aspirations and disenchantment with government schools versus explicit government policies that promote the nonstate sector.

Beyond school, South Asia has been focusing on expanding access to skills development and higher educational opportunities. Over the last decade, most South Asian countries have adopted national strategies for skills development. Country strategies have set ambitious quantitative targets. The 2011 Bangladesh National Skills Development Policy envisaged a 50 percent increase in enrollment over five years. India's 12th Five-Year Development Plan (2012–17) called for training 400 million workers by 2022. Punjab province in Pakistan aimed to train 2 million people by 2018. The Sri Lankan Development Plan (2014–20) envisages a doubling of the country's training capacity.

Consequently, enrollment in skills development programs—both short- and long-term—has increased sharply.<sup>3</sup> These programs result in certificates and diplomas for students. In Bangladesh, enrollment in formal training institutions almost doubled between 2009 and 2015. In India, enrollment in short-term training programs increased nearly fourfold between 2011 and 2016, and reached more than 8 million people, even though enrollment in long-term training programs increased only slightly. In Nepal, the number of technical and vocational education and training graduates increased from 15,000 in 2000 to 80,000 in 2010. In Pakistan, enrollment in programs under the Sindh Technical Education and Vocational Training Authority increased 50 percent over six years. As with schools, the private sector has played an important role in the expansion of skills development opportunities for young people.

South Asia also has a large and growing higher education system, with more than 42 million students.<sup>4</sup> These programs lead to Bachelor's, Master's, and PhD degrees.



Nearly 35 million students study in India in more than 50,000 higher education institutions, with Bangladesh and Pakistan each enrolling over 2 million. Demand, already high, is growing rapidly, and an average annual growth rate of 9 percent has compounded to a staggering 387 percent increase over 15 years. Currently, India is the second-largest higher education system in the world (after China), having surpassed the United States in 2010. The private sector has played a key role in expanding educational access to young people. Today, the private sector absorbs 67 percent of enrollment in India, 66 percent in Nepal, 43 percent in Bangladesh, 42 percent in Afghanistan, and 18 percent in Pakistan (MHRD 2018; Aturupane 2013; Millot 2018). In Sri Lanka, where the private sector is all but absent in school education, private higher education absorbs a nontrivial 20 percent of enrollment (Dundar and others 2017).

In addition to its successes in expanding coverage, South Asia has begun to put the spotlight on measuring learning outcomes. Today, there are 30 learning assessments in South Asia for school-age children, relative to only a handful just seven years ago. Countries such as Bangladesh and India regularly conduct sample-based learning assessments at the school level. India is leading the way regionally and globally by measuring learning outcomes at the tertiary level for engineering in domain-specific areas such as physics and mathematics, as well as higher-order thinking skills. But much more needs to be done, as we discuss later.

Other than measuring learning outcomes, South Asia has been innovating to improve educational quality at every level. The many innovations range from path-breaking legislation and measuring learning outcomes to the improved use of existing resources and leveraging technology. Recognizing the importance of mothers to children's cognitive and socioemotional development, India's Maternity Benefit (Amendment) Act 2017 requires that every establishment with 50 or more employees provide on-site child care services, which female employees can visit several times a day. The Sindh School Monitoring System in Pakistan uses an expansive systemwide technology for improving teacher accountability. India's Teaching at the Right Level, a technology-driven initiative led by a nonstate provider, helps teachers work with students at vastly different learning levels. Sri Lanka's and the Maldives' School-Based Teacher Development programs put teachers at the center of improvement efforts, enabling them to work collaboratively with the principal and other teachers to identify ways to improve student learning through teacher development (Ministry of Education, Sri Lanka 2014). India's Sector Skills Councils provide a model for encouraging public-private partnerships in skills development. In higher education, Bangladesh's innovation funds have generated path-breaking research in a range of areas, including the discovery of important vaccines. Afghanistan has addressed the problem of untrained faculty in higher education institutions by sending them abroad to be trained, and then return to spread their skills more widely.

Yet, even as innovations abound, these remain insufficient to tackle the challenge of learning in South Asia. Many often fail to scale. Consequently, South Asia continues to face several challenges in its education system.

## Outlining South Asia's Challenges

As South Asia continues to invest at every level of education, it must address outcome-level and process-related challenges (see box O.2). On outcomes, despite the increased access, many children and young people are left out of the education system. Importantly, the current system does not produce strong learning outcomes at any level. Furthermore, learning outcomes are much worse for those in specific regions and disadvantaged groups. On processes, the system suffers from three key challenges: (1) low implementation capacity, driven both by a shortage of key personnel as well as the quality of personnel; (2) coordination failures at multiple levels that stymie efficiency; and (3) weak data systems and low accountability.

### OUTCOME CHALLENGE 1: MANY CHILDREN AND YOUNG PEOPLE ARE LEFT OUT

Today, over 35 million school-age children are not in school in South Asia, either because they have never enrolled or because they have dropped out. This out-of-school cohort includes girls, migrant children, and children living in conflict areas. These children are less likely to enter the labor market or to sign up for vocational training courses. Along with dropouts from school, these young children grow up to become part of the more-than-40-million 15-to-29-year-olds who are not in education, employment, or training (NEET). Together, they represent the unfulfilled potential of human capital.

The likelihood of not being in school or in skills development programs is higher among older children, particularly among older girls in Afghanistan, India, and Pakistan (figure O.1). A key reason is that barriers to education and vocational training may be greater for older girls. In societies and communities where girls' mobility is restricted,

#### BOX O.2 Outlining South Asia's Challenges: Key Messages

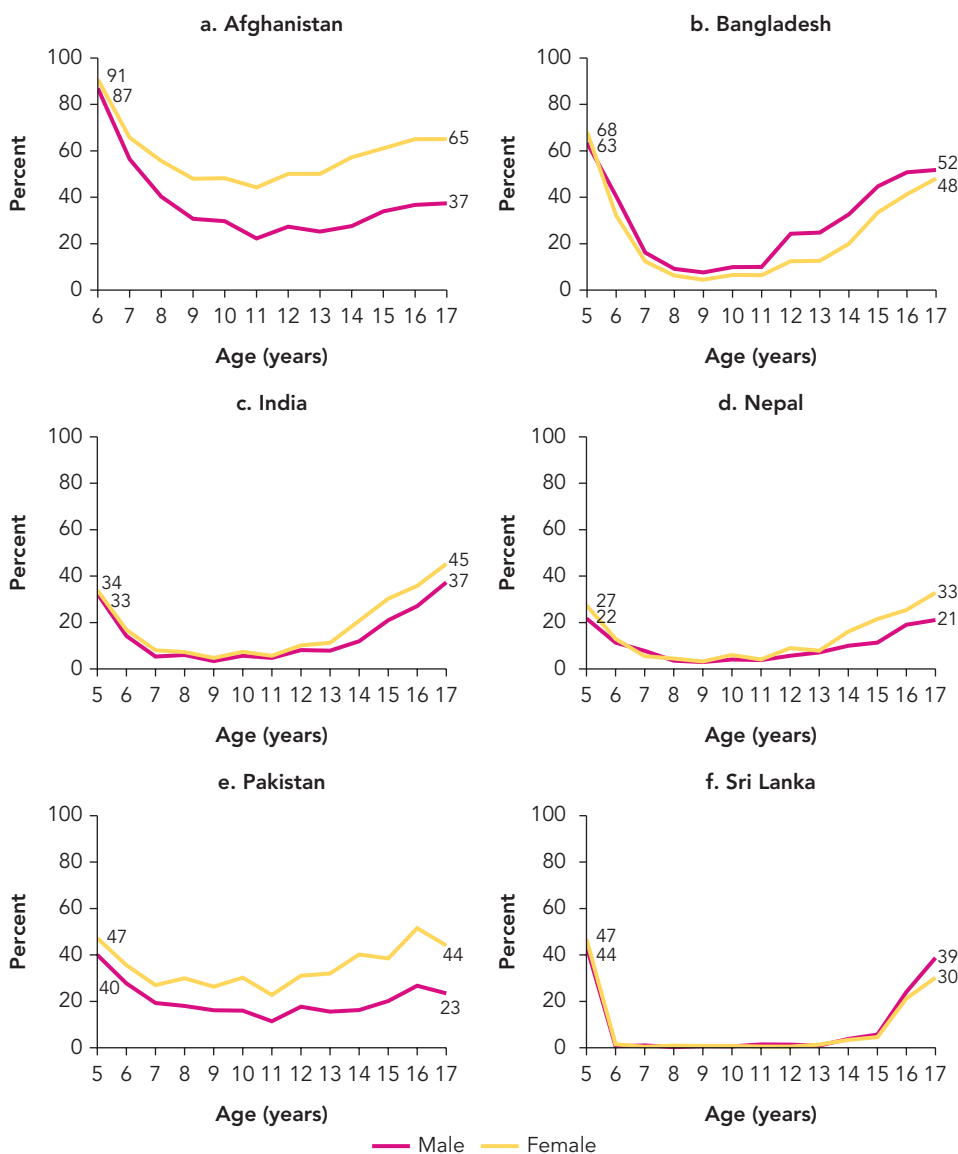
South Asia faces two key outcome challenges:

- *Many young people are left out.* More than 35 million children are out of school, and more than 40 million 15-to-29-year-olds are not in education, employment, or training. Girls are at a disadvantage.
- *Learning levels are poor at every level of education.* Disadvantaged socioeconomic categories fare worse than others.

Outcome challenges are driven by three process-level challenges:

- *Low implementation capacity* driven by poorly skilled frontline workers, leadership gaps, and weak institutional capacity
- *Coordination failures* across ministries and government bodies, as well as different tiers of government
- *Poor data systems and low accountability* make the problem worse.

**FIGURE O.1** Over 25 Percent of Girls, Ages 10–17 Years, in Afghanistan, India, and Pakistan Are Not in School or Skills Development Programs



Sources: World Bank staff calculations using data from the following surveys/year: Afghanistan: Afghanistan Living Conditions Survey 2013/14; Bangladesh: Household Income and Expenditure Survey 2016; India: National Sample Survey 2010/11; Nepal: Nepal Living Standards Survey 2010/11; Pakistan: Pakistan Social and Living Standards Measurement 2015/16 and Sri Lanka: Household and Income Expenditure Survey 2012.

more opportunities need to be provided for girls to continue education and skills training. Even though they are not in school, many of these young people are not working either. This is likely because many activities performed by girls at home are not recorded as “work” in household surveys. In short, they are neither learning nor earning.

While the nonstate/private sector has played a key role in expanding access in the region, the expansion has been inequitable. Studies show an increasing trend of private schools, including low-cost ones, serving more affluent students, male students, and, in the case of India, higher-caste students. The share of primary school–age children attending private schools in 2015 was about 19 percent in rural India and 25 percent in rural Pakistan, but 45 percent in urban India and 54 percent in urban Pakistan. In India and primary school–age boys were 15 percent more likely than girls to attend private school, and secondary school–age boys were 20 percent more likely. In Pakistan, there was no significant gender gap in private primary school attendance, but secondary school–age boys were 15 percent more likely than girls to attend private schools (Gandhi and Bêteille 2018). In India, while 14 percent and 19 percent of Scheduled Tribe and Scheduled Caste students, respectively, study in private elementary schools, nearly 30 percent of higher-caste students do the same.

Finally, many children who complete primary school do not have access to secondary schools, putting an end to their educational aspirations. Nearly 45 percent of students in Afghanistan and 25 percent in Pakistan do not continue to secondary school. Although Bangladesh, India, and Nepal have made substantial progress recently, nearly 15 percent of their student population is without access to secondary schools.

## OUTCOME CHALLENGE 2: POOR OUTCOMES—WHETHER LEARNING, SKILLS DEVELOPMENT, OR EMPLOYABILITY—AND HIGH INEQUALITIES

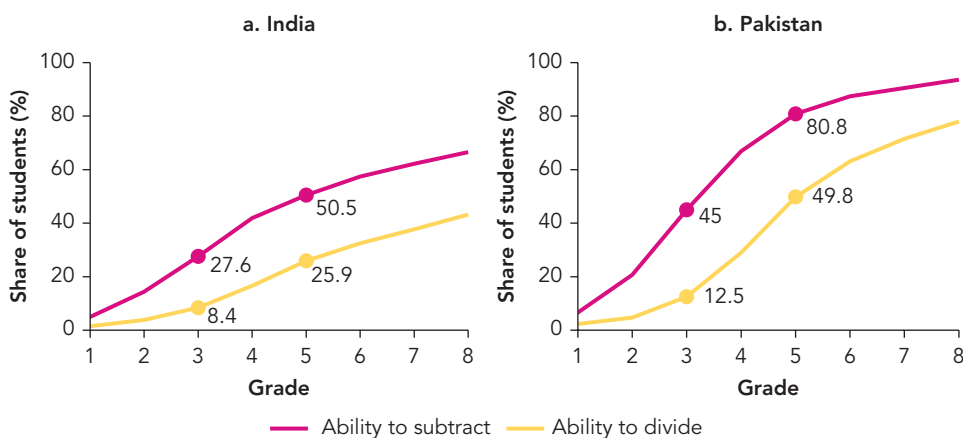
*World Development Report 2018: Learning to Realize the Promise of Education* (WDR 2018) warns of a learning crisis in several low-, middle-, and high-income countries. South Asia’s Learning Poverty estimates that the share of 10-year-olds who cannot read and understand an age-appropriate paragraph is high, with about 20 million 10-year-olds in learning poverty. In Bangladesh, 35 percent of grade 3 students did not meet grade-relevant competencies in language on the National Student Assessment, while nearly 60 percent did not meet them in math.<sup>5</sup> In India,

South Asia is in the midst of a learning crisis: Over one-third of students do not have grade-level competencies.

only 46 percent of grade 5 students could solve problems related to the number system, operations, geometry, and measurement on the most recent National Achievement Survey. When grade 5 children in rural Pakistan were asked to read a simple story, nearly half could not. Unfortunately, many

students do not improve as they transition to higher grades. While nearly 75 percent of surveyed grade 3 children in rural India could not do two-digit subtraction, nearly 50 percent could not solve the same problem in grade 5 (figure O.2). Similarly, low

**FIGURE O.2** Many Primary and Lower Secondary School Students in Rural India and Pakistan Cannot Subtract or Divide, 2015 and 2016



Sources: World Bank staff analysis using India Annual Status of Education Report 2016 and Pakistan Annual Status of Education Report 2015.

student achievement in language and math in the primary grades is reported from national assessments in Afghanistan, Maldives, Nepal, Pakistan, and Sri Lanka.

Low overall learning levels in South Asia are made worse by the fact that some categories of children are learning far less than others. Students from disadvantaged ethnic or caste groups, for instance, are learning less than students from relatively advantaged groups. In Bangladesh, students from indigenous groups perform 0.16 standard deviation points lower than average on the grade 5 math test. In Nepal, students from Dalit and minority groups perform 0.17 and 0.11 standard deviation points lower than the national average score on the grade 3 math assessment. In several cases, learning outcomes are worse in rural than in urban areas. Disparities also exist across administrative jurisdictions, including across districts and subdistricts. Gender gaps, however, are largely insignificant.

Does the region's burgeoning private school system provide an answer to the learning challenge? The increase in the private share of enrollment suggests that private schools are teaching better than government schools and, consequently, parents are voting with their feet. There is, however, little evidence that students learn more in private schools than government schools, implying that the learning challenge is systemic. Recent evidence suggests that parents are likely to consider more visible indicators of quality when choosing a school, including their perception of a school's performance on high-stakes examinations, whether it offers more classes in English, its exclusivity, and its proximity to the home rather than whether students are learning (Davies 2017). Evidence from India also suggests that parents who send their children to private schools do so more because of an existing level of comfort with the notion of paying private providers for services than because of a perceived higher quality of service (Davies 2017).

While countries assess learning much more often today than they did 10 years ago, the assessments do not allow for comparison over time or across countries, because of their design limitations. Tracking student learning over time can provide important information on the effectiveness of policies to improve learning. However, tracking outcomes depends on the ability to technically link test items across years. A review of national assessments in Afghanistan, Bangladesh, India, Maldives, Nepal, and Sri Lanka suggests that these countries recognize the value of being able to track student progress over time; but it will take a while before their assessments allow for such comparisons.

Finally, many young people study beyond primary and secondary school—in skills development programs and higher education institutions—but end up with few marketable skills. For those who complete secondary school and study further, having postsecondary qualifications does not automatically make their future bright. Nearly 8 million young people enter short-term training programs in India every year; as few as 37 percent of them get jobs. Only a handful of studies have examined learning out-

Nearly 8 million young people enter short-term training programs in India every year, but as few as 37% of them get jobs.

comes in higher education in South Asia. One study found that 9 percent of those with at least some higher education in Bangladesh and India, and 4 percent of those in Pakistan, still cannot read a three-sentence passage fluently (Kaffenberg and Pritchett 2017). In Bangladesh, people with a higher education degree find it *more* difficult to get a job than people with just a secondary education certificate. In part, this reflects a mismatch between graduates' expectations and employees' assessments of the quality of the education the graduates received. In short, these young people often find that they are overqualified for some jobs but underqualified for the jobs they want and had hoped higher education would bring.

## PROCESS CHALLENGE 1: LOW IMPLEMENTATION CAPACITY

Three key capacity constraints limit service delivery in South Asia: (1) poorly skilled frontline workers, such as early childhood caregivers and teachers; (2) leadership gaps; and (3) weak institutional capacity. First, teachers are not adequately prepared for their jobs. In Afghanistan, most preprimary education teachers have not even completed school. In Sri Lanka, although guidelines require teachers to have A-level qualifications and at least one year of professional training in early childhood education, only around 40 percent do. In schools, teachers come to the classroom with weak content knowledge and conceptual skills. A recent study of public schools in Punjab, Pakistan, found that grade 4 math teachers could not answer 25 percent of moderately difficult questions on grade 3 and 4 curricula. These challenges continue beyond school with not enough training instructors with industry experience in skills training programs or qualified professors to teach students in colleges. Low capacity may translate to no capacity. In India, a parliamentary committee found that 40 percent of university posts remain unfilled because good candidates are not available.<sup>6</sup> In Sri Lanka, open faculty positions were at 27 percent in 2014.

The challenge of weak content knowledge and teaching skills is compounded by weak professional norms, which make educating South Asia's children even more difficult. Several factors account for the lower quality of teaching in South Asian countries relative to that in high-performing school systems across the world. These include high rates of teacher absence, with little system-level management of those absences; low prevalence of learner-centered tasks inside classrooms; teachers offering private tutoring for pay outside the classroom; and political interference in teacher selection and deployment. Perverse incentives often encourage teachers to perform suboptimally during regular school hours to create demand for their tutoring services (Jayachandran 2014). This is especially harmful for poor students who cannot afford tutoring. In Bangladesh, for instance, nearly 16 percent of students in private tutoring reported receiving that instruction from their own teacher (Mohammad 2015).

Second, inadequate leadership plagues schools and colleges, suggesting a systemic disregard for the management and functioning of these institutions. In India, nearly 60 percent of primary schools and 54 percent of secondary schools do not have a principal, while in Sri Lanka, 20 percent of schools have principal vacancies. In Bangladesh, 16,000 principal posts were vacant in 2017. Small schools often suffer the most. In India, for instance, nearly a third of schools have no principal because they have fewer than five teachers—the policy cutoff for having a formal head teacher. Beyond schools, higher education institutions also suffer from principal vacancies, with stopgap arrangements becoming common. Even when management is in place, it often lacks the skills or training to be effective. Colleges are expected to have boards of governors or executive councils to steer them, but many do not have active board members with time for developing the institution.

Third, weak institutional capacity impedes implementation. India's block-level elementary education administrators, for instance, believe their job is to ensure compliance with rules versus more of a leadership role (Aiyar and Bhattacharya 2016). Beyond schools, Sector Skills Councils have been given considerable responsibility to advance skills development programs, and most operate with just a small number of staff. A key mechanism for quality assurance in training programs and higher education—accreditation—is weakened by the lack of credible accreditors. Even as countries collect more data across the education system, most countries lack well-trained statisticians and economists to analyze survey data, assess trends, identify changes, and produce regular reports for policy makers.

## PROCESS CHALLENGE 2: COORDINATION FAILURES

South Asia's education system faces two types of coordination failures: (1) poor coordination across ministries and government bodies, and (2) poor coordination between national and subnational levels of government. Coordination failures result in an unclear demarcation of responsibilities, building artificial boundaries on tasks, confusion, and delays. For example, Sri Lanka's early childhood development policy identifies the Ministry of Child Development and Women's Affairs as the focal point, with the Ministries of Education and Health in supporting roles. However, implementation is

not clearly stated, and there is no consensus among the key players on who should do what (World Bank 2014). Across countries, early childhood development policies focus on nutrition and health for children under age 3, with less emphasis on early cognitive development, because that is the responsibility of education ministries—but education ministries only work with children of primary school age and occasionally preprimary age, but not children who are 0 to 3 years old. In Bangladesh, multiple agencies are involved in policy making, recruitment, regulation, and quality control in higher education, which delays decision making.

Poor coordination between national and subnational levels of government leads to efficiency losses. In all South Asian countries, national bodies formulate key regulations. In countries with a federal system, province and state entities also formulate regulations, which may be inconsistent with national regulations. For instance, higher education institutions often receive conflicting signals from the center and from the province or state on issues such as autonomy. Consequently, there is general confusion over which rules are binding, resulting in time lost. Repeated requests from multiple entities for the same data, when these requests could be coordinated and streamlined, burdens reporting entities unnecessarily.

### PROCESS CHALLENGE 3: POOR DATA SYSTEMS AND LOW ACCOUNTABILITY

Across the different levels of education, data are not adequate to facilitate decision making or stimulate accountability. In early childhood development programs, for instance, information on inputs and processes in preprimary education or on outcomes such as cognitive or socioemotional skills development are scarce, because monitoring and evaluation are weak. In schools, while countries have vastly expanded learning assessments in coverage and frequency, assessments are technically weak and are not used for strengthening the system. Beyond school, all South Asian countries have rapidly expanded skills development programs; but with the exception of India, countries do not have even basic information systems to provide a sound evidence base for reforms. Without periodic labor market analyses, training programs are in the dark about what skills are needed, and how they are rewarded; and thus how to modernize and adapt to changing realities. And except for India, which recently participated in an international study tracking the skills of engineering students, there is limited evidence on the skills of university graduates.

Accountability remains a challenge across the region. The accountability challenge is best illustrated by teacher absence rates combined with the lack of a system to get substitutes for absent teachers. There are several other accountability breaches, such as endless delays in recruitment of faculty, mis-procurement, student or teacher union strikes, and a preoccupation with doing rather than learning and refining. Poor data intensify the challenge. For instance, due to poor data on labor market outcomes, skills development centers are paid regardless of whether graduates get jobs or not. Furthermore, even when accountability is formally incorporated, it focuses on compliance with rules versus emphasizing outcomes. For instance, research funds are generally allocated to institutions as block grants, without attention to merit or innovation. Seniority usually trumps merit in allocating those resources.



## How Can South Asia Do Better? Overarching Principles

For educational outcomes and processes in South Asia to improve, they must be guided by coherent principles—fundamental norms, rules, and values that represent what is desirable—which can help determine what types of opportunities to pursue. While South Asia has been pursuing a range of actions in response to challenges, its efforts sometimes focus on low-impact issues, are disjointed, and fail to leverage the region’s strengths. South Asia could achieve much more if its education reform efforts were based upon the three following principles (figure O.3 and box O.3): (1) Giving all children a head start; (2) aligning the system toward learning; and (3) leveraging women, ICT, and nonstate players.

### GIVE ALL CHILDREN A HEAD START: INVESTING IN EARLY CHILDHOOD EDUCATION

To strengthen early childhood education, countries must (1) increase public spending; (2) improve regulation and ensure age-appropriate activities; and (3) strengthen system capacity. With nearly 50 percent of children below the age of 5 at risk of not meeting their development potential, the moral and economic argument for supporting early childhood development is strong. This makes it important for governments to increase their own spending and to ensure that private spending is being used well. Governments will simultaneously need to improve sector regulation to ensure that appropriate processes are followed and objectives are met. Importantly, while the government should spend more funds on early childhood development, it should promote and regulate agile provision, whether by state or nonstate entities.

Responsive parenting is particularly important for cognitive and psychosocial development.

**FIGURE O.3** Education Reform in South Asia Is Based on These Three Principles



**BOX O.3 How Can South Asia Do Better? Key Messages**

- *Principle 1: Give all children a head start:* Increase the budgetary commitment to early childhood education: regulate better and improve the capacity of early caregivers and trainers.
- *Principle 2: Align education systems at every level toward learning:* In schools, for skills development and higher education systems to align toward learning, five things are essential: ensuring all children are in school; creating a better measurement of outcomes; addressing the low capacity to deliver; minimizing coordination failures across ministries; and ensuring accountability for outcomes.
- *Principle 3: Leverage South Asia's untapped resources—women, information and communications technologies, and nonstate players (WIN)—to improve access, agility, efficiency, and quality.*

An important aspect of regulation pertains to ensuring age-appropriate activities. For the 0–3 age group, responsive parenting is particularly important for cognitive and psychosocial development. Responsive parenting refers to the caregiver's prompt, contingent, and appropriate interaction with the child. Responsive parenting has generally shown sustained benefits later in a child's life. For the 3–6 age group, learning is best promoted through exploration, play, and interactions. Importantly, programs for children under age 5 that are too structured and focused on academics—as is the case in many South Asian countries—can undermine the development of cognitive and socioemotional skills, as well as children's motivation to learn.

Strengthening system capacity must focus on developing a strong cadre of skilled early childhood caregivers, setting standards, and encouraging entrepreneurship. This will require integrating early childhood caregiver training with other skills development programs, defining job roles in early childhood education, developing occupational standards, providing adequate training, setting up strong assessment systems, and encouraging entrepreneurial skills training to increase private provision of early childhood care.

**ALIGNING EDUCATIONAL SYSTEMS AT EVERY LEVEL TOWARD LEARNING**

South Asia's education system must urgently align toward learning. That adjustment requires that countries (1) ensure that all children are in school; (2) measure learning outcomes at every level of education and use the results in policy making; (3) improve implementation capacity; (4) reduce coordination failures; and (5) improve accountability. Afghanistan and Pakistan have yet to reach full enrollment in primary schools, which is also true for isolated parts of other countries. Innovations such as Afghanistan's Community-Based Education model and Bangladesh's Female School Stipend Program provide options for increasing enrollment. Measuring learning outcomes is crucial—without knowing whether students are learning or young adults are employable, policy makers must rely on guesswork to ensure resources are spent well.

Learning assessments should start early enough to help educators redress upcoming problems before it is too late. Afghanistan and Nepal, for instance, have conducted the Early Grade Reading Assessment recently, which is a promising step. At the school level, countries need to improve the technical qualities of assessments, use the results in policy making, and make such data publicly available to foster accountability. India is leading the way by participating in the Program for International Student Assessment 2021. Beyond schools, assessments of student learning and skills remain important. Sri Lanka, for instance, participated in the World Bank's STEP Skills Measurement Program in 2013. More recently, India has been participating in an international study to measure student learning gains and the development of higher-order thinking skills in engineering colleges.

For the 0–3 age group, learning assessments should start early enough to help educators redress problems before it is too late. Afghanistan and Nepal, for instance, have recently conducted the Early Grade Reading Assessment—a promising step.

To improve implementation capacity, recruitment practices should be merit-based with a test-based element, and leadership should be strengthened. Bangladesh, India, and Pakistan have instituted teacher eligibility tests as a precondition for teaching in schools in response to allegations of patronage-based hiring. The tests may need technical fine-tuning, but international evidence suggests they nevertheless improve the applicant pool of teachers and introduce an element of fairness and transparency. Once hired, teachers need mentoring and training. Sri Lanka's school-based professional teacher development program, in which senior teachers and the principal mentor junior teachers, is an example of using school-based resources wisely to improve teacher performance. Leadership positions must be filled, whether in schools or in colleges, and leaders should be trained to execute their role effectively. In India, the Kaivalya Foundation has been working with principals in government schools to improve their confidence and ability to help teachers. Under India's Technical Education Quality Improvement Project, college principals and members of boards of governors are regularly trained on good governance. Finally, the role of support services, such as data management and use, is fundamental. Countries need better-trained statisticians and economists to help them use data effectively.

Reducing coordination failures is key to spending public resources more efficiently. Coordination failures arise due to poor planning, power struggles, or a combination of the two. Reducing coordination failures requires political will, and managing such failures means addressing their root cause. Fixing existing failures is difficult because it involves bringing players, who otherwise operate in silos, to the same table. This happens when multiple ministries are involved in a task, such as early childhood development or skills training, but are attuned to working separately. Preempting coordination failures, as a first step, requires ensuring new policies and building on existing programs to preclude redundant parallel structures. As we discuss in the next section, a more collaborative approach between the government and nonstate sector could bring significant efficiency gains.

Countries will need to innovate to strengthen accountability and motivation. Teachers are the most visible face of the accountability predicament in education systems in the region, but they are only part of the challenge. Where teachers exhibit low accountability, it is likely condoned or facilitated by other players, such as politicians, bureaucrats, and sometimes parents (as happens with private tutoring). In other words, there is a system-level accountability breach. Addressing this breach will require mechanisms that focus on extrinsic motivation, such as Sindh’s technology-driven teacher management system. Equally important, these mechanisms will need to stimulate intrinsic motivation, as with the Delhi government’s program for improving teacher status and working conditions.

Ultimately, for all these elements to take shape, education systems need strong political commitment and the careful management of political opposition. Even when unhealthy politics seem deeply entrenched—as when teacher unions protest accountability-oriented reforms, and local politicians support them—difficult reforms have been possible. South Asia provides important examples of how political impetus is core to driving such reforms. For instance, Karnataka (India) was able to successfully implement a fair and transparent technology-enabled process for teacher recruitment and transfers because of political will, coordination, and consensus building by senior politicians, and the careful management by the bureaucracy.

## WOMEN, INFORMATION AND COMMUNICATIONS TECHNOLOGY, AND NONSTATE PLAYERS

South Asia’s women are an undertapped resource for improving the region’s education outcomes and its productivity. Women represent 50 percent of South Asia’s population, but under 30 percent of its labor force. Improving the skills and talents of this segment of the population will improve average education outcomes for this and the next generation, as well as bring productivity gains (WDR 2012).

While the region has made considerable progress in narrowing gender gaps at the primary school level, these gaps remain at the secondary level. Nearly 30 percent of girls ages 10–17 are not in education or training in Afghanistan, India, and Pakistan. But countries have been innovating. Bangladesh’s political commitment to improving overall enrollment and girls’ enrollment through programs such as the Female School Stipend Program has paid off in large gains in girls’ enrollment. India runs a large residential girls’ secondary school program that targets students from underserved backgrounds.

Countries need to ensure that girls are learning and not tracked into low-productivity streams. Schools must pay closer attention to when girls start falling behind and in which areas. While girls in most South Asian countries perform similarly to boys on learning assessments in primary and secondary grades, they choose very different fields of study in higher secondary,

Countries need to ensure that girls are learning and not tracked into low-productivity streams.

often because girls' higher secondary schools do not offer science, technology, engineering, and mathematics (STEM) subjects. This has long-term implications, as girls and boys get tracked into very different fields of study in tertiary education, which feeds into occupational choices. This in turn affects lifetime wages earned (WDR 2012).

Skills training programs could encourage women to participate in nontraditional fields and fields where they have a comparative advantage. The Enhanced Vocational Education and Training (EVENT) project in Nepal offers training only for women interested in non-traditional trades; 67 percent of the 5,000 women trained gained employment. Countries will benefit if training systems also focus on preparing women for careers in early childhood care. This would ease the supply bottleneck in this area and allow new mothers to participate in the labor force, thus bringing more women into the labor force on both counts.

ICT—which includes the Internet, mobile phones, and all the other tools to collect, store, analyze, and share information digitally—has spread quickly across the region. Three-quarters of households in Pakistan have a mobile phone, 1.1 billion people have cellular services in India, and 92 percent of households in Bangladesh have access to a television. ICT can transform education when used as part of a larger, coherent effort.

ICT can play a key role even before school starts. A meta-analysis of 24 studies in 15 countries, including Bangladesh and India, of the effects of children's exposure to the television show *Sesame Street* found significant positive effects on cognitive outcomes, including literacy and numeracy, learning about the world, knowledge of health and safety, social reasoning, and attitudes (Mares and Pan 2013). ICT can be used to help parents with limited time strengthen children's early skills through interventions such as Ready4K! (York, Loeb, and Doss 2017).

In school and beyond school, ICT can help the region to improve student learning and teacher preparation. Adaptive learning technologies can be especially useful in classrooms with children at widely differing learning levels, and when used for teachers' professional development. For instance, Mindspark, a math learning program from Educational Initiatives, uses adaptive-learning technology to complement the efforts of teachers. A study in India found that students who used Mindspark after school for 4.5 months showed gains that were greater than almost any other evaluation of education interventions in poor countries. ICT and properly developed multimedia materials can also enhance teacher training. For example, teachers in the Indian state of Karnataka convene online communities through the Subject Teacher Forum to create and share open digital education content.

Beyond schools, South Asia has a variety of regional massive open online course projects, such as India's National Programme on Technology Enhanced Learning, which features a range of courses offered by the Indian Institutes of Technology. These platforms also help teachers access model content and view model lectures.

ICT can also improve system efficiency and governance. At the system level, technology can provide critical support in such areas as school mapping, automated personnel and payroll systems, management information systems, communications, and information gathering, analysis, and use. For instance, the Sindh

75% of households in Pakistan have a mobile phone, 1.1 billion people have cellular services in India, and 92% of households in Bangladesh have access to a television—technology that could be leveraged to improve educational outcomes.

School Monitoring System in Pakistan is an expansive systemwide technology for improving governance, accountability, and service delivery. Karnataka, India, used technology to implement a transparent teacher recruitment and transfer system. Here, an iterative installation of technology-enabled systems and processes facilitated the management of enormous volumes of admin-

istrative tasks. Several countries in South Asia grapple with issues of widespread cheating in high-stakes examinations. ICT tools can be used to improve the fidelity of the data, including integration of portable devices like mobile phones and tablets into data collection procedures, and using downstream analytical tools to shorten the assessment-to-action cycle. Afghanistan's 2013 Monitoring Standards in Educational Growth program is assessing learning progression and trends in achievement outcomes of students at key stages of schooling (grades 3, 6, and 9) using ICT. India's low-stakes test for engineering students relied heavily on digital technologies to ensure smooth implementation. Scaling these interventions requires political will, investment in bandwidth, and comfort with using technology-based protocols.

South Asia has an active nonstate sector (nonprofit and for-profit) engaged in before-school, in-school, and beyond-school stages of the education system. In Rajasthan, India, for instance, nearly 60 percent of preschoolers attend nonstate preschools (Bhattacharjea and others 2017). In Nepal, 30 percent of schools are operated by nonstate providers. In Bangladesh, 53 percent of students in higher education go to nonstate colleges. The capacity and resource constraints in the public system mean that South Asian countries cannot improve educational outcomes for young people without a combined effort by the government, households, and the nonstate sector at every level of education.

Improving the quality of public schools and colleges is vital for improving the quality of private providers.

Given strong demand for private education, South Asian governments must ease barriers to entry for private enterprise at all levels, while holding everyone accountable for outcomes. Private providers often cite lack of access to credit, excessive bureaucracy, and unfair infrastructure requirements

as impediments to setting up new schools and colleges. Tighter regulations are meant to impede low-quality providers; however, poor enforcement makes such regulations counterproductive, with low-quality providers finding ways to avoid hurdles, and committed providers opting out. A more effective mechanism for improving quality would involve focusing on learning—and ensuring schools and colleges report on learning systematically. In basic education, this would mean improving the quality of public schools, since they are the benchmark and are important for equity. Private schools base their efforts on the quality of public schools; the lower the quality of public schools,

the less private schools need to improve. In higher education, where private colleges have been largely equity-enhancing, governments would do well to reduce entry barriers, while maintaining the focus on learning outcomes.

The skills sector in South Asia models how governments proactively include nonstate providers in their educational objectives. India has been particularly active in setting up public-private partnerships and engaging employers in identifying needs, defining standards, and creating curricula. The government has a 49 percent share, and the private sector a 51 percent share, in the National Skill Development Corporation, a nonprofit corporation with a wide mandate for skills development, including the establishment of 38 Sector Skill Councils (SSCs). These SSCs have representatives from industry, government, and academia who focus on training, developing national occupational competency standards, and qualification packages. Financing incentives have been designed to encourage the private sector to participate more actively in the delivery of training. In Bangladesh, governments cover the salary costs of private centers through monthly payment orders. Under the EVENT project, Nepal introduced a voucher-based financing mechanism for short-term training that allows participants to choose a public or private training provider from a preapproved list. In Sri Lanka, the government purchases training services from nonstate training providers in high-priority sectors where public offerings are insufficient. The crucial next step is ensuring accountability for outcomes, that is, payment aligned with employment outcomes.

## From Principles to Action: Sector-Specific Recommendations

South Asia's current efforts to improve education are important, but countries can achieve much more. As discussed, the region will benefit from incorporating three principles—giving children a head start; aligning the system toward learning; and WIN—as they proceed to build strong education systems. Table 1 provides specific recommendations for the different levels of education: before school, in school, and beyond school.

How should policy makers prioritize these actions? Priorities will vary by country, and will depend on three elements: (1) preconditions being in place; (2) time required for implementation; and (3) potential for impact. In the case of assessment, for instance, in countries where assessment systems are completely nascent, the priority needs to be on fostering classroom level assessment. Once this basic piece is in place, countries can develop quick, low-cost national assessments. Where classroom and national assessments are established, much can be gained from participation in global and regional assessments that enable performance benchmarking. The ultimate objective is to conceive of assessment systems where different parts serve different needs—but are aligned.

**TABLE O.1 Sector-Specific Recommendations**

Key policy action	Specific steps	Good practices and innovations from the region and beyond
<b>Overarching actions</b>		
Assess and track learning	<p><b>IMPROVE</b> measures of student learning:</p> <ul style="list-style-type: none"> <li>• In early childhood development, ensure performance indicators for the quality of preschools</li> <li>• In schools, measure learning early, when interventions have a bigger payoff <i>and</i> at other critical junctures, such as grades 5, 8, and 10.</li> <li>• In skills training programs, track skill attainment and labor market outcomes</li> <li>• In higher education, track domain-specific and domain-general skills, and labor market outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Hong Kong SAR, China's Education Bureau's Quality Assurance Framework for Kindergarten</li> <li>• Afghanistan and Nepal Early Grade Reading Assessment</li> <li>• Nepal's Enhanced Vocational Education and Training Project (EVENT)</li> <li>• India's Technical Education Quality Improvement Project (TEQIP)</li> </ul>
	<p><b>USE</b> the results of assessments and labor market analyses in policy making</p>	<ul style="list-style-type: none"> <li>• Brazil's Index of Basic Education Quality and the United Kingdom's use of League Tables</li> <li>• Chile's <i>mi futuro</i></li> </ul>
	<p><b>COMMUNICATE</b> assessment results to the public</p>	<ul style="list-style-type: none"> <li>• Pakistan school report cards experiment under LEAPS</li> <li>• India ASER reports</li> <li>• Brazil and the United Kingdom publish school test scores for accountability</li> </ul>
<b>Before school</b>		
Early childhood development	<p><b>INVEST:</b> Increase government investment in early childhood development and use it consistently with the actions below.</p>	<ul style="list-style-type: none"> <li>• Maldives spends 10% of education budget</li> </ul>
	<p><b>REGULATE</b></p> <ul style="list-style-type: none"> <li>• Responsive parenting</li> <li>• Age-appropriate curriculum</li> <li>• Occupational standards for care-givers/teachers</li> </ul>	<ul style="list-style-type: none"> <li>• Jamaica's program teaching care-givers psychosocial stimulation</li> <li>• India's National Early Childhood Care and Education Policy, which includes the National Curriculum Framework and Quality Standards for ECCE</li> <li>• The Republic of Korea's Nuri curriculum</li> </ul>
	<p><b>COORDINATE</b></p> <ul style="list-style-type: none"> <li>• Include education interventions in existing health, nutrition, and protection services for children age 3 and younger</li> <li>• Include health and protection services in existing educational interventions for children above age 3</li> </ul>	<ul style="list-style-type: none"> <li>• Jamaica's and Mexico's early childhood interventions</li> </ul>

*(Table continues next page)*



**TABLE O.1 Sector-Specific Recommendations** (continued)

Key policy action	Specific steps	Good practices and innovations from the region and beyond
	<b>TARGET</b> early childhood development interventions to infants and young children from disadvantaged households and groups	<ul style="list-style-type: none"> <li>• Develop partnerships with non-state providers to reach remote areas</li> <li>• Government-led efforts in Japan, Korea, and Singapore</li> </ul>
<b>In school</b>		
Increase teacher effectiveness	<b>ATTRACT:</b> Make teaching an attractive profession	
	<ul style="list-style-type: none"> <li>• Strengthen norms for entry into preservice</li> <li>• Advance the image of teaching</li> <li>• Pay all teachers well, but ensure pay relates to performance</li> </ul>	<ul style="list-style-type: none"> <li>• Shanghai, China</li> <li>• Delhi, India; Shanghai, China</li> <li>• India (Andhra Pradesh experimental evidence from APREST), Singapore</li> <li>• Shanghai, Singapore</li> </ul>
	<ul style="list-style-type: none"> <li>• Ensure teacher career progression structures recognize high performers</li> </ul>	
	<b>MANAGE</b> the teacher system carefully	
	<ul style="list-style-type: none"> <li>• Make personnel policies fair and transparent</li> <li>• Set clear expectations</li> <li>• Improve the enforcement of professional norms in teaching</li> <li>• Assess and monitor performance</li> </ul>	<ul style="list-style-type: none"> <li>• Karnataka's technology-based recruitment and transfer system, India</li> <li>• Chile's Good Teaching Framework</li> <li>• Sindh's technology-based teacher management system</li> <li>• Punjab, Pakistan (Service Delivery Indicators); Bihar Teacher Education study; Chile's Teacher Professional Performance Assessment System</li> </ul>
	<b>PREPARE</b> teachers <i>before</i> they enter the classroom	
	<ul style="list-style-type: none"> <li>• Improve selectivity into preservice</li> <li>• Link preservice curriculum to classroom teaching and problems</li> <li>• Build stronger linkages with schools and universities</li> <li>• Improve accreditation of institutes</li> </ul>	<ul style="list-style-type: none"> <li>• Finland, Singapore</li> <li>• Finland, Singapore</li> <li>• Finland, Singapore</li> <li>• India, National Council for Teacher Education</li> </ul>
	<b>MENTOR</b> teachers and <b>UPGRADE</b> their skills throughout their career	
	<ul style="list-style-type: none"> <li>• Provide new teachers with feedback to improve performance</li> <li>• Follow international good practice in program design</li> </ul>	<ul style="list-style-type: none"> <li>• Shanghai's teacher development system</li> </ul>
	<b>STRENGTHEN</b> school leadership	
	<ul style="list-style-type: none"> <li>• Put the basics in place</li> <li>• Train principals to be role models for teachers</li> <li>• Train school leaders to provide on-site professional support to teachers</li> </ul>	<ul style="list-style-type: none"> <li>• India's Kaivalya Foundation's efforts with headmasters</li> <li>• Sri Lanka's School-Based Teacher Development</li> </ul>

(Table continues next page)

**TABLE O.1 Sector-Specific Recommendations** (continued)

Key policy action	Specific steps	Good practices and innovations from the region and beyond
	<b>Beyond school</b>	
Strengthen skills training	Partnering with the <b>PRIVATE SECTOR</b> is critical <ul style="list-style-type: none"> <li>Engage in curriculum design</li> <li>Engage in internships and work-place readiness programs</li> </ul>	<ul style="list-style-type: none"> <li>India's Sector Skills Councils</li> <li>India's Industrial Training Institutes' links with Maruti, Samsung, and Tata</li> </ul>
	Focus more on performance and <b>OUTCOMES</b> and less on the numbers trained	<ul style="list-style-type: none"> <li>Nepal's EVENT</li> </ul>
	Invest in <b>LONG-TERM TRAINING</b> for more productivity gains <ul style="list-style-type: none"> <li>Build long-term ties with industry</li> <li>Increase uptake of formal apprenticeship</li> </ul>	<ul style="list-style-type: none"> <li>India's Industrial Training Institutes' links with Maruti, Samsung, and Tata</li> <li>Sri Lanka's Ceylon-German Technical Training Institute</li> <li>India's National Apprenticeship Promotion Scheme</li> </ul>
Improve the performance of higher education systems	<b>Improve EFFICIENCY</b> <ul style="list-style-type: none"> <li>Curtail fragmentation</li> <li>Improve governance, data, and transparency</li> </ul>	
	<b>Improve QUALITY</b> <ul style="list-style-type: none"> <li>Invest in faculty recruitment and training</li> <li>Innovative funding mechanisms to encourage research</li> </ul>	<ul style="list-style-type: none"> <li>India's TEQIP</li> <li>Bangladesh's Innovation Funds</li> <li>Sri Lanka's AHEAD supporting commercialization of innovation</li> </ul>
	<b>Expand OPPORTUNITIES FOR ALL students</b> <ul style="list-style-type: none"> <li>Use admissions policies and financial aid strategically</li> <li>Help first-generation college-goers adjust to college routines</li> <li>Leverage the private sector</li> </ul>	<ul style="list-style-type: none"> <li>U.S. Title IV Funds and Gainful Employment Act</li> <li>AICTE, India's 10 Point Agenda. Behavioral approaches under TEQIP, India</li> <li>Brazil's tax breaks to private universities for admitting disadvantaged groups at lower fee</li> <li>Sri Lanka's 2017 budget proposal to significantly underwrite educational expenses of low-income students in private colleges</li> </ul>

## Outline of the Report

This report presents the latest data on education in South Asia, and it documents key innovations in the region that have improved system performance. It also discusses the challenges faced by South Asia's education system and makes recommendations for improving outcomes, based on innovations in the region and beyond. The report covers

the entire spectrum of education, from early childhood development—including school-teachers and school leadership—to skills training and higher education. Chapter 1 discusses the region’s record in providing access and improving learning. Chapter 2 gives a closer view of the public financing of education in South Asia. Chapter 3 focuses on early childhood development. Chapters 4 through 7 discuss the challenges in making teachers effective, while Chapter 8 provides recommendations for making teachers effective based on good practice in the region and beyond. Chapters 9 and 10 discuss skills development systems in South Asia, and chapter 11 provides recommendations for the improvement of such systems. Chapters 12 and 13 discuss the higher education landscape in South Asia, and chapter 14 provides recommendations for improvement. Chapter 15 discusses the need for political will to implement the recommended changes, and it concludes with an account of these recommendations, along with suggestions for prioritization.

## Notes

1. Nonstate providers include private for-profit and private nonprofit providers. “Nonstate” and “private” are used interchangeably in the report.
2. See Aturupane (2009) for an example of policy development and formulation in Sri Lanka.
3. Author calculations from the most recent national household surveys. See chapters 9–11.
4. Author calculations from the most recent national household surveys and UNESCO *Educational Statistics*. See chapters 12–14.
5. Corresponding to Band 3 for grade 3 on the National Student Assessment 2013.
6. See <https://scroll.in/article/725077/phd-theses-might-be-available-on-sale-but-where-are-the-quality-indian-doctorates>.

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## PART I

# Education in the South Asian Context

**W***orld Development Report 2018: Learning to Realize the Promise of Education* puts the spotlight on education systems and learning. Countries that have sustained rapid growth over decades have typically had a strong public commitment to expanding education as well as to improving learning outcomes. South Asian countries have made considerable progress in expanding access to primary and secondary schooling, with countries having achieved near-universal enrollment of the primary school-age cohort (ages 6–11), except for Afghanistan and Pakistan. Secondary enrollment shows an upward trend as well. Beyond school, many more people have access to skilling opportunities and higher education today. While governments have consistently pursued policies to expand access, a prominent feature of the region has been the role played by nonstate actors—private nonprofit and for-profit entities—in expanding access at every level of education.

While more students are in school, skilling programs, and colleges today, are they learning? Recent studies suggest that overall student achievement is low. Further, there are huge performance inequalities across groups—by individual and household characteristics and school location—in each country. At the primary school level, inequalities are greater between schools than between students within the same school, indicating that quality varies substantially from one school to another. High heterogeneity in learning levels within the classroom complicate the teaching-learning experience. Beyond school, employer studies suggest dissatisfaction with the skills of graduates from skills development programs and colleges.

Consequently, while many more young people have access to education today, the promise of good-quality learning for most young people—the cognitive, technical, and socioemotional skills so important in today’s world—remains to be fully realized.

Young people who have completed school may become quickly discouraged if their education fails to lead to better employment prospects. The world of work is changing globally at a rapid rate, and there is rising concern that technology is changing the nature of jobs and the types of tasks workers perform. These transformations present a major challenge for education. They require education systems to anticipate the labor market changes that technological disruptions may produce and to equip students with the knowledge and skills needed to adjust flexibly to change.

A second challenge facing South Asia is that many young people are being left behind. Primary schooling is yet to be universalized in Afghanistan and Pakistan. The region faces the daunting challenge of reaching millions of school-age children who are out of school. In Pakistan alone, about 21.7 million school-age children are out of school. While access to secondary education has been increasing, coverage remains a challenge in all countries. Access and retention in secondary schooling have a gender dimension, with more boys than girls in school, except in Bangladesh and Sri Lanka. While the incidence of skills training has increased in the past decade, it remains low, with 7–11 percent of the population covered. Women appear to be losing out; about 30 percent of girls ages 10–17 in Afghanistan, India, and Pakistan are not in education, employment, or training.

Though learning levels remain low, countries in the region have shown a strong commitment to improving learning. All countries in South Asia have taken the first step, which is to assess learning outcomes regularly. Since 2010, there has been a rapid increase in the number of large-scale student learning assessments conducted in the region. But to use the findings of these assessments to improve schooling, countries must build their capacity to design the assessments and to analyze and use the findings to inform policy. Chapter 1 takes a closer look at the progress the region has made in increasing access to schooling and in measuring learning outcomes, and it draws some lessons on how to improve further.

In terms of public financing, the share of public expenditures made on education is lower in most South Asian countries compared to the average in countries at the same income level. It is also inefficient. While public financing is comparatively low, the share of private household spending in total expenditures on education is highest in South Asia and continues to rise at all levels. Public expenditures on education are, however, inefficient in South Asia, with countries spending only 1 percent to 3 percent of their total education budget on early childhood education, even though returns are highest at this level. (Maldives is an exception.) Furthermore, at every level, teacher salaries absorb the largest share of the budget, but salaries are unrelated to performance. The distribution of public education spending tends to be pro-poor at the lower levels of education but advantages the nonpoor as one moves up the education ladder. Public spending on tertiary education is found to be regressive in all countries for which data are available. Chapter 2 takes a closer look at the public financing of education in the region.

## Is South Asia's Education System Preparing Young People to Succeed?

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School attendance in South Asia has reached high levels over the last 10 years. Beyond school, skills training and higher education programs have also expanded. School access is nearly universal at the primary level (ages 6–11) in most of the region, and access to secondary education is increasing. The incidence of skills training has increased in the past decade, and higher education has seen a massive, nearly 300 percent increase in enrollments over the same period.

But South Asia also has much to worry about. The World Bank's Human Capital Index (HCI), which quantifies the productivity losses from inadequate human capital investment, paints a dismal picture for the region. A child born in Sri Lanka today—the top performer in the region, with a score of 0.58—will be only 58 percent as productive as he or she would have been with full health and education. Other countries fare much worse. Afghanistan's HCI is 0.39, Bangladesh's is 0.48, India's is 0.44, Nepal's is 0.49, and Pakistan's is 0.39. Related calculations suggest that even though school completion rates have risen, the region may be losing the equivalent of 4.3 years of schooling due to low quality. The World Bank's newly launched Learning Poverty estimates show that South Asia is home to nearly 20 million 10-year-olds who cannot read with proficiency.

Learning poverty refers to the share of 10-year-olds who cannot read and understand an age-appropriate paragraph.

There is growing disquiet about the education system's failure to equip students with relevant skills. Overall achievement levels in the region's schools are low, with huge gaps in performance between student groups by individual and household characteristics and school location. At the primary school level, the gaps are greater between schools

than between students within the same school, indicating that the quality of education varies substantially from one school to another. Employer discontent with worker skills suggests that even completing training or higher education might mean little because the education system has given them few marketable skills.

While schools, training systems and colleges continue to expand, many young people are being left behind. Many young people in South Asia are not in school, work, or training—with especially high proportions among girls in Afghanistan, Pakistan, and India. South Asia faces a daunting challenge in reaching out-of-school children: In Pakistan alone, 21.7 million school-age children are estimated to be out of school. Access to primary schooling remains a challenge in Afghanistan and Pakistan. Access and retention at the secondary level have a gender dimension, with more boys than girls in school. While the incidence of skills training has increased in the past decade, it remains low, with only 7–11 percent of the population covered.

This chapter provides a snapshot of how South Asia is fairing on expanding access and improving outcomes in the region’s schools, skills development systems, and colleges. The chapter also provides a brief description of the key elements of the education system which require attention for outcomes to improve.

## Access to Education Has Improved Considerably

### MOST COUNTRIES IN THE REGION HAVE ACHIEVED NEAR-UNIVERSAL PRIMARY SCHOOL ATTENDANCE AND ARE RAPIDLY INCREASING SECONDARY SCHOOL ENROLLMENT

Over the last 10 years, governments in South Asia have worked to increase access to general education, including policies to promote enrollment, reduce dropping out and improve retention, facilitate transition across grade cycles, and increase graduation rates (Aturupane 2009).<sup>1</sup> In six of eight countries in the region (Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka), more than 90 percent of the primary school–age cohort attend school, according to the most recent nationally representative household surveys (figure 1.1).<sup>2</sup> While Bhutan, Maldives, and Sri Lanka reached this stage by the early 2000s, Bangladesh, India, and Nepal have made rapid improvements over the last decade. Enrollment among the primary school–age cohort is gradually increasing in Afghanistan, but both Afghanistan and Pakistan are still a long way from achieving universal primary education.

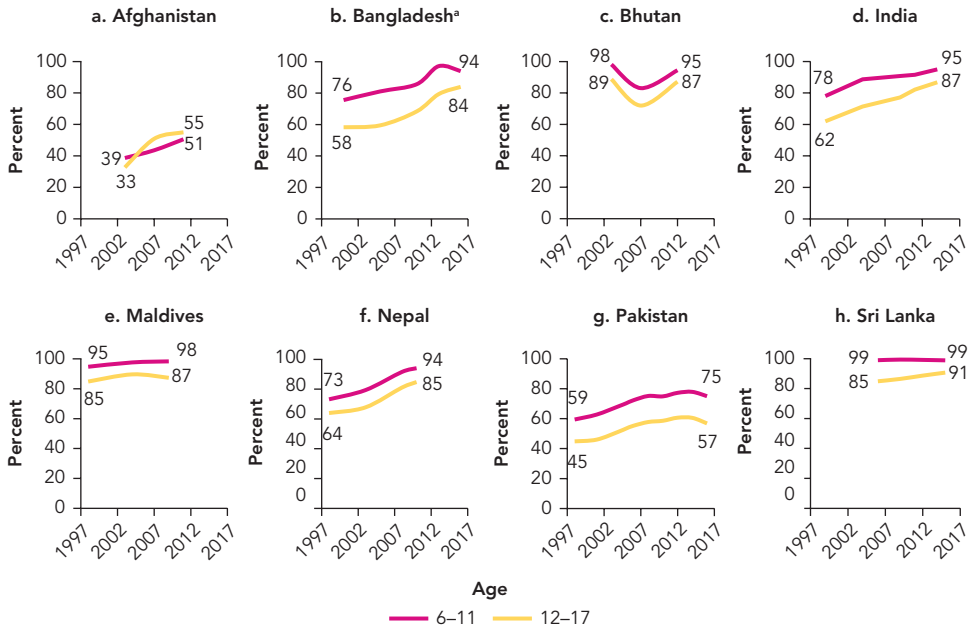
The secondary school attendance trend resembles that for primary school, but at a lower level. Countries that achieved near universal enrollment in primary

The improvements in school attendance have been possible both because of gains in girls’ attendance as well as the expansion of private schooling.

school early on (Bhutan, Maldives, and Sri Lanka) have a secondary school enrollment rate of close to 90 percent (see figure 1.1). Bangladesh, India, and Nepal have made substantial progress in recent years, nearly catching up to the early achievers. Although Afghanistan and Pakistan have also made gains in



**FIGURE 1.1 Average Attendance Rates Among Primary and Secondary School-Age Cohorts in South Asian Countries Have Surged in Recent Years**

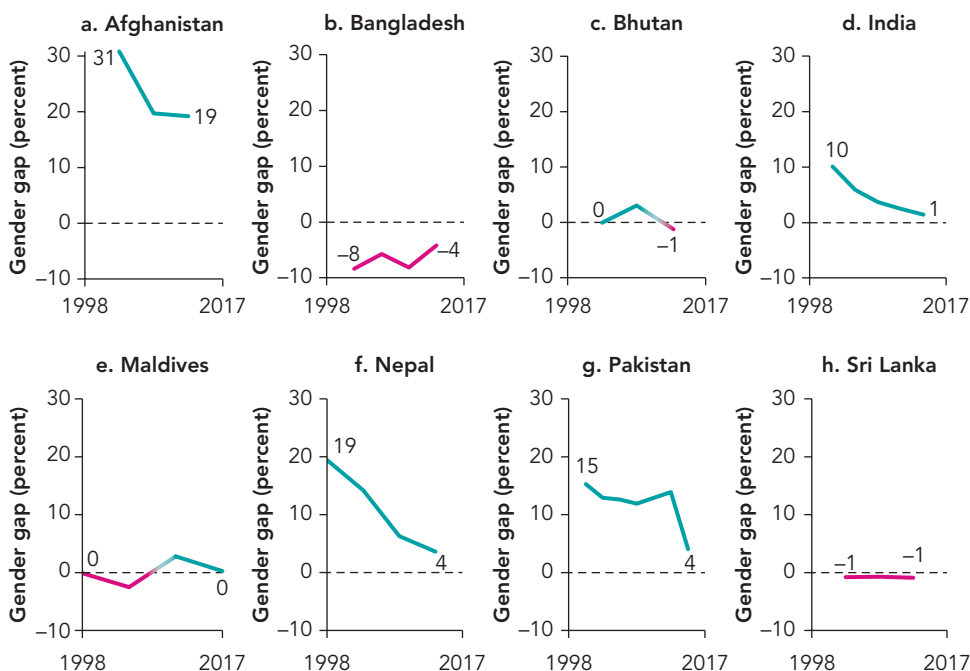


Sources: World Bank staff calculations using data from the following surveys/years: Afghanistan: National Risk and Vulnerability Assessment 2003, 2007, 2011/12; Bangladesh: Household Income and Expenditure Survey 2000, 2005, 2010, 2016; Bhutan: Bhutan Living Standards Survey 2003, 2007, 2012; India: National Sample Survey 1999, 2004, 2009, 2011, 2014; Maldives: Vulnerability and Poverty Assessment 1998, 2004, Household Income and Expenditure Survey 2009; Nepal: Nepal Living Standards Survey 2003, 2010, Labor Force Survey 2008; Pakistan: Pakistan Social and Living Standards Measurement 2004–05, 2008–11, 2013, 2015–16; Sri Lanka: Household Income and Expenditure Survey 2006, 2009, 2012, Labor Force Survey 2015.  
 Note: The figure uses harmonized household survey datasets for attendance, which is defined as children enrolled in and attending school in the current academic year for the survey years.  
 a. The Bangladesh Bureau of Statistics divided students into 6–10 and 11–15 age groups.

secondary school enrollment, the pace of growth needs to pick up in order to catch up to the other South Asian countries.

The improvements in school attendance have been possible both because of gains in girls’ attendance as well as the expansion of private schooling. Gender gaps in school attendance have narrowed considerably in Afghanistan, India, Nepal, and Pakistan. India has managed to shrink this gap down to near-zero levels in recent years (figure 1.2). In Bangladesh, girls’ enrollment rates have long exceeded boys’, drawing attention to factors causing boys to leave school. In primary schools, private school enrollment rose from 27 percent in 2007 to 38 percent in 2015 in India, from 13 percent to 17 percent in Nepal, and from 30 percent to nearly 40 percent in Pakistan. The increase has been large in secondary schools as well. In India, the percentage of students enrolled in private secondary schools grew from 18 percent in 2007 to 30 percent in 2015, while in Pakistan, it grew from 22 percent to 33 percent over the same period (see spotlight 3).

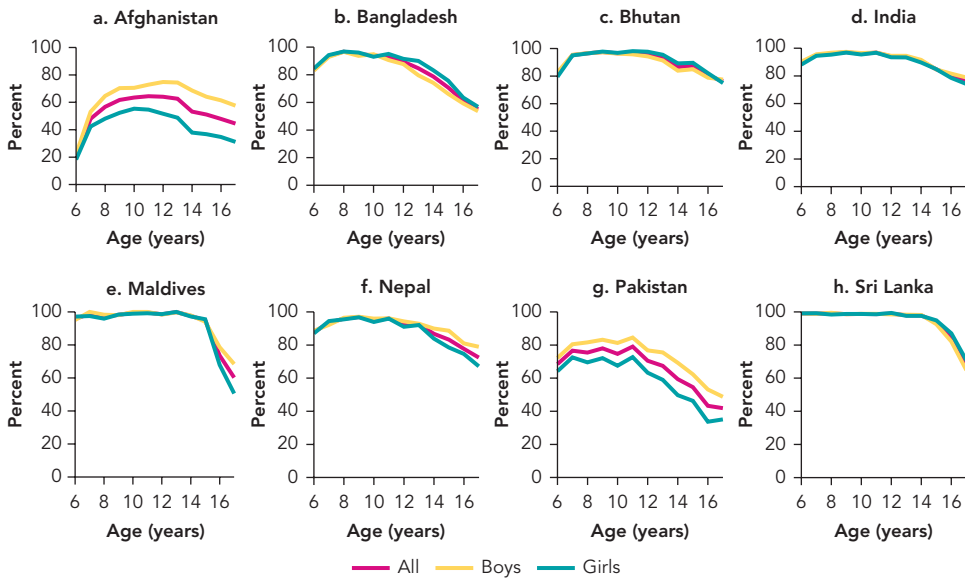
**FIGURE 1.2** The Gender Gap in School Attendance Has Narrowed Substantially in Some South Asian Countries, with the Sharpest Declines in Afghanistan and Nepal



Sources: World Bank staff calculations using data from the following surveys/years: Afghanistan: National Risk and Vulnerability Assessment 2003, 2007, 2011/12; Bangladesh: Household Income and Expenditure Survey 2000, 2005, 2010, 2016; Bhutan: Bhutan Living Standards Survey 2003, 2007, 2012; India: National Sample Survey 1999, 2004, 2009, 2011, 2014; Maldives: Vulnerability and Poverty Assessment 1998, 2004, Household Income and Expenditure Survey 2009; Nepal: Nepal Living Standards Survey 2003, 2010, Labor Force Survey 2008; Pakistan: Pakistan Social and Living Standards Measurement 2004–05, 2008–11, 2013, 2015–16; Sri Lanka: Household Income and Expenditure Survey 2006, 2009, 2012.

Note: The figure uses harmonized household survey datasets for attendance, which is defined as children enrolled in and attending school in the current academic year for the survey years.

Retention is low at the secondary levels of schooling. Despite enrollment gains, Afghanistan and Pakistan still face severe problems with access and retention (figure 1.3). Even at the highest point, the age-specific attendance rate is less than 80 percent. Maldives and Sri Lanka show stable attendance rates for ages 6–15, and students' dropping out does not emerge as a problem until secondary school. Bangladesh, Maldives, and Sri Lanka experience large drops in enrollment at the secondary and higher secondary levels, reflecting the persistence of barriers to children's schooling at the secondary level. The enrollment drop in India around age 14 arises from the perceived lower value of secondary education; social practices and norms that affect education (especially for girls); family's financial status, which affects

**FIGURE 1.3** Age-Specific Enrollment Rates Decline at Higher Levels of Schooling in South Asian Countries

Sources: World Bank staff calculations using data from the following surveys/years: Afghanistan: National Risk and Vulnerability Assessment 2011/12; Bangladesh: Household Income and Expenditure Survey 2016; Bhutan: Bhutan Living Standards Survey 2012; India: National Sample Survey 2014; Maldives: Household Income and Expenditure Survey 2009; Nepal: Nepal Living Standards Survey: 2010; Pakistan: Pakistan Social and Living Standards Measurement 2015/16; Sri Lanka: Labor Force Survey 2015.

Note: The figure uses harmonized household survey datasets for attendance, which is defined as children enrolled in and attending school in the current academic year for the survey years.

opportunity costs and additional direct costs; availability of teachers and facilities; and issues related to the quality of learning, such as language and medium of instruction, teaching method, pedagogy, and curriculum and its perceived relevance (ERU Consultants Private Limited 2017).

### THE INCIDENCE OF SKILLS DEVELOPMENT IN SOUTH ASIA IS INCREASING, BUT REMAINS LOW

Information about the incidence of skills development in South Asia was very limited until the 1990s. Only since the early 1990s in Sri Lanka and Pakistan, 1995 in Bangladesh, and 1996 in India, have household or labor force surveys included questions about vocational training received. Surveys found that the incidence of vocational training in the population (for 15-to-64-year-olds) was very low in the early 2000s. It was lowest in Pakistan, at 2.4 percent, and highest in Sri Lanka, at 12 percent, with India (4 percent) and Bangladesh (4.7 percent) in the middle (Riboud, Savchenko, and Tan 2007).

A decade later, the incidence of skills development has increased (except in Sri Lanka) but remains low. Only 7–11 percent of the population in countries across South Asia have received some type of skills training (table 1.1). There is a marked gender difference in Bangladesh and India, with a much higher incidence of training for men than for women. In contrast, the incidence of training is fairly evenly divided between men and women in Pakistan and Sri Lanka.

Skills development varies across education levels. Formal skills development systems in South Asia are directed mainly at people who have completed secondary education and are first-time labor market entrants. For the poorest—that is, those with no or little schooling—skills development is informal and on-the-job. Recent labor force surveys show that in Bangladesh, India, and Sri Lanka, training incidence is highest at the postsecondary level (after completing grade 12). In Pakistan, however, incidence is higher among people with lower levels of education, implying that there are more training opportunities for those with lower levels of education.

Compared with most regions, the supply of firm-based skills training is low in South Asia. Training provided by firms or on-the-job training is an important means of

**TABLE 1.1** The Incidence of Training among 15-to-64-Year-Olds in South Asia Varies by Educational Level, Latest Available Data

Level of education	Bangladesh (2013)			Pakistan (2014–15)		
	All	Men	Women	All	Men	Women
No education	3.43	6.14	0.61	9.45	8.78	9.81
Primary	3.09	4.87	1.35	14.63	13.00	16.81
Middle	4.21	5.70	2.86	11.52	11.06	12.30
Secondary	4.62	6.56	2.67	12.79	12.43	13.33
Higher secondary	12.36	15.29	8.46	12.25	12.08	12.51
Postsecondary	35.41	37.62	30.43	13.45	13.54	13.33
Total	7.62	10.52	4.47	11.50	11.27	11.73
Level of education	India (2013–14)			Sri Lanka (2015)		
	All	Men	Women	All	Men	Women
No education	2.75	4.62	1.56	0.00	0.00	0.00
Primary	5.26	7.82	2.45	0.47	0.60	0.35
Middle	6.42	9.02	3.06	1.22	1.70	0.70
Secondary	6.64	8.31	4.11	6.54	8.34	4.85
Higher secondary	8.62	9.96	6.41	15.60	17.54	13.99
Postsecondary	15.69	17.29	12.53	34.43	34.00	34.70
Total	7.29	9.74	4.23	11.86	12.07	11.68

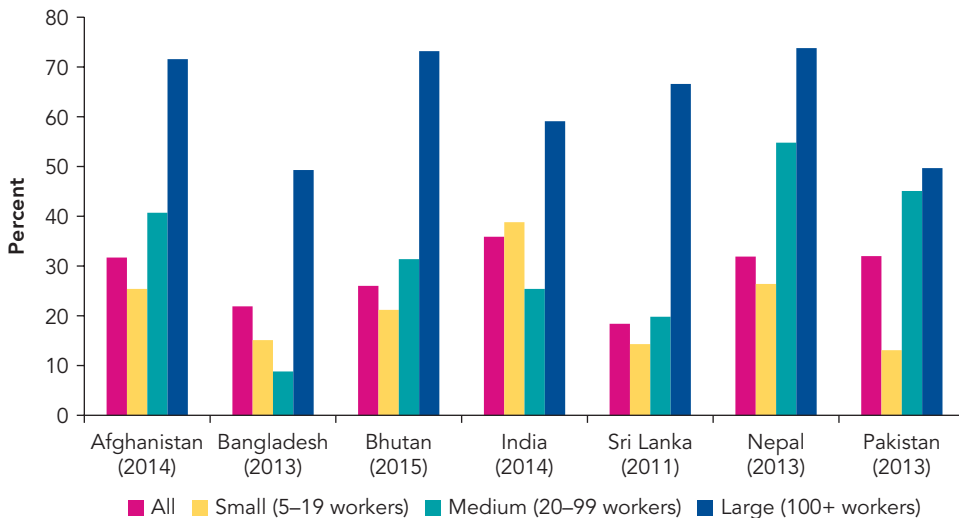
Sources: Bangladesh: Bangladesh Bureau of Statistics 2013; India: Ministry of Labour and Employment, Annual Labor Force Survey, 2013–14; Nepal: Central Bureau of Statistics 2008; Pakistan: Pakistan Bureau of Statistics 2014–15; Sri Lanka: Department of Census and Statistics 2015.

Note: All types of training (long-term and short-term, formal and informal) are included in the labor force surveys.

skilling and crucial for economic performance and growth (Almeida and Cho 2017).<sup>3</sup> Firm training may be provided in both the formal and informal sectors, but little is known about training by informal sector firms. Less than 30 percent of South Asian firms offer formal training. This is comparable to the rate in Sub-Saharan Africa but lower than in other regions. The share of firms providing formal training ranges from 33 percent in East Asia and Pacific to 43 percent in Latin America and the Caribbean and to more than 70 percent in Europe and Central Asia. Firms may underinvest in training for a variety of reasons. They may face constraints in financing training programs or in identifying appropriate training programs and trainers. They may fear that other firms will try to poach their trained workers (Almeida and Cho 2017). Or they may not need to invest in formal training if the skills component of their jobs or technological base is modest, or if they get by with just informal training.

In all South Asian countries, as in other parts of the world, training rates are highest in large firms (those with more than 100 employees). At least half of large firms offer formal training (figure 1.4). Data from World Bank Enterprise Surveys in Afghanistan, Bhutan, and Nepal show that more than 70 percent of large firms offer some training to their workers; in Bangladesh, India, and Sri Lanka about half or more of all large firms surveyed offer training. In a more recent survey of large manufacturing and technology firms in India, more than 70 percent reported training new recruits for at least one month, spending more than 25 percent of the mean starting salary paid to recruits on training (Mitra, Bêteille, and Linden 2015). About a third of firms reported that

**FIGURE 1.4** The Supply of Firm Training in South Asia Varies with Firm Size, Latest Available Data



Source: World Bank 2018.

**TABLE 1.2** Number of Students Enrolled in the Higher Education System, 2000 (or Closest Year), Latest Available Data and Average Annual Growth Rate

Country	2000 or nearest year (thousands)	Latest available data (thousands)	Average annual growth rate (%)
Afghanistan	26.2	282.5 <sup>a</sup>	19
Bangladesh	726.7	3,750.0 <sup>a</sup>	11
Bhutan	3.6	8.5 <sup>b</sup>	6
India	9,404.5	34,584.8 <sup>c</sup>	9
Maldives	0.1	6.1 <sup>a</sup>	35
Nepal	94.4	361.1 <sup>c</sup>	9
Pakistan	401.1	2,691.6 <sup>c</sup>	14
Sri Lanka	261.6	618.8 <sup>c</sup>	6
South Asia	10,918.2	42,303.4	14

Sources: Afghanistan, Aturapane (2013); Bangladesh, World Bank (2016); India, MHRD (2016); Nepal, Dundar and others (2017); Pakistan, Higher Education Commission (2017); for all others, United Nations Educational, Scientific, and Cultural Organization Institute of Statistics; and World Bank EdStats database.

a. Refers to 2014.

b. Refers to 2013.

c. Refers to 2015.

classroom training was used to fill gaps in the technical skills of new recruits. Training in soft skills, in the form of coaching and mentoring, was an important component of all training. In countries where education and skills development systems suffer from severe limitations, firm training plays an especially important role in equipping workers with relevant labor market skills.

## THE HIGHER EDUCATION SYSTEM HAS EXPANDED RAPIDLY

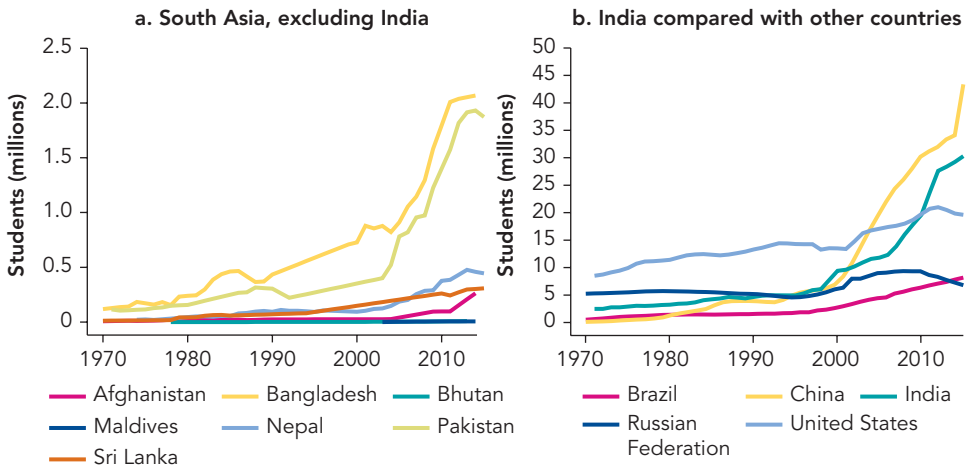
In South Asia, enrollment in higher education grew by 387 percent over the past 15 years. In South Asia, enrollment in higher education grew at a staggering

**Enrollment in higher education grew by 387% over the past 15 years.**

387 percent over the past 15 years, from 11 million students in the early 2000s to 42 million students today. The average annual growth rate over the period was 14 percent, with the lowest growth rate in Sri Lanka and Bhutan (6 percent) and the highest in Maldives (35 percent; table 1.2). Growth was steepest in the

2000s, but even today the system is growing substantially and is unlikely to slow down (figure 1.5a).

India's higher education system grew from 9.4 million students in 2000 to 34.6 million students in 2015 (see figure 1.5b). This makes India the second-biggest higher education system in the world (after China), having surpassed the United States in 2010. Six institutions a day open to accommodate growing demand, and nearly 1 million students enter the Indian labor market each month. Bangladesh and

**FIGURE 1.5** South Asia's Higher Education System Is Expanding, 1970–2015

Sources: UNESCO Institute of Statistics ([uis.unesco.org](http://uis.unesco.org)); and World Bank EdStats database.

Pakistan have also seen sizable growth: both passed the 1 million mark in the early 2000s and now enroll nearly 2 million students. Enrollment in the rest of South Asia remains modest: in the hundreds of thousands in Afghanistan, Nepal, and Sri Lanka and below 10,000 in Bhutan and Maldives, which only recently opened universities. As we discuss in chapter 12, a significant portion of the growth in enrollments comes from the private sector.

### DESPITE MARKED IMPROVEMENTS IN COVERAGE, A LARGE NUMBER OF YOUNG PEOPLE IN SOUTH ASIA ARE LEFT OUT OF THE EDUCATION SYSTEM

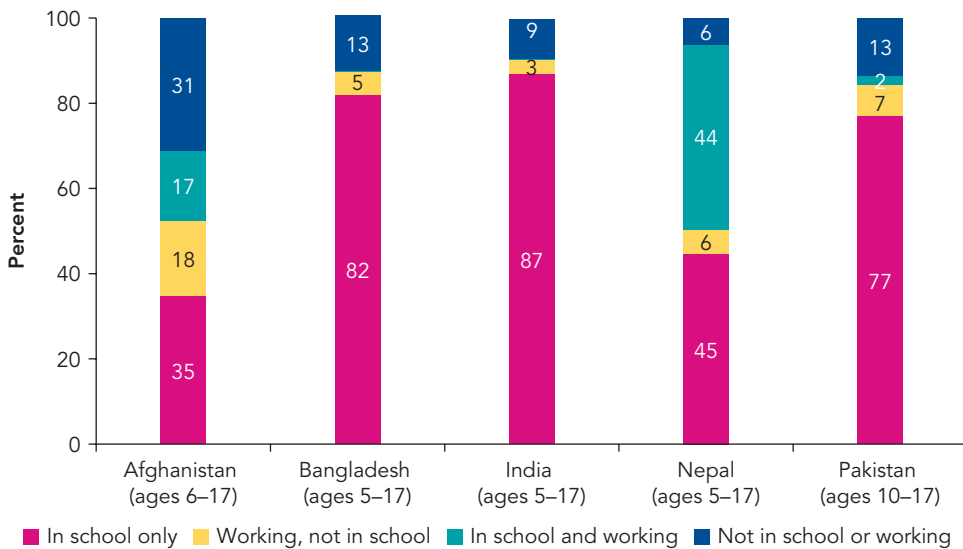
After Sub-Saharan Africa, South Asia has the highest number of out-of-school children across all regions. Over 35 million children of school age are out of school in South Asia. Out-of-school children include children of school-going age who either never enrolled in school or who dropped out. Of children who have not enrolled, some will probably never attend school, while others, although unenrolled at the appropriate age, may enter school later. Students who left school include children who were are compelled to leave because of multiple demand- and supply-side constraints (discussed later) and some children who choose to discontinue schooling before completing their basic education.

While the reasons children are out of school or likely to drop out vary across and within countries, some common reasons emerge. These include household poverty; gender (girls in Afghanistan, India, and Pakistan; boys in Bangladesh and Bhutan);

and child labor. Mothers' education is positively correlated with children's school attendance in Bangladesh, India, and Nepal. Across many countries, children who did not attend preschool are more likely to drop out later.

More than 29 million children across South Asia are working, and another 28 million are neither attending school nor working (Khan and Lyon 2015). The percentage of children working and not in school is higher in Afghanistan and Pakistan than in Bangladesh, India, and Nepal (figure 1.6). The share of children age 5 or ages 6 to 17 who are working and going to school is highest in Nepal (43.5 percent) and Afghanistan (16.5 percent) and 3 percent or lower in India (0.1 percent) and Bangladesh (3.0 percent)—and 2.2 percent in Pakistan for children ages 10–17. The relationship between working and going to school is complex. Work can harm children's physical and socioemotional growth and is often correlated with lower educational attainment and student learning outcomes (Akabayashi and Psacharopoulos 1999). However, other studies find that work can complement schooling (Patrinos and Psacharopoulos 1997) and that certain types of work can impart useful skills, foster independence, and have positive transformative effects on children (Ghorpade 2017; Iversen and Ghorpade 2011; Bourdillon and others 2010).

**FIGURE 1.6** Children's School Attendance and Work Status Differ across South Asian Countries

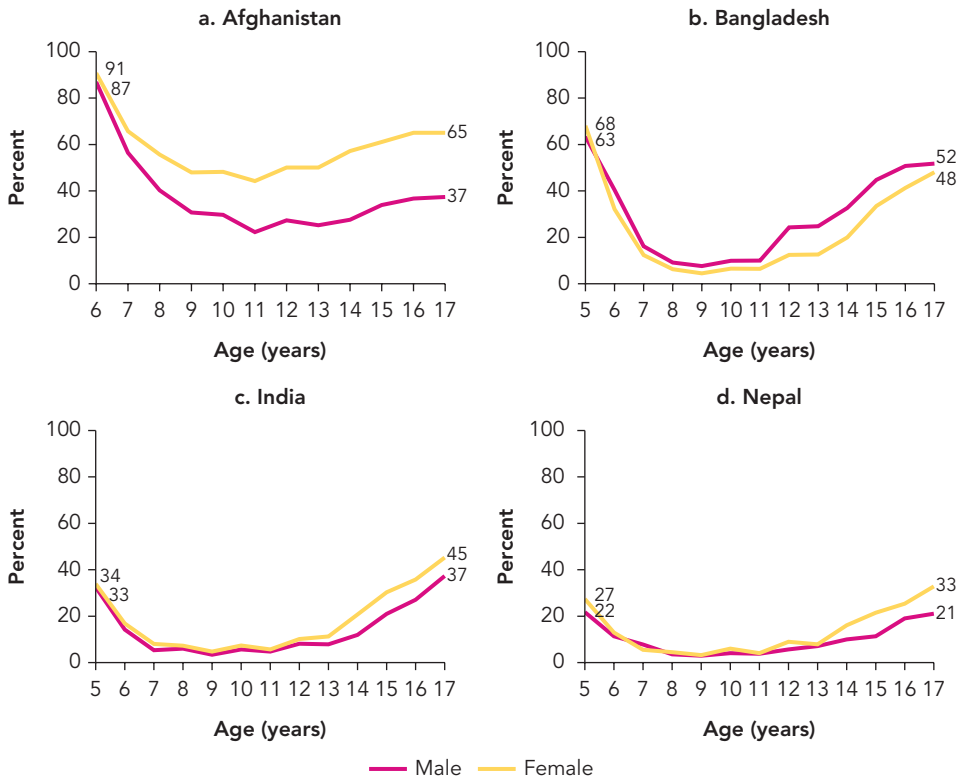


Sources: World Bank staff calculations using data from the following surveys/year: Afghanistan: Afghanistan Living Conditions Survey 2013/14; Bangladesh: Household Income and Expenditure Survey 2016; India: National Sample Survey 2011/12; Nepal: Nepal Living Standards Survey 2010/11; and Pakistan: Pakistan Social and Living Standards Measurement 2015/16.



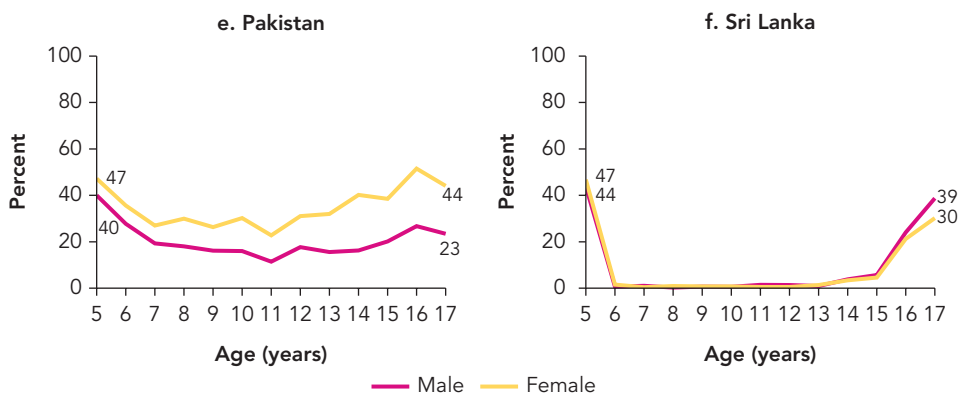
The share of the youth population across South Asia that is not in education, employment, or training represents the unfulfilled potential of human capital, affecting current as well as future productivity. School dropouts or nonenrollees do not necessarily enter the labor market. In South Asia, the likelihood of not being in education, employment, or training is higher among older children, particularly among older girls in Afghanistan, India, and Pakistan (figure 1.7). In part, this reflects the fact that many activities that girls perform in the home are not considered or recorded as “work” in household surveys. But it likely also indicates the barriers to education, work, and vocational training for older girls. In societies and communities where girls’ mobility is restricted, there is a greater need to enhance opportunities for girls to continue education and skills training. Strategies to address the problem of youth who are not in education, employment, or training in South Asia must respond strongly to the limited opportunities for girls in these three spheres.

**FIGURE 1.7** Over 25 Percent of Secondary-Age Girls Are Not in School or Training in Afghanistan, Bangladesh, India, and Pakistan



(Figure continues next page)

**FIGURE 1.7** Over 25 Percent of Secondary-Age Girls Are Not in School or Training in Afghanistan, Bangladesh, India, and Pakistan (continued)



Sources: World Bank staff calculations using data from the following surveys/year: Afghanistan: Afghanistan Living Conditions Survey 2013/14; Bangladesh: Household Income and Expenditure Survey 2016; India: National Sample Survey 2010/11; Nepal: Nepal Living Standards Survey 2010/11; Pakistan: Pakistan Social and Living Standards Measurement 2015/16; and Sri Lanka: Household Income and Expenditure Survey 2012.

## Student Learning Outcomes in School Are Weak, but Learning Assessments Need Improvement to Pinpoint Why

Countries have started measuring learning more seriously and more frequently, but comparison of student learning across countries in the region remains difficult because national assessments test student learning outcomes at different grades, in different subjects, and at different intervals (box 1.1).

### NATIONAL ASSESSMENTS REVEAL LOW LEARNING LEVELS IN THE REGION

Low levels of learning—globally recognized as the “learning crisis”—is also an urgent issue for South Asia. South Asia alone has about 20 million children in learning poverty. National assessments in Afghanistan, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka reveal low student achievement in language and math in the primary grades. In Bangladesh, the 2013 National Student Assessment revealed that just a quarter of grade 5 students met grade-relevant competencies in math and language.<sup>4</sup> In India, the 2015 National Achievement Survey found that that only 46 percent of grade 5 students can solve problems related to the number system, operations, geometry, and measurement.

Because reporting student performance as a percentage of correct answers does not shed much light on what students know, performance is sometimes classified by proficiency levels, with associated descriptors showing what a typical student at each level knows and can do. However, few countries in the region have defined official learning

standards or outcomes for each grade or have aligned assessments with standards to measure whether students are acquiring grade-appropriate knowledge and skills. Globally, where this has been done, students are assessed against clear goals that are believed to determine success or proficiency in the relevant grade. This allows countries to benchmark student performance more objectively and identify where improvements are needed to achieve required learning outcomes in specific grades. To make that possible, Bangladesh and more recently India, for example, have aligned their assessments with official learning outcomes in selected grades.

ASER, which is conducted in rural parts of India and Pakistan and measures students' competencies at the primary and secondary levels, allows for some comparison

### **BOX 1.1 Countries Are Conducting Many More Learning Assessments, but More Work Is Needed on Comparability**

South Asian countries have made tremendous progress in measuring student learning. The number of large-scale assessments of student learning carried out by national and subnational governments in the region, which tend to be sample-based, has grown rapidly since 2010 (table 1.1). Most of the assessments gather data on the core subjects of language (typically, reading comprehension) and math. Science, another core area, is assessed less frequently and typically not until the upper grades. Most questions on these assessments are based on national curriculum standards, but in general the assessments do not measure higher-order skills such as problem-solving and creativity or digital literacy. In addition to these official assessments, nongovernmental organizations also conduct learning assessments, such as the Annual Status of Education Report (ASER) in India and Pakistan, which are not generally nationally representative.

The assessments in South Asia, however, do not allow for comparisons over time or across countries because of limitations in their design. Tracking student learning over time can provide important information on the effectiveness of policies designed to improve learning. However, the ability to do such tracking depends on being able to technically link the test items and their composition across different years. A review of national assessments in Afghanistan, Bangladesh, India, Maldives, Nepal, and Sri Lanka suggests that these countries recognize the value of being able to track student progress over time but that much remains to be done before their assessments will allow for such comparisons.

Internationally comparable standardized assessments provide information on the relative quality and quantity of learning across countries. Such assessments also enable calculating learning-adjusted years of schooling, which can help countries compare the real education level of national populations. Few efforts have been made to benchmark student learning in South Asia using international assessments. Two Indian states (Himachal Pradesh and Tamil Nadu) participated in the Program for International Student Assessment (PISA) in 2009, and Sri Lanka (in 2009) and Nepal (in 2013) added a Trends in International Mathematics and Science Study (TIMSS) module to their national assessments.

*(Box continues next page)*





of results across the two countries. The results are troubling. Results for grade 3 math show that only 25 percent of surveyed students in rural India and only 45 percent in rural Pakistan can do two-digit subtraction. The results are much the same for children in grade 5: only 26 percent of surveyed students in rural India and 50 percent in rural Pakistan are able to do two-digit division (figure 1.8).

## LEARNING OUTCOMES IN SCHOOLS REVEAL INEQUALITIES IN PERFORMANCE

Where data exist, the results of national assessments in countries in South Asia show significant inequalities in the performance of different groups. Results may differ according to individual and household characteristics, school type, school location, and the effectiveness of teachers and school leaders (discussed in subsequent chapters).

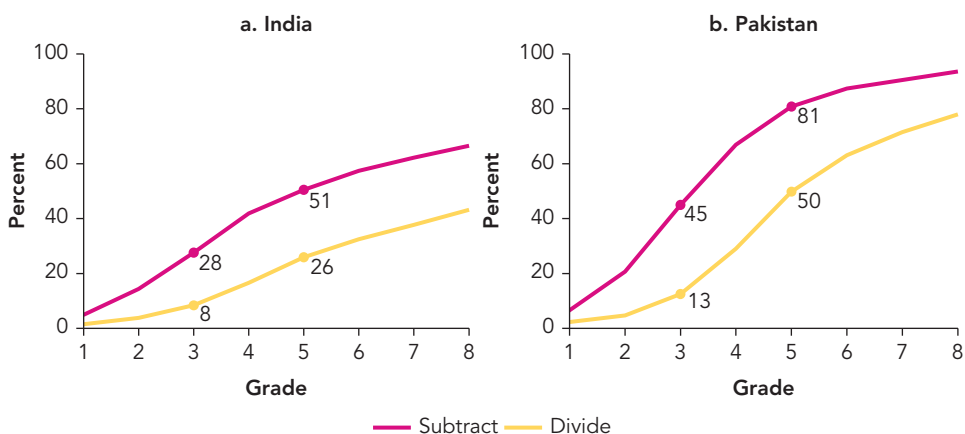
### Differences by Student Background and Household Location

Students from disadvantaged ethnic and caste groups in Bangladesh, India, and Nepal have lower average learning levels than students from more advantaged groups (figure 1.9). In Bangladesh, students from indigenous groups perform 0.16 standard deviation points lower on the grade 5 math test. In Nepal, Dalit and minority group students perform relatively poorly on average, 0.17 and 0.11 standard deviation points lower than the national average score on the grade 3 math assessment.

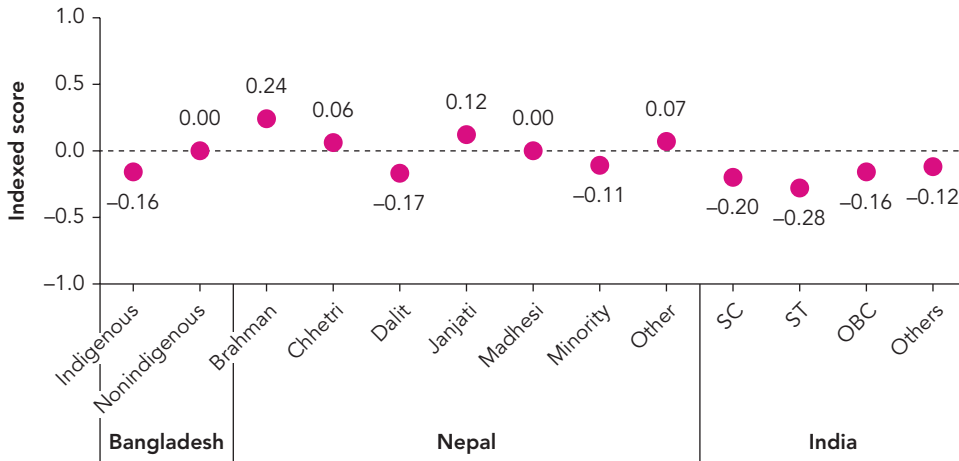
Not only are learning levels low, so are inequalities in performance.

Although these gaps are not very large, addressing them will require targeted interventions for minority and disadvantaged groups. In general, there are no differences in academic performance based on gender.<sup>5</sup>

**FIGURE 1.8** Many Primary and Lower Secondary School Students in Rural India and Pakistan Cannot Subtract or Divide, 2015 and 2016



Source: World Bank staff analysis using India ASER 2016 and Pakistan ASER 2015.

**FIGURE 1.9** Students in Disadvantaged and Minority Groups Show Lower Average Performance Levels in Bangladesh, India, and Nepal

Source: World Bank staff analysis using data from Bangladesh National Student Assessment 2013 (grade 5), Nepal National Assessment of Student Achievement 2015 (grade 3), and India National Achievement Survey 2015 (grade 5).

Note: Data are standardized to a mean of zero and standard deviation of 1. OBC = other backward classes; SC = scheduled caste; ST = scheduled tribe.

### Differences by School

Quality is not consistent across schools in South Asia. In particular, in lower grades performance differences are much larger between schools than between student groups in the same school. This pattern of performance is very different from that in other regions, as shown by the relative shares of between-school variance on grade 4, 5, or 6 math tests in South Asian countries and internationally (from TIMSS 2011) plotted against countries' gross national income (GNI) per capita (figure 1.10). Between-school variances are 10–30 percent lower in developed country school systems than in South Asian systems, and student factors (between-student factors within schools) explain more of the performance gaps in these countries. This is likely due to the equalization of the quality of teachers and school management across primary schools when the entire system is developed with good quality control and effective teacher policies. In South Asia (Bangladesh; Punjab and Sindh provinces in Pakistan; and Sri Lanka), however, between-school inequalities are quite large. Several factors could account for such inequalities, including differences in the quality of school management, teachers, and resources or differences in parents' educational attainment in poor areas. An additional area of concern is heterogeneity within the classroom—that is, there are students of different ability levels in the same classroom (Muralidharan 2016).

**FIGURE 1.10** The Variation in Learning Outcomes in Well-Developed School Systems Is Explained Mainly by Differences in Student Backgrounds, but the Variation in South Asia Is Explained Mainly by Education Inequalities across Schools



Source: World Bank staff analysis using Bangladesh National Student Assessment 2013 results for grade 5, Pakistan Sindh Standardized Achievement Tests III 2014 results for grade 5, Punjab Examinations Commission results for grade 6, Sri Lanka National Education Research and Evaluation Center results 2015 for grade 8, and Trends in International Mathematics and Science Study 2011 results for grade 4 math for other countries (Martin and Mullis 2013).

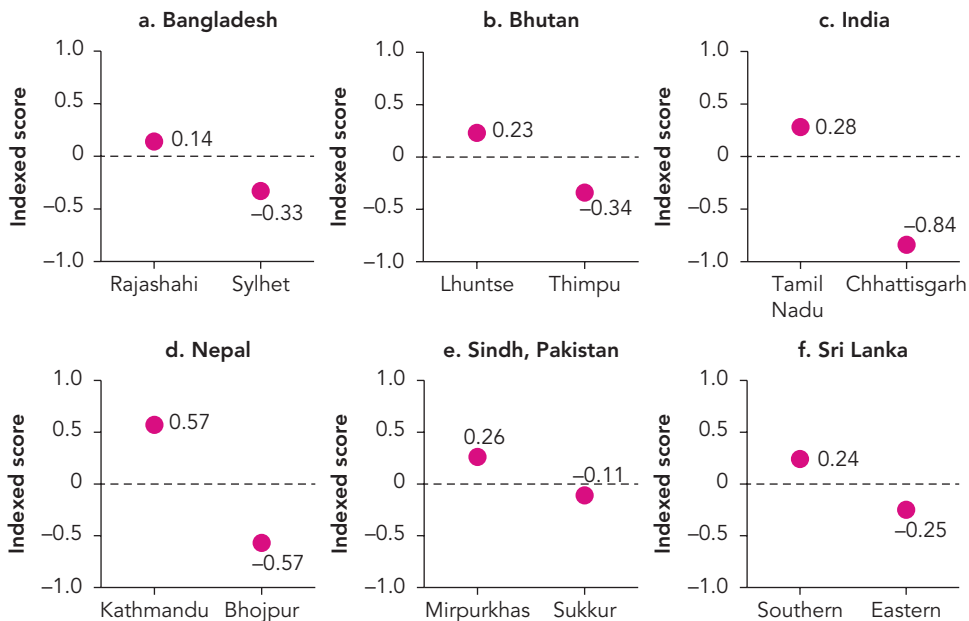
The evidence on performance differences between students in public and private schools is inconclusive. Low-cost private schools offer a viable alternative to public schools in India and Pakistan, but there is little to choose in terms of learning outcomes. The evidence on learning outcomes across these types of schools is mixed (see spotlight 3). One study finds higher average performance in private schools in rural areas in India, although the gains from one grade to the next are quite small in both private and public schools (Goyal and Pandey 2009; Singh and Sarkar 2015). In rural Pakistan, however, student learning outcomes are higher in public schools than in private schools, but only marginally. In Bangladesh, the performance of grade 5 students in Bangla and math in 2013 and 2015 was higher in relatively well-resourced private schools, including kindergartens and high school-attached schools. However, performance in 2014 and 2016 in grades 3 and 5 was lower in ordinary nongovernment schools (called registered nongovernment primary schools) than in government primary schools on the same assessments (Directorate of Primary Education 2014, 2016).<sup>6</sup>



### Differences by School Location

School location, whether urban or rural or by administrative jurisdiction, matters for academic performance. In several cases, learning outcomes are higher in urban areas than in rural areas. In Bangladesh, secondary students in urban areas outperformed those in rural areas in English, math, and Bangla (Learning Assessment of Secondary Institutes 2015). In India, grade 5 students in urban areas performed better overall in reading, arithmetic, and environmental studies than students in rural areas. Similar performance differences are also seen in Nepal, Pakistan, and Sri Lanka. Nonetheless, there are cases where urban students performed worse—primary students in Bangladesh, for example—especially when urban students include a large proportion of children living in slums (Directorate of Primary Education 2014). Disparities in student outcomes also exist between subnational administrative jurisdictions, including between districts, subdistricts, and even below the subdistrict level (figure 1.11).

**FIGURE 1.11 Performance Inequalities Are Large between the Highest- and Lowest-Performing Jurisdictions in South Asian Countries**



Source: World Bank staff analysis using data from Bangladesh National Student Assessment 2013 (grade 3); India National Achievement Survey 2015 (grade 5); Bhutan National Education Assessment 2013/14 (grade 10); Nepal National Assessment of Student Achievement 2015 (grade 5); Sindh, Pakistan Student Achievement Test 2015 (grade 5); and Sri Lanka (Ministry of Education and NEREC 2016) (grade 8).

Note: Data are standardized to a mean of zero and standard deviation of 1. The units of comparisons are divisions in Bangladesh, districts in Bhutan, states in India, districts in Nepal, regions in Sindh, and districts in Sri Lanka.

## A Certificate, Diploma, or Graduate Degree May Not Bestow Much-Needed Skills

Many young people study beyond primary and secondary school—in skills development programs and higher education institutions—but end up with few marketable skills. For those who complete secondary school and study further, having postsecondary qualifications does not automatically make their future bright. Nearly 8 million young people enter short-term skills development programs in India every year; as few as 37 percent of them get jobs. Some 2 million enter long-term skills development programs in India, with 52 percent getting a job. In Bangladesh, people with a higher education degree find it *more* difficult to get a job than people with just a secondary education certificate. In part, this reflects a mismatch between graduates' expectations and employees' assessments of the quality of the education they received.

Despite massive expansion of schooling across the region, young people lack the skills required for today's economy. Foundational skills in math and language acquired at the elementary and secondary levels of schooling are the minimum requirements for the growing economies of South Asia. As economies grow and transform, more advanced skills are needed to enable people to transition successfully from education to work. However, student learning outcomes reveal deep learning gaps, which skills development programs have not managed to close. Recent surveys in India, Pakistan, and Sri Lanka provide information on students' technical skills, and the findings are not encouraging.<sup>2</sup> In India, some 70 percent of youth and young adults (ages

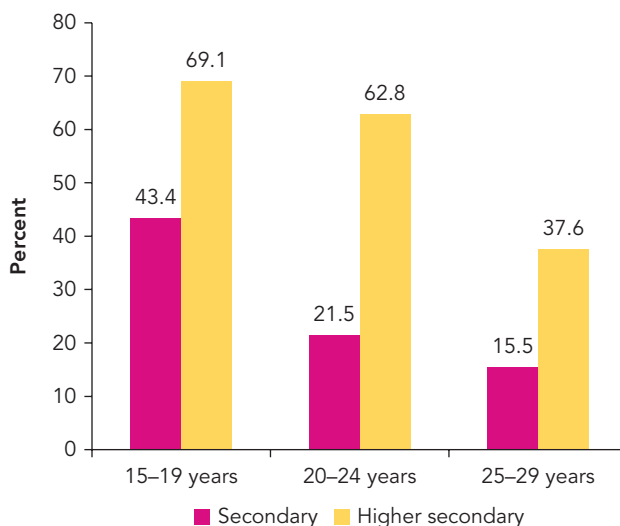
15–29 years) cannot operate a computer (figure 1.12), and fewer women than men can use a computer. In Sri Lanka, just 16 percent of the working-age population uses computers, with wide gaps between those in white-collar jobs and others; in Pakistan, just 4 percent use computers (figure 1.13). The situation is not

much better for language skills. About 24 percent of working-age Sri Lankans and 5 percent of surveyed Pakistanis have adequate English language skills for communication. Again, there are sharp differences between those in white-collar jobs and others.

Digital skills are highly valued in the labor market, but availability is low. According to the most recent Enterprise Survey data, nearly half (48.9) of formal firms in India have a website, and 78 percent use email to communicate with clients and suppliers. But fragmented and weakly coordinated skills development systems, with low-quality programs and outdated curricula, are not turning out workers with the skills needed in the modern workplace. Training programs need to assess their relevance regularly and address gaps in the foundational and technical skills of trainees. And schools need substantial improvements to better prepare youth for further education, training, and careers.

Employers in South Asia are disadvantaged as a result of skills shortages and mismatches between the demand for and supply of skills. Employer dissatisfaction with

Digital skills are low among youth in South Asia.

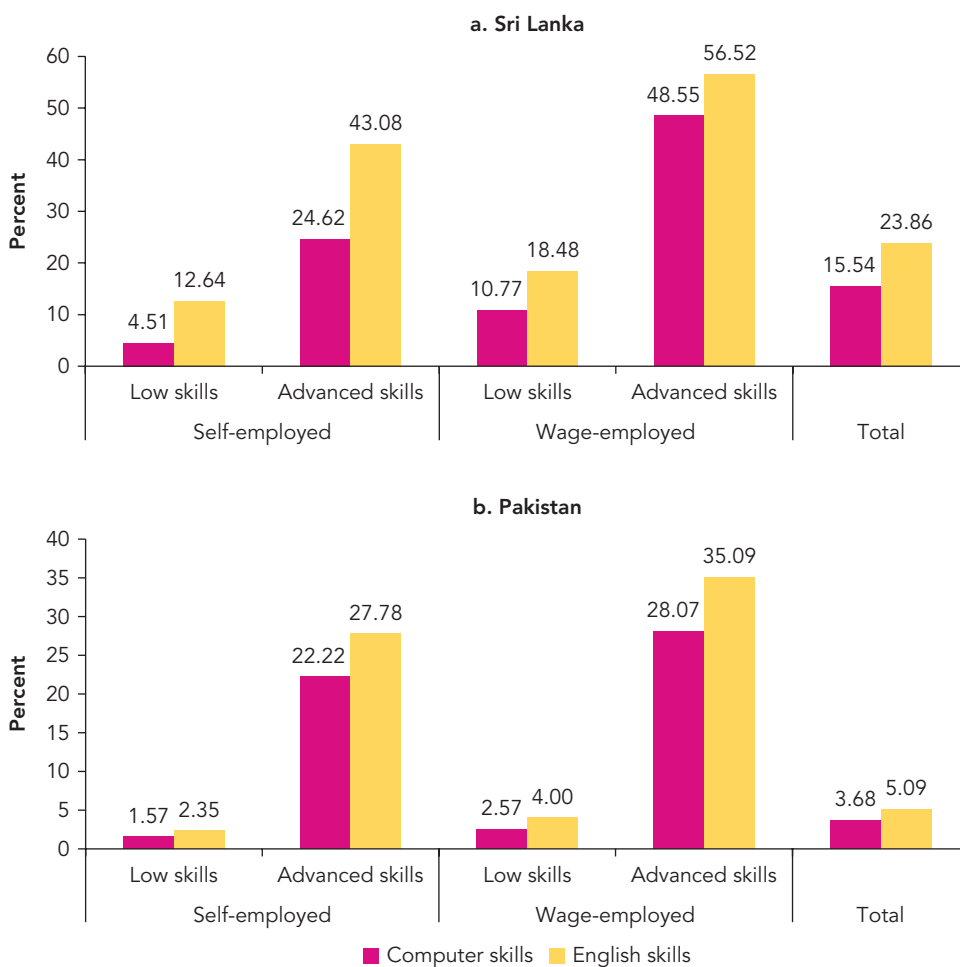
**FIGURE 1.12 Basic Digital Skills among Youth and Young Adults in India Are Low but Increase with Education, 2014**

Source: National Sample Survey 2014.

new labor force entrants is well documented (Blom and Saeki 2011; Dunder and others 2014), as is the negative correlation between skills shortages and firm productivity, innovation, and growth (Dutz and O'Connell 2013; di Gropello, Kruse, and Tandon 2011; di Gropello, Tan, and Tandon 2010). Evidence from Sri Lanka indicates that skills shortages can reduce production by as much as 43 percent.

New surveys are contributing to the still sparse knowledge base on skills gaps and skills mismatches in South Asia. The Skills Towards Employability and Productivity (STEP) skills measurement programs in Sri Lanka and similar surveys in Pakistan collect data on the stock of skills in the population and offer employer perspectives on available and required skills.<sup>8</sup> Enterprise Surveys also provide broad information on the challenges firms face in finding workers with adequate skills. The most recent Enterprise Surveys find that 20 percent of firms in South Asia cite the lack of an educated labor force as a major constraint to growth. In urban formal sectors, inadequate skills are rated as one of the top five concerns in Bhutan, India, and Maldives (World Bank 2011). In Sri Lanka, the STEP surveys show that a lack of skills is a more serious hiring constraint for white-collar and high-skilled blue-collar occupations than for other occupations. In Punjab, Pakistan, almost 25 percent of firms in the skills survey reported a severe lack of skilled employees in the construction and manufacturing sectors. Findings along these lines are consistent with those from other developing countries.

**FIGURE 1.13** Overall, Just 16 Percent of Surveyed Workers in Sri Lanka, and under 4 Percent in Pakistan, Have Digital Skills, 2012



Sources: World Bank 2012; Labor Skills Survey (STEP) in Pakistan, 2012.

More granular information from the STEP employer surveys helps illuminate skills mismatches in the region. Job-specific technical skills, higher-order cognitive skills, and language skills are the most sought after by employers, but sizable gaps exist in meeting the demand for these skills. In Sri Lanka, about 24 percent of the relevant population has English communications skills, but 41 percent of employers demand these skills for low-skilled or blue-collar occupations, and nearly 80 percent of employers demand these skills for high-skilled or white-collar occupations. Similarly, while about 16 percent of the working-age population has computer skills, demand for these skills is as high as 75 percent for high-skilled occupations.

## What Factors Explain Low Learning Levels?

*World Development Report 2018* identifies four ways in which the teaching-learning relationship breaks down in schools. First, children arrive in school unprepared to learn. Malnutrition, illness, low parental investments, and the harsh environments associated with poverty undermine early childhood development. Inequalities start early and become difficult and costly to redress subsequently. Second, teachers often lack the skills and motivation to teach effectively. Third, poor school leadership undermines school quality. Fourth, inputs often fail to reach classrooms or affect learning. After a brief overview of public financing in education in South Asia, this report focuses on the first three issues in chapters 3 through 8. Inputs were examined in an earlier report, *Student Learning in South Asia*.

Beyond school, the system breaks down for reasons similar to those experienced by schools. Having learned little in schools, young people arrive unprepared to benefit from skills development and higher education systems. Irrelevant curricula and poor teaching do little to redress the situation. Finally, coordination, leadership, and governance failures create an accountability vacuum. Chapters 9 through 11 take a closer look at the skills development system in South Asia, while chapters 12 through 14 examine the higher education system.

The education system in South Asia—as is true for any education system—does not exist in isolation and is affected by external factors. In South Asia, three factors outside the education system in particular influence its performance: (1) slow structural transformation in the economy; (2) demographic transitions; and (3) urbanization (box 1.2). While a discussion of these factors is outside the scope of this report, their importance cannot be overstated.

### **BOX 1.2 External Factors Affecting the Education System**

While South Asia has seen rapid economic growth and poverty reduction, structural transformation has been slow, resulting in slower than anticipated growth of productive employment. South Asian countries have had among the highest rates of GDP growth of any region over the past two decades. Sustained economic growth has led to rapid declines in poverty. It has also led to high aspirations among young people for improving their living conditions. But structural changes in economies have been modest, as the shares of agriculture, manufacturing, and services in gross domestic product (GDP) have barely changed. While there are productivity differences across sectors—workers in the services and manufacturing sectors are more skilled, higher paid, and less likely to be poor—these have not changed much in recent years. As a consequence, the transition of the workforce from agriculture to manufacturing and services has been modest and slow.

*(Box continues next page)*

**BOX 1.2 External Factors Affecting the Education System** *(continued)*

A young and rapidly urbanizing population in South Asia has important and far-reaching consequences for education systems. About a third of the region's population is below the age of 15. As larger numbers of children enter the education system, it will be important to ensure that access remains high at the primary school level and improves at the secondary school level and higher. By 2050, over half of the region's population is projected to reside in cities, both in large megacities and in smaller towns. This impending rapid urbanization requires careful planning to respond to the needs of urban populations. People living in slums and other informal settlements may face high barriers to receiving a good-quality education, such as a lack of formal entitlements, unstable access to services, and high exposure to crime and insecurity. For people living in newly urbanizing small towns, education systems may have to respond to the needs of a high share of first-generation school-goers while ensuring an adequate supply of skilled teachers.

Current or recent violent conflict in several pockets of the region also poses challenges to good-quality schooling for all. Research shows that disruptions to schooling (even when minor), as often occur during conflict, can have long-lasting negative effects on human capital formation, as well as on children's psychological well-being and cognitive ability. Conflict may harm children's, particularly girls', education through channels operating on the supply side (through the destruction of schools and targeting or intimidation of teachers) and on the demand side (through restrictions on children's mobility because of safety and security concerns).

A key contribution of this report pertains to policy options to address the challenges identified in its chapters. Despite the odds, countries across the region have been innovating to address the many challenges faced by the education system. These innovations have been led by governments in the region as well as the nonstate sector. Much can be learned from their successes and failures, as discussed in this report.

## How Can South Asia Do Better on Access and Measuring Outcomes?

School Access and Retention, Especially in Afghanistan and Pakistan, Must Be Urgently Addressed at Both the Primary and Secondary Levels; Targeted Efforts for Girls Are Important

While primary school access rates have risen across the region, large parts of Afghanistan and specific areas of Pakistan remain underserved. Afghanistan's Community Based Education model shows promise, whereby local teachers teach students who cannot leave their community due to social norms or safety concerns. In all countries, greater secondary access and retention are important. This will require greater investment in

not just the number of secondary schools but also in ensuring these schools are appropriately staffed and resourced.

#### Improve Measures of Student Learning in Schools and Higher Education, as Well as Labor Market Outcomes in Training Programs and Higher Education

While the number of assessments for school-age students has risen, technical weaknesses preclude their use for comparison over time and across regions. Countries need to improve the technical quality of their assessments. They must undertake more robust and appropriate analyses of the performance and contextual data generated by assessments. Beyond school, despite growing awareness of the importance of a skilled labor force for growth, efforts to assess the impact of skills training programs or higher education programs are still limited. Countries will need to undertake a more systematic analysis of the labor market and develop strong monitoring systems to measure institution and program performance.

#### Use the Results of Learning Assessments, Labor Market Analyses, and Program Evaluations to Inform Policy

Conducting assessments, labor market analyses, and program impact evaluations are essential, but they must feed into policy. Even as South Asia has been increasing efforts to collect data on learning, this has not translated into changes in teaching and learning. This calls for more and better dissemination and communication of results to stakeholders, including education administrators, schools, and parents; and more strategic planning to ensure that results are incorporated into education policy decisions that inform improvements in curriculum, teacher training, exams, and other areas.

#### Communicate Assessment Results to the Public

While all South Asian countries produce reports based on assessment activities, the reports are often technically complex, making it hard to understand what needs to change to improve student learning. Students and parents are often left out when assessment findings are released or communicated. Evidence shows that providing parents with appropriate information on school performance can lead to improvements in student learning. Similarly, sharing with parents student report cards that reference the best- and average-performing schools in the village has had positive effects on learning outcomes in private and government schools in Punjab, Pakistan (Andrabi, Das, and Khwaja 2017). In Rajasthan, India, providing information to parents on the absolute and relative performance of their child's school improved test scores among private school students. Similarly, communicating labor market trends, sectors in expansion, job and career opportunities, and successful programs would help students and parents make more informed choices about types and fields of study, foster competition among providers, and bring quality improvements. Box 1.3 summarizes ways in which the findings from assessments can be used to inform improvements in student learning.

### BOX 1.3 Tips on Using Learning Assessments to Improve Student Outcomes

*Tip 1: Understand why students make mistakes.* Conducting a detailed review of student responses to test items can help policy makers understand the source of students' mistakes and reveal areas where teachers need to focus and where curricula and materials can be improved. The 2013 National Student Assessment exercise in Bangladesh included a detailed analysis of student responses to questions on the math assessment to better understand where and how students made mistakes (Directorate of Primary Education 2014). The analysis allowed teachers and policy makers to understand, for example, whether students' errors were due to conceptual misunderstandings or simple mechanical mistakes.

*Tip 2: Communicate effectively.* Producing well-written, nontechnical reports that can be understood by a wide range of audiences makes it more likely that assessment findings will have an impact. Communicating results in an effective manner has been shown to have a positive effect on learning outcomes.

*Tip 3: Facilitate action.* Engaging policy makers from the outset, including ensuring that their concerns and information needs are addressed by the assessment design, makes it more likely that policymakers will be receptive to findings and use them to inform policies related to improving curriculum, teacher training, and so on.

## Notes

1. Aturupane (2009) provides an example of policy development and formulation in Sri Lanka.
2. Estimates based on household surveys may vary from those based on other sources, such as education management information system (EMIS) data. EMIS data may overstate enrollment if students enroll in multiple schools, and there are no unique student identifiers to avoid double counting. In other cases, enrollment in nonformal schools may be underreported if EMIS data collection is restricted to formal schools. While no single source of enrollment or attendance data is perfect, estimates reported in this chapter use harmonized data from nationally representative household surveys for consistency and comparability within and between countries.
3. Defined here as formal training provided by private sector firms to their workers.
4. Corresponding to Band 3 for grade 3 and Band 5 for grade 5 in the National Student Assessment 2013.
5. Except for Nepal, there is no significant difference by gender in academic performance. In Nepal, boys perform better in math grade 10 but girls perform better in grade 3 and grade 5 language. In both cases, effect sizes are small/negligible.
6. They are called newly nationalized primary schools from 2015.
7. The Education Schedule of the 71st Round of the National Sample Survey in India asks about computer skills among the population. And STEP surveys in Sri Lanka and Pakistan provide information on skills composition in the working-age group in these countries.
8. The program uses standardized surveys to gather nationally representative and internationally comparable data on the demand for and the supply and distribution of skills in labor markets in low-income countries. Pakistan is not officially part of the STEP program but has administered STEP-like household surveys.



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## Access to Basic Education in Afghanistan and Bangladesh

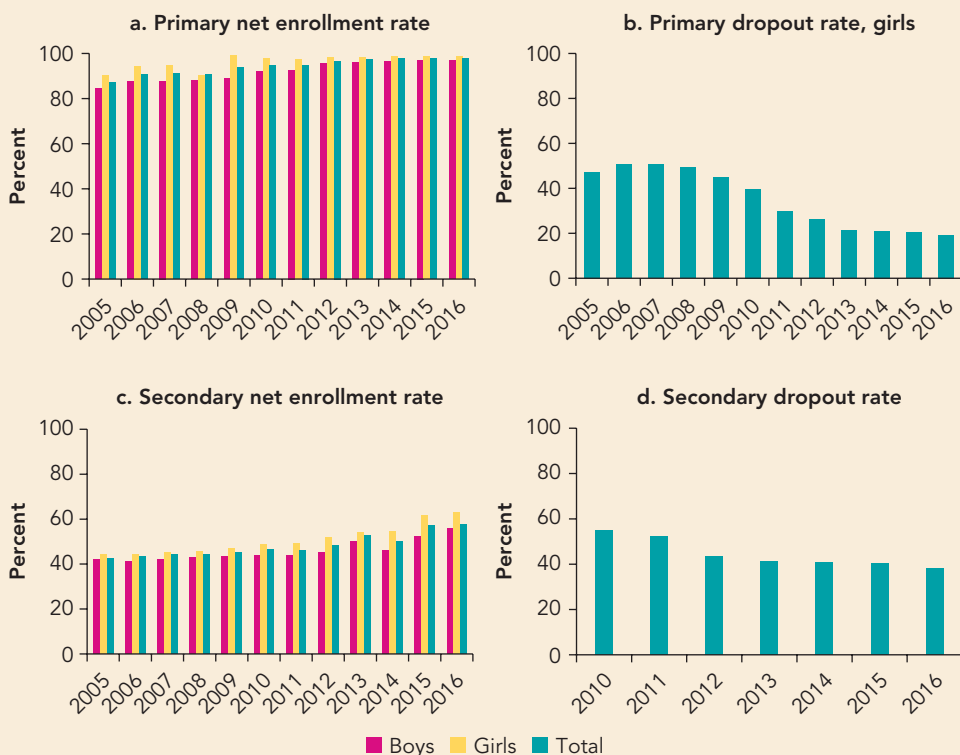
**S**outh Asian countries have made tremendous progress in expanding access to basic education. This spotlight looks at two countries, Afghanistan and Bangladesh, operating at two ends of the spectrum in terms of access. While the former has been struggling to improve access, the latter has expanded access relatively rapidly. In Afghanistan, the number of children enrolled in grades 1–12 increased from 1 million in 2001 to almost 8.5 million in 2017. Bangladesh has come close to achieving universal primary education and has massively improved secondary education enrollment (figure S1.1). Its primary net enrolment rate is about 98 percent, and secondary net enrollment tripled from 19 percent in 1984 to 57 percent in 2014 (BANBEIS 2017).

### Gender Gap

While Bangladesh has not only reduced, but reversed the gender gap in primary and secondary schools, in Afghanistan, around 3.5 million school-age children, 75 percent of them girls, do not have access to basic education. Cultural norms, distance to school, and lack of female teachers are among the key barriers to girls' access to education, especially in rural areas. In Afghanistan, girls are less likely to attend schools at all levels than are boys, especially at the upper secondary level, and in rural areas are more likely to remain out of school than boys (UNICEF 2017).

In Bangladesh, the primary net enrollment rate for girls rose from 70 percent in 1990 to 99 percent in 2017 (BANBEIS 2017). Poverty has kept literacy rates low, particularly among women, but policy initiatives have led to improvements. Starting from a low female to male literacy ratio of 0.3 in 1971, Bangladesh has raised this ratio to 0.89 (BANBEIS 2017). These education improvements for women reflect positive changes in the national policy framework that, for the last three decades, has recognized women's right to education as a key national objective.

**FIGURE S1.1** Bangladesh Has Improved Access to Primary and Secondary School, Especially for Girls, 2005–16



Source: BANBEIS 2017.

## Government Efforts to Expand Access to Education

The improvements in enrollment in Bangladesh have been the result of increased government focus on access to education for all children. In 1990, the government introduced the Compulsory Primary Education Act, establishing a universal free basic education system. The Ministry of Primary and Mass Education was created in 1992 to oversee primary education, with a substantial budgetary allocation to achieve the objectives of universal education.

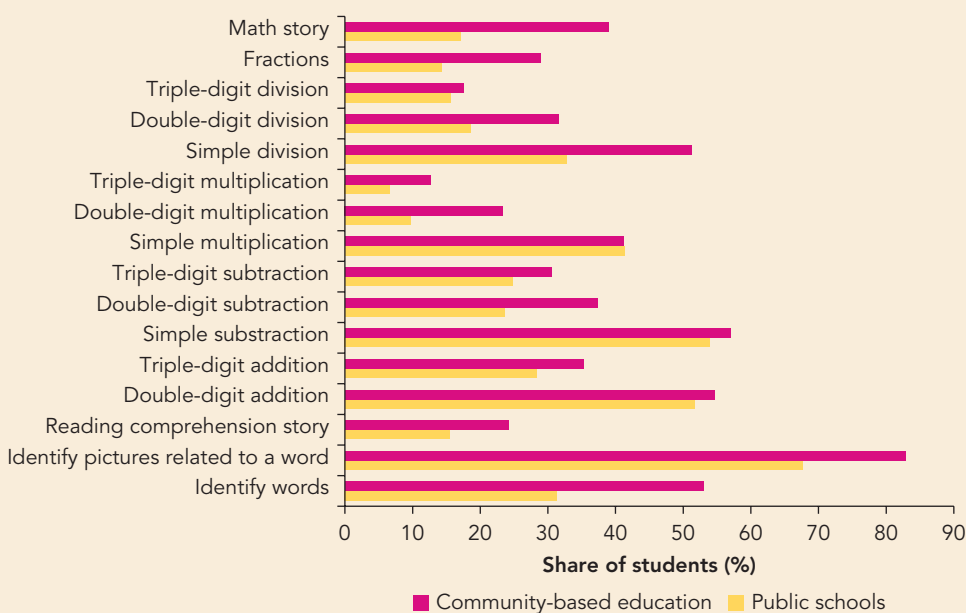
In 1997, the Government of Bangladesh established the National Education Committee, charged with drawing up national guidelines improving the infrastructure for education at all levels and boosting demand for education. An Education Commission was set up in 2003, composed of multidisciplinary experts and

education professionals. In 2010, it produced the National Education Policy, which seeks to achieve internationally agreed-on goals for education access, equity, and quality under the Sustainable Development Agenda.

Political support and financial support were both necessary to initiate policy reform in Bangladesh; political support in particular was sustained in coordination with donor agencies throughout policy implementation. Facilitation of many of these interventions and policy initiatives were made possible through massive public expenditure efforts tied with technical and financial assistance from major development partners. The Government of Bangladesh, over the last 20 years, has jointly maintained a Primary Education Development Program with the World Bank, Asian Development Bank, and other partners to improve primary enrollment and completion rates, build schools and classrooms, and improve curriculum and textbook quality. Similarly, a Secondary Education Sector Improvement Project (1999–2007) and Secondary Education Quality and Access Enhancement Project (2008–present) were introduced to achieve similar goals at the secondary level; this was supplemented over the past few decades with strong public-private partnerships, combining public finance with private sector provision of schools, teachers, and necessary equipment. Complementary projects such as Reaching Out of School Children were initiated by the Government of Bangladesh and the World Bank to bring hard-to-reach-and-teach children back into the education system. All in all, these comprehensive programs systemically applied a diverse set of initiatives to tackle differential constraints on access to education.

These improvements in educational outcomes were therefore not a product of one policy initiative, but rather a “package” of targeted interventions for tackling various aspects of problems to access that Bangladesh had historically faced. Major projects to provide financial assistance to female students, improve teacher quality, enhance curriculum and learning materials, and provide free meals at school have worked in unison to raise enrollment, but further work remains.

The government of Afghanistan recognizes that access to basic education remains a challenge, especially for girls, and acknowledges that insecurity in the country and financial constraints still prevent the Ministry of Education from providing every school-age child with equal learning opportunities. One response to these challenges has been a reliance on community-based education, through a partnership between the Ministry of Education and donors. Community based education is a part of the formal education program of the government, where local teachers teach students in remote areas. Community-based education classes now reach some 400,000 students annually, mostly in rural areas.<sup>1</sup> In 2015, these programs hired 11,887 teachers and enrolled 333,837 students, 65 percent (219,769) of them girls.<sup>2</sup> Establishing classes in remote villages has significantly increased educational access and learning for boys and girls (figure S1.2).

**FIGURE S1.2** Community-Based Education Has Improved Student Learning in Afghanistan, 2016

Source: Noori 2017.

## Challenges: Equity, Quality, and Monitoring

In both countries, access to good-quality education is uneven across population groups, reflecting a range of barriers. On the demand side, lack of awareness of the opportunities opened up by education, plus the financial constraints, economic and opportunity cost of forgone child labor, household responsibilities, and social norms lower enrollment and retention rates. On the supply side, constraints include not enough schools and classrooms, substandard infrastructure, not enough good teachers, inadequate sanitary facilities, and insecurity. Studies highlight the need to allocate more resources to public information campaigns on the long-term value of a good education and to devote more resources to education (ADB 2015). In Afghanistan, education currently receives just 2 percent of the budget, one of the lowest shares in South Asia. Recently, the Prime Minister's Office in Afghanistan identified school enrollment as a key national priority and is pursuing public-private cooperation in boosting enrollment and reducing grade retention and dropout rates.

Grade repetition and dropout rates are still high in Bangladesh. Only half the students who enroll in grade 1 graduate from secondary school (grade 10) (World Bank 2016). And several children, ages 6–13—mostly from poor families, hard-to-reach areas, and slum settlements—remain out of school (table S1.1). Access to education is

**Table S1.1 Education Indicators for Bangladesh, Latest Available Data**  
Percent

Selected education indicators	National	Rural	Urban	Slums
Literacy rate (age 10 and older)	61.2	57.5	73.4	60.4
Primary school net enrollment rate	91.9	91.2	93.1	70.3
Primary school–age dropout rate	8.9	8.8	9.3	8.0
Secondary school net enrollment rate	57.1	58.1	63.6	33.2
Secondary school–age dropout rate	16.9	16.9	16.8	5.8
Out-of-school children, primary school age	16.7	16.9	15.9	27.5
Out-of-school children, secondary school age	21.4	21.6	20.6	47.3

Sources: World Bank 2013; Government of Bangladesh 2015.

lowest for children from poor and other vulnerable households and who live in remote areas. Politically sensitive regions such as the Chittagong Hill Tracts lack adequate schools, and indigenous children face additional language barriers. Children in slum settlements face persistent barriers to equitable education, as education services fail to keep pace with rapid urban population growth. Children in slums have complex needs, and policy initiatives to improve learning outcomes also need to address malnutrition, illness, insecurity, and child labor. Nongovernmental organizations and private initiatives have stepped in to reach some of these areas that are underserved by public education services, providing nonformal schooling options as a stopgap.

While achievements in enrollment have been impressive, quality remains uneven. Access and quality are not mutually exclusive goals. Strong arguments can be made that the low quality of education is one reason for persistently high dropout rates, low primary school completion rates, low primary to secondary school transition rates, and low secondary enrollment rates.

In Bangladesh, more than 15 percent of primary school–age children (approximately 2.5 million) have never enrolled in school or drop out before completing primary school. Improving the quality of education could lead to higher retention as improved pedagogy and curricula provide a stronger foundation for pursuing higher education and result in better employment outcomes in the long run.

In Afghanistan, the lack of minimum standards for community-based schools has made monitoring and accountability difficult. A lack of coordination within the education system has resulted in the spread of community-based schools according to the preference of the implementing partner and not national need or agreed-on norms. Anecdotal evidence indicates that community-based schools are concentrated in urban areas, where they are least needed, rather than in hard-to-reach areas, where they could serve disadvantaged children.<sup>3</sup> In addition, coordination is lacking between the national school system and community-based schools, so that transitions to public schools do not take place or do not go smoothly.

Moving forward, further improvements to education access and quality require partnerships between national and local governments and external actors to align development interests and goals. Otherwise, even sustaining the recent progress in enrollment and grade retention may be difficult.

## Notes

1. Community Based Education Policy developed by the MoE and CBE donors.
2. The limited data on these classes come from impact evaluations, learning assessments, and the World Bank's Service Delivery Indicator Survey in 2016.
3. Consultation workshop with the provincial education directors of the Ministry of Education on key challenges to education service delivery, 2017.

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## Public Financing of Education in South Asia

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**E**ducation systems rely on financing to function. Financing pays for the inputs—whether school buildings or teacher salaries—required to implement policies. It can also pose a significant constraint in choosing the right policies. Financial resources are necessary, though not sufficient, to achieve quality education, improve learning, and compensate for challenges faced by disadvantaged groups in the population.

As this chapter shows, the share of public expenditures on education is lower in most South Asian countries compared to the average in countries at the same income level. Importantly, South Asia's share of private household spending in total expenditures on education is highest in the world, and continues to rise at all levels. Public expenditures on education are inefficient. Countries spend only 1 percent to 3 percent of their total education budget on early childhood education, even though returns are highest at this level. Maldives is an exception. At every level, teacher salaries absorb the largest share of the budget, but salaries are unrelated to performance. The distribution of public education spending tends to be pro-poor at lower levels of education but advantages the nonpoor as one moves up the education ladder. Public spending on tertiary education is found to be regressive in all countries for which data are available.

This chapter discusses the status of public financing of education in South Asian countries—who finances education and how funds are channeled, how much governments spend on education and on what, the adequacy and efficiency of

education spending, and the extent to which education financing promotes equity. Private financing is covered in greater detail in the spotlight on private schools in South Asia.

## The Structure of Public Financing in South Asia

Most South Asian countries have a complex public funding system for the education sector. Expenditures for education primarily come from central government funds and revenues from subnational governments. Donor aid or official development assistance (ODA) heavily finances education in some countries in the region. In Afghanistan, international assistance accounted for 69 percent of Afghanistan's total national budget in 2016 (GPE 2016). External financing in Nepal (which includes financing from development partners and outside the government budget, and financing from international NGOs) represented nearly 7 percent of the total expenditures in 2014–15 (UNESCO 2016). Donor ODA is used to finance the development budget, part of the operating budget, and off-budget project interventions.

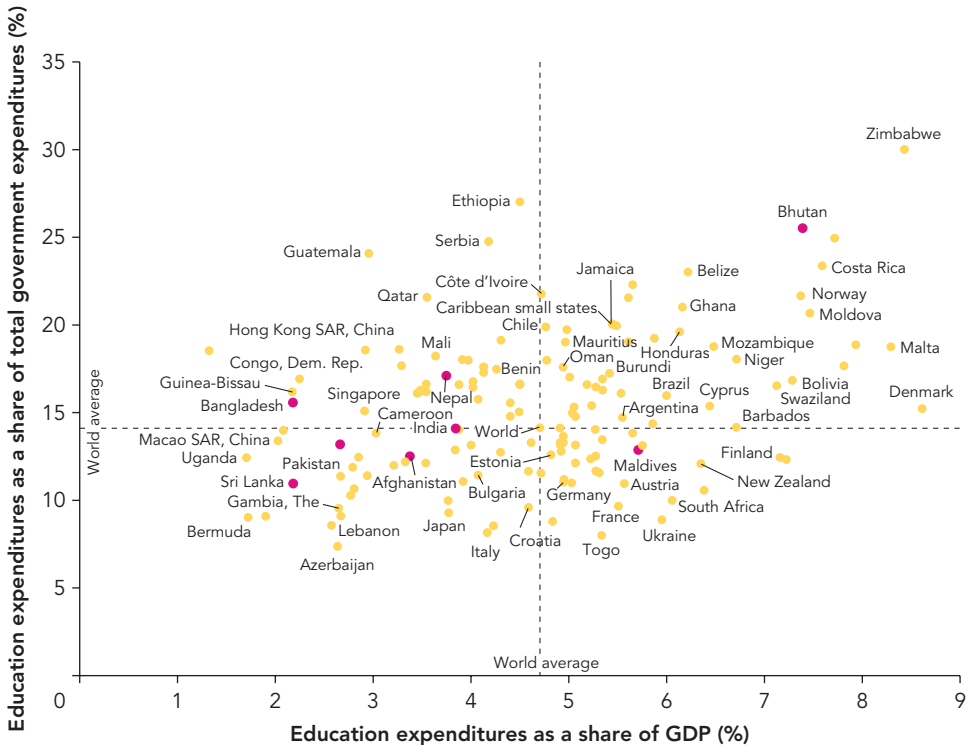
The way in which funds flow differs across countries with federal and unitary government structures. In India, Nepal, and Pakistan—all federal countries—education funds flow from the center to subnational units. In addition to central funding, subnational governments also allocate their own resources to education. In South Asian countries with unitary government structures, funds flow from the Ministry of Finance (or equivalent) to the Ministry of Education, and then to Departments of Education, which direct funds to national schools. In the case of provincial schools in Sri Lanka, funds flow from the center to the provincial governments, to the Education Ministry, and to Departments of Education. The department then directs funding to zonal education offices that disburse funds to provincial schools.

The contribution of private household spending to total spending on education in South Asia is among the largest in the world and has been rising at all levels (UNESCO 2015). This is related to the increase in private education providers and rising enrollments in private schools and colleges noted in previous chapters. The lack of regular data on household expenditures on education from South Asian countries limits a comprehensive understanding of private household funding, but sample-based surveys provide some information. Households in India spend almost 10 times more per year on private schooling than public schooling.<sup>1</sup> Even in the case of students in public or publicly aided schools, households incur significant out-of-pocket expenditures. In India, per student expenditures incurred by households are between INR 1,600 and 2,200 at different levels of schooling. Spending on private coaching constitutes between 20 percent and 30 percent of household expenditures on school education.<sup>2</sup> Household spending on higher education is also substantial. In Nepal and Pakistan household spending substantially exceeds public spending and accounts for between a third and two-thirds of median household income.<sup>3</sup>

## Are South Asian Countries Spending Adequately on Education and Skills?

The share of public spending on education in most South Asian countries is lower than in countries at the same income level. A government's allocation to the education sector is indicative of the priority accorded to education in the country. Policy reports in South Asia have long advocated allocating resources equivalent to 6 percent of the gross domestic product (GDP) for education. International benchmarks, by way of the Education 2030 Framework for Action (UNESCO 2015), suggest two targets for education spending— (i) allocating at least 4 to 6 percent of GDP to education; (ii) allocating at least 15 to 20 percent of public expenditures to education. Where does South Asia stand on these indicators? Available data show that Afghanistan, India, Pakistan, and Sri Lanka meet neither of the suggested targets (figure 2.1). In 2015, education spending as a percent of GDP was under 4 percent in these countries and as low as 2 percent in Sri Lanka. Among the South Asian countries that do meet one or more of the targets, in Bangladesh and Nepal public education spending was over 15 percent of total public

**FIGURE 2.1** Most South Asian Economies Underinvest in Education



Source: World Development Indicators, 2017.

Note: Data are for 2015 or most recent year. For South Asia, figures for India are from 2013.

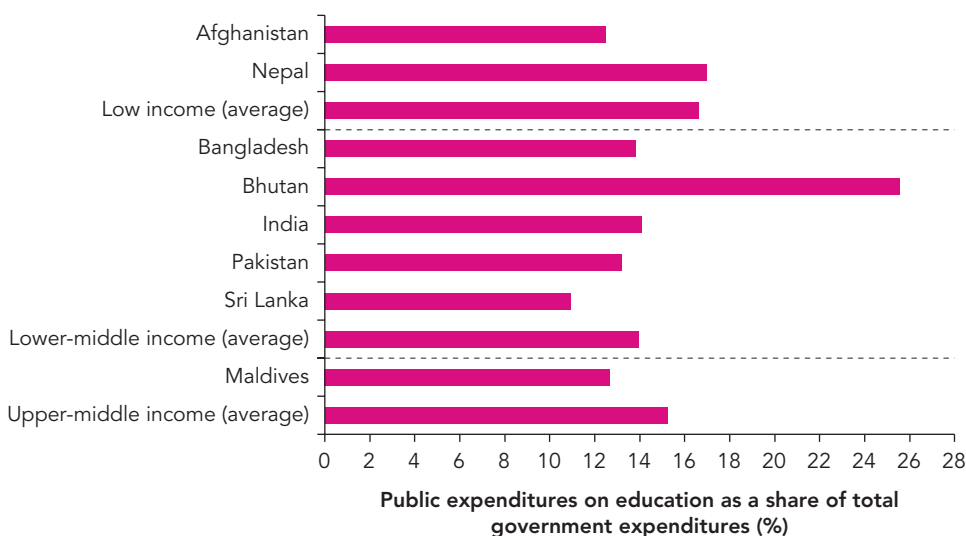
expenditures until 2015.<sup>4</sup> The Maldives, on the other hand, allocates less than 13 percent of public spending to education, but as a percent of GDP education spending exceeds 5 percent. Bhutan is a clear outlier in the region. Here, public education spending constitutes a relatively large share of GDP (7 percent) and of total government expenditures (over 25 percent).

South Asia is made up of low-income, lower-middle-income and upper-middle-income economies, and it is informative to compare levels of public spending on education in these countries to others at the same level of economic development (figure 2.2).<sup>5</sup> In Bhutan, India, and Nepal, allocation to education as a share of total government expenditures—a direct measure of government commitment—is higher than the average for countries at the same income level. The remaining countries, however, have lower spending than their counterparts. Comparing education spending alongside the share of the school-age population

Education spending in many South Asian countries compares unfavorably with other countries at the same income level and with similar shares of the school-age population.

is particularly instructive. As is evident from table 2.1, countries like Vietnam invest a larger share in education compared to countries like India, Maldives, Pakistan, and Sri Lanka that are at similar income levels but have higher shares of school-going children.

**FIGURE 2.2** Public Expenditures on Education as a Percentage of Total Government Expenditures in Most South Asia Countries Is Lower Than the Average of Countries at the Same Income Level



Source: World Development Indicators, 2017.

Note: Data are for 2015 or latest available year. Low-income, lower-middle-income, and upper-middle-income data are from 2013.

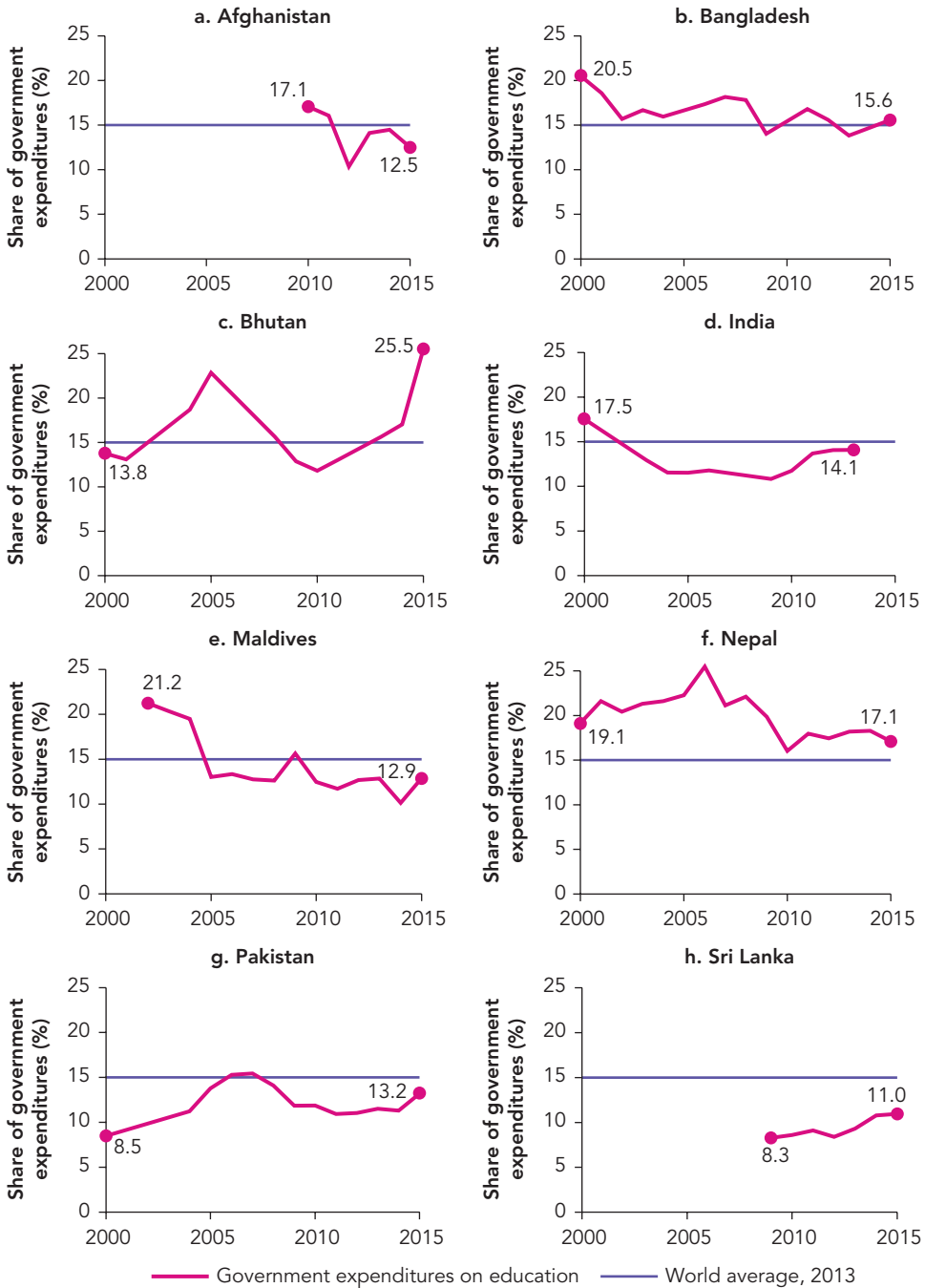
**TABLE 2.1** When Compared to Countries with a Similar Share of School-Age Population and Income, South Asian Countries Spend Less on Education as a Share of GDP

Country	Share of population younger than age 19 (%)	Public education expenditures as a share of total government expenditures (%)	GDP per capita (PPP)
Afghanistan	56.2	12.5	1,809
Bangladesh	39.4	18.1	3,133
Bhutan	37.1	25.5	7,743
India	38.1	14.1	5,757
Maldives	30.9	12.7	13,705
Nepal	43.9	17.0	2,314
Pakistan	45.2	13.2	4,696
Sri Lanka	32.2	11.0	11,080
Brazil	31.0	15.7	14,703
Mexico	36.8	19.1	16,939
Indonesia	36.6	20.6	10,368
Vietnam	30.6	18.5	5,555
Rwanda	51.2	12.3	1,731
South Africa	38.6	18.1	12,378

Sources: UN Population Division 2015; World Development Indicators 2015 unless otherwise stated (Bangladesh and South Africa, 2016; Brazil and Mexico, 2014; India and Vietnam, 2013; South Africa, 2016).  
Note: PPP (purchasing power parity) is in constant 2011 international dollars.

Trends in public spending on education in South Asia show considerable fluctuation, with overall decreasing trends in some countries. Between 2000 and 2015, public spending on education as a share of total government expenditures decreased in the region while it increased as a share of GDP. On both indicators, South Asia is below most other regions, namely, Latin America and the Caribbean, East and Southeast Asia, and Sub-Saharan Africa. Regional averages conceal substantial differences between countries in South Asia (figure 2.3). In Bangladesh and Nepal, government commitment to education was relatively high and increasing in the early to mid-2000s. The expansion in education spending in Nepal during this period is attributed to the government's greater focus on inclusion in public services, growth in revenue and increases in donor aid in the form of grants.<sup>6</sup> The share of education spending in both countries gradually declined over time,<sup>7</sup> although it was above 15 percent until about 2015. Overall declining trends are also observed in Afghanistan and Maldives. In the case of Pakistan and Sri Lanka, however, there is an overall positive trend in education spending—these countries have gone from a low base of about 8 percent to 13 percent and 11 percent, respectively, by 2015.

**FIGURE 2.3** Government Expenditures on Education as a Share of Total Government Spending in South Asia Fluctuated between 2000 and 2015, Decreasing at First and Now Gradually Increasing



Source: World Development Indicators 2017.

## Education Spending by Functional Classification

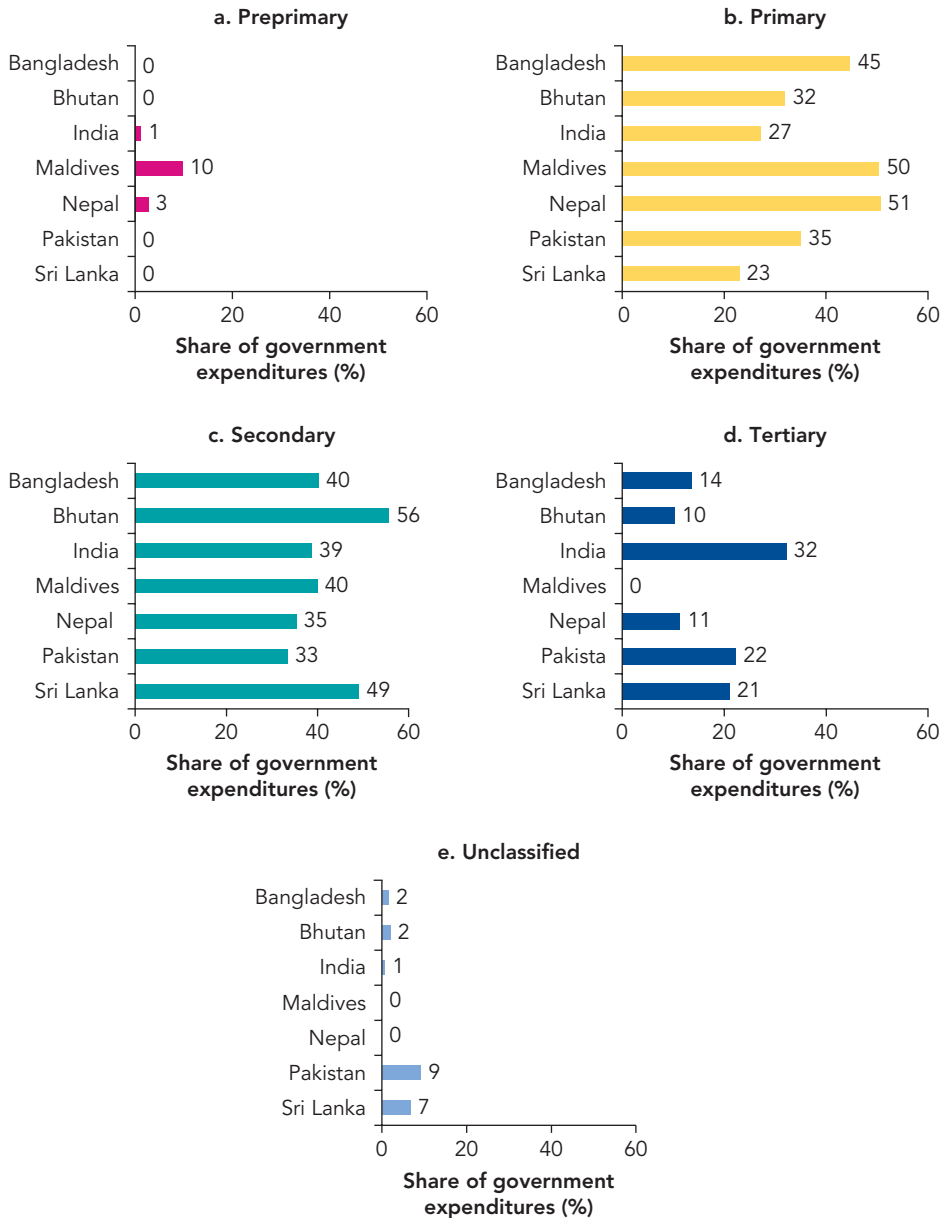
The distribution of spending across levels of education provides further insight into government priorities and the levels at which countries might be facing challenges in meeting education goals. For South Asia as a whole, the largest share of public education spending is at the secondary level (about 39 percent), followed by primary (about 30 percent) and tertiary (21 percent).<sup>8</sup> Spending on early childhood education is very small in most countries except Maldives, where it constitutes 10 percent of total government education spending (UNESCO 2016).<sup>9</sup> This reflects the region's progress toward universalizing primary education, making greater efforts at the secondary level, but also the lack of focus on the early years. Country-wise distributions show deviations from this pattern (see figure 2.4). About half of the public spending on education in Bangladesh, Maldives, and Nepal goes to primary education (where enrollment rates are over 90 percent). Bhutan, India, and Sri Lanka allocate a larger proportion of the budget to secondary education than to primary education. As countries develop, the share of public spending on primary education is expected to decline in relative importance (ranging from 20 to 35 percent), and spending across levels tends to balance out (World Bank 2017a). This is not the case in South Asia, where countries are at different levels of economic development.

About half of the public spending on education in Bangladesh, Maldives, and Nepal goes to primary education (where enrollment rates are over 90%).

Tertiary spending in South Asia ranges from 10 to 20 percent of total government spending on education, except in India, where it is higher. Afghanistan, Bangladesh, Bhutan, Maldives, and Sri Lanka have a centralized higher education system, with the central government incurring the bulk of expenditures and provisions. In India, Nepal, and Pakistan, state or provincial governments generally lead the financing and provisioning of higher education. In Pakistan and Sri Lanka, public spending on tertiary education is about 20 percent of government education expenditures. For India, the functional analysis shows that over a third of the sectoral budget goes to tertiary education, with 27 percent going to primary and 39 percent going to secondary education—patterns that deviate from other South Asian countries. Expenditures on higher education in India have steadily increased since 2006. This increase corresponds to the period of phenomenal growth in higher education enrollments in the country. Interestingly, the increase in funding during this period was driven principally by increased higher education funding from the central government, while the state share for higher education remained relatively constant (at about 0.5 percent of GDP). The relative shares across sectors in India raise some concerns about the internal and external efficiency of education spending given the dropout rates at higher levels of schooling and inadequate knowledge and skills of school leavers (see chapter 1).

Across South Asia, the higher education system is projected to grow, almost linearly, over the next several decades. To meet the growing demand for higher education, public resources alone will be insufficient and South Asian countries could explore reallocation of funds across levels, among other solutions. Several governments internationally have

**FIGURE 2.4** Public Spending on Secondary Education in Bhutan, India, and Sri Lanka Constitutes a Larger Share of Government Expenditures on Education Than Spending on Primary Education



Sources: World Development Indicators, 2017; Bangladesh 2009; Bhutan 2014; India 2012; Maldives 2008; Nepal 2014; Pakistan 2014; Sri Lanka 2013.

Note: The educational levels are based on the ISCED classification. Unclassified reflects the administrative budget for the sector. Figures do not sum up to 100 percent; preprimary education share and share of expenditures on administration of the sector are not shown.



moved to a cost-sharing pattern for higher education financing and away from funding institutions to funding students through student loan schemes (Krishnan 2017).

Despite the recent attention to skills training, data on expenditures on skills development are not systematically available, making it difficult to analyze adequacy of spending in this area. In the past decade, South Asian governments have ramped up their skills development agendas and set ambitious training targets. Generally, several ministries are involved in skills development, but the main players include the ministries of education and skills. Accordingly, the available data on financing for skills development are in terms of expenditures by one or both of these ministries, thereby underestimating the total spending on skills development in the region. In Bangladesh, for instance, data are available from the education side but not from noneducation ministries and show that about 5 percent of the education budget share goes to the section responsible for skills development. In countries like India, where subnational governments are the primary funders of skills development, citing available central government expenditures only misrepresents the level of financing for skills development in the country. In Sri Lanka, on the other hand, skills development is mainly financed from the national budget, the bulk of which is allocated to the Ministry of Skills Development and Vocational Training (MSDVT). Most of this budget is spent on centers run by 10 agencies within MSDVT's purview. Estimates indicate that a total of 0.24 to 0.34 percent of GDP is allocated to skills development in Sri Lanka (World Bank 2017b).

Public financing of education in South Asia is inequitable, as per-student spending generally increases with the levels of education and of income per capita. There is wide variation in the unit cost of primary education across South Asian countries (see table 2.2). Per-student spending on primary education ranges from US\$183 in Afghanistan to US\$2,451 in Bhutan. On average, the unit cost of secondary education

**TABLE 2.2 Per-Student Spending, by Level of Education**  
Constant 2014 US Dollars (PPP)

	Primary	Secondary	Tertiary	Multiples of primary to secondary	Multiples of secondary to tertiary
Afghanistan	183	185	1,096	1.01	5.92
Bangladesh	230	245	642	1.07	2.62
Bhutan	2,451	2,445	3,995	1.00	1.63
India	488	841	2,458	1.72	2.92
Maldives	2,096	..	4,400	..	..
Nepal	305	258	596	0.85	2.31
Pakistan	364	721	2,834	1.98	3.93
Sri Lanka	848	678	3,351	0.80	4.94
Median average, South Asia	426	678	2,646	1.60	3.90
Median average, East Asia and Pacific	3,627	9,431	9,591	2.60	1.02
Median average, Latin America and the Caribbean	1,871	2,387	3,137	1.28	1.31

Source: UNESCO 2017.

Note: PPP = purchasing power parity.

in the region is higher than primary education (US\$678)—this is expected, given the need for specialized teachers and associated higher average teacher salaries. But not all South Asian countries spend more per student at the secondary level than at the primary level. In Nepal and Sri Lanka per student spending on primary education is higher, whereas per student spending on secondary education in Pakistan and India is about double of that in primary education. Per student spending on tertiary education in countries in South Asia is between 2 to 6 times the unit costs of secondary education. At all levels, the average per student spending in South Asia is significantly lower than averages in other regions, namely, East Asia and Latin America. Even in the case of India, where a relatively high share goes toward tertiary education (see figure 2.4), per-student spending in tertiary is lower than that in some South Asian countries and other regions. This implies that the real resources available per student, on average, are lower and have implications for the quality of education provided. As discussed previously, while increasing public funding for higher education might not be an optimal solution across South Asia, mechanisms like student loan programs that take into account access barriers and cost recovery could be considered.

Per child spending (as opposed to the per *student* spending) on education captures the relative resource availability for the sector taking into account the population of the school-going age group in a country—not just enrollment rates. Comparing how much governments spend per child relative to per student indicates the level of inclusivity of the public school system (CBGA and CRY 2016). Given that more than 35 million children are out-of-school children in the region (see chapter 1), per child spending figures for South Asia are lower than estimates of per-student spending. In the case of India, across a sample of large and small states, the difference between per student and per-child spending is more significant in some states than others (see table 2.3). This has several implications—the difference could reflect variation across states in numbers of out-of-school children; in states where the number of out-of-school children is

**TABLE 2.3 Per-Student Spending Relative to per-Child Spending on Education**

State or province	Per-student spending	Per-child spending
Goa	67,041	30,747
Kerala	38,811	19,295
Karnataka	22,856	14,162
Chattisgarh	19,190	15,805
Rajasthan	13,512	10,835
Jammu and Kashmir	22,136	12,767
India	13,974	10,700
Nepal	19,967	16,375
Sindh, Pakistan	19,557	17,325

Sources: For India, CBGA 2016; for Sindh, Pakistan (elementary only), World Bank 2017; for Nepal (lower and upper secondary only), United Nations Population Division 2015; National Education Accounts Nepal, 2009–15.

not high, higher per child spending could reflect relatively higher enrollment in private schools or demographic changes in the age groups going to school.

## Is Education Spending in South Asia Efficient?

Low spending on early childhood education and development in South Asia is inefficient. For efficient and effective education financing, systems invest in inputs with the largest marginal returns. Although studies have confirmed robust returns to investments in the early years compared to equivalent investments later in life (Heckman 2008), the share of spending on early childhood education in South Asia is quite low—significantly lower than at other levels of education.

Governments are under pressure to use education resources efficiently. Finding optimal ways to invest and making improvements to effectively manage school finance systems requires political will. The way money is spent—and not simply how much is spent—matters in education finance.

Analysis of the economic classification of public education expenditures helps assess the efficiency of education spending. But granular data on the composition of education spending are not available for all countries in the region, and this precludes a fuller assessment of the efficiency of education spending. The available information on composition of public education expenditures shows that spending is biased toward inputs and infrastructure.

High shares of spending on staff compensation crowd out allocations for non-wage inputs and interventions that can improve learning. Table 2.4 shows the composition of government spending on elementary education in India over time. The largest share of resources is allocated to teacher-related expenses (mainly salaries), followed by the

Investments in early childhood have been found to be highly cost-effective, underscoring the high dividends associated with these investments and the need for governments in the region to expand access to, and improve the quality of, early childhood development and education.

**TABLE 2.4** Trend in Component-Wise Allocations for Elementary Education in India  
Percentage

Type of expense	2011–12	2012–13	2013–14	2014–15
Teachers	41	43	61	59
Schools	35	34	13	18
Children	11	12	15	12
Quality	2	2	1	<1
Management	7	6	7	7
School grants	3	3	3	3
Miscellaneous	1	1	1	1

Source: Accountability Initiative 2015.

school, and then student-level entitlements. Investments in quality interventions have constituted just 1 percent of the total government expenditures on elementary education and have remained unchanged over time. Data from Sri Lanka also show that 55 percent of the recurrent spending goes toward the cost of personnel and a high share of capital expenditures is allocated toward establishing secondary schools (World Bank 2014). In the case of Sindh Province in Pakistan, teacher salaries and pensions constituted about 80 percent of actual expenditures in the school education sector. Strengthened recruitment processes and the reduction in ghost teachers has brought down this spending in recent years. As South Asian countries move from a first stage of education development, providing universal access to basic education, to a second stage of education development, producing good-quality and high-performing education systems at all levels, countries will require higher investments in quality inputs and processes such as equipment, technology, reading materials, professional development for principals in the school and higher education system.

Spending on teacher salaries makes up over 60% of spending on school education in most countries in the region and goes up to about 70% in Nepal and over 80% in Bangladesh at the primary level.

Attracting high-quality teachers in adequate numbers is essential for improving student learning. The remarkable increase in the number of teachers in South Asia has substantially brought down student-teacher ratios. Further, as discussed in this report, teacher salaries are competitive in most South Asian countries.<sup>10</sup> However, the teacher motivation and quality expected from the investment in salaries is undermined by evidence on teacher absences from school and ineffective

teaching practices in the classroom putting into question the efficiency of this spending.<sup>11</sup> The teacher pay scale in most South Asian countries rewards initial qualifications and seniority, instead of also being used to reward better teacher performance.

At the tertiary level, too, substantial shares of spending go to compensation for teaching staff—about a third of the spending, except in Bangladesh, where salaries account for over 75 percent of the total higher education spending. This is despite the large number of faculty vacancies reported for the region. In Bangladesh about 20 percent of sanctioned posts in government were vacant in 2014,<sup>12</sup> and in India and Pakistan vacancies go up to 50 percent in some cases. While this leads to an expensive efficiency problem in the sector, the low quality of skills and employability of higher education graduates in the region also has implications for the efficiency of tertiary spending.

The fiscal cost of teacher absence highlights issues of weak governance and professional norms that lead to inefficiencies in spending. Research from India (Muralidharan and others 2016) found that while absence rates across 19 selected states had declined overall between 2003 and 2010, they were still high. On average, nearly a quarter of teachers were absent (due to unscheduled absences) in rural government primary schools on a given day. The study calculated that the effective student-teacher ratio in government primary schools, taking absence into account, was 41.5—much higher than when absence is not taken into account (31.7). The associated annual fiscal cost of teacher absence was estimated at about US\$1.5 billion. This waste of public funds amounted

to nearly double the effective monthly salary of teachers. The authors also found that additional spending on school inputs was correlated with increased inefficiency of spending, and that reallocating budgets for teacher hiring toward hiring supervisory staff (or other measures for reducing absences) could be a more cost-effective way of increasing teacher-student contact time.

Timeliness of funds flows and budget execution rates reveal potential inefficiencies and accountability issues in the education sector. Public expenditure tracking surveys for the education sector have been carried out in Nepal and Afghanistan. Public expenditure and financial accountability (PEFA) surveys are also available for most countries in the region, though these are dated in a few cases. In terms of flows of funds to schools, the Nepal survey found discrepancies between funds disbursed by district offices and those received by schools, highlighting the need for better financial record-keeping and audits. Schools received 12 percent more funds than that disbursed by the district and spent 6 percent less than the funds received (World Bank 2014). The effectiveness of internal audit systems is rated poorly across most countries in the region for which PEFA findings are available, highlighting the need for improvements in the coverage and quality of internal audits, and in the frequency of reporting the audit findings to management.

While the timeliness of funds delivery is generally not an issue in the case of salaries in most countries in the region, there are delays in the delivery of capital grants for school construction in some countries. Construction funds are usually transferred to schools in the last trimester of the fiscal year; and with additional delays, schools find it difficult to plan and execute construction activities. Additionally, in Afghanistan, technical, procedural, and political issues cause delays in construction activities (Afghanistan Public Expenditure Tracking Survey 2011). Further, requests for operations and maintenance funds by local officials in Afghanistan are often turned down because procedures to make these funds available are deemed complicated, and as a result, operations and maintenance are done outside regular procedures and their costs are not fully recorded.

While timeliness of funds delivery is generally not an issue in the case of salaries in most countries in the region, there are delays in the delivery of capital grants for school construction in some countries.

## Equity of Public Spending on Education in South Asia

Public spending on education is pro-poor at lower levels of school education, but not so for secondary and higher education. Benefit-incidence analysis of public education spending assesses the impact of fiscal policies across the income distribution and can provide some insight into how equitably government resources are distributed. This analysis is available for some countries in the region but is not based on the most recent data and thus might not reflect the current distribution of public expenditures in these countries. Evidence for Bangladesh (Al-Samarrai 2007), India (Mitra 2015; Kundu n.d.) and Pakistan (Asghar and Zahra 2012) suggests that government spending

is progressive at lower levels of schooling; that is, low-income groups are the main beneficiaries of public education expenditures. At the higher education level, government spending is regressive, least benefiting low-income groups. Studies also find that male students benefit more than female students from public spending on education—partly because households choose to enroll males more than females at all levels of education, and partly because public spending is not effectively targeted in regions where gender disparities are high.

Based on data from 2005 for Bangladesh, public education spending was found to be progressive, in that a greater proportion of the spending accrued to the poor compared to private household spending. However, the incidence of spending was not pro-poor, owing to the low enrollment and completion rates among students from poor households when compared to nonpoor households. The poor represented 40 percent of the total population of school-age children in Bangladesh but received 34 percent of the total recurrent expenditures on education. This trend might have altered in recent years with marked improvements in enrollment and completion rates in the country. The evidence for India, although also dated, showed that public spending at the secondary education level primarily benefited the nonpoor, and male students regardless of income group. Since 2010, however, the government has increased funding for secondary education through a focused national scheme. Participation outcomes in secondary—for both gender groups—have since improved tremendously.

Tertiary education expenditures are marked by large inequalities. Income is a significant factor in enrollment and completion at higher levels of education and there is considerable variation in per-student public subsidies at the tertiary level. In Bangladesh, the available evidence indicates that at higher levels of education, public spending on education was regressive. Just 9 percent of public tertiary spending accrued to the poor, compared to 21 percent of household expenditures. In Pakistan, too, the top decile received 37 percent of the total tertiary expenditures while the bottom 30 percent of the population received 11 percent. The regressive distribution of public higher education subsidies is also noted in the Indian case, where 1 percent of the subsidy benefits accrued to the poorest quintile and 65 percent to the richest quintile. Further, this pattern was repeated across most Indian states examined as part of the analysis. In the state of Odisha, where the distribution of subsidy was found to be relatively equal among quintile groups, the cost recovery was also relatively low.

Early childhood programs can have an equalizing effect on later development trajectories. The divergent development trajectories between poor and nonpoor children owing to differences in the home, level and type of stimulation provided, and access to early childhood programs, are highlighted in chapter 3. In Bhutan enrollment in preschool education among the richest quintile is 10 times higher than that of the poorest quintile. Similar participation differences are seen in Sindh, Pakistan. In other countries in the region, stark differences exist by urban-rural location. Early childhood programs can address these differences by reducing the effect of household socioeconomic differences on a child's physical, cognitive, and socioemotional development, and preparing

the child for formal schooling. A first step for South Asian governments will be to significantly improve investments in early childhood programs and ensure effective targeting to benefit disadvantaged households.

The availability of human and infrastructural inputs across schools also shows inequities in public education spending. In the case of India, the data show substantial urban-rural differences in the distribution of school inputs. The proportion of schools in rural areas compared to those in urban areas (both tier I urban areas and others) that have critical human resources like a head teacher or principal is much lower. There are also location differences in basic infrastructural inputs—functioning electricity connections, girls’ toilets, drinking water facilities, and so on. The situation is similar in schools where the proportion of Scheduled Tribe girls is relatively higher.<sup>13</sup> In Pakistan’s Sindh province, too, over 75 percent primary schools lack basic facilities,<sup>14</sup> with wide variation between districts. In better-off urban districts like Karachi and Hyderabad, about half of all primary schools have all basic facilities, but in other districts the share is as low as 2 percent.

More and better data are needed for robust estimates of the distribution of public education expenditures from an equity perspective. The variation in unit costs at subnational levels (that is, districts and subdistricts within divisions/states/provinces) driven by different funding structures by school types, and disproportionate distributions of poor students across school types are important to account for when estimating equity of public spending on education. However, the available data are either limited in scope, inaccessible, inconsistent across sources, or not available at all. In Bangladesh, for instance, the available data do not provide information on the type of school attended for all students. Utilizing available data on the type of school attended (for only a subset of students) would result in a more pro-rich distribution at the primary level than actually prevails (since the students represented in the data are clustered in higher grades of primary). On the other hand, ignoring school type and allocating total spending using overall enrollment shares by quintiles would incorrectly show a more pro-poor distribution (since a nonnegligible proportion of poor students enroll in schools not subsidized by the government but would be counted as beneficiaries of government subsidies).

## How Can South Asia Do Better on Public Finance?

South Asia needs to urgently increase public spending at lower levels of education, especially early childhood education. This does not mean it needs to be the provider as well; provision should be entrusted to entities best suited for service delivery, whether government or nonstate providers, and carefully regulated. At the same time, governments should strengthen financing options to manage demand and supply for postsecondary education. Countries should also focus on improving the efficiency of resource flows, especially the federal countries. Finally, countries need to address data gaps to help track the returns to public and private spending.

## Notes

1. India National Sample Survey Office, 71st round, India Social Consumption—Education Survey (2014).
2. For a detailed discussion, see spotlight on private schooling in this report.
3. Chapter 12 includes a discussion.
4. Post-2015, the share has gone down in Nepal, ranging between 10 and 12.5 percent.
5. Differences in total expenditures in the education sector are related to many factors—from the government’s financial capacity to demography, enrollment rates, quality, prices of basic inputs, and policies on public versus private financing.
6. Revenues increased from 12 percent of GDP in 2007 to nearly 15 percent in 2009 due to strong reforms in revenue administration and customs and value-added tax collection, due to higher consumption from remittances (World Bank 2010).
7. In Bangladesh, some of the decline in spending is attributed to low revenue growth (low tax collections and effort) and low capacity of some ministries to absorb resources (World Bank 2015).
8. Statistical tables for year ending 2014.
9. Some countries may include the preprimary education budget under primary education.
10. The lower teacher salaries in Sri Lanka compared to other countries in the region are well-documented. See chapter 5 and World Bank (2014).
11. See chapter 5 for details.
12. Chapter 13.
13. Author analysis using U-DISE data from 2014–15.
14. Four basic facilities are identified as required by schools: (1) fully enclosed boundary wall, (2) functional toilets, (3) electricity, and (4) drinking water.

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## Use of Information and Communication Technologies in Education

**E**ducation systems in South Asian countries face multiple challenges on multiple fronts. One way to deal with some of the challenges is to apply information and communication technologies strategically. Indeed, the use of technology in education systems in South Asia has increased rapidly over the last two decades. However, technology, no matter how well designed, can complement but not substitute for human creativity, planning, and effort (Toyama 2015).

Not surprisingly, effectively integrating technology into education systems is a complex task.

### Factors Contributing to the Successful Integration of Technology

The first step is to articulate precisely *what* technology is expected to do in a specific operating context, consulting with stakeholders to identify areas that could benefit from the use of technology.

When Afghanistan launched the Monitoring Trends in Educational Growth (MTEG) program in 2013, its stated purpose was to provide policy makers with information on achievement outcomes by grade over time (for example, year-on-year changes in performance in grade 3), and growth in achievement in cohorts across the school cycle (for example, performance of the same cohorts of students in grades 3, 6, and 9) (ACER Centre for Global Education Monitoring 2016). The challenge in assessing grade 3 students, however, was that many students were still at a very basic proficiency level and were unable to read paper-based tests. An innovative intervention was needed to address this key challenge, which is discussed under the next step.

In India, the Mindspark computer-aided learning program for middle school students aimed to alleviate multiple constraints on effective teaching and learning for students from low-income households. The design had to work for students at the same grade level but at many different proficiency levels (with a majority of students functioning below grade level), and had to circumvent limitations in teacher knowledge and teaching ability (Muralidharan, Singh, and Ganimian 2017). This was a formidable challenge, and understanding the operating context was the key to building an effective solution.

Ready4K!, a parent-engagement program implemented in the San Francisco Unified School District during 2013/14 and 2015/16, aimed to address the large variation of learning experiences for young children from different family backgrounds. An earlier study had found that by age 4, children in low-income families receiving welfare assistance had been exposed to 30 million fewer words than children in higher-income (“professional”) families (Hart and Risley 1995). Most other parent-engagement programs suffered from low take-up and massive parent dropout rates. Ready4K! needed to solve this problem and support parents of young children to provide a rich, home-based learning experience.

The second step is to identify and build the “right technology” that suits the context, and an implementation strategy that meets the challenges (and leverages the strengths) of the operating context.

It is often tempting to jump straight to specific inputs (what kind of laptops should I buy?) that worked elsewhere. However, attempts to reproduce education technology that was developed and applied—and showed positive results—in another context rarely work. Technology-enabled development efforts that take place as close to the user as possible and that empower key actors to work toward a shared goal are more likely to succeed.

To solve the problem of limited reading proficiency of students while writing grade 3 assessments, the MTEG team in Afghanistan chose to conduct these assessments using electronic tablets. On the tablets, the assessments used integrated audio files for many of the questions, including those assessing letter sounds, word recognition, and listening comprehension. For students who were not strong readers, these audio files were used to read aloud the questions to students, thereby also permitting more accurate testing of phonics, vocabulary, listening comprehension, and math abilities. Some questions also used touch-enabled responses, such as multiple choice and drag and drop. The tablet-based assessment was also available for offline delivery, thereby avoiding the challenges of limited Internet connections. This technology enabled almost all students to take the test without difficulty.

Zanzibar faced a different kind of challenge: how to reach the most vulnerable young children in remote communities and provide them with access to quality math, literacy, and life skills instruction and materials. The solution used interactive instruction via radio broadcasting, one of the most inexpensive and widely available technologies. The program set up a distance education system that combines radio broadcasts with active learning to improve education quality and teaching practices. The first phase of the Radio Instruction to Strengthen Education (RISE) project used interactive radio instruction to deliver songs, stories, and physical activities to a group of underserved young children from preschool to grade 2 in Zanzibar’s two lowest-performing school districts, with the assistance of a lightly trained adult facilitator. The programs were broadcast on the government-sponsored radio station as well as through portable media player technology. The initiative delivered deep impact,

as reflected in significant test score gains across all three tested subjects (Kiswahili, Math, and English) (World Bank 2017; EDC 2015).

The RISE project in Zanzibar also exemplifies efforts to empower and work *with* key actors to achieve success. The project was led by the Ministry of Education and Vocational Training. The ministry started by training its educators in developing interactive audio programs and accompanying instructional and learning materials, producing audio and video programs, and monitoring and evaluating the activities. These educators were then able to integrate math, life skills, and English and Kiswahili literacy lessons into comprehensive 30-minute programs that complemented the standard curriculum. The programs engaged listeners through locally based stories and activities and offered support to teachers with minimal early childhood development instructional experience. Early childhood learning centers were established in areas with poor access to schools, and RISE staff trained local community members as mentors to guide learners through the broadcasts and postbroadcast activities in nonformal settings identified by the community. Such robust change management, combined with capacity building at various levels and engagement with the communities, enabled easy delivery of the project, and also supported the ministry's efforts to institutionalize the program in just a few years.

The Ready4K! program in San Francisco also had a powerful design that took into account the challenges of the operating context, in particular poor access and parent dropouts in most parent-engagement programs. It used text messaging, a technology widely accessible to all families in the implementation region, including African-American and Hispanic families that had the highest parent dropout rates. Ready4K! broke down the complexity of parental support into three messages a week. One message contained a simple, bite-size step for parents to follow, and two follow-up messages delivered encouragement and reinforcement. The program resulted in increased parental improvement at home and school, leading to gains in early literacy. A careful analysis of the context, and factors that affect the implementation of parental-support programs, was the key to success of Ready4K! in underresourced communities.

The final step is to regularly monitor and evaluate programs and to feed that information into continuously improving design and implementation.

In 2010, the country of Georgia decided to switch graduation examinations to computer-adaptive testing, a type of testing that adapts to the ability level of the person taking the test (Bakker 2014). The expected benefits range from a reduction in cheating (because test takers are shown different questions) to the availability of more precise ability estimates of students, and the development of extensive test-item banks well-aligned with national standards that can lead to more reliable and comparable results over time.

The project benefited from Georgia's small size, well-developed school Internet infrastructure, and a strong commitment from the government to introduce national tests, fund the recurrent costs, and guarantee continuity of operations. The main factor in the program's success, however, was the leadership of an experienced testing institution (National Assessment and Examinations Center), which was able to bring schools on board and

monitor activities to improve the design. As part of an extensive outreach campaign, center staff met with representatives of virtually all the schools involved. Staff demonstrated the test delivery system and test items, distributed a description of the testing process and sample materials, and launched a web-based practice test. Many schools let students take the practice test. This enabled schools and students to experience the test conditions and learn what was expected of them. It also helped to reveal technical problems before the system became fully operational. A rigorous stakeholder consultation process and an openness to learn led to successful implementation. An evaluation by the Georgian Ministry of Education and Science concluded that the computer-adaptive testing was more cost-effective than administration of the same tests using pencil-and-paper techniques and that it met the goals of an efficient, fair, and objective approach to student assessment.

Continuous learning and revision are also evident in reforms in teacher recruitment and transfers in the Indian state of Karnataka (Ramachandran and others 2018). Under the Education Act of 1983, a series of executive orders tried to deal with the challenges of teacher shortages and political interference. Subsequently, the reformers introduced technology solutions to work around identified constraints of disproportionate vacancies in rural areas, teacher preferences, subjective criteria, and corruptible practices. From 1983 to 1998, the system progressively improved until computerized systems were introduced, offering teachers a centralized online process for recruitment based on test scores, and facilitating transfers. New rules and legislation were put in place to support the improved processes, and technology solutions were developed for other admission processes, such as Medical Officers, Technical Education, and Collegiate Education. These changes helped sustain the use of technology-enabled systems for dealing with teacher vacancies.

The Mindspark computer-aided learning program in India is another robust design that was regularly monitored and improved. The software is interactive and includes continuous student assessment alongside instructional games, videos, and activities from which students learn through explanations and feedback. The current version of the software reflects more than a decade of iterative product refinements that have enhanced its effectiveness. For example, one of the challenges was that students at approximately similar levels of understanding of a topic still had very different specific areas of conceptual misunderstanding. Thus, the pedagogical approach needed to be different for different students to alleviate students' specific conceptual bottlenecks. Mindspark uses its database of millions of student-question level observations to identify patterns of student errors, classify the types of error, and target differentiated remedial instruction accordingly. An impact study found that students who used the Mindspark program showed significant gains over students in the control group.

## Realizing the Potential of Technology Tools in Education

*If all you have is a hammer, everything looks like a nail.*

— Abraham Maslow

Technologies have great potential in knowledge dissemination, effective learning, and efficient education services. But technologies are only tools. Solving real-world problems requires identifying and building the most effective tool for the context and using it well. Success in integrating technology into education requires a rigorous analysis of education objectives, a realistic understanding of the potential of technology to achieve those objectives, a careful consideration of the pre- and co-requisites for effective use of technology in education, and attention to the dynamics of education change and reform. Understanding the objectives of the users and beneficiaries is the key.

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## PART II

# Early Childhood Development in South Asia

Many of the skills that are becoming increasingly important in the workplace must be nurtured early, beginning in the first 1,000 days of life. Early childhood development refers to a set of interventions that aim to ensure children are nourished and healthy; receive early stimulation and access to learning opportunities; and are nurtured and protected from stress. Early childhood development interventions are critical for children's academic accomplishments at school and in later life. A substantial body of evidence suggests that learning inequalities in primary school originate in a child's early years, especially for children from poor and uneducated households. Intervening early in a child's development can lift a child to a higher development trajectory. Beyond the first 1,000 days of life, school-readiness interventions targeted at the 3–6 years age group are crucial as they can further prepare young children to benefit from school.

In South Asia, 89 million children under age 5 are still at risk of not reaching their developmental potential. A number of factors have prevented South Asia from making faster progress. First, as discussed in chapter 2, governments in South Asia underfinance early childhood development. Second, coordination failures across multiple ministries entrusted with isolated elements of early childhood development has led to a fragmented approach versus a holistic one. Third, low implementation capacity, including parents and caregivers lacking knowledge of appropriate early childhood development practices and poorly trained caregivers, means that even those children who could benefit from early childhood development interventions are being shortchanged. Finally, poor data systems and quality assurance mechanisms limit accountability.

Countries in South Asia have begun taking early childhood development more seriously than ever before. Nonstate players have played a key role in expanding access to early childhood development services for children in the 0–3 and 3–6 age groups. India recently passed legislation to help new mothers return to the workplace by mandating that workplaces with more than 50 employees provide on-site childcare services. ICT-related early childhood development interventions have also shown promise in the region.

This chapter takes a closer look at these issues, studying both the period of development during ages 0–3 years and the preprimary school period during ages 3–6 years. By investing more, following a comprehensive, multisectoral approach throughout the whole early childhood period and integrating early childhood programs in the larger education system, South Asian countries can seize the opportunity to accelerate human development in the region.

## Investing in Early Childhood Development in South Asia Is Crucial

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**E**arly childhood development (ECD)—the physical, cognitive, and socioemotional development that takes place during early childhood—enables children and societies to reach their full potential. It is identified in the international community’s Sustainable Development Goals as a critical outcome area, and evidence around the world shows that attention to children’s early development is among the most cost-effective approaches for improving a country’s economic and social indicators. Yet in South Asia, 89 million children under age 5 are still at risk of not reaching their developmental potential—despite government interest in and commitment to early childhood development (Black and others 2016).

This chapter explores what has prevented South Asia from making faster progress, looking closely at the policy environment and modes of service delivery. It reveals that gaps in cognitive and socioemotional scores among children appear as early as the first 12 months of life and widen with age. It also assesses progress in implementing preprimary education, the second stage of early childhood that deals with children ages 3–6, discussing different models of preprimary education provision, along with their strengths and weaknesses.

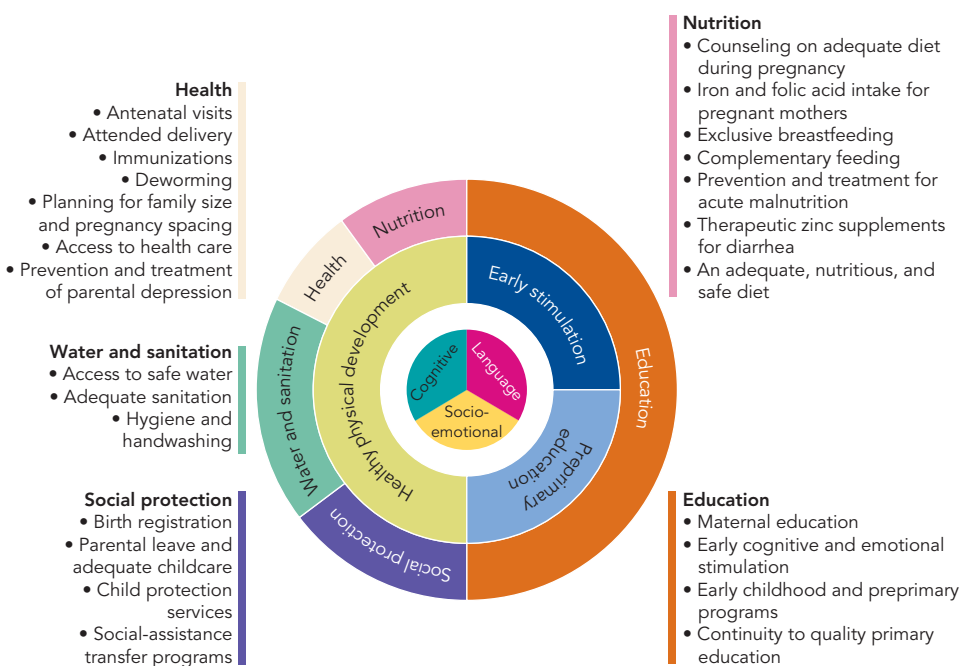
Because early childhood development is a critical determinant of children’s academic accomplishments, it is a vital policy area for governments in South Asia for accelerating human capital development. There is a substantial body of evidence that learning gaps in primary school, especially for children from poor households, originate in the early childhood development period and that early education interventions can start

children on an upward development trajectory (World Bank 2018). In looking forward, a comprehensive, multisectoral approach for the entire early childhood development period can give South Asian countries an opportunity for accelerating human development in the region.

## Early Childhood Development in South Asia

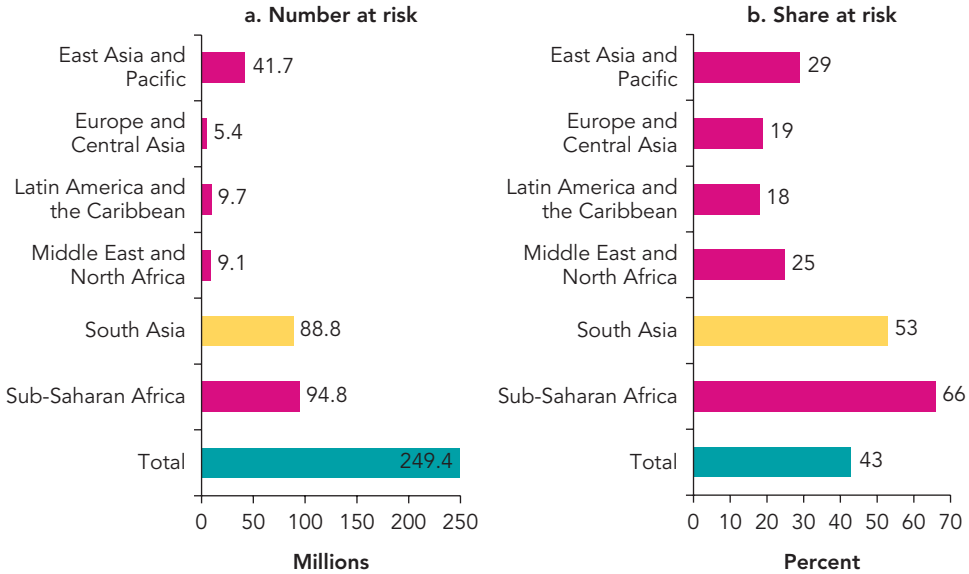
International experience and multidisciplinary evidence show that investing in early childhood development is among the most cost-effective methods for improving economic and social indicators.<sup>1</sup> Improving education outcomes—including cognitive, language, and socioemotional skills—requires multidimensional approaches (figure 3.1). Early childhood development initiatives for children younger than age 3 should include education interventions as well as the health, nutrition, and child protection interventions that are common in South Asian countries.

**FIGURE 3.1** Conceptual Map of Relationships Between Educational Outcomes and Early Childhood Development, Including 25 Key Interventions in Early Childhood



Sources: Authors; 25 STEP interventions are from Denboba and others (2014).

**FIGURE 3.2 South Asia Has the Second-Highest Percentage of Children at Risk of Not Reaching Their Development Potential, 2010**



Source: Black and others 2016.

Parental education and early stimulation interventions can be delivered successfully and cost-effectively as part of other programs already provided by ministries of health or social protection.

Globally, the proportion of children at risk of not reaching their development potential dropped from 51 percent in 2004 to 43 percent in 2010 (figure 3.2). South Asian countries, too, have made substantial progress in economic and social development during the past decades, resulting in improvements in early childhood development indicators. For example, the proportion of children exposed to multiple risks dropped from 65 percent in 2004 to 53 percent in 2010. But the large populations in South Asian countries make ensuring the quality of early childhood development programs challenging. Today, 89 million children under age 5 remain at risk of not reaching their development potential (Black and others 2016). Particularly at risk are children of low birthweight and children who are poorly nourished, ill, or suffer from disabilities or inadequate psychosocial care. These risks are compounded by social determinants such as lack of safe water and sanitation, environmental stresses such as noise and pollution, low levels of parental education, maternal depression, violence, and conflict.

89 million children in South Asia under age 5 are at risk of not reaching their development potential.

Most experts define early childhood development as the development of children from the time of conception through the transition to primary school. At its broadest, early childhood development is an outcome, addressed through comprehensive policies and programs for children from birth to age 8 and their parents and caregivers. The purpose is to protect a child's right to develop his or her full cognitive, socioemotional and physical potential (UNICEF 2001). This chapter uses the slightly narrower definition of early childhood development from the United Nations Convention on the Rights of the Child, which refers to comprehensive child development before primary school, so from conception to age 6.<sup>2</sup> The analysis here also distinguishes two stages when different inputs related to education are required: the phase from birth to about age 3 (often referred to as the first 1,000 days), when early stimulation is critical; and the phase corresponding roughly to ages 3–6, when preprimary education becomes more important.

An effective early childhood development agenda requires coordination among government ministries, nongovernmental and civil society organizations, the private sector, and international institutions on multiple components of a coherent early childhood development program. The World Bank's comprehensive conceptual framework for growth and productivity, called *Investing in the Early Years*, identifies three pillars of early childhood development: (1) children are well nourished and healthy, especially in the first 1,000 days; (2) children receive early stimulation and learning opportunities from birth onward; and (3) children are nurtured and protected from stress (World Bank 2016a). The framework emphasizes investing in early childhood nutrition and good-quality early childhood programs that support families in providing early stimulation and learning opportunities from birth onward, as well as protecting children from the kinds of stress that undermine their development.

## Policy Environment and Service Delivery Models of Early Childhood Development in South Asia

Authorities in South Asia have demonstrated a strong interest in expanding early childhood development interventions and building a more comprehensive early childhood development framework. Elements of early childhood development policies and services have long existed in South Asia, but defining a coherent early childhood development framework is relatively recent. Early childhood development service provision has a relatively long history, especially in the areas of immunization, early preventive care, and home caregiving. India has the oldest early childhood development policy in the region, with its 1974 National Policy for Children. Table 3.1 lists the main policies related to early childhood development in South Asia.

**TABLE 3.1** List of Key Early Childhood Development Policies in South Asian Countries

Countries	Early childhood development policies
Afghanistan	Policy for preschool (drafted in 2013)
Bangladesh	Comprehensive Early Childhood Care and Development Policy (2013) National Education Policy (2010) National Children's Policy (2011)
Bhutan	National Policy on ECCD – 'Education Sector Strategy 2020'
India	National Policy for Children (1974) National Policy on Education (1986) National Policy on Early Childhood Care and Education (2013)
Maldives	ECCD in the Education Master Plan (1995–2005) ECCD included in the 5th, 6th and 7th National Development Plan
Nepal	National Child Policy School Sector Reform Plan (2009–2015) National Curriculum Framework for School Education in Nepal (2007)
Pakistan	National Education Policy (1998–2010) Government of Pakistan's EFA National Plan of Action (2001–2015) National Curriculum for Early Childhood Education (2002, 2007)
Sri Lanka	National Policy on Early Childhood Care and Education (2004)

Source: From various Government documents.

Early childhood development service provision is usually fragmented, reflecting policies and services shaped by multiple ministries. Although some countries have national policies that lay out the management structure for early childhood development, implementation often lacks clarity. Many South Asian countries have overlapping early childhood development initiatives executed by multiple ministries, nongovernmental organizations (NGOs), and private institutions. For example, in Bangladesh, 18 government ministries and more than 200 organizations are involved in implementing early childhood development programs (see box 3.1). India's early childhood interventions are delivered by multiple government ministries; private, for-profit providers; and NGOs. Government early childhood development activities for the 0–3 years age group are delivered through Anganwadi centers as part of Integrated Child Development Services, the flagship welfare program of the Ministry of Women and Child Development, but preschool activities are delivered by the Ministry of Education or nonstate actors. At the same time,

### **BOX 3.1 Bangladesh's Complex Early Childhood Development Service Delivery System**

In Bangladesh, multiple other government agencies are engaged in piecemeal early child development programs related to their area of responsibility. In 2010, 18 government agencies and more than 200 private organizations and international and national NGOs were involved in a variety of health, education, and social protection services to children under age 8. The Ministry of Primary and Mass Education is the leading provider of preprimary education, offering academic preparatory classes at all public primary schools. The Ministry of Religious Affairs operates preschools in mosques. The Ministry of Women and Children's Affairs has established 8,731 preschools serving approximately 800,000 children ages 4 and 5. The Ministry of Health and Family Welfare runs National Nutrition Services to address malnutrition through community-based efforts.

*Source: Chinen and Bos 2016*

there has been a dramatic increase in private provision in India, accounting for roughly 44 percent of all ECD services for 0-to-3-year-olds. While having different service providers is not a problem in itself, poor coordination and the absence of adequate quality assurance mechanisms and uniform standards result in uneven quality of service provision.

**Early childhood development in South Asia lacks an integrated approach that ensures a child's consistent and holistic development.**

In South Asia, the presence of multiple government stakeholders with various responsibilities for education, health, children, and youth complicates both the policy and the implementation landscape. Because the nutrition and health aspects of early childhood development policies have focused on children under age 3, there has been less emphasis on early cognitive

development. Education ministries have generally considered their responsibilities to start with children when they reach primary school age (sometimes preprimary school age). Early childhood development requires a more integrated approach so that children's educational development starts at a much earlier age.

## **Early Childhood Development from Birth to Preschool**

Biologically, the fastest brain development occurs between the prenatal period and age 3, with growth then gradually slowing. The synaptic growth occurs the fastest (1 million new neural connections a second) until around age 3 (World Bank 2017). The first 1,000 days of children's lives are thus critical for brain development.

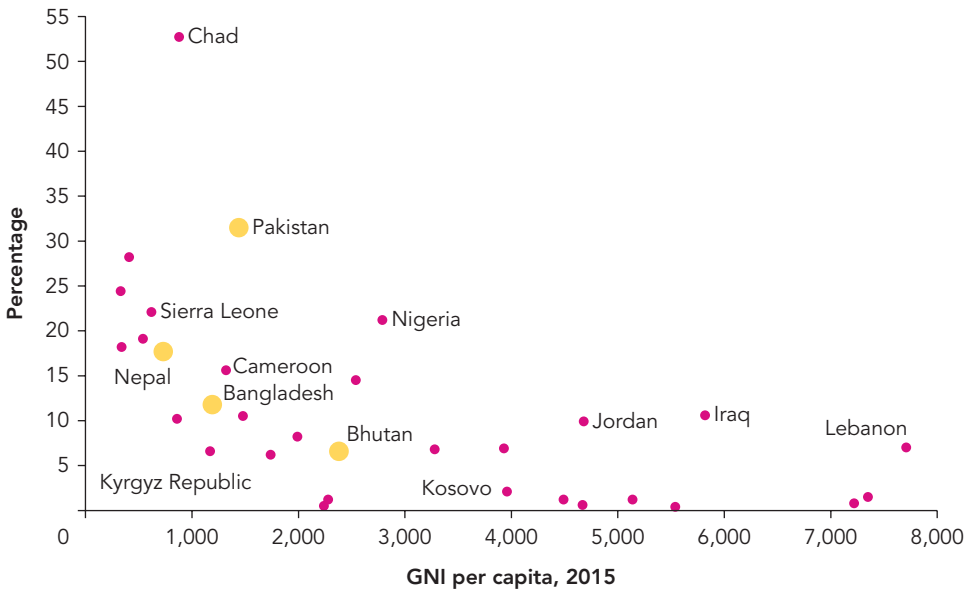


THE STATE OF EARLY CHILDHOOD DEVELOPMENT IN SOUTH ASIA

There are limited sources for nationally representative, holistic measures of children’s cognitive and socioemotional development in South Asia, and no measures can be truly considered globally comparable. The measure available across most countries is the Early Childhood Development Index (ECDI), which provides some information on children’s cognitive and socioemotional development, based on parents’ reports. The ECDI, based on survey data for 2005–15, tracks children’s development in four domains: literacy-numeracy, physical development, socioemotional development, and learning. While there are technical caveats that limit the international comparability of the ECDI, using this measure, South Asian children ages 3–4 score poorly.<sup>3</sup>

Plotting results for the ECDI against gross national income (GNI) per capita for a set of data-available low- and middle-income countries shows considerable variation. The proportion of children in South Asian countries with low ECDI scores on the learning domain varies from 6.6 percent in Bhutan and 11.8 percent in Bangladesh to 17.7 percent in Nepal and 31.5 percent in Pakistan (figure 3.3) (McCoy and others 2016). Some other countries, at higher levels of GNI per capita—such as Iraq, Jordan, and Lebanon

**FIGURE 3.3** Proportion of Children, Ages 3–4 Years, with Low Learning Scores on the Early Childhood Development Index



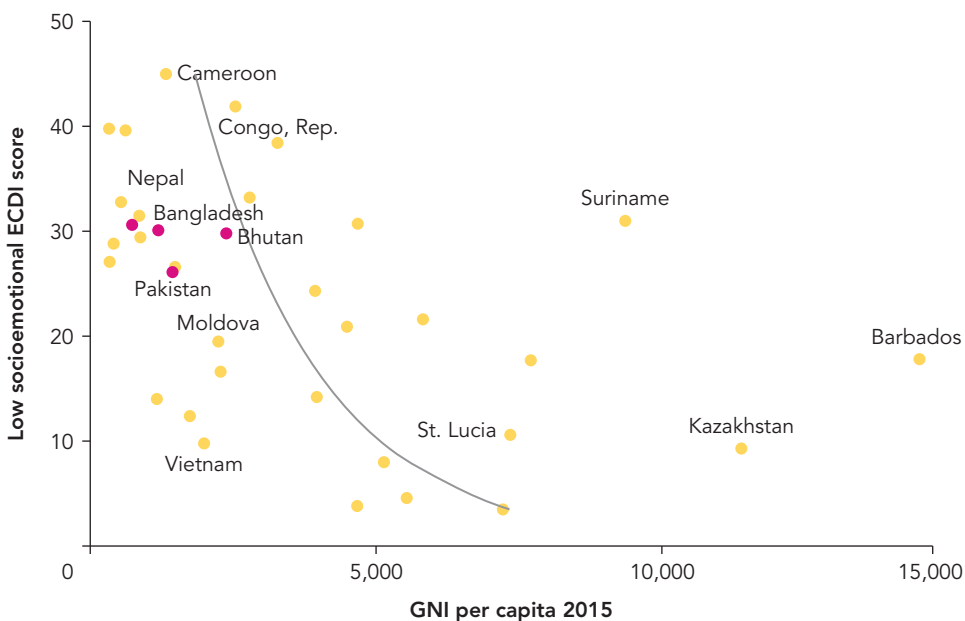
Sources: World Bank 2017; McCoy and others 2016.

(10.6, 9.9, and 7.0 percent, respectively)—have a lower proportion of children with low learning ECDI scores than Nepal and Pakistan.

Scores on the socioemotional skills domain of the ECDI are more uniform across South Asian countries. The proportion of children ages 3–4 with low socioemotional skills is 30.6 percent in Nepal, 30.1 percent in Bangladesh, 29.8 percent in Bhutan, and 26.1 percent in Pakistan (figure 3.4). Some countries with broadly similar GNI per capita, such as Honduras and Vietnam (16.6 and 9.8 percent, respectively), have a lower proportion of children with low socioemotional ECDI scores. Boys tend to show a higher prevalence of low cognitive and socioemotional scores than do girls in Bangladesh and Bhutan (McCoy and others 2016).

Children in South Asia show better progress in the physical and learning domains of the ECDI than in the socioemotional and, especially, the literacy–numeracy domains. Progress against developmental benchmarks varies by ECDI domain in South Asian countries. These patterns are consistent across six studied countries or provinces (table 3.2). For the literacy–numeracy domain, Nepal is the best-performing country in the region, with 28.8 percent of children, ages 36–59 months, being on track, but this is still much lower than scores for the three other domains.

**FIGURE 3.4** Proportion of Children, Ages 3–4 Years, with Low Socioemotional Scores on the Early Childhood Development Index



Sources: World Bank 2017; McCoy and others 2016.

The cognitive and linguistic skills of children in South Asia are similar to those of American children during the first few months of life, but South Asian children fall behind as they grow older. An impact evaluation in Bangladesh used the Bayley Scales of Infant and Toddler Development III (BSID-III) to measure children’s cognitive and linguistic skills.<sup>4</sup> The BSID-III uses a baseline score of 100, which reflects the standardized mean score of American children at each age. In rural Bangladesh, children’s average scores are around 100, on par with the American standard, until about the age of 12 months; their scores drop continuously after that (figure 3.5). At 28 months and older, the average cognitive and linguistic development scores for Bangladeshi children fall to 80–85 for both boys and girls (Nomura and Matsuda 2017). Another study of Bangladeshi children, ages 6–12 months, also reported declining development scores as the children grew older, based on BSID-II (Black and others 2004). The study proposed several explanations for the declining score in the second six months of life, including inadequate nutrition due to competition for food with other family members, exposure to environmental contamination as children begin crawling at this age, the waning of maternally derived immunization, and increasing differentiation between the expectation or benchmark of the scale and the children’s performance.

Inequalities by social group in the development of children’s cognitive skills are also a serious concern in South Asia. Children from poor households in Bangladesh, Bhutan, Nepal, and Pakistan exhibit especially poor development as assessed by ECDI scores (figure 3.6). In Bangladesh, the share of children, ages 36–59 months, achieving composite ECDI milestones is 77.1 percent among the richest quintile and 56.7 percent in the poorest quintile.<sup>5</sup> These shares are 80 percent (richest quintile) and 67.4 percent (poorest quintile) in Bhutan and 86.3 percent and 60.2 percent in Nepal. In Pakistan, the rich–poor differentials vary considerably by province,

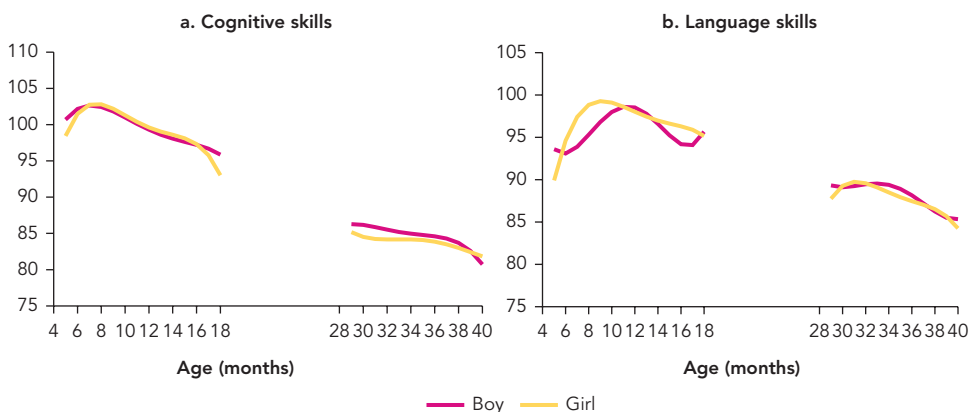
In Bangladesh, the share of children, ages 36–59 months, achieving composite ECDI milestones is 77.1% in the richest quintile and 56.7% in the poorest quintile.

**TABLE 3.2** Percentage of Children, Ages 36–59 Months, Who Are Developmentally on Track, According to the Early Childhood Development Index and Its Domains

Country or province	Literacy and numeracy	Physical	Social and emotional	Learning	ECDI	Reference year
Bangladesh	21.2	92.2	68.4	87.5	63.9	2012
Bhutan	24.6	98.2	69.8	93.0	71.5	2010
Nepal	28.8	96.4	68.6	81.6	64.4	2014
Balochistan, Pakistan	20.0	90.5	68.5	78.1	60.2	2010
Punjab, Pakistan	25.1	97.7	62.2	93.6	67.2	2014
Sindh, Pakistan	25.1	91.8	58.1	85.0	57.3	2014

Source: Multiple Indicator Cluster Surveys.

**FIGURE 3.5** Bangladeshi Children’s Cognitive and Language Skills Begin to Decline at 12 Months, Relative to U.S. Children’s Mean Scores, on the Bayley Scales Score for Cognitive and Language Skills III, 4–18 Months and 28–40 Months



Source: Nomura and Matsuda 2017.

Note: The figure shows the results for a randomized controlled trial of nutrition supplements. The standardized mean score for American children at each age is 100. Lines are smoothed by regressions on quartic polynomial of age. Scores for children, ages 28–40 months, are for the control group only.

with relatively small inequalities in Balochistan (72.4 to 59.2 percent) and Punjab (80.4 to 56.7 percent) and a much larger gap in Sindh (85.8 to 39.8 percent).

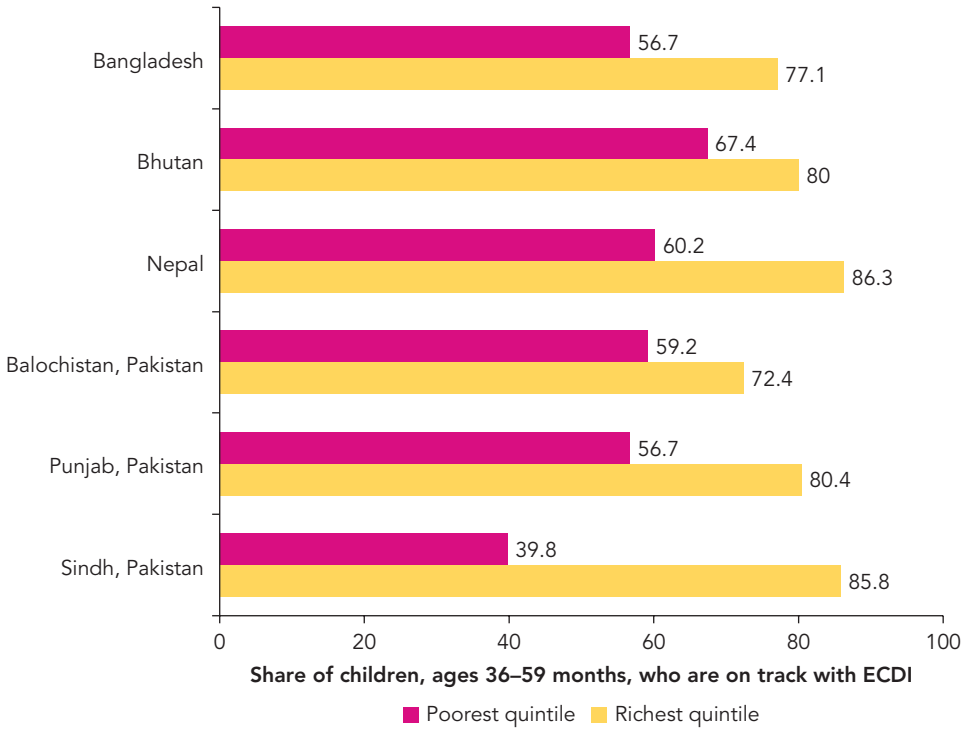
Children in poor and rich households in rural Bangladesh show similar cognitive and language scores on BSID-III until age 6 months, when gaps start to appear. This gap continues at every age level (Nomura and Matsuda 2017).

Many poor children are not born with lower cognitive skills, but a gap appears between them and children from richer households as they grow older, and these divergent development trajectories remain throughout childhood.

A study that tracked children between age 7 months and 5 years in poor villages in Dhaka also found that the cognitive skills gap between richer and poorer children widened as children grew older (Hamadani and others 2014). The main causes of differences were found to be parental education, prenatal and postnatal growth, and home situation, as 86 percent of the effects was mediated by controlling for these factors. Neurological research suggests that the interrelated nature of physical, socioemotional, and cognitive development demands a holistic approach to early childhood development (Denboba and others 2014).

There is also some evidence of inequalities in child development outcomes by social group and gender, with inequalities by gender related to socioeconomic groups. A study in Uttar Pradesh, India, found distinct patterns of cognitive development by caste and by gender and age within and across castes (Boo and Canon 2014). By age 5, the cognitive skills of children are higher in upper-caste households than in lower-caste households. The gap increases at age 8, likely reflecting different enrollment patterns by caste

**FIGURE 3.6** The Share of Children, Ages 36–59 Months, Who Are on Track with Early Childhood Development Index Milestones Is Higher in the Richest Quintile, by Poverty Status



Source: Multiple Indicator Cluster Survey data for Bangladesh (2013), Bhutan (2010), Nepal (2014), Balochistan (2010), Punjab (2014), and Sindh (2014).

in primary education. Caste differences by gender varied by age. Among children in lower-caste households, boys performed better on average than girls. However, among children in upper-caste households, girls performed better at age 5 and boys performed better at age 8. These reversed trends could not be explained in econometric analyses by observable characteristics and are most likely due to discrimination against girls in upper-caste households. Another study using data from a rural household survey for 1997–98 in Uttar Pradesh and Bihar, India, found empirical evidence of higher participation in early childhood education programs among boys only in poor households (Self and Grabowski 2011).

### WHAT CONTRIBUTES TO THE DEVELOPMENT OF COGNITIVE SKILLS AT AN EARLY AGE?

Impact evaluations for South Asia show that nutrition, responsive caregiving, early stimulation, and parental knowledge are the key contributors to early cognitive development in children. In the past, these evaluations have been part of health or

nutritional interventions assessing nutritional or physical development outcomes under the perspectives of pediatrics, nutrition, or health. More recent evaluations have also assessed cognitive development outcomes (Aboud and Akhter 2011; Vazir and others 2013).

## Nutrition and Health Interventions

There are two types of risk factors for healthy child development—biological and psychosocial. Biological risk factors include prenatal and postnatal growth, nutrient deficiencies, infectious diseases, and environmental toxins. Psychosocial risk factors include parenting factors, maternal depression, exposure to violence, and poverty.<sup>6</sup> Children are frequently exposed to multiple and cumulative risks, and as risks accumulate, child development is increasingly compromised. Stunting, iodine deficiency, and iron deficiency anemia are key biological risk factors, and inadequate cognitive stimulation is a key psychosocial risk factor (Walker and others 2007, 2011).

Evidence in South Asia on the impact of micronutrient supplementation on cognitive and behavioral development is mixed, but supplementation would likely be more effective if targeted to less nourished groups. The evidence from several impact evaluations is mixed on whether the provision of micronutrients, especially iron and zinc,<sup>7</sup> improves cognitive or motor development. A study of 544 infants and children in rural Nepal found no evidence of the effects of zinc or iron supplementation on motor or language development,<sup>8</sup> whereas another study of infants, ages 6–12 months, in Bangladesh found that such supplementation promotes motor development and exploratory behavior (Black and others 2004). A study of whether prenatal food and micronutrients supplied to mothers improve infant cognitive, motor, and behavioral development showed that such programs could be more effective by targeting mothers whose children are likely to be less well nourished.<sup>9</sup> A study of 2,853 infants in Bangladesh found that early food supplementation benefited infants of mothers with a low body mass index but did not benefit infants of mothers with a high body mass index or the overall sample.

## Responsive Parenting, Early Stimulation, and Parental Knowledge

Responsive parenting (including early stimulation and responsive feeding)—or the caregiver’s prompt, contingent, and appropriate interaction with the child—contributes to better cognitive and psychosocial development. Responsiveness is conceptualized as a three-step process, from the caregiver’s observation of a child’s

cues to interpretation of the signals and actions to meet the child's needs. Studies in developed countries often find that responsiveness is associated with better language, cognitive, and psychosocial development (Eshel and others 2006; Black and others 2017). Maternal responsiveness in infants and young children is associated with social competence and fewer behavioral problems and increased cognitive growth early in life, as well as with higher school achievement and self-esteem later in life. Positive impacts of responsive parenting on behavioral, nutritional, and motor development were reported in studies in India, including in rural India (Agarwal and others 1992; Aruna, Vazir, and Vidyasagar 2001) and West Bengal (Graves 1976).

When implemented well, interventions that teach responsive parenting can be cost-effective in supporting age-appropriate child development. A randomized controlled trial of an additional education intervention to the standard programs provided by the government's Integrated Child Development Services in rural India focusing on instruction in responsive feeding and play for parents of children, ages 3–15 months, found significant positive impacts on the mental development of children at age 15 months (Vazir and others 2013). An evaluation of an intervention in rural Sindh, Pakistan, found that responsive stimulation in the first 24 months of an infant's life yielded a large and significant impact on cognitive skills (0.6 standard deviation), language skills (0.7 standard deviation), and motor skills (0.5 standard deviation) development, although not necessarily on socioemotional skills (Yousafzai and others 2014). This study showed that such interventions can be integrated into routine health support programs at relatively low cost.

Responsive parenting, if implemented well, can be cost-effective in supporting age-appropriate child development.

Responsive parenting has generally shown sustained benefits later in a child's life. A follow-up evaluation of the rural Sindh, Pakistan, project when the children in the original study reached age 4 (two years after the end of intervention) found sustained impact (Yousafzai and others 2016). The children receiving responsive stimulation had significantly higher mean scores for IQ, executive function, and preacademic skills, although the effect sizes were smaller than immediately after the intervention.<sup>10</sup> Children exposed to responsive stimulation also had significantly higher prosocial behavior and motor skills development. One of the underlying mechanisms of lasting impact of responsive parenting is the indirect influence through the improved quality of the home environment. Improved quality of the home environment quality predicted positive social skills and fewer behavioral problems.<sup>11</sup> Responsive parenting has also shown benefits in children's lives in other regions. In Mexico, parenting support programs integrated with conditional cash transfer programs improved child outcomes beyond the direct effects of the transfers (World Bank 2018).

Parental practices, including responsive parenting and early stimulation, are correlated with mothers' education level. An impact evaluation in rural Bangladesh found that more educated mothers are more aware of the importance of early stimulation and that mothers' knowledge of early childhood stimulation is positively associated with children's cognitive and language scores (Nomura and Matsuda 2017). In slum areas of Hyderabad, literate mothers, mothers with more exposure to information media, and mothers who are more satisfied with life are more likely to engage in psychosocial stimulation activities with their children.<sup>12</sup> Mothers' mental health or confidence originated in support from their husband, availability of leisure time, participating in household budgeting, and having their own money, which also showed higher correlation with stimulation activities.

Improving parental knowledge about early stimulation, together with early childhood development interventions, can be a cost-effective way to enhance child development outcomes, especially in poor households and for children of uneducated mothers. From conception to age 5, early childhood is a vital period for cognitive and psychosocial development. Young children are still learning how to learn, and simple play activities that stimulate the brain through all the senses can improve children's ability to think, communicate, and connect with others (J-PAL 2018). A randomized controlled trial of a parental education program component in Bangladesh showed impacts on children's cognitive and linguistic skills and physical growth, as well as a more modest impact on socioemotional development. In general, larger impacts were observed among girls, younger children, children in poorer households, and children whose mothers have little formal education. The additional program cost per beneficiary child was \$6.84 (Chinen and Bos 2016), and the effect size on cognitive skills per \$100 spent on a child was 2.20. A study in rural Bangladesh of cognitive deficits and poverty in the first five years of life argued that the effects of poverty on children's cognitive skills are mediated mostly through parental education, noting that whereas nutrition is always important, stimulation was especially important throughout the first five years of life (Hamadani and others 2014).

A mother's mental health is an important part of the quality of parent-child interactions. An evaluation of a behavior therapy-based intervention added to the routine work of community-based primary health workers in rural Pakistan observed lower depression scores of mothers.<sup>13</sup> The evaluation also observed a significant increase in play frequency with infants by both parents. A meta-analysis of studies of maternal mental health interventions in low- and middle-income countries found that interventions delivered by nonspecialist health and community workers were more beneficial than routine care for both mothers and children (Rahman and others 2013). The studies showed a reduction in maternal depression, and the benefits for children included improved mother-infant interaction, better cognitive development and growth, less diarrhea, and higher immunization rates.



A wide range of education programs and tools can provide informal education and develop cognitive and socioemotional skills. A meta-analysis of 24 studies in 15 countries, including Bangladesh and India, of the effects of children's exposure to *Sesame Street* found significant positive effects on cognitive outcomes, including literacy and numeracy, learning about the world, knowledge of health and safety, social reasoning, and attitudes toward out-groups (Mares and Pan 2013). In Bangladesh, almost half of a national sample of children watched television daily in 2007, and of those, 83 percent in urban areas and 58 percent in rural areas watched the local version of *Sesame Street* (*Sisimpur*) (Khan and others 2007, cited by Black and others 2016). In India, where only 58 percent of children are estimated to have access to television, 21 percent of children ages 2–8 had watched the Hindi-language adaptation of *Sesame Street* (*Galli Sim Sim*) in the past week, meaning that more than 20 million children were watching on a regular basis (GyanVriksh Technologies 2008, quoted by Mares and Pan 2013).

## Preprimary Education

Preprimary education (also called preschool education) has been expanding rapidly in South Asian countries, reflecting the high returns to public expenditures on preprimary education. The International Standard Classification of Education (ISCED) defines preprimary education (ISCED level 0) as programs that, in addition to providing care, offer a structured and purposeful set of learning activities in a formal institution or an informal setting (UNESCO 2006). Preprimary, center-based programs are usually for children ages 3–6 and are held for at least two hours a day for at least 100 days a year. A recent study in India (World Bank 2016b) estimates the socioeconomic return on investment in two years of preprimary education at 1:25, meaning that each INR 1 spent on such programs yields INR 25 in returns. Children entering primary school after two years of preprimary education have 30 percent higher school completion rates and lower repetition rates and 30–60 percent higher incomes over their lifetime. Universal access to two years of preprimary education can reduce crime rates by up to 22 percent and improve health outcomes. But all of this assumes high-quality, holistic preschool interventions.

South Asian countries have different models of preprimary education service provision. Afghanistan has three broad types of early childhood care and education services: urban private centers, NGO-organized preprimary education in rural areas, and preprimary education programs provided by mosques. In Bangladesh, preprimary education is dominated by the public sector. Currently, 99 percent of public primary schools and 95 percent of newly nationalized primary schools offer preprimary education, for a total of more than 93,000 schools providing preprimary classes (Bangladesh DPE 2015). In India, most children in the 3–6 age group attend private

preprimary education programs. In Sri Lanka, nearly 90 percent of early childhood education centers are stand-alone preschools; the rest are combination preschool and daycare centers. Some 60 percent are private, 24 percent are run by nongovernment and nonprivate entities (including NGOs and religious organizations), and 16 percent are managed by the government (World Bank 2014).

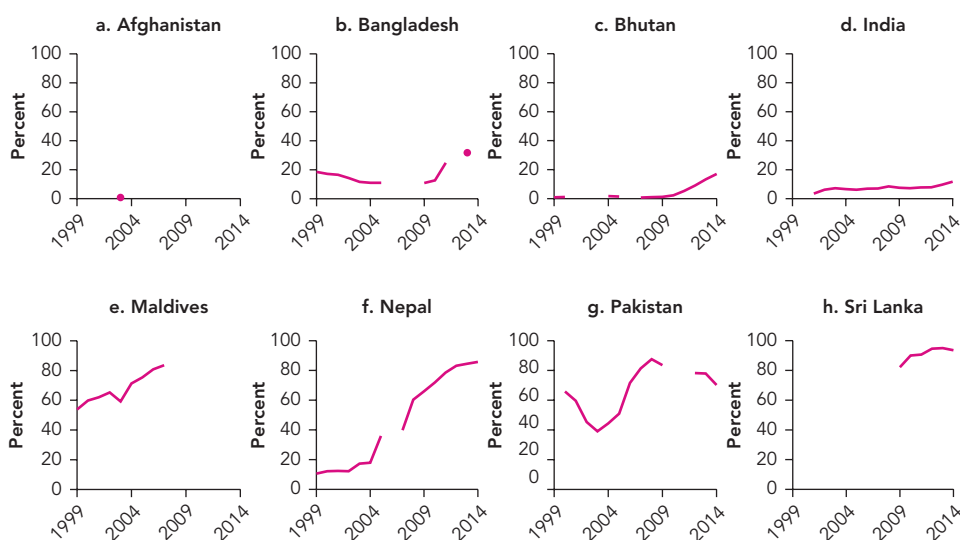
## ACCESS TO PREPRIMARY EDUCATION IN SOUTH ASIA

Nearly 55% of children attend preprimary education in South Asia.

Access to preprimary education in South Asia grew rapidly over the past decade, and 55 percent of children are now attending preprimary education. While coverage rates vary widely, most countries have experienced rapid enrollment growth (figure 3.7). The most striking expansion was in Nepal, where the gross enrollment ratio rose from 12 percent in 1999 to 88 percent in 2014 (box 3.2).<sup>14</sup> Today, Maldives, Nepal, Pakistan, and Sri Lanka have fairly high preprimary education gross enrollment ratios.

While gender inequality in preprimary education enrollment is fairly moderate, there are wide enrollment gaps between urban and rural areas and by income group. The gross enrollment ratio for preprimary education in South Asia is 55.5 percent, with a small difference by gender (54.9 percent for boys and 56.2 percent for girls; figure 3.8).

**FIGURE 3.7** Gross Enrollment Ratios in Preprimary Education Have Risen Rapidly in South Asian Countries, 1999–2014



Source: World Bank 2017.

Note: For Sri Lanka, the attendance rate of children ages 3–4 in early childhood development programs is 65 percent; at age 5, 95 percent of children attend either preschool or school (Dundar and others 2017).

### **BOX 3.2 Preprimary Education Policy in Nepal**

Nepal has rapidly expanded preprimary education access. In 2000, preprimary education (referred to as early childhood care and education in Nepal) consisted mainly of private schools in urban areas, which had the capacity to enroll no more than 11 percent of young children. Under the Tenth National Development Plan (2002–07), the gross enrollment ratio increased rapidly, reaching 41 percent in 2006, guided by the Education For All policy target of 80 percent enrollment among children ages 3–5.

The Education Act identifies two forms of preprimary education: preprimary school-based classes for children ages 4–5, and community-based child development centers for children younger than 4. The centers are free of charge for families and receive technical support from the Department of Education. While the policy calls for construction of formal government schools throughout the country to provide three years of preprimary education, the leading factor behind the rapid expansion of preprimary education has been the low-operating-cost community and school-based centers. The policy goal was to accommodate young children from the age of 2 or 3 in community-based centers and to enroll 4-year-olds in school-based centers before they enter primary school at age 5. Local communities are relied on to require that centers be established and to provide a place where community-based centers could operate. Facilitators were recruited among local women, especially women from disadvantaged social groups.

Preprimary education received a decisive boost under the School Sector Reform Program (2009–15). The gross enrollment ratio jumped to 59 percent in 2008 and to 87 percent in 2014. Enrollment numbers are striking. Administrative data show that more than 1 million children in the relevant age group were enrolled in preprimary education in 2012–13 compared with 38,000 in 2000.

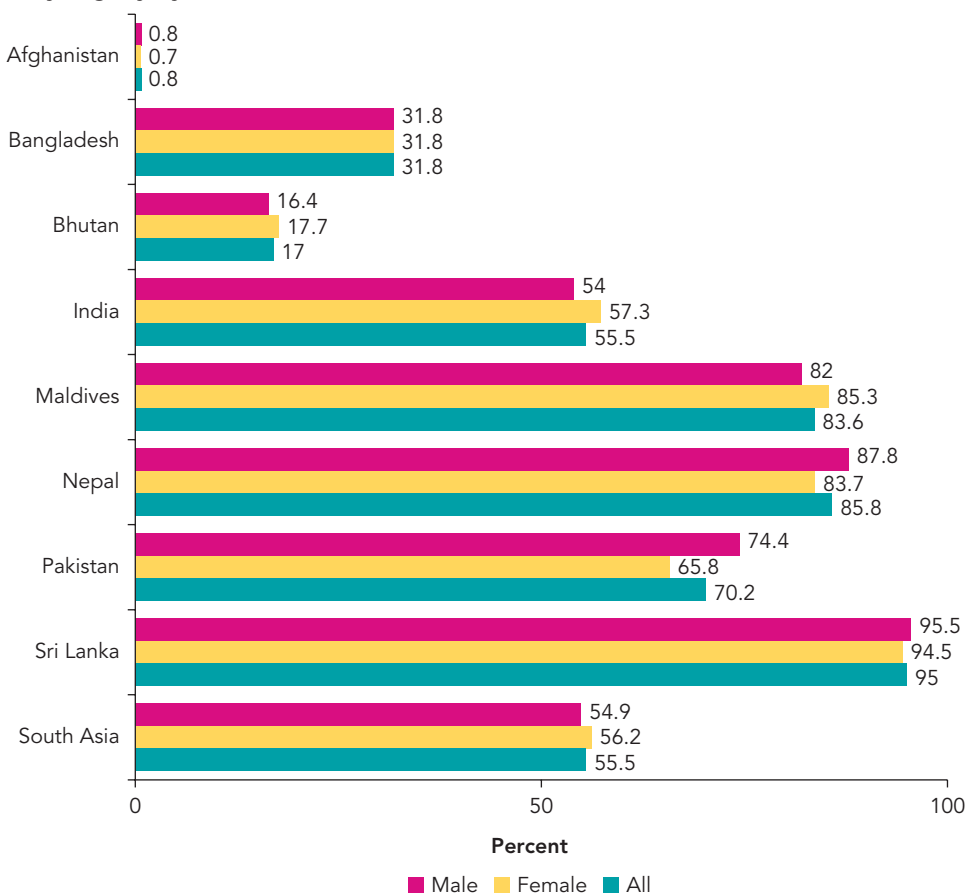
*Sources:* UNESCO 2015; World Bank 2013b.

Enrollment in preschool is higher for girls than for boys in India and Maldives and for boys than girls in Nepal and Pakistan. However, there are stark inequalities in access to early childhood education programs by urban-rural location and income group (figure 3.9).<sup>15</sup>

## **Quality of Preprimary Education in South Asia**

The nature and quality of interactions are the key to effective early childhood education programs. Early childhood education programs are not all equally effective. Young children learn best through exploration, play, and interaction with others. Research shows that programs for children under age 5 that are too structured and focused on academics can undermine the development of cognitive and socioemotional skills, as well as children’s motivation to learn (World Bank 2017). Programs with strong preschool outcomes include curriculums that foster crucial preacademic abilities (emotional security, curiosity, language, self-regulation) through play; professional

**FIGURE 3.8** Gross Enrollment Ratios for Preprimary Education in South Asia Differ Only Slightly by Gender



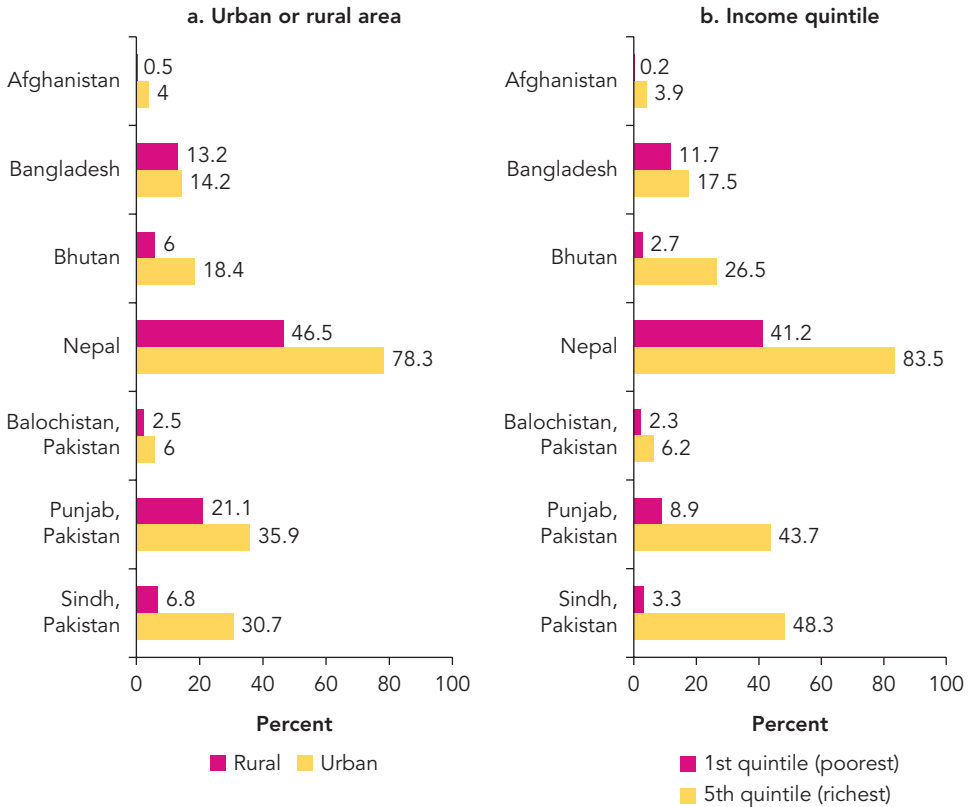
Source: World Bank 2017.

Note: Reference years are Bhutan, Nepal, Pakistan (2014), Bangladesh and Sri Lanka (2013), South Asia (2012), India (2011), Maldives (2007), and Afghanistan (2003).

development plus coaching for teachers in how to effectively implement the curriculum; and positive, engaging classrooms that promote children's innate drive to Learn (Phillips and others 2017). A study in India finds that the quality of preprimary education, both in Anganwadi centers and private preschools, is not developmentally appropriate for children and that few centers and preschools apply recommended practices (Kaul and others 2017).

There is no single accepted measure of the outcomes of preprimary education, but school readiness is a commonly used concept. By the simplest definition, a child who is ready for school has the basic minimum skills and knowledge in a variety of domains needed to be successful in school. Some preschool education systems use a narrow approach to preprimary education that stresses literacy and numeracy skills that align with the primary school curriculum. Other systems use a social pedagogic approach that

**FIGURE 3.9** Gross Enrollment Ratios for Early Childhood Education in South Asia Show Large Gaps between Urban and Rural Areas and by Income Group



Source: Authors’ analysis using Multiple Indicator Cluster Survey data for Afghanistan (2010/11), Bangladesh (2012/13), Bhutan (2010), Nepal (2014), Balochistan (2010), Punjab (2014), and Sindh (2014).  
 Note: The figure shows the percentage of children, ages 36–59 months, who are attending an organized early childhood education program. This is a broader definition than for preprimary education.

stresses a range of life skills beyond literacy and numeracy. Broader definitions of school readiness, used in academia and international development discussions, include five domains linked with later school performance and behavior: physical well-being and motor development, social and emotional development, approaches to learning, language development, and cognition and general knowledge, including math (UNICEF 2012). Various instruments can be used to capture these different outcome areas (Fernald and others 2009).

Information on inputs and processes in preprimary education in South Asia and on outcomes such as cognitive or socioemotional skills development are scarce because monitoring and evaluation are weak. The multitude of different service providers, standards,

The quality of preprimary education in South Asia is largely unknown because of weak monitoring and evaluation and the complicated landscape of service provision.

objectives, and delivery modes (such as center or home based) of preprimary education make quality monitoring even more difficult.

Home and community environments also affect child development in the preprimary education age group. A study in Bhutan showed that the home environment and background of household members were associated with child development outcomes, as measured by the International Development and Early Learning Assessment (IDELA).<sup>16</sup> Father's education, socioeconomic status of the household, the numbers of home learning activities, and types of toys were also positively correlated with several IDELA outcome domains. Similar results were also found for Afghanistan, with father's education level positively correlated with multiple IDELA outcome domains (Pisani and O'Grady 2015).

Most countries in South Asia have a well-established curriculum framework for preprimary education and specific quality standards, but implementation is weak at the policy (teacher training, for example) and classroom levels (teaching practices). The curriculum framework commonly lays out the vision and objectives of preprimary education, skills and learning outcomes for children at different ages, the process of learning and the learning environment, and conduct of assessments.

The quality of preprimary education teachers in South Asia is generally inadequate because of weak preservice and in-service training systems. In Afghanistan, most preprimary education teachers receive short-term training on pedagogy. Nearly all of the teachers have less than a grade-12 education (Pisani and O'Grady 2015). In Sri Lanka, although the guidelines require teachers to have A-level qualifications and at least one year of professional training in early childhood education, only around 43 percent of teachers have A-level qualifications and 39 percent meet the minimum standard of one year of professional early childhood education training (Sri Lanka MCDWA 2006). The teacher training system is weak. There is no national body in charge of regulating early childhood education preservice training and professional development. About 35 early childhood education training programs are registered with the Children's Secretariat or the Tertiary Vocational Education Commission (Sri Lanka NAEYC 2014). Sri Lanka also has a high student–teacher ratio, averaging 21:1.

Basic inputs such as safe drinking water, first-aid kits, blackboards, toys, and scrap materials are also often lacking, as are resources for children with special needs. The weakest school-level input is in facilities for children with special needs. The Anganwadi child education centers in India have very limited infrastructure and learning aids in classrooms (IECEI 2017). Sri Lanka lacks adequate resources for teaching and learning, especially materials for children with special needs. While inputs are important, however, their purpose is to foster age-appropriate learning activities for children; the inputs themselves do not determine the quality of experience and skills that children acquire.

Preprimary education programs in South Asia adopt a variety of approaches, but many programs fail to follow recommended practices. While play-based activities are a recommended approach for preprimary education, lecture-like rote learning activities are commonly observed in Bangladesh and India. A randomized controlled trial evaluation of a preschool early reading program in Mumbai, which focuses on storytelling and

classroom games, found a positive overall impact on reading competency and a larger treatment effect among children with uneducated parents.<sup>17</sup> A qualitative assessment of preprimary education centers in India found a high intensity of routine activities, rhymes and songs, and formal teaching but limited activities to foster sharing, playing with other children, or expressing curiosity and asking questions (IECEI 2015).

## How Can South Asia Do Better on Early Childhood Development?

Early childhood development requires multisectoral approaches to the cumulative development of skills and capacities. Many countries have fragmented delivery of early childhood development services, which are commonly split between services for infants and toddlers and services for preprimary-age children, a split that reflects the administrative structure of governments. Achieving a multisectoral approach requires coordination at the policy and implementation levels to efficiently engage multiple stakeholders (different ministries, private sector, NGOs) in achieving a range of child development outcomes (box 3.3). India is addressing uneven quality of education delivery through a range of efforts that build decentralized flexibility into planning, design, and implementation of initiatives. One initiative recently launched by the Ministry of Human Resource Development, with World Bank support, facilitates interstate knowledge sharing through an online repository (*ShaGun*) of best practices, documented through videos, photographs, case studies, and testimonials collected from decentralized levels of administration.

Early childhood development initiatives for children younger than age 3 should include education interventions, as well as health, nutrition, and child protection interventions, with an emphasis on the quality of service providers. Education interventions, are not typically included in programs for infant-to-toddler age groups, in

### **BOX 3.3** How to Advance Early Childhood Development Programs for Greater Impact in South Asia

- Increase government investment in early childhood development to develop human capital.
- Use a multisectoral approach to develop cumulative skills and capacities. Include education interventions in existing health, nutrition, and protection services for children age 3 years and younger.
- Increase the availability of skilled caregivers.
- Target early childhood development interventions to infants and young children from disadvantaged households and groups.
- Gather and compile comprehensive data for early childhood development and preprimary education for effective policy development and interventions.

part because education ministries focus on the older preprimary education age group. Children in South Asia start with cognitive skills at par with international benchmarks at birth but are off track by age 3. Education interventions are needed to keep young children on course for cognitive development. Initiatives do not need to come from education ministries. Parental education and early stimulation interventions can be delivered successfully and cost-effectively as part of other programs already provided by ministries of health or social protection.

There is an overarching need to improve the availability of skilled caregivers. India's Maternity Benefit (Amendment) Act 2017 requires every establishment with 50 or more employees to provide on-site childcare services. Female employees must be permitted to visit the childcare center up to four times a day. This provision of the Maternity Benefit (Amendment) Act, as well as the expanding access to early childhood education in the country, can yield positive child development outcomes only if India also supports the development of a strong cadre of skilled caregivers. This will require integrating early childhood caregiver training with other skills development programs in the country, defining jobs in early childhood education, developing occupational standards, providing adequate training, setting up a strong assessment system, and encouraging entrepreneurial skills training to enable greater private provision.

Early childhood development interventions should target children from disadvantaged households, addressing demand-side and supply-side constraints. There are differences across socioeconomic groups in household knowledge of nutrition and the importance of early stimulation of infants and young children, mainly because of differences in education level and access to resources and materials. Some studies in South Asian countries find larger gains in child development outcomes among children in disadvantaged groups, where knowledge of nutrition and early stimulation is especially lacking (Tofail and others 2008; Nomura and Matsuda 2017). The often poorer quality and limited availability of services in rural areas are also constraints. To increase impact, public policy needs to address quality and access concerns and to target early childhood development programs to disadvantaged areas and households.

Comprehensive and coordinated data on early childhood development and preprimary education are necessary to guide effective policy development and implementation. There are many reasons for the lack of comprehensive and coordinated data in South Asian countries, including the multidimensionality of child development; involvement of multiple government agency, private sector, and NGO service providers as well as nonformal providers; existence of multiple models of service provision (preprimary education, school-based, home-based, and center-based); weak or ambiguous accreditation requirements; and different early childhood development philosophies. Weak monitoring and evaluation of early childhood development programs also reduces the information available on the parameters of effective programs and thus impedes effective policy development. Academic and research institutes and international development agencies and NGOs need to accumulate information on successful early childhood education interventions for children.



## Notes

1. Recent neurological research suggests that the interrelated nature of physical, socioemotional, and cognitive development demands a holistic approach to early childhood development (Denboba and others 2014). Early interventions have a strong intergenerational dimension, as children who receive little investment in early childhood development are more likely to be poor as adults and less likely to invest in the early childhood development of their own children, perpetuating a cycle of poverty (Grantham-McGregor and others 2007; Naudeau and others 2011).
2. The United Nations Convention on the Rights of the Child, General Comment, defines early childhood development as the sum of the physical, cognitive, linguistic, and socioemotional development that takes place during early childhood. In the early childhood development literature, early childhood is generally understood to extend from pregnancy to age 6 years, or roughly the point when a child is old enough to enter primary school. However, definitions of early childhood development can differ in different contexts. Terms used synonymously in the literature with early childhood development interventions include early childhood care and development, early childhood education, and early childhood care and education.
3. Data for the ECDI were collected as part of Multiple Indicator Cluster Survey and Demographic Health Survey programs between 2005 and 2015 for children ages 3–4 in 35 low- and middle-income countries. The ECDI is calculated as the percentage of children who are developmentally on track in at least three of these four domains (Bangladesh Bureau of Statistics and UNICEF 2014). The study by McCoy and others (2016), whose results are reported here, used only learning and socioemotional domains in its analysis because other domains may be influenced by a country's cultural and social norms around early education and therefore may not be relevant for international comparisons or for measuring the skills of children ages 3–4.
4. Bayley Scales of Infant and Toddler Development (BSID)–III is an individually administered instrument designed to measure the developmental functioning of infants and toddlers (mainly, ages 0–42 months). It assesses children on five major domains: cognitive, language, motor, socialemotional, and adaptive behavior. It was revised from BSID-II in 2006.
5. This age group is different from the one with ages 3–4 for the ECDI results reported earlier in the chapter.
6. Ezeh and others (2016) show that children living in slums are especially vulnerable and that the combination of malnutrition and recurrent diarrhea leads to stunted growth and longer-term detrimental effects on cognitive development.
7. Iron and zinc deficiency is prevalent during infancy in low-income countries (Black and others 2004).
8. This finding by Surkan and others (2013) is consistent with the meta-analysis conducted by Petry and others (2016), which found only three eligible studies on this subject worldwide (for Chile, India, and Indonesia).
9. Tofail and others (2008) used two one-step means-end problem-solving tests, the support and cover test for assessing cognitive skills, and psychomotor development index of BSID-II for motor development.
10. Effect sizes for IQ, executive function, and preacademic skills were small (0.1 standard deviation), medium (0.3 standard deviation), and large (0.5 standard deviation), respectively. IQ was assessed by Wechsler Preschool and Primary Scales of Intelligence, Third Edition. Executive functions were measured by a composite of six task packages, including

fruit Stroop task, knock-tap task, big-little task, go/no go task, working memory, and spatial dimension test. Preacademic skills were tested by Bracken School Readiness Assessment, Third Edition.

11. Finch, Obradovic, and Yousafzai (2016) analyzed the direct and indirect effects of responsive stimulation of children in rural Pakistan ages 0–2 on their socioemotional outcomes at age 4. They used responsive stimulation intervention and HOME inventory to assess socioemotional outcomes (behavior problem and social skills).
12. Peter and Kumar (2014) conducted a cross-sectional study of 10 slums by covering 451 children in Hyderabad.
13. The study was conducted in Rawalpindi, with a sample size of 463 intervention mothers and 400 control mothers.
14. The gross enrollment ratio is the number of children enrolled in a school level, regardless of age, divided by the population of the age group that officially corresponds to that level.
15. These statistics may not be the same as those for preprimary education as they include enrollment in any organized early childhood education program, which may have more educational activities than preprimary education.
16. This survey in Bhutan included 1,377 children ages 3–5 years from 119 nationally representative sites with diverse formal service providers, including NGOs, communities, private organizations, and corporations, as well as nonformal education (Save the Children 2015).
17. He, Linden, and MacLeod (2009) evaluated the Schishuvachan program, which focuses on storytelling and classroom games in preschools in India. Baseline assessments were administered to 4,757 children in 138 slum communities.

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## PART III

# Improving Teacher Effectiveness in South Asia

As chapter 1 shows, students learn little in the average public or nonstate/private school in South Asia. While student learning is influenced by multiple factors—including student background, school inputs, and neighborhood effects—teachers are the single most important influence on student learning in schools. For teachers who could become effective with more support, the absence of regular mechanisms to help them is frustrating. For teachers who work hard to help students learn, the lack of rewards and recognition is discouraging. And for teachers who are uninterested in student learning, the absence of pathways out of teaching devalues the profession.

Unlike countries with strong school systems, countries in South Asia have yet to build an effective cadre of teachers. Across the region, countries lack the preconditions to make teachers effective in the classroom. Many teachers lack both adequate content knowledge and effective teaching skills. Teachers are especially ill equipped to help poorly performing students learn, instead often blaming poor learning outcomes on underperforming students. The limited evidence from teachers in nonstate schools in the region suggests that conditions are similar.

In addition to weak content knowledge and teaching skills, teaching suffers from poor professional norms, which makes educating South Asia's children even more difficult. Relative to high-performing school systems across the world, the quality of teaching in South Asian countries is diminished by high rates of teacher absence and little system-level response to manage those absences; high prevalence of teacher-centered tasks inside classrooms; teachers offering private tutoring for pay outside the classroom; and political interference with teacher selection and deployment. A closer look at these issues suggests that it is not just teachers but also the entire education system that devalues teaching. Chapter 4 takes a closer look at these factors.

Improving the quality of the teaching workforce in South Asia is not straightforward. South Asian countries have seen a large increase in their teaching workforces in the last decade. But this increase has been ad hoc, without a long-term vision or careful planning for teachers. Even though there are more formally qualified teachers today than in the recent past, the quality of their preparation is dubious. In several countries, teacher education institutes have been accused of operating diploma mills, turning out teachers who lack solid preparation for teaching. And while salaries in government schools for teachers on permanent contract compare favorably with per capita GDP and sometimes with salaries in allied professions, this is not true for other categories of teachers. The difference in pay for the same task creates tensions among teachers that can erupt as teacher strikes and protests, taking time and energy away from teaching. Increasing salaries in the absence of performance management systems, a weakness across South Asia, is unlikely to improve student learning. Chapter 5 examines these concerns.

Understanding the causes of the low quality of the teaching workforce requires a closer look at how teacher candidates are prepared and how teachers are supported after they join the profession. High-performing education systems not only select high caliber individuals for teaching; they also ensure that these candidates receive adequate preservice preparation before they begin teaching and adequate in-service opportunities for continued training and learning. In South Asia, weak governance and inadequate quality assurance have resulted in a proliferation of low-quality preservice education institutes. Many of these are operated by nonstate providers. Entry requirements into preservice programs are generally low, resulting in low-quality teachers entering the profession. While countries across South Asia provide teachers with more in-service training than a decade ago, sometimes with the help of nonstate providers, much of the training does not reflect international good practices. As with preservice, weak design, governance challenges, and implementation weaknesses have made these programs suboptimal in South Asia, as examined in chapter 6.

School leaders can also play a key role in helping teachers become effective. Effective principals balance tasks related to instructional and organizational leadership. In South Asia, however, principals are responsible for a multitude of administrative tasks, which leaves them with little time for instructional and organizational leadership. Principals receive little professional development or guidance on how to do their job better, and they are not prepared to motivate and reward well-performing teachers or to penalize poor-performing ones. An important concern in South Asia is the low proportion of women in leadership roles, especially given the large number of women teachers. Finally, while non-state schools give principals more authority than public schools do, it is not clear whether this translates into improved student learning. Chapter 7 studies these factors.

South Asian countries are well aware of the challenges in improving teacher effectiveness. Many countries have embarked on ambitious and promising reforms to prepare teachers better, build professionalism, and improve principal effectiveness. Countries have been leveraging information and communications technology in a range of different ways, such as Sindh's (Pakistan) school monitoring system and Karnataka's (India) system for recruiting and deploying teachers transparently. Much can be learned from other countries. Chapter 8 provides lessons and recommendations on how countries in South Asia can do better on teacher effectiveness.



## South Asia Has Too Few Effective Teachers

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Students experience schools primarily through their teachers. Effective teachers help students learn and set the foundations for later learning at higher levels of the education system; they also model professional conduct. To become effective, teachers perform a range of tasks that include planning and preparing what they will teach and how they will teach it, managing the classroom, and fulfilling other professional duties outside the classroom. Countries with high-performing school systems—such as Finland, Singapore, and the Republic of Korea—have a teaching cadre that balances these roles well. Consequently, student learning is high. As chapter 1 shows, however, students in South Asia learn little, suggesting that the situation with the teaching cadre is different in South Asia.

The preconditions for teachers to be effective in the classroom are not in place in South Asia. Teachers have weak content knowledge and poor pedagogical skills that impede their ability to convey their limited knowledge to students. Teachers across classrooms in South Asia are particularly ill equipped to teach underperforming students, often blaming poor learning outcomes on those students. The limited evidence from teachers in private schools in the region does not suggest that conditions are any better.

In addition to weak content knowledge and teaching skills, weak professional norms in teaching have made the task of educating South Asia's children more difficult. Relative to well-performing school systems across the world, teaching is a lesser profession in South Asia. Absence rates for teachers are high, and there is little system-level response to manage such absences. In the classroom, teachers focus more on lecturing and completing the curriculum than on what students need. Many teachers offer private tutoring to students to augment their income, but at the expense of the quality of classroom instruction. Political interference weakens accountability and diminishes respect for teaching. A closer look at these issues suggests that it is not just teachers but also the entire education system that devalues teaching. This chapter takes a closer look at these factors.

## Why Teachers Matter, and What Do Effective Teachers Do?

Teachers are the most valuable asset for improving student learning (Hattie 2015; Loeb and Grossman 2016). Many students interact with teachers more than with any other adult. Teachers are likely to be the first role models that young children encounter outside the home. Effective teachers can shape student attitudes about learning and prepare them for meeting future challenges, affecting not only their academic achievement but also their income once they enter the labor market (Rockoff 2004; Rivkin, Hanushek, and Kain 2005; Aaronson, Barrow, and Sander 2007; Chetty, Friedman, and Rockoff 2014). An average student's scores over a school year can improve by 0.1–0.2 standard deviation if they have a teacher who is at the 84th percentile in quality and effectiveness rather than an average teacher (Chetty, Friedman, Rockoff 2014). Moving a student from a 10th-percentile teacher to a 90th-percentile teacher can increase learning by nearly 4.5 grade levels in India and 2 grade levels in Pakistan (Evans and Yuan 2018). And having several years of instruction with outstanding teaching can offset learning deficits for disadvantaged students (Hanushek and Rivkin 2010; Rivkin, Hanushek, and Kain 2005; Rockoff 2004).

Effective teachers share certain characteristics, including sound content knowledge and strong pedagogical skills. But effective teachers do much more. Charlotte Danielson (2011) draws on the literature to provide a comprehensive account of what effective teachers do (Framework for Teaching) in four domains: planning and preparation, classroom environment, instruction, and professional responsibilities (table 4.1).

The preconditions for teachers to be effective are not in place in South Asia.

In a study of highly effective education systems in some countries in East Asia (four provinces of China, Japan, Republic of Korea, Singapore, and Vietnam), a few characteristics stand out. Teachers have strong content knowledge and a deep understanding of how students learn. They are also able to provide concise and accurate explanations of the content they teach and to modify their explanations as needed to help students understand it. Teachers are able to identify alternative pathways for students to learn, and they focus on stimulating thinking and learning by employing elaboration and cognitive activation strategies (World Bank 2018a).

But teachers cannot do it alone. In countries where teachers are generally effective, the entire education system supports teachers and values the profession. The teaching profession is held in high regard, thanks to rigorous teacher training institutions with strong filters for good candidates. This is followed up with mechanisms to instill strong professional norms in teachers once they join the profession. For instance, Shanghai sets clear objectives for teachers, provides well-aligned curricula focusing on a few topics, and devotes considerable resources to the professional development of teachers (Liang, Kidwai, and Zhang 2016). These factors combine to make teaching manageable and inspire teachers to do their best.

**TABLE 4.1** What Effective Teachers Do

Planning and preparation	Classroom environment	Instruction	Professional responsibilities
Demonstrating knowledge of content and pedagogy	Creating an environment of respect and rapport	Communicating with students	Reflecting on teaching
Demonstrating knowledge of students	Establishing a culture for learning	Using questioning and discussion techniques	Maintaining accurate records
Setting instructional outcomes	Managing classroom procedures	Engaging students in learning	Communicating with families
Demonstrating knowledge of resources	Managing student behavior	Using assessment in instruction	Participating in the professional community
Designing coherent instruction	Organizing physical space	Demonstrating flexibility and responsiveness	Growing and developing professionally
Designing student assessments			Showing professionalism

Source: Danielson 2011.

In South Asia, many of the features of effective teaching are missing, as reflected in the dismal learning outcomes in the region. Teachers lack content knowledge and pedagogical skills. Teaching is not highly regarded as a profession, either by teachers or by the system as a whole. The absence of ambitious professional norms is evident in high rates of teacher absence, including unauthorized absence without a backup system; low time spent on task; apathy to students, especially poor-performing students; teaching for hire outside the classroom; and politicization that has compromised teacher selection, deployment, and accountability. This chapter focuses on these issues.

## Teachers in South Asia Have Inadequate Conceptual and Teaching Skills

Across the region, teachers come to the classroom with weak content knowledge and conceptual skills. Teacher content knowledge is important for student learning (Bau and Das 2018; Hanushek et al., forthcoming; Bold et al. 2016).

A recent study of public schools in three districts in Punjab, Pakistan, found that grade 4 math teachers correctly answered 77 percent of easy and medium-difficulty questions from grade 3 and 4 curricula and 65 percent of the questions from the grade 5 curriculum (LWYT 2017). To teach grade 4 math well, teachers need to know grade 4 math competencies as well as more advanced competencies, but this is not the case. The same study

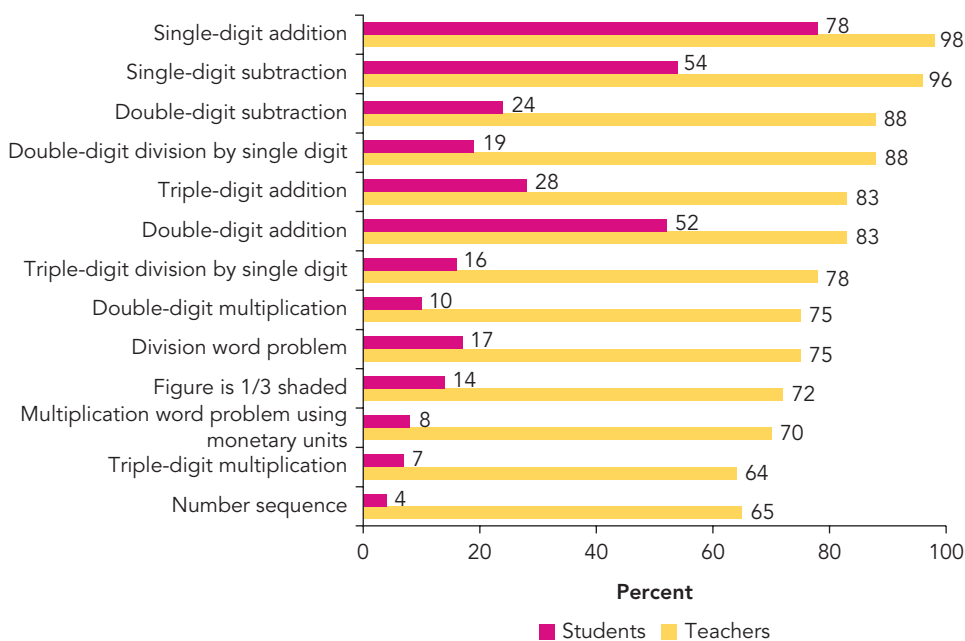
Across the region, teachers come to the classroom with weak content knowledge and conceptual skills. Little is known about the skills of private school teachers, who are a significant force in most South Asian countries.

found that 45 percent of teachers and 73 percent of their students were unable to answer a simple question on fractions.

In Afghanistan, a detailed study of teacher skills found that teachers fell behind grade-level competencies in numeracy and literacy skills (Sarogi, Mayrhofer, and Abdul-Hamid 2017). In Bihar, India, 25–33 percent of teachers were unable to answer basic questions on math and languages (Sinha, Banerji, and Wadhwa 2016). In Sri Lanka, the deficiency in teacher content knowledge is especially acute at the secondary level, where a large number of schools have teachers in English, math, and science who are not proficient enough to teach these subjects (Pillay and others 2015). Similar patterns can be seen in other countries in the region.

Even when teachers have good content knowledge and conceptual skills, they are not able to impart that knowledge effectively to students. Teachers in Afghanistan are able to perform very basic math skills, such as single-digit addition, but their performance worsens rapidly as difficulty levels rise even slightly (figure 4.1). Only 65 percent of teachers could answer questions on number sequence correctly (World Bank 2018b). Students perform considerably worse than teachers, suggesting that even if teachers know the content, they are not able to impart that knowledge to students. In Bihar, India, many teachers who had adequate content knowledge were weak in explaining concepts (Sinha, Banerji, and Wadhwa 2016). For example, while almost 80 percent

**FIGURE 4.1** Afghan Teachers' Math Skills Decline Precipitously as Difficulty Levels Rise, 2017



Source: Based on World Bank SABER-SDI (Afghanistan) data.

of teachers could correctly answer a long division problem (3 digit by 1 digit), only 11 percent of them were able to do all the steps correctly.

There is little research on the content knowledge of private schoolteachers. One study found that teacher value-added in private schools in Pakistan was lower than that in government schools, but the magnitude was small (Bau and Das 2018). In Punjab, Pakistan, public school teachers substantially outperform private school teachers. On average, public school teachers scored 10 percent above private school teachers. The difference is even more prominent if we consider primary school competence as a whole: around 70 percent of public school teachers display a mastery of the primary school curriculum, while only 44 percent of private teachers show such mastery.

The problems of teachers' weak conceptual knowledge and pedagogical skills are exacerbated by a limited sense of responsibility for student learning, especially for underperforming ones. A study on teacher perceptions in Bihar, India, found that many teachers do not see themselves as central to student learning: 60 percent thought learning outcomes were the responsibility of parents, and about 40 percent agreed that students needed private tutoring to do well in school (Sinha and others 2016). A study in Pakistan found that 53 percent of teachers believed that they could not help poor students learn because their parents lacked the necessary education and 62 percent believed that they could not help because their parents had too many personal and financial problems (Pandey 2018). In Afghanistan, nearly 37 percent of teachers felt that there was little they could do if students came to school unprepared to learn. Nearly 83 percent felt that well-performing students deserved more attention (Sabarwal and Abu-Jawdeh 2017). In Bangladesh, in contrast, teachers reported greater responsibility for student learning, with nearly 83 percent reporting that it was the teachers' duty to ensure that students learn (LASI 2015).

Teachers in South Asia teach at a level that is too advanced for many students, as a result of which they fall behind. Two factors drive this. First, limited ability or interest in identifying what students actually know may lead teachers to overestimate what their students know. In Punjab, Pakistan, 90 percent of teachers who were asked if their grade 4 students could divide 120 by 5 said yes, whereas only 65 percent of students were able to solve the problem correctly (Sabarwal and Abu-Jawdeh 2017). To correct for the possibility that teachers might have overstated student ability because they worried that lower performance reflected on their teaching ability, teachers were asked to assign a rank to each of their students based on their ability in math. The correlation between teacher-assigned ranks and student scores was low ( $-0.05$ ), suggesting that teachers were unable to gauge student competencies. In Bihar, India, 86 percent of teachers thought that most grade 4 students knew subtraction, and 54 percent thought all students could read fluently. But student assessments indicated a large discrepancy between student performance and teacher perceptions. Without accurate diagnoses of what students know, a teacher is unlikely to be able to help students improve. Second, the curriculum may be pitched too high for most students, with teachers expected to complete it in time for students to take their annual examinations (Pritchett and Beatty 2015). As teachers scramble to complete the curriculum instead of ensuring that

everyone is learning, there is little time left for helping students who cannot keep up (Pritchett and Beatty 2015; Muralidharan and others 2017).

## Weak Professional Norms Make Teaching a Second-Class Profession

Teaching in South Asia gets undermined by high teacher absence rates, inadequate attention to student interests and needs in the classroom, teachers' moonlighting as private tutors, and rampant politicization of teacher selection and deployment.

Professional norms for teaching are poor in countries across the region. Beginning in the mid-1990s, governments had to cope with a rapid increase in demand for schooling while they faced fiscal constraints and an inadequate supply of high-quality teacher candidates. Requiring high professional norms was difficult in this scenario. In Bangladesh, India, Nepal, and Pakistan, governments lowered the qualifications for hiring teachers to meet the demand for more teachers. But many candidates proved untrainable or disinterested in teaching. They also proved to be no more accountable for student learning than their more qualified colleagues hired during an earlier period. The net effect has been a set of behaviors that deprive the teaching profession of seriousness. The problem, however, is not just with teachers, but with entire education systems that allow such weak norms to persist.

### HIGH TEACHER ABSENTEE RATES GIVE TEACHING A POOR REPUTATION

High teacher absenteeism rates degrade teacher performance and student learning. The most direct effect of teacher absenteeism is loss of instruction time. Teacher absence can also increase unplanned multigrade teaching and weaken the teacher–student relationship (Kingdon and Banerji 2009), leading to lower student test scores (See Herrmann and Rockoff 2012 for the United States; Duflo, Hanna, and Ryan 2012 for India; and Das and others 2007 for Zambia). Further, absenteeism engenders inequity in access and learning outcomes since schools with many low-income and poor-performing students often experience the highest rates of teacher absenteeism. In India, there was little change in the average rate of teacher absence in schools over the 10-year period between 2002 and 2012 (Kremer and others 2005; Muralidharan and others 2017). On any given day, some 24 percent of teachers in government schools are absent. In Afghanistan on any given day, 10 percent of teachers are missing from school and 15 percent are at school but not in the classroom (World Bank 2018b). In Punjab, Pakistan, 17–23 percent of teachers are missing from school, on average, while in Sindh, Pakistan, the share is even higher, at 25–30 percent (World Bank SABER-Punjab Pilot 2017; World Bank 2017). In Sri Lanka, if teachers took all their leave (as most do), they would be absent for 15 percent of the school year (Aturupane and others 2014). Schools rarely have a system in place for covering teacher absences from the classroom, so teacher absences mean that little or no learning occurs during that time.

Several factors combine to explain persistently high teacher absenteeism rates. To begin with, school supervision is weak. Further, it is difficult to impose serious sanctions on absent teachers because a large proportion of teachers are unionized and wield considerable political power (Béteille 2009; Muralidharan and others 2017). These teachers rarely use their political power to campaign on issues to help students learn or build more accountability into the system (box 4.1). In addition, teacher

#### **BOX 4.1 What Do Teachers' Unions in South Asia Campaign For?**

Every country in South Asia has at least one teachers' union, and most have several. In Bangladesh, teachers' unions are organized by school level and school type (government and private), and some span these boundaries, such as the English Teachers' Association and a union for assistant teachers. Unions at the national level often have zonal counterparts. India has several hundred teachers' unions, organized by different government levels, school levels, school types, contract types (regular or contract), subject level, and so forth. Nepal also has several unions, including unions for temporary teachers. In Pakistan, teachers' unions are organized by government level, school level, and teacher type. Sri Lanka has more than a dozen teachers' unions catering to different categories of teachers. Bhutan and Maldives have one teachers' union each.

Teachers' unions in South Asia typically campaign for teacher-related issues: salaries, regularization of contracts, teacher transfers, and freedom from nonacademic work.

For instance, in Bangladesh, in January 2018, private school teachers and primary-level madrasa teachers went on a hunger strike demanding nationalization of the education system to address discrimination in salaries, leave, allowances, and bonuses. In December 2017, assistant teachers began a hunger strike, urging the government to reduce the wage gap between trained head teachers and trained assistant teachers.

In India, in 2017, contract teachers held a massive demonstration in Lucknow, Uttar Pradesh, demanding permanent jobs. The same year, the Federation of Andhra Pradesh Teachers Organization and the Joint Action Committee of Teachers Organization staged a protest insisting that their demands be met to stop school closures under a rationalization policy and to stop teacher transfers.

In 2016, teachers in Lahore, Pakistan, protested against the Punjab provincial government for transferring teachers to remote areas, for failing to give promotions, and for privatizing public schools. In 2017, contract teachers in Nepal went on strike to demand permanent contracts, a repeat of previous strikes.

In 2017, teachers' unions in Sri Lanka protested against the improper allocation of 3,376 teachers to schools, with many teachers sent to schools with no housing or no vacancies. Teachers' unions in Sri Lanka opposed decentralization, fearing that giving more control to school principals and school boards would reduce the power of unions. Teachers in Sri Lanka have also protested teacher appraisal schemes intended to improve the quality of the teaching profession.

Sources: <http://www.dhakatribune.com/bangladesh/education/2018/01/15/private-school-teachers-hunger-strike-nationalization/>; <http://www.dhakatribune.com/bangladesh/education/2017/12/23/primary-teachers-hunger-strike/>; <http://www.thehansindia.com/posts/index/Andhra-Pradesh/2017-04-23/Teachers-unions-to-stage-protest-on-May-3/295288>; <http://indianexpress.com/article/cities/lucknow/hours-after-shiksha-mitras-strike-up-govt-says-sit-for-tet-become-eligible-4807848/>; <https://tribune.com.pk/story/1216686/province-wide-protest-teachers-teach-lesson-punjab-govt/>; <http://www.teachersolidarity.com/blog/thousands-of-nepali-teachers-on-hunger-strike/>; <http://www.sundaytimes.lk/171119/education/education-news/teacher-trade-unions-protest-3376-teacher-appointments-269207.html>.

absenteeism has been normalized, and teachers appear to believe that certain types of absences are acceptable (Sabarwal and Abu-Jawdeh 2017). For instance, in surveys of schoolteachers, 46 percent in Afghanistan and nearly 25 percent in Pakistan agreed that absenteeism was acceptable if the teacher had completed the assigned curriculum, left students with work to do when absent, or was doing something useful for the community (Sabarwal and Abu-Jawdeh 2017). Even school principals tend to tolerate teacher absenteeism under these circumstances (Sabarwal and others 2018). The fact that most school systems lack a backup plan for students when teachers are absent conveys the message that absenteeism is not a challenge that needs to be addressed.

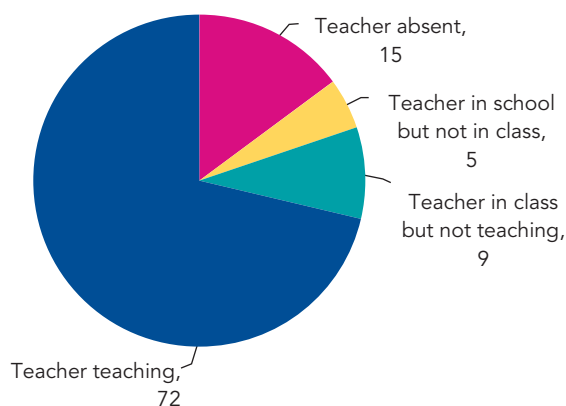
### MUCH OF TEACHERS' TIME IN THE CLASSROOM IS NOT FOCUSED ON STUDENT-CENTERED LEARNING

A crucial aspect of students' experience in school is the amount of classroom time spent actively learning. In class, a teacher may be occupied in a range of activities. "On-task" activities include engaging in classroom discussions, lectures, or verbal instruction; reading aloud/silently; writing on the blackboard; directing students to solve problems independently or in groups; engaging in repetitive practice; and so forth. "Off-task" activities are those that do not contribute to students' learning, such as a teacher doing personal work or not being in class. On-task activities include nonacademic tasks (class management, seating arrangements, disciplining students) as well as academic tasks. Academic tasks include three broad categories: student-centric, teacher-centric, and repetitive (rote) learning tasks. Student-centric tasks include class discussion, focused listening, remedial work and corrective feedback, while teacher-centric tasks include reading aloud, desk work, demonstrations, and writing on the blackboard. Repetitive learning tasks include copying and rote memorization and practice.

Studies of teacher time use in South Asia show wide variation in time spent off task. A SABER study conducted in Punjab, Pakistan, in 2017, sent observers to classrooms in a random sample of primary schools (figure 4.2).<sup>1</sup> The observers noted that the teacher was on-task teaching the class 72 percent of the time. However, 9 percent of the time that teachers were in the classroom, they were not teaching. About 20 percent of teachers were not in the classroom at the time of the visit (World Bank 2018c).

In a similar survey in 2017 in Afghanistan, primary school teachers' overall time on task was considerably higher, at 74 percent, with on-task activities relatively similar in urban and rural areas (table 4.2). In Nepal, schools are closed for 149 days in the year, and teachers' assigned administrative tasks take up nearly 60 more days, leaving very little time for teaching. When in school, teachers are required to teach 5–6 periods a day and are free for 2–3 periods (USAID 2008). In Sri Lanka, around a quarter of class time is lost due to timetabling, teacher absenteeism, lesson start and finish times, and teacher off-task activity. Between 23.2 percent and 24.8 percent of learning time is lost in primary schools because of official prescriptions for time use and classroom practices (Little and others 2017).



**FIGURE 4.2** Primary School Teachers in Schools in Punjab, Pakistan, Spend a Large Share of Their Time on Nonteaching Tasks, 2018

Source: World Bank SABER-SDI 2018 data, Punjab.

**TABLE 4.2** Primary School Teachers' Use of Time in Afghanistan, 2017

Measure	Overall	Urban	Rural
School absence rate (%)	10	10	10
Classroom absence rate (%)	15	18	11
Proportion of teachers teaching (%)	80	80	78
Time on task <sup>a</sup> (%)	79	80	78
Average school duration	3h 25 min	3h 19 min	3h 30 min
Time spent teaching per day	2h 18 min	2h 14 min	2h 31 min
Proportion of time spent teaching per day <sup>b</sup> (%)	74	73	75

Source: World Bank 2018c.

a. The percentage of time teachers spent teaching based only on information from classroom observations. Teaching is defined broadly to include interacting with students, correcting or grading student work, asking questions, testing, using the blackboard, having students work on a specific task, drilling, or memorization. Nonteaching activities include working on private matters, maintaining discipline in class, or doing nothing with students.

b. The percentage of time spent teaching per day out of the scheduled teaching time (row five).

When on task, teachers spend their time primarily on teacher-centric or rote-learning activities. A study in two large states in India, for instance, found that primary school teachers spent 56–71 percent of their time on teacher-centric tasks (Jhingran 2012). A study of primary school teachers in Bangladesh in 2015 revealed that, according to teachers' self-reports, a large part of on-task classroom time is spent on activities such as checking homework, lecturing, or reading rather than active engagement with students (table 4.3) (NSA 2015).

Very little changes in the classroom when students enter secondary school. A study in India comparing the time-use patterns of grade 10 teachers in Madhya Pradesh and Tamil Nadu found significant differences. Approximately 17 percent of time was spent in nonteaching activities (classroom management and discipline) in Madhya Pradesh,

**TABLE 4.3 Primary School Teachers Use of On-Task Time in Bangladesh, Grades 3 and 5, 2015, by Increments of Time Spent on Each Activity**  
Percent

Task	2 min	3 min	5 min	10 min	15 min
Check homework	3	5	44	23	4
Lecture method	5	7	37	17	0
Reading silently or aloud	4	5	42	17	2
Helping students solve problems	2	6	42	22	4
Students solve own problems (without help)	7	9	37	12	2
Student group work	3	4	38	23	4
Question-answer or quizzes	12	12	44	5	1
Class management besides giving lessons	30	16	24	1	0
Other	17	14	22	2	0

Source: NSA 2015.

Note: Numbers do not add up to 100 percent as teachers were not provided with a list of answer options but were asked to write their own numbers. The five categories of time presented represent the most commonly noted number of minutes.

compared with about a third (6 percent) in Tamil Nadu. Teachers were much less likely to be actively engaged in instructional activities in Madhya Pradesh than in Tamil Nadu. In both states, math teachers and language teachers used their time differently, with math teachers more likely than language teachers to have students do assignments, classwork, and copying activities rather than engage in discussion and reading aloud (World Bank 2016). In Nepal, too, most classroom activities in secondary school are teacher-centric or focused on rote learning (USAID 2008).

### TEACHERS TUTOR STUDENTS PRIVATELY FOR SUPPLEMENTARY INCOME AND DEVALUE CLASSROOM TEACHING AS A RESULT

Across South Asia, several public and private school students receive private tutoring outside of regular school hours—often from the very teachers tasked with teaching during school hours. Evidence from many countries shows that a student’s teacher is the one who provides the tutoring in many cases. In Bangladesh, nearly 16 percent of students in private tutoring reported receiving that instruction from their own teacher (Mohammad 2015). In India, there is considerable variation by state. The proportion of grade 10 students receiving tutoring from their teacher ranges from 13 percent in Kerala to 58 percent in Andhra Pradesh (Sujatha 2014). In Nepal, 32 percent of private school students were being tutored by teachers from their school and 38 percent of government school students (Jayachandran 2014).

Why do teachers offer private tutoring? It could be that teachers have to deal with an unrealistically heavy course load, which makes after-hour classes important for students to keep up. It could also be, as the limited research on the topic suggests, that teachers are motivated by the need to make more money. This could lead to perverse

incentives, with teachers performing suboptimally during regular school hours to create demand for their tutoring services (Jayachandran 2014). This is especially harmful for poor students who cannot afford tutoring. Tutoring on the side lowers expectations for teachers in the classroom and devalues the teaching profession.

### UNHEALTHY POLITICAL ACTIVITY WEAKENS ACCOUNTABILITY AND DAMAGES THE REPUTATION OF THE TEACHING PROFESSION

Across the world, teachers unionize to protect their interests. As mentioned earlier, teachers' unions are widespread in South Asia and represent a diverse range of teachers. Union protests expose key challenges in building an effective teaching cadre. First, when teachers protest during school days, that cuts into teaching time. Even short protests create an environment of uncertainty and unprofessionalism. Second, protests focus almost exclusively on improving teachers' employment and job conditions and rarely address issues related to teacher effectiveness and student learning. Indeed, unions generally resist efforts to improve teacher accountability, as revealed in protests against decentralization, teacher ability tests, and teacher appraisal schemes in India. Even when teachers have legitimate grievances, union protests do not serve the interests of schools. Third, teachers' unions are politically powerful. In Bangladesh, India, and Pakistan, where union party affiliations are fluid, unions can make credible threats during election time to switch support away from parties that jeopardize their interests (Béteille and others 2016). Thus it can be extremely risky for politicians to support issues that threaten the interests of teachers, such as accountability-based reforms.

The quality of teaching and the status of the teaching profession are diminished when politics rather than merit influences the selection and deployment of teachers. A study of teacher recruitment in several large states in India found that recruitment decisions are often closely tied to political interests (Ramachandran and others 2017). Teachers have traditionally been important grassroots political actors because of their geographic spread and regular interaction with parents (World Bank 2017a). This makes controlling their selection and posting politically important. Two characteristics of teaching make teachers especially attractive as patronage appointees. First, entry costs to the profession are often low. Second, the impact of incompetent appointees on learning is not immediately visible, so the reputational consequences for politicians are slight, especially politicians who are operating on a short time horizon. When teacher recruitment and transfers are manipulated for political reasons, the quality of education suffers.

Patronage-based recruitment remains a challenge in several countries in the region, including Bangladesh, Nepal, Pakistan, and Sri Lanka. Even where countries have been implementing merit-based processes for recruitment, there is little that can be done with the overhang of teachers who owe their positions to political influence rather than merit. Overlooking merit and fairness compromises both quality and professionalism in teaching.

In summary, effective teachers in countries with well-performing education systems have strong content knowledge and pedagogical skills. As a consequence, teachers are treated as professionals. This is not true in South Asia, where many teachers lack the basic skills needed to be effective teachers. Furthermore, the teaching profession is characterized by a high degree of unprofessionalism. A large part of the problem stems from the need to rapidly expand access to a growing population of young people, which has led countries to hire less-qualified candidates. Improving the quality of the teaching cadre is not straightforward in the face of these pressures. The next chapter discusses management of the teaching cadre.

## Note

1. The Systems Approach for Better Education Results (SABER) is a World Bank initiative to produce comparative data and knowledge on education policies and institutions, with the aim of helping countries systematically strengthen their education systems and the ultimate goal of promoting Learning for All.

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## Managing the Quality of Teaching in South Asia Has Been Difficult

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South Asian countries have experienced large increases in the size of their teaching workforce in the last decade. In the region's more populous countries—Bangladesh, India, and Pakistan—private schools account for much of the growth. But while there are more teachers today, education systems have been growing without a long-term vision or careful planning for teacher needs. There is little estimation of the need for more (or fewer) teachers, whether driven by rising (or falling) demand or retirements. Thus, while there are many more teachers than before, many schools continue to face shortages.

Along with the overall number of teachers, the number of formally qualified teachers has also increased in the last decade. Countries have been tightening entry requirements for teaching. Pakistan, for instance, requires that all primary school teachers be college graduates. However, the quality of teacher preparation is often suspect. In several countries, teacher education institutes have been accused of operating as diploma mills, turning out poorly qualified graduates. As a result, teachers come to classrooms with poor content knowledge as well as weak professional norms (see chapter 4).

While salaries and benefits for government school teachers on regular contract compare favorably per capita GDP, they do not with those in similar professions. Such teachers, however, receive generous benefits. But salaries and benefits by themselves achieve little if accountability mechanisms are not in place, as is true across South Asia. Furthermore, not all teachers are government employees on permanent contracts. Some government teachers are on temporary, fixed-term contracts, and others work in private schools. These teachers receive less pay and fewer benefits even though they are expected to do the same work as their better-paid counterparts. This two-tier

system creates tensions in the teaching force that become especially evident during teacher strikes and protests, and takes away from teaching time, further undermining professionalism. This chapter takes a closer look at these factors.

## The Dramatic Expansion in Schooling Has Been Accompanied by a Large Expansion in the Teaching Workforce in Many Countries

The increase in primary school teachers in South Asia comes largely from private schools in the region's more populous countries.

Across countries, the primary school teaching workforce has expanded in the past 5–10 years, but more rapidly in some countries than in others. In India, the number of primary school teachers rose 72 percent from 2005 to 2016, from 4.7 million to 8.9 million (NUEPA 2016). In Bangladesh, the number rose 52 percent between 2009 and 2016 (BANBEIS 2016). The teaching force rose 16 percent between 2012 and 2016 in Maldives (in primary and lower secondary school). In contrast, in Afghanistan, Bhutan, Nepal, and Sri Lanka, the teaching force rose less than 10 percent. Only in Pakistan did the number of teachers in primary school fall between 2007 and 2015, albeit by just 3 percent. Table 5.1 provides the most recent available data on the size of the teaching workforce in South Asia.

The increase in primary school teachers in South Asia comes largely from private schools in the region's more populous countries. In India, the share of private, unaided school teachers rose from 20 percent of teachers in 2007 to 32 percent in 2015, while the share of government school teachers shrank from 80 percent to 68 percent.<sup>1</sup> In 2016, over 37 percent of Bangladesh's teachers taught in private schools (BANBEIS 2016). In Pakistan, the share of private school teachers rose from 38 percent to 48 percent between 2007 and 2015, while there was a small decrease in the number of government school teachers (about 9,000 fewer) (AEPAM 2017).

### GROWTH IN THE TEACHING WORKFORCE HAS BEEN RAPID BUT UNPLANNED IN MUCH OF THE REGION

The rapid growth in the teaching workforce in many countries was unplanned, as shown by its year-on-year growth compared with the year-on-year growth in school enrollment. In a stable system (one in which enrollment is constant at every level of schooling), one would expect to see uniform growth, with as many teachers added annually to the teaching force as were leaving. A well-planned, expanding school system—one that was expanding because enrollment was rising or because more teachers were being systematically recruited to improve the student–teacher ratio—would exhibit a monotonic (nonwaver- ing) trend, with more teachers being added every year than were leaving. In a well-planned system that is contracting, one would expect to see fewer teachers added each year than were leaving. None of these neat patterns are visible in South Asian countries.



**TABLE 5.1** Size of the Teaching Force in South Asia, Latest Available Data  
Thousands

Country	Year	Government (including government-assisted private)	Private (no government assistance)	Total
Bangladesh	2009	183	179	361
	2016	343	205	548
Bhutan	2012	2	0.1	2
	2017	2	0.2	3
India	2007	4,491	1,155	5,646
	2016	6,059	2,824	8,883
Maldives	2012	3	0.3	3
	2017	4	0.2	4
Nepal	2009	134	47	181
	2016	186	66	252
Pakistan	2007	469	287	756
	2016	477	432	909
Sri Lanka	2016	133	4	137
<b>Secondary</b>				
Bangladesh	2009	7	206	213
	2016	8	214	221
Bhutan	2012	4	0.1	4
	2017	4	0.1	4
India	2010	595	835	1,430
	2015	899	420	1,319
Maldives	2012	2	0.2	3
	2017	3	0.1	3
Nepal	2009	17	10	27
	2016	25	15	40
Pakistan	2007	175	199	374
	2016	241	319	561
Sri Lanka	2016	56	1	57
<b>Primary and secondary</b>				
Afghanistan	2007			111
	2017	230	20	250
Sri Lanka	2007	208	5	214

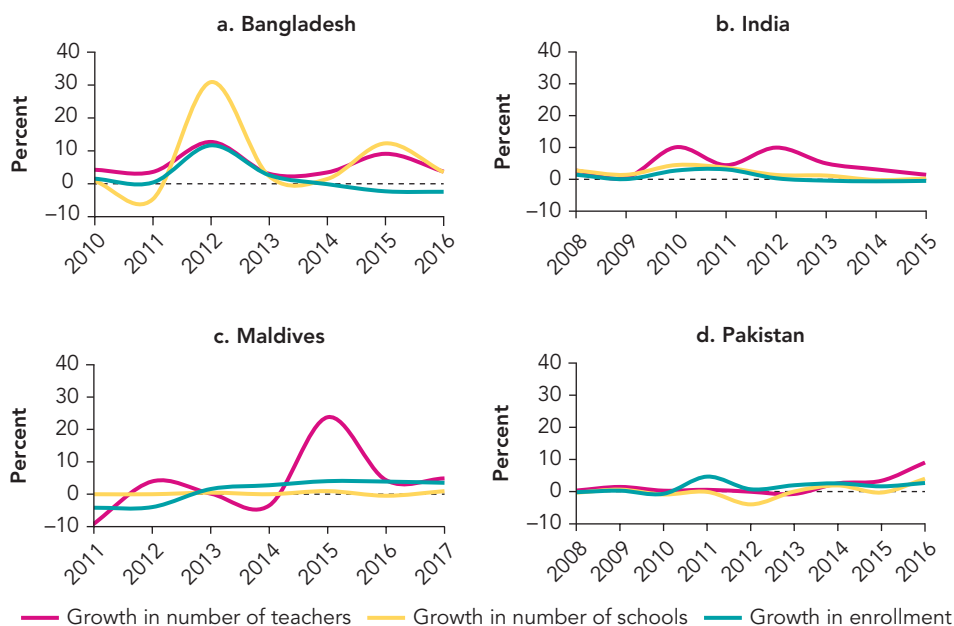
Sources: For Afghanistan, EFA 2015; Bangladesh, BANBEIS; Bhutan, Annual Education Statistics; India, DISE; Pakistan, AEPAM; Maldives, School Statistics Report; Nepal, Flash Report; Sri Lanka, School Census.

Note: For Pakistan, primary schools include mosque schools in the private category. Government schools include public institutions run by other than provincial/regional education departments. For Maldives, private schools include community schools.

At the primary school level, the growth in teachers has wavered continuously. For instance, between 2010 and 2012, as India saw a decrease in the year-on-year growth in schools and enrollment, the growth rate of teachers first dropped from 10 percent to 4.5 percent, followed by an increase from 4.5 percent to 10 percent (figure 5.1). Thereafter, the slower growth rate in teachers has followed the growth in schools and enrollment. In Bangladesh, the growth in the number of schools has been much faster than the growth in enrollment and in the number of teachers, possibly reflecting an increase in double-shift schools and therefore an increase in the number of schools (each shift counting as one school). In Pakistan, the growth in teachers (and schools) has, in general, proceeded more slowly than the growth in enrollment, while in Maldives, the growth in teachers has moved much faster than enrollment.

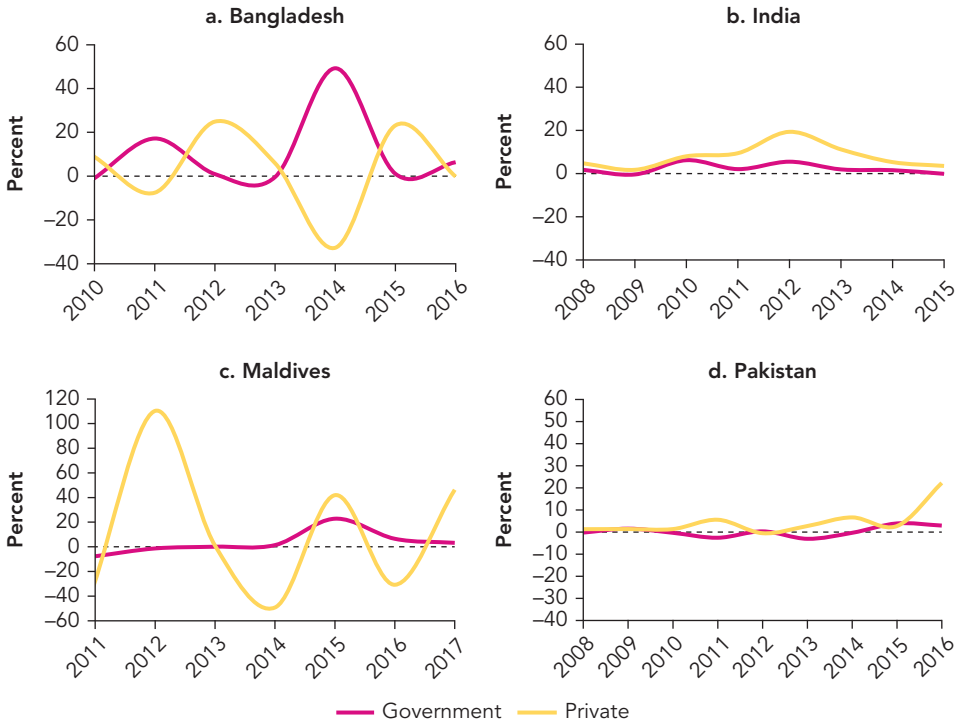
The wavering pattern is evident for both government and private schools. In both India and Pakistan, the year-on-year growth of primary school teachers has generally been greater in private schools than in government schools (figure 5.2). In Bangladesh, when the number of teachers in government schools grew, the number in the private sector contracted and vice versa, even though the long-term trend might have shown a rising share of private school teachers. The sudden increase in government schools

**FIGURE 5.1** Year-on-Year Growth of Primary Schools, Teachers, and Students in South Asian Countries Has Not Been Monotonic



Sources: For India, DISE 2008–15; for Bangladesh, BANBEIS 2010–16; for Pakistan, AEPAM 2008–15; for Maldives, School Statistics Report 2011–17.

**FIGURE 5.2** Year-on-Year Growth of Primary School Teachers Has Varied in Government and Private Schools and across South Asian Countries



Sources: For India, DISE, 2008–15; for Bangladesh, BANBEIS, 2010–16; for Pakistan, AEPAM, 2008–15; for Maldives, School Statistics Report, 2011–17.

in 2014 was driven by the nationalization of many schools. In Maldives, the growth in teachers in government schools has been relatively stable, whereas the growth in teachers in private schools has been positive in some periods and negative in others.<sup>2</sup> Nepal has not seen much growth in its primary teacher population.

Secondary schools have also seen consistently positive year-on-year growth rates in the number of teachers, though less than in primary schools, with more teachers added every year than were lost.<sup>3</sup> In the three largest countries in the region, secondary school teachers in private schools outnumber those in government schools. In Bangladesh, where more than 96 percent of secondary schools are private, the number of secondary school teachers in government schools grew 11 percent between 2009 and 2016, while the number in private schools grew 15 percent. In India between 2012 and 2015, the number of teachers in government schools shrank by a third, while the number in private schools rose 1.6 times. In Pakistan, where private school teachers constitute 56 percent of the teaching force, private schools added almost twice as many teachers

as government schools between 2007 and 2015. In smaller countries, there are more secondary school teachers in government schools than in private schools. In Maldives, where government schools account for more than 96 percent of teachers, the number of teachers has fallen in both private and government schools due to the relative unattractiveness of the profession's pay.

## EDUCATION SYSTEM PLANNING FOR THE TEACHER WORKFORCE IS WEAK

The absence of a consistent trend in the size of the teaching force suggests weak education planning, leaving many schools without enough teachers despite the overall growth in numbers of teachers. Countries in South Asia do not have a systematic process for estimating the number of teachers needed in an upcoming academic year or for verifying actual numbers of teachers. Recruitment does not happen systematically, let alone every year. Several states in India—including Jharkhand, Madhya Pradesh, Rajasthan, and Uttar Pradesh—have no established process for calculating vacancies (Ramachandran and others 2018). This is also true for Afghanistan, Bangladesh, Nepal and Pakistan. Furthermore, there is often a divergence between what education departments propose and what finance ministries authorize.

Even when countries have some sense of the number of vacancies to be filled, finding suitable candidates can be difficult. For instance, in Bangladesh in 2017, 46,544 primary teachers were recruited, but 9,000 posts were still vacant. Furthermore, half the head-teacher positions were expected to be filled by internal advancements, which would further increase the number of vacant posts. Assuming a student-teacher ratio of 45:1, this translates into more than 700,000 primary school students without a teacher (PEDP4 Design Note 2017). Sindh, Pakistan, faces a similar situation of demand for teachers outpacing supply. An estimated 12,000 teachers retired between 2010/11 and 2015/16 and should have been replaced (World Bank 2017a), but only 9,444 new teachers were found eligible and recruited between 2014/15 and 2015/16.

Countries in South Asia do not have a systematic process for estimating the number of teachers needed in an upcoming academic year or for verifying the actual number of teachers. This has left many schools without enough teachers despite the overall growth in teacher numbers.

Political interference in recruitment adds to the technical challenges in estimating vacancies and systematically recruiting eligible candidates. As in other low- and middle-income countries, patronage-based recruitment practices are common in the region. In several states in India, politics intervenes in teacher recruitment, making it more difficult to fill vacancies with qualified candidates (Ramachandran and others 2017). In Rajasthan, India, for instance, most recruitment drives over the past 15 years have been timed just before elections (Ramachandran and others 2017). This potentially increases the political power of the ruling party directly, as these teachers

might feel beholden to the party that gave them jobs, as well as indirectly, since these teachers can be used as grassroots political workers. Similar interference is widespread across the region, including in Bangladesh, Nepal, Pakistan, and Sri Lanka.

All countries in the region have taken steps to reduce politically driven hiring by establishing more transparent, merit-based processes. In more decentralized countries, such as India and Pakistan, some states and provinces do better than others. In India's more advanced states, such as Karnataka and Tamil Nadu, increasing transparency has meant doing away with interviews, which were seen as arenas for exercising patronage. While being more transparent and objective, the downside of recruitment policies that do away with interviews is that it is difficult to test a candidate's communication skills, which are clearly important for teaching. It is also difficult to gauge the fit between a teacher and a particular school. Furthermore, implementing such procedures can be difficult, and little can be done with the stock of politically motivated previous hires. Bangladesh, Pakistan, and Sri Lanka continue to have interviews.

Furthermore, some types of schools systematically face shortages, while others have surpluses, suggesting problems with teacher deployment and transfers. At the primary school level, teacher shortages are related primarily to location, with rural and remote locations most likely to suffer. For instance, in rural Bihar, India, the student–teacher ratio is high and has barely changed in 10 years: it was 54 in 2007/08 and is now 52. But in urban Bihar, the ratio has fallen from 50 in 2007/08 to 34 (District Information System for Education, DISE, 2007–08 and 2015–16). In Sri Lanka, plantation schools have particular difficulty attracting and retaining teachers in English, science, and math. While new teachers are required to serve a fixed term in rural areas, once this term expires, most seek a transfer to an urban area or a school near their hometown (Pillay 2015). As a result, schools in rural areas lack a stable cadre of experienced teachers. At the secondary school level, student–teacher ratios have been rising in Bangladesh, India, and Nepal, reflecting an overall shortage of qualified secondary teachers. For some subjects, especially math and science, shortages are even more severe. In contrast, in Maldives and Pakistan, the student–teacher ratio is relatively low.

Equity of education access requires ensuring that all schools have the teachers they need and that all teachers are qualified. In a system that is otherwise uniform in terms of salaries and benefits, transfers can either improve or worsen a teacher's working and living conditions. As a result, teachers in countries including India, Nepal, Pakistan, and Sri Lanka expend considerable time, energy, and money looking for a good transfer (Ramachandran and others 2017; Dundar and others 2017; Kingdon and others 2014). When teachers are able to transfer regardless of school need, that distorts the overall allocation of teachers in the school system, compromising the education of many children and undermining the integrity of the school system and the profession. Effective teacher transfer policies can improve equity by transferring teachers from teacher-surplus schools to deficit ones in a fair and transparent manner, making it especially important to improve both recruitment and transfer practices.

## Rapid Schooling Expansion Increased the Supply of Qualified Teachers but Not the Quality of Teachers

Compared with a decade ago, teacher education levels, professional qualifications, and training have improved across South Asia, as governments have strengthened the criteria for becoming a teacher. Entry requirements for primary school teaching are the most stringent in Pakistan, which requires a combination of minimum academic qualifications (bachelor's degree), professional qualification (bachelor's in education), and passing grade on an entrance test.<sup>4</sup> In India, the Justice Verma Committee provided strict, time-bound guidelines for improving teacher qualifications. Entry requirements for teachers in most South Asian countries tend to be lower for primary schools, at a grade 12 equivalent. Table 5.2 lists the entry requirements into teaching in selected countries in South Asia at both the primary and secondary levels. In contrast, in some of the top-performing school systems, such as Shanghai, primary school teachers must be college graduates. Standards are higher at the secondary school level in all countries in South Asia, requiring the equivalent of a bachelor's degree.

### TEACHER QUALIFICATION REQUIREMENTS DIFFER ACROSS THE REGION BY SCHOOL TYPE AND LEVEL

Pakistan leads the region in the stringency of its qualifications for new teachers, requiring a minimum of a bachelor's degree (academic qualification) and a bachelor's in education (professional teaching qualification) at the primary school level (UNESCO 2015). To improve the quality of the teacher cadre, the National Education Policy of 2009 recommended these qualifications for new teachers hired at the primary school level and a master's degree for teachers hired at the secondary and higher secondary school levels, along with a bachelor's in education, by 2018 (Government of Pakistan 2009). Lesser certifications ("primary teacher certificate" and "certified teacher") would be phased out by encouraging current teachers to improve their qualifications.

In Bangladesh and Sri Lanka, teacher recruitment is based on academic qualifications, but a professional qualification is not required. In Bangladesh, professional qualifications are indicative but not mandatory. Sri Lanka recruits candidates with at least a bachelor's degree and with or without preservice training at a teacher training institution. Untrained teachers are a small percentage (1.4 percent). In addition, it also recruits secondary school graduates with an A level general certificate of education to become trainee teachers. These recruits must then complete a three-year diploma in a teaching program at a national college of education. Once they have earned this diploma, they can be assigned to national or provincial schools anywhere in the country (Dundar and others 2017).

**TABLE 5.2** Entry Requirements for the Teaching Profession in Selected South Asian and Other Countries, Latest Available Data

Academic requirement	Bangladesh	India	Pakistan	Sri Lanka	Shanghai, China	Korea, Rep.	Finland
Minimum to teach at primary school level	Grade 12	Grade 12	Bachelor's degree	General certificate of education, A level	3-year bachelor's degree	Bachelor's degree	Master's degree
Minimum to teach at secondary school level	Bachelor's degree	Bachelor's degree	Subject-specific bachelor's degree	General certificate of education, A level	4-year bachelor's degree	Bachelor's degree	Master's degree
Evaluation of teaching aptitude	No	No	No	No	Yes	Yes	Yes
Entrance test	No	No	No	No	Yes	Yes	Yes

Source: Pandey 2018.

A large percentage of primary school teachers have academic qualifications that exceed policy requirements. The percentage of teachers with graduate or higher qualifications at the primary school level, which is not a requirement in most countries in South Asia, has increased in all countries. For instance, the proportion increased from 53 percent in 2012 to 63 percent in 2016 in India's primary schools and from 56 percent in 2010 to 58 percent in 2016 in Bangladesh. In Afghanistan, the number of teachers at all levels with a grade 14 or higher education increased from 26 percent in 2006 to 46 percent in 2014. The proportion of teachers in government schools at all levels with a bachelor's or higher degree rose from 77.2 percent in 2013 to 84.7 percent in 2016 in Bhutan and from 35 percent in 2007 to 42 percent in 2016 in Sri Lanka.<sup>5</sup> The percentage of overqualified teachers varies within countries and reflects local labor market demand. For instance, in urban Karnataka, India, 41 percent of teachers have a bachelor's degree or higher, while in rural Karnataka, 34 percent do. While it could be that teaching is attracting more qualified candidates, it could also be that there is a glut in the availability of such degrees or that other professions have turned away some of these candidates.

The share of teachers with professional teaching qualifications has also been rising, and, unsurprisingly, the share is higher in countries that require a professional qualification. Even though requirements for professional qualifications vary across countries, the percentage of teachers with professional qualifications in education (bachelor's or master's in education) has increased across the board. At the primary school level, for example, the proportion rose from 78 percent in 2007 to 82 percent in 2015 in India and from 87 percent in 2009 to 94 percent in 2015 among government school teachers in Pakistan.<sup>6</sup> In Sri Lanka, where most teachers are trained, the percentage of untrained teachers fell from 4.1 percent in 2007 to 1.2 percent in 2016.<sup>7</sup>

The proportion of teachers with academic and professional qualifications rises with the level of school taught. In Pakistan, 60 percent of primary school teachers, 72 percent of middle school teachers, 76 percent of secondary school teachers, and 84 percent of upper secondary school teachers have a bachelor's, master's, or higher degree. In Bangladesh, 32 percent of lower secondary school teachers and 75 percent of secondary school teachers have professional training (Pandey 2018). These figures likely include an older stock of less qualified teachers who are not required to upgrade their qualifications, lowering the average.

Public school teachers are more likely than private school teachers to have professional qualifications. In Bangladesh 93 percent of public school teachers have professional qualifications, compared with 70 percent of private school teachers. In India, 88 percent of government school teachers are professionally trained compared with 78 percent of private school teachers. Contract teachers in government schools are much less likely to be professionally trained, at 62 percent (DISE 2015–16). In Punjab, Pakistan, 90 percent of public school teachers have a certificate, against around



37 percent of private school teachers (World Bank 2018c). In Sri Lanka, 64 percent of teachers in national schools, which are academically more exclusive than other schools, have a postgraduate diploma in education or teaching compared with 42 percent in provincial schools.

Even though more teachers have academic and professional qualifications on paper, there is little evidence to suggest that this will improve student learning. A study looking at the relationship between teacher characteristics and teacher value-added in Pakistan found no strong relationship between teacher qualifications and teacher value-added in either government or private schools (Bau and Das 2018). Similarly, in India, a study found no relationship between the qualifications of private school teachers and teacher value-added (Azam and Kingdon 2015). These findings are in line with the international literature on teacher value-added, which shows that the link between observable teacher characteristics and teacher value-added is weak.

Qualifications might not matter because their quality is often dubious. The rapid expansion of schooling in the region has increased demand for qualified teachers, which in turn has spurred the growth of institutes that train people for a career in teaching (preservice education). Across South Asia, these teacher education institutes have been difficult to regulate, especially those in the private sector, where licensing processes and quality assurance mechanisms are weak or nonexistent (see chapter 6). Entry into preservice education programs is easy, with no entrance tests. Students appear to learn little in these programs. For instance, in Indian states that test teacher candidates, less than 20 percent of graduates of teacher education institutes pass the test (India MHRD 2012). Thus, there is growing concern in many countries that most of these institutes are diploma mills, where qualifications can be easily bought.

In contrast, in countries where teaching is highly regarded, entry into the profession is regulated through selective preservice programs, making such degrees more than just credentials. Becoming a primary school teacher is highly competitive in Finland. Candidates must complete high school, be among the highest scorers on a rigorous entrance exam, and have excellent interpersonal skills. Only about 1 in 10 applicants is accepted in teacher education programs to become a primary school teacher. Candidates are selected based on scores on the entrance exam and out-of-school accomplishment records. Candidates who pass that screening take a written exam in pedagogy, their social and communication skills are observed in clinical settings similar to school situations, and top candidates are interviewed and asked to explain their motivation to become teachers. Selected candidates then enter a rigorous preservice teacher education program. In Singapore, the government recruits the top third of high school graduates to enter teacher education programs and does not require an entrance exam. In the Republic of Korea, entrants into teacher education programs are among the top 10 percent of high school graduates.

## ATTEMPTS ARE BEING MADE TO TIGHTEN ENTRY CRITERIA FOR THOSE APPLYING FOR TEACHING JOBS

South Asian countries have begun to address the low-quality of preservice training of teachers by requiring entrance exams for teacher candidates. Because of the variable quality of teacher education institutes and their appraisal systems, as discussed in chapter 6, governments have started implementing entrance tests for teaching. In India, the 2009 Right to Education Act made it mandatory for all states to conduct eligibility tests for teacher candidates in all types of schools (government, private government-aided, and private unaided). While the central government implements the national test (Central Teacher Eligibility Test, or CTET), several states (Bihar, Haryana, Maharashtra, Punjab, Rajasthan, and Telangana) have introduced their own tests. In Haryana, for example, the minimum qualification to apply to be a teacher is at least 50 percent marks in a bachelor's degree or higher program and at least 60 percent marks on the eligibility test. A list of qualifying candidates is then prepared based on these criteria.

In Pakistan, all provinces have adopted a merit-based recruitment policy. Teachers have to take an entrance test developed by the National Testing Service. Those with a 50 per-

**In Pakistan, all provinces have adopted a merit-based recruitment policy. Teachers have to take an entrance test developed by the National Testing Service.**

cent or higher grade are invited for interviews by the district authorities. In Bangladesh, the Ministry of Education has established the National Teacher Registration and Certification Authority (NTRCA), an autonomous body charged with ensuring that standard and transparent criteria are followed for teacher recruitment at the secondary school level. NTRCA interviews, screens, and certifies a

pool of qualified teachers based on academic qualifications and a standardized exam. All government schools and private schools that receive aid from the government, which constitute a majority of secondary schools in Bangladesh, have to recruit new teachers from the pool of those registered in NTRCA. This regulation does not apply to private secondary schools that do not receive government funds.

Criteria are relaxed, however, when the demand for teachers exceeds their supply. In Sri Lanka, for instance, recruitment rules related to academic qualification and subject-specific vacancies have been relaxed to fill critical positions in certain subjects or disadvantaged locations. Provincial councils have sometimes recruited teachers with an A level general certificate of education rather than a bachelor's degree. Similarly, as a political concession, teacher recruitment has at times been based on the total number of vacancies rather than subject-specific vacancies, leading to overrecruitment in social sciences and arts and underrecruitment in math, science, English, and computer science (Dundar and others 2017). Teachers hired under these conditions are supposed to receive subsequent in-service training, but this is not tracked. In Pakistan, while the phasing out of eligibility based on primary teaching certificates for teachers in grades 1–5 and teaching certificates for teachers in grades 6–8 is good news for the profession, exceptions have been made in less developed areas where teachers with higher qualifications are not available.

## Salaries and Benefits Are Good, but Only for Some Teachers, and Are Not Tied to Performance

### SALARIES AND BENEFITS FOR TEACHERS IN GOVERNMENT SCHOOLS

Teacher salaries in government schools in all South Asian countries compare favorably to per capita income levels. Teacher salaries in South Asia are based on qualifications and experience, but not performance. Permanent government teachers are hired at a particular pay grade, which is benchmarked to the salaries of other public sector employees. In Afghanistan, teachers with teaching qualifications receive competitive salaries and are classified as having the highest mean and median monthly earnings (Ministry of Education in Afghanistan 2016). Teachers are paid 3.8 times per capita income in Bangladesh (in 2015) (Bangladesh Bureau of Statistics 2016), 2–2.7 times in Bhutan (2013) (Nagpal and Oppen 2013), 5.9 times in Bihar, India (2012) (World Bank 2016), and 6.4 times in Pakistan (2015).<sup>8</sup>

However, average salaries of government teachers do not always compare favorably with those for other occupations.<sup>2</sup> On average, government teachers earn less than legislators and professionals across all countries (except Sri Lanka, for professionals), but earn about as much as associate professionals and clerks (table 5.3). In Maldives, teacher salaries have been declining in recent years relative to public and private sector

**TABLE 5.3** Teacher Pay in Government Schools Relative to Pay in Other Occupations in South Asia, Latest Available Data

Occupation	Bangladesh	India	Pakistan	Sri Lanka
Teachers	1.0	1.0	1.0	1.0
Legislators	1.5	2.0	1.6	1.7
Professionals	1.6	1.6	1.2	1.5
Associate professionals	1.1	0.9	0.8	1.0
Clerks	1.0	0.9	0.7	0.7
Service workers / shops	0.8	0.6	0.5	0.7
Skilled agriculture	0.7	0.5	0.5	0.5
Crafts	0.8	1.4	0.5	0.6
Plant/machine operators	0.9	0.8	0.5	0.6
Primary	0.5	0.6	0.4	0.5
All nonteachers (weighted average)	0.8	1.1	0.9	0.8

Source: Bangladesh Labour Force Survey 2013; India, Employment and Unemployment 2011–12, 68th Round, July–June; Pakistan Labour Force Survey 2014–15; Sri Lanka Labour Force Survey 2015.

Note: Teachers were identified using occupation codes. Salary estimates are for all individuals ages 18 years or older working as wage earners and reporting at least 10 years of schooling.

salaries (World Bank 2012). As a result, fewer high-achieving students and young graduates are interested in becoming teachers. Teachers in mid-career are also leaving the profession for more attractive jobs in the private sector and elsewhere in government.

Why are government teachers, who tend to be at least as qualified as other associate professionals across the region, and sometimes more qualified (figure 5.3), often paid less? One reason is that for government school teachers, salaries are just one part of their remuneration. Benefits, especially for permanent teachers, add considerably to the total. In Bangladesh, allowances, such as medical allowances and social benefits, make up more than half of total remuneration and tend to increase even in years when public sector pay does not increase (World Bank 2015b). In Sri Lanka, in addition to basic pay, government school teachers receive standard cash benefits, such as a flat-rate cost of living adjustment allowance and a percentage special allowance (Dundar and others 2017). In India, take-home pay includes basic pay, grade pay, cost of living allowances, rent allowance, city compensatory allowances, and sometimes other allowances. Another reason for lower pay is that, except in India, teachers work fewer hours than other professionals (Madasamy 2018). One consequence of this might be that government teachers are also more likely than professionals and associate professionals to work in a second profession and to have another source of income. As discussed in chapter 4, this might conflict with professional norms.

**FIGURE 5.3** Teachers Are at Least as Qualified as Other Professionals in South Asian Countries, Latest Available Data



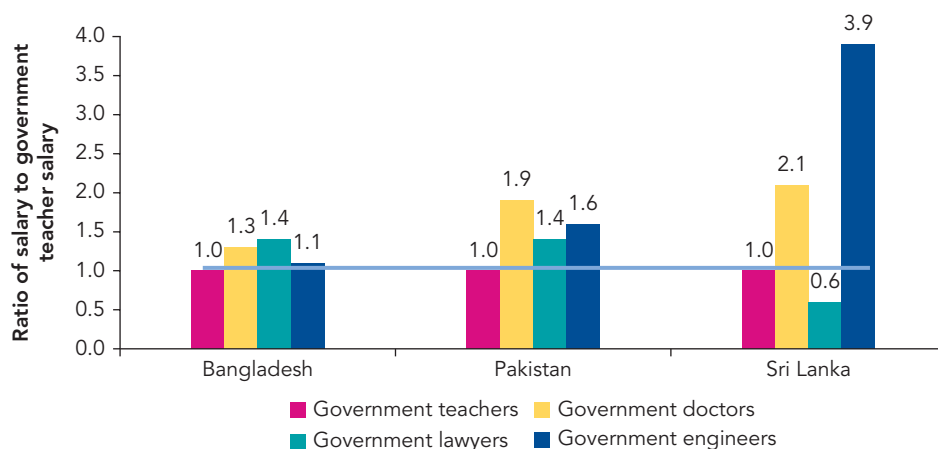
Sources: Bangladesh Labour Force Survey 2013; India Employment and Unemployment 2011–12, 68th Round, July–June; Pakistan Labour Force Survey 2014–15; Sri Lanka Labour Force Survey 2015.

Compared with other government professional employees—government doctors, lawyers, and engineers—government teachers earn considerably less in Bangladesh, Pakistan, and Sri Lanka. In Bangladesh, government doctors earn 1.3 times as much as teachers, while in Sri Lanka, they earn up to 2.1 times as much as government teachers (figure 5.4). Government teachers tend to be less qualified than government doctors, lawyers, and engineers. For instance, in Bangladesh, 64 percent of government teachers have at least a graduate degree, while 81 percent of government engineers do (figure 5.5). Government teachers also work fewer hours on average. While 30 percent of government teachers reported working more than 40 hours a week, nearly 80 percent of government doctors and 87 percent of government lawyers reported the same (figure 5.6). In both Pakistan and Sri Lanka, government teachers do not stand out in terms of having a second source of income; government doctors were more likely to have a second source of income than were government teachers (figure 5.7).

### SALARIES AND BENEFITS DIFFER BY TEACHER TYPE AND SCHOOL TYPE

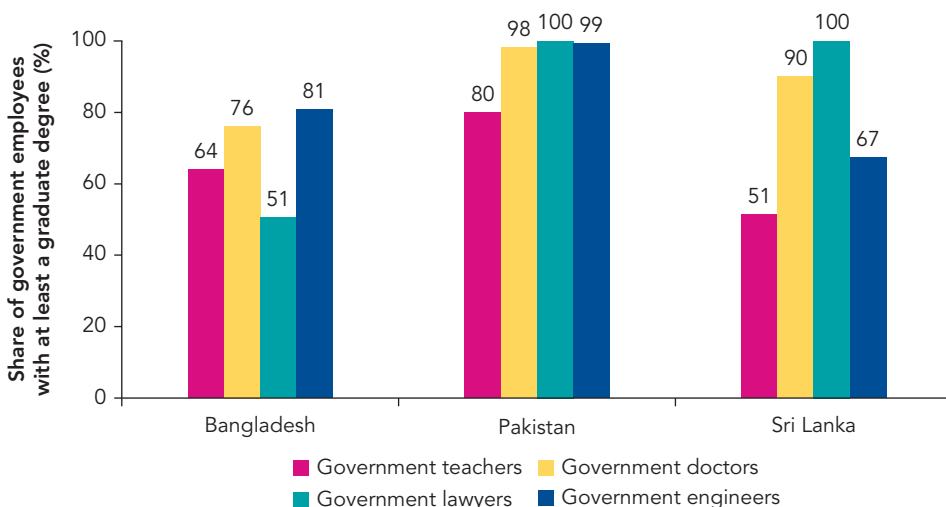
Teacher salaries and benefits vary according to whether teachers work in a government or private school, whether they are permanent or contract teachers, whether they teach at the primary or secondary school level, what subject they teach, and whether they teach in a rural or urban area, among other factors.

**FIGURE 5.4** Government Teachers Are Paid Less Than Other Government Employees in Bangladesh, Pakistan, and Sri Lanka, Latest Available Data



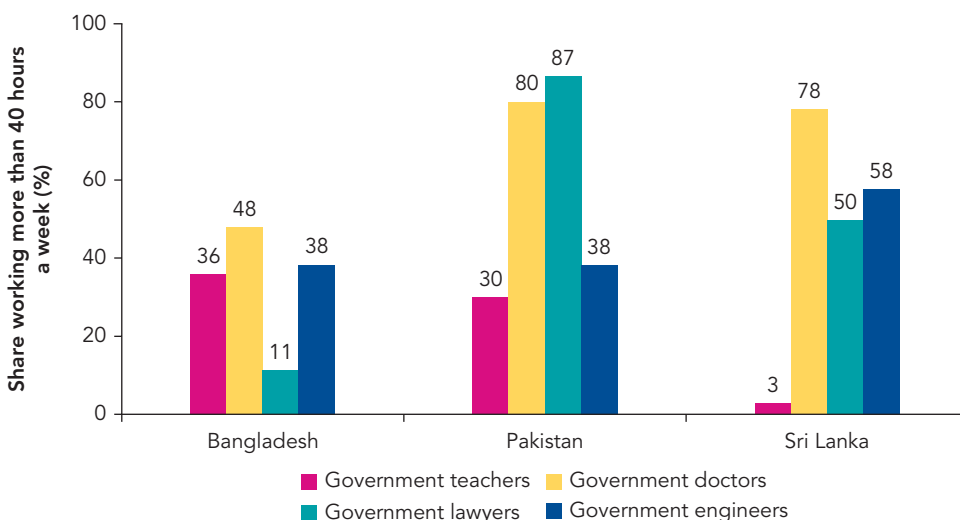
Sources: Bangladesh Labor Force Survey 2013; Pakistan Labor Force Survey 2014–15; Sri Lanka Labor Force Survey 2015.

**FIGURE 5.5** Government Teachers Tend to Be Less Qualified Than Other Government Employees in Bangladesh, Pakistan, and Sri Lanka, Latest Available Data



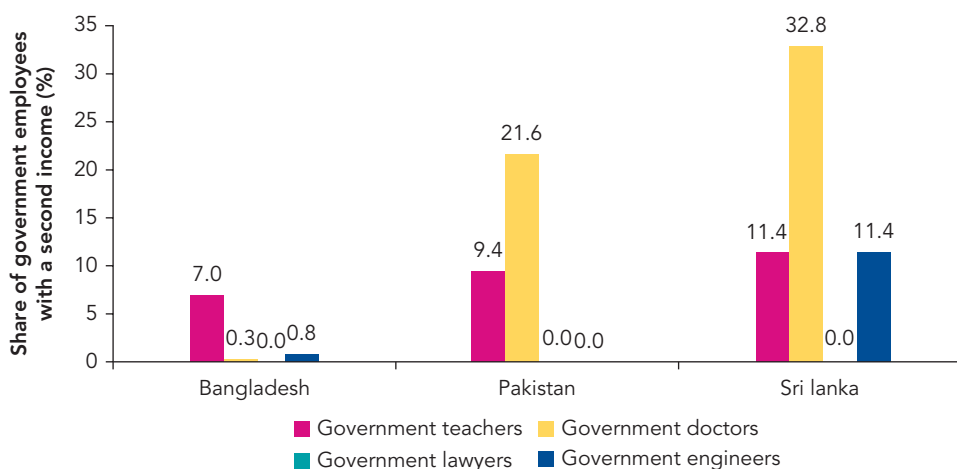
Sources: Bangladesh Labor Force Survey 2013; Pakistan Labor Force Survey 2014–15; Sri Lanka Labor Force Survey 2015.

**FIGURE 5.6** Government Teachers Tend to Work Fewer Hours Than Other Government Employees in Bangladesh, Pakistan, and Sri Lanka, Latest Available Data



Source: Bangladesh Labor Force Survey 2013; Pakistan Labor Force Survey 2014–15; Sri Lanka Labor Force Survey 2015.

**FIGURE 5.7** Governments Teachers Are Less Likely Than Government Doctors in Pakistan and Sri Lanka to Have a Second Income, Latest Available Data



Sources: Bangladesh Labor Force Survey 2013; Pakistan Labor Force Survey 2014–15; Sri Lanka Labor Force Survey 2015.

In general, teachers in government schools earn more than their private school counterparts. In Bangladesh, for instance, government school teachers are paid substantially more than private school teachers. This has to do largely with the absence of a uniform salary scale for teachers. While government school teachers receive regular payment at a higher salary level, plus allowances for rent and medical expenses, this is not the case for other teachers (Bangladesh Education Sector Review 2013). For example, a private government-aided school that does not receive salary subsidies may pay very low salaries with limited benefits on an irregular pay schedule.<sup>10</sup> In India, teachers who are employed in government schools are paid 25 times more than teachers in unaided private schools (World Bank 2016).

Even within government schools, contract teachers earn considerably less than permanent teachers. The hiring of contract teachers, who are on fixed-term contracts, started in the region in the late 1990s and early 2000s in response to the combination of rising demand for teachers and fiscal constraints and the belief that teachers hired on contract would be more accountable. These teachers are paid less than regular (permanent) teachers. For instance, in Afghanistan, provincial education departments receive very limited funding from the Ministry of Finance, which constrains their ability to pay teachers more. As a result, a quarter of the teachers they hire are contract teachers, who receive lower salaries than regular teachers (Ministry of Education in Afghanistan 2016). In India, regular teachers in government schools earn on average 10 times what contract teachers earn (World Bank 2016). The difference, however, has been narrowing

in several states. Madhya Pradesh and Rajasthan are now hiring teachers on a new regular scale. In Sri Lanka, the basic pay scale for all public school teachers follows the basic pay scale for public sector employees, which is a single salary structure based on service grade and years of service (Dundar and others 2017).

Salaries also vary by school level. Differences in the salaries of primary and secondary teachers reflect differences in qualifications. In Bhutan, for instance, lower and middle secondary school teachers earn 2.6 times per capita income, while primary school teachers earn two times per capita income (Nagpal and Oppen 2013). In Tamil Nadu, India, secondary school teachers earn 70 percent more than primary school teachers as new appointees as well as after 15 and 25 years in the profession (Ramachandran and others 2017). In Nepal, secondary school teachers receive the highest salaries, followed by lower secondary and then primary. In Sindh, Pakistan, primary school teachers earn about 0.8 times the average salary, while a secondary school subject-specialist teacher earns 1.8 times the average salary.

In countries with a strong federal structure, such as India and Pakistan, salaries vary considerably by state and province. This is true for all types of teachers (Madasamy 2018). In India, for instance, teacher salaries in Punjab are nearly two times teacher salaries in Karnataka. In Jharkhand, Karnataka, and Punjab, teachers in rural schools earn less than teachers in urban schools. In Pakistan, teachers in Balochistan earn 9.2 times per capita income (2015), while teachers in Punjab earn 5.5 times per capita income. There is some variation in Bangladesh by division level, but the difference is slight. For example, teachers in Khulna earn about 1.1 times what teachers in Chittagong earn. Even in smaller countries, salaries vary for teachers in urban and rural schools. In Bhutan, for instance, teachers in remote rural schools receive an additional allowance.

In general, salaries are revised periodically. In Sri Lanka, both basic salaries and allowances are revised periodically by government-appointed pay commissions; the wage and salary structure, which is tightly compressed, is adjusted annually. In India, the salaries of teachers, most of them state government employees, have been pegged to the salaries of central government employees under successive pay commissions, which meet every 3–5 years. In Punjab, Pakistan, the government increased the salary of government employees by 15–20 percent a year between 2013 and 2015 (World Bank 2015a). In contrast, in Maldives, teachers' salaries had not been revised for more than 15 years until 2015, when they were raised by more than a third. The previous increase, in 1999, had raised salaries by 35 percent (World Bank 2002).

Except in Maldives and Sri Lanka, the timeliness of pay remains a problem in many parts of South Asia. In Afghanistan, approximately 37 percent of teachers surveyed reported salary delays in the past 12 months (World Bank 2018). In India, depending on the state, government teachers may be paid 1–3 months late (Ramachandran and others 2017). In Bhutan, teacher salaries are disbursed on time 7–9 months of the year (Nagpal and Oppen 2013). In Nepal, 90 percent of teachers in government schools receive their salary once every four months, while most civil servants receive their



salaries every month. Community-managed schools in Nepal are more likely to pay their teachers full salaries on time according to the official scale (World Bank 2014).

### SALARIES AND BENEFITS ARE UNLIKELY TO ELICIT BETTER PERFORMANCE WITHOUT ACCOUNTABILITY MECHANISMS

There is little evidence that better salaries and benefits by themselves lead to superior performance. In Pakistan, for instance, a study found little relationship between teacher salaries and teacher value added in government schools (Bau and Das 2018). However, the study found a strong relationship between teacher salaries and teacher value added in private schools, where the consequences for poor performance are stronger. In India, too, studies document little relationship between teacher salaries and teacher performance (Azam and Kingdon 2015; Abhijeet Singh 2014; Muralidharan and others 2016; World Bank 2016). This is consistent with the international literature: without accountability mechanisms, salaries and benefits achieve little (De Ree and others forthcoming).

Most countries in South Asia do not have strong teacher appraisal processes or mechanisms for ensuring teacher accountability, let alone for linking pay to performance. While all countries have mechanisms for reviewing teacher performance, promoting teachers, and conducting school inspections, these mechanisms are not used to ensure accountability. Teacher promotions and pay increases are based on years of experience and not performance. This contrasts with well-performing systems in Japan and the Republic of Korea, for example, which factor performance into promotion decisions. High-performing teachers are allowed greater autonomy in the classroom and receive support to continue improving. Even though school inspections have been shown to improve teacher accountability and performance, South Asian countries have inadequate systems for school inspections. Inspection visits, when they do take place, are too far apart and rarely provide teachers with any support or guidance. In general, school management committees have not been effective as an accountability mechanism, except in Delhi and in Sri Lanka. Across the region, teachers are rarely dismissed for poor performance.

The variations in teacher salaries, with very little difference in expectations for performance, lead to unhelpful status ranking in the profession, most evident during teacher strikes and protests. All of this detracts from professionalism in the education system and from accountability among teachers. At the end of the day, student learning suffers.

In summary, governments across South Asia recognize that they need more teachers, better qualified teachers, and competitively paid teachers. Yet the measures taken to achieve these goals have not been adequate. Consequently, many of the very positive features of the South Asian education landscape have not yet been translated into improved student learning. Given the centrality of teachers to student learning outcomes,

much can be done to help teachers prepare better, both before they apply for jobs and while they are teachers. Chapter 6 takes a closer look at the preservice and in-service education systems in South Asia.

## Notes

1. Private aided schools have been declining steadily, from 10.4 percent to 8.5 percent.
2. In Maldives, private schools include community schools.
3. For India, DISE, 2008–15; for Bangladesh, BANBEIS, 2010–16; for Pakistan, AEPAM, 2008–17; for Maldives, School Statistics Report, 2011–17.
4. For both primary and secondary schools, the B. Ed. degree is a one-year program that assumes the candidate has completed an undergraduate degree in another field. Teacher training institutes also offer an integrated bachelor's degree in education, which is a four-year program for candidates who have not completed an undergraduate degree in another field.
5. For India, DISE, selected years; for Bangladesh, BANBEIS, selected years; for Pakistan, AEPAM, selected years; for Maldives, School Statistics Report, selected years; for Bhutan, Annual Education Statistics; for Sri Lanka, school census; for Afghanistan, EFA 2015.
6. This includes PTC, CT, B.Ed/BS.Ed, and M.Ed.
7. This includes Trained Teacher Certificate–distance based, Trained Teacher Certificate–classroom based, post-grad diploma in education, National College of Education diploma in teaching, and bachelor's degree or higher in education.
8. Author calculations based on Pakistan Labor Force Survey 2014–15.
9. These data come from household or labor force surveys of the respective countries. In Bangladesh and Pakistan, the category of associate professionals covers the following: Science and engineering associate professionals; health associate professionals; business and administration associate professionals; legal, social, cultural, and related associate professionals; and information and communications technicians. In India, it covers the following: Physical and Engineering Science Associate Professionals; Life Science and Health Associate Professionals; Teaching Associate Professionals; and Other Associate Professionals. In Sri Lanka, it covers the following: Physical science and engineering associate professionals; life science and health associate professionals; teaching associate professionals; and other associate professionals.
10. Monthly Pay Order (MPO) is a salary support provided to teachers of recognized non-government schools.

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## Are South Asia's Teachers Prepared to Teach? Pre-Service and In-Service Training

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Top-performing education systems not only select high-caliber individuals for teaching but also provide adequate pre-service preparation and in-service opportunities for continued training and learning. In top-performing education systems worldwide, teaching is a sought-after career. Consequently, teaching attracts the best candidates, and pre-service programs prepare them well for an interesting and challenging career in teaching. In South Asia, entry requirements for pre-service programs are generally low, which results in low-quality teacher candidates.

Entry requirements for pre-service programs differ across countries and by school level and are generally lowest for teachers at the primary level.<sup>1</sup> Except in Sri Lanka, graduating from a pre-service education program does not guarantee a teaching job in South Asia. Furthermore, weak governance and inadequate quality assurance in the teacher education system have led to the proliferation of low-quality pre-service education institutes across the region and consequently, there are far more teacher-candidates being prepared today than there are teaching jobs.

Once candidates enter teaching, South Asian countries offer little support through ongoing professional development opportunities. In contrast, top-performing education systems provide access to high-quality professional development and ongoing in-service teacher training. While countries across the region provide teachers with more in-service training than a decade ago, much of the training does not reflect international good practice. For instance, teacher observation visits are often one time only, with no follow-up, training is not linked to salary or promotion opportunities, and the proportion of time spent practicing with other teachers is minimal.

Like pre-service education, in-service professional development support in South Asia is fraught with system-level governance and quality assurance challenges. These include not just weak design but also inadequate implementation capacity and poor monitoring. This chapter takes a close look at the pre-service and in-service teacher training landscape in South Asia.

## A Rapid Increase in Pre-Service Programs of Inadequate Quality, with Few Links to Universities and Research

South Asian countries offer a range of pre-service options for people wanting to become teachers. There are often different routes to teaching at a given level (table 6.1). For instance, someone in Bangladesh who wants to teach primary school has the choice of either completing a year-and-a-half diploma in primary education or completing a one-year certificate program. Someone in Sri Lanka who wants to teach at the primary level requires a three-year national diploma in teaching. In general, there is more variation in pre-service requirements for primary school teachers than for secondary teachers in the region.

Several countries offer distance learning for pre-service education. These include Bangladesh, India, Pakistan, and Sri Lanka. Bangladesh Open University offers distance learning programs for bachelor's and master's degrees in education. Distance learning programs, however, limit the opportunity for students to undertake practical lessons in teaching.

In South Asia, entry requirements for pre-service programs are generally low, which results in low-quality teacher candidates.

The number of pre-service providers has proliferated in the past decade. In India, for instance, the number of teacher education institutes rose from about 1,800 in 2008 (UNESCO 2008) to 14,704 in 2011 (MHRD 2012). In Bangladesh, the total number of teacher training institutes rose from 129 in 2000 to 215 in 2016 (BANBEIS 2016). In several countries, the increase in providers has been driven by the private sector. In India, for instance, most of the expansion has taken place in the private sector (MHRD 2012). In Bangladesh, 39 percent of the institutes are public and 61 percent are privately managed, but more than half of enrollment (55 percent) is in public institutes. In Pakistan, however, there are fewer private institutes (53) than public institutes (156).

In top-performing education systems, pre-service programs share certain characteristics. These include a rigorous curriculum covering content and pedagogy, an emphasis on practical teaching, links with university departments, and quality assurance by governments (box 6.1). Practice teaching, for instance, is required as part of pre-service training for primary and secondary education in all top-performing education systems. In Finland, the Republic of Korea, and Shanghai, a practicum is required for primary and secondary levels, comprising at least a six-month classroom teaching

**TABLE 6.1** Structure of Teacher Education Programs in Selected South Asian Countries

Country	School level/ grades	Type of pre-service training and length	Pre-service training institutions
Bangladesh	Primary 1–5	Diploma in primary education (1.5-year)	Primary teachers training institutes
		Certificate in education (1-year, being phased out)	Bangladesh Open University
	Secondary 6–8, 9–10	Bachelor's in education (B.Ed.) (1-year)  B.Ed., distance mode (2-year)  Integrated B.Ed., honors (4-year)	Teachers' training colleges under the National University   Other public and private universities, including Bangladesh Open University
Higher secondary 11–12	B.Ed.	Higher secondary teacher training institutes, NAEM	
	Foundation training course at National Academy for Educational Management (NAEM)	Public universities, such as Rajshahi University, Dhaka University, Chittagong University, and Bangladesh Open University	
Sri Lanka	Primary 1–5	National diploma in teaching (3-year)	National colleges of education
	Junior secondary 6–11	National diploma in teaching (3-year)	National colleges of education
	Upper secondary 12	B.Ed. (4-year)	Universities: University of Colombo, Eastern University of Sri Lanka, Open University of Sri Lanka
Pakistan	Primary 1–5	Primary teaching certificate (PTC, being phased out)	Teacher training institutes such as departments of education in universities, government colleges for elementary education (that offer PTCs and CTS)
		Certificate in teaching (CT, being phased out)	
		Diploma in education (being phased out)  B.Ed. (1-year)  Integrated B.S.Ed. (4-year)	
Secondary 6–12	CT (being phased out)  B.Ed. (1-year)  Integrated B.S.Ed. (4-year)		
India	Primary 1–5	Diploma in elementary education (2-year)	Teacher education institutes, including departments of education in universities
		Integrated bachelor in elementary education (4-year)  B.Ed. (1- or 2-year)	
		Secondary 6–12	

Sources: For Bangladesh, ActionAid (2016); for India, UNESCO (2008) and MHRD (2012); for Pakistan, UNESCO (2008, 2015); and for Sri Lanka, World Bank (2018).

### **BOX 6.1** Key Features of Pre-Service Programs in Top-Performing School Systems

Pre-service programs in top-performing school systems share several characteristics:

- The curriculum is rigorous and covers content knowledge and pedagogy to equip teachers for effective teaching. Teachers are prepared to teach students to learn by elaborating and directing them to underlying principles rather than just teaching students to repeat sentences. Teachers learn effective classroom practices that are teacher-led but interactive, aim to stimulate and deepen critical thinking, and provide extra support to low-performing students.
- Teaching theory and practice are integrated to enable the development of effective classroom practice.
- Teacher education programs are situated in universities, have professional standards, and work in close coordination with schools.
- Teaching practice is an integral part of teacher education. Practice schools are closely linked to university departments of education.
- Courses on information and communication technology are included.
- Quality assurance plays an important role; teacher quality standards are enforced by the state.

In several countries, graduates of teacher education programs have to go through a demanding certification process before teaching or becoming a fully qualified teacher. Teacher education programs must prepare their students for the rigors of the teacher job market. In the Republic of Korea, teacher certification is obtained after taking a teacher employment exam that assesses subject knowledge and pedagogy and includes a teaching demonstration and an in-depth interview.

In Shanghai, all eligible teacher-candidates need to pass a national exam to receive certification. The exam includes a written test and a subject-specific interview. For basic education, the written exam includes comprehensives, covering teaching philosophy, education laws and regulations, ethics, and cultural literacy, as well as general ability and teaching knowledge and abilities covering the foundation of education, student guidance, classroom management, subject knowledge, class design and implementation, evaluation (primary education only), and psychology (secondary education only). Secondary school teachers also need to take a subject-specific exam. Only candidates who have passed the written test can proceed to the interview stage for receiving the certificate.

*Source:* World Bank 2016, 2018.

component that is built into the curriculum. This allows teacher-candidates to learn to apply pedagogical skills and gain skills in classroom management.

In South Asian countries, the curricula for pre-service education programs neither link to schools and school curricula nor relate to the realities of classroom practice. Countries face a common set of problems related to the quality of pre-service programs: poor-quality curricula, overemphasis on teaching theory relative to practice, inadequacy of assessments of conceptual and pedagogic skills,



**TABLE 6.2** Common Quality Areas Covered by Teacher Education Programs in South Asia

Quality area	Bangladesh	India	Pakistan	Sri Lanka
<i>Curriculum</i>				
Sufficiently covers subject knowledge?	No	No	No	No
Sufficiently covers pedagogic skills?	No	No	No	No
Adequately linked to school curriculum?	No	No	No	No
Covers social and emotional skills?	No	No	No	No
<i>Method of training</i>				
Mainly theoretical?	Yes	Yes	Yes	Yes
Sufficient practice of teaching skills?				One-year internship in schools, longer than others
	No	No	No	
Teaching style mainly lecture based?	Yes	Yes	Yes	Yes
<i>Assessment</i>				
Sufficient to assess content knowledge?	No	No	No	No
Sufficient to assess conceptual skills?	No	No	No	No
Sufficient to assess pedagogic skills?	No	No	No	No
Includes social and emotional skills?	No	No	No	No
<i>Teacher educators</i>				
Have sufficient preparation and skills?	No	No	No	No
Have access to professional development?	No	No	No	No
Infrastructure constraints exist, including classrooms, access to books, libraries, ICT?	Yes	Yes	Yes	Yes
<i>Teacher training institutes</i>				
Situated in the realm of higher education and benefit from new knowledge generated in universities?	No	No	No	No
Work in coordination with schools?	No	No	No	No
Well-defined professional standards adopted?	No	No	Adopted but not practiced	No
Existing norms and standards well enforced?	No	No	No	–

Source: Pandey (2018), based on reviews of teacher education programs in South Asia and internationally.

assessments focused on cognitive skills while neglecting social and emotional skills, and insufficient preparation of teachers (table 6.2). A majority of teacher training institutes operate without links to institutes of higher education and with weak links to schools and school curricula (MHRD 2012). Furthermore, because pre-service education programs are not linked to in-service professional development programs, they are rarely informed by the difficulties teachers encounter when they enter the classroom.

At both the primary and secondary school levels, the teacher preparation curriculum is fragmented and outdated, and does not address subject knowledge adequately. New developments in subject matter, such as artificial intelligence and big data, are not incorporated into relevant programs. The focus is on general methods of teaching, such as lecture, classroom discussion, question and answer, and memorization. Student teachers do not learn sound pedagogy skills (MHRD 2012; Yadav 2011). In India, for instance, practice teaching in classrooms lasts no more than five to six weeks and provides at best a piecemeal experience of what real teaching is like. The focus is on mechanical delivery of lessons. A 2009 Government of Pakistan report on teacher preparation notes that “teacher certification programs are designed to foster rote learning, unquestioning acceptance of textual material, and passive preparation for tests” (Government of Pakistan 2009). In Bangladesh, practice teaching is also very short, and it is not adequately supervised; schools are not adequately involved in organizing practice (Yadav 2011). In Sri Lanka, too, the link between theory and practice is weak (Yadav 2011), and proper supervision of student teachers is often lacking (NEC 2016). A further concern across South Asia is that student teachers come from the same low-quality schools as the schools where they will be teaching. There is little in the design of pre-service programs to remediate the academic deficiencies of teacher trainees.

Teacher education programs fail to equip South Asia’s teachers with the skills needed to manage students at different learning levels—a common situation in South Asia’s many multi-grade classrooms.

Not only are learning levels low in South Asia, but within the same classroom there is often a large difference between the lowest- and highest-performing students. One study found 4–5 grade levels of ability within a single classroom (Muralidharan and others 2016). Teacher education programs in the region provide teacher-candidates with little guidance on how to address this challenge.

While teacher education programs in South Asia assess teacher-candidates, these assessments are of limited value in screening for teaching jobs. In India, for instance, assessments evaluate primarily the knowledge of teacher trainees in pre-service teacher education programs, while their conceptual and pedagogic skills are not adequately evaluated (MHRD 2012). Neither are their social, emotional, and communication skills to engage with children assessed. The same is true in Bangladesh, where evaluation methods rely on traditional techniques to evaluate the performance of student teachers (Yadav 2011).

Teacher-trainers are not good role models as teachers or professionals. Across countries, there are no clear standards or requirements for the professional development of teacher-trainers (Yadav 2011). Furthermore, the institutional capacity to prepare teachers is inadequate across the region, with teacher-trainers themselves lacking core teaching and academic skills. In Bangladesh, for instance, teacher-trainers are not sufficiently qualified or experienced to properly prepare new teachers (Ministry of Primary and Mass Education 2014). Lecturing is the most frequently used method of teaching teachers in all countries (Yadav 2011). In India, not enough programs offer master's degrees in education to meet the needs of specific states, and so there is a dearth of well-prepared teacher-trainers. Programs are general, and the trainers responsible for delivering the program are often not capable of training subject experts at the secondary or higher secondary level. In Sri Lanka, the quality of training is especially low in part-time and distance learning programs (World Bank 2011, 2018). Finally, teacher education institutes suffer from high rates of student and teacher absenteeism, particularly in Bangladesh and Pakistan.

Links between teacher training institutes and universities are weak or nonexistent in South Asian countries, so there is little relationship between what happens inside teacher training institutes and new education research, and little coordination of programs. In India, for instance, most teacher education institutes are not affiliated with universities, and those that are, such as colleges of teacher education, are rarely located on university campuses (MHRD 2012). Teacher training programs are isolated, lack well-defined professional standards, have low visibility, and do not benefit from new university research. Furthermore, teacher education institutes do not have close ties with schools, and their curricula are not linked. In Pakistan, for instance, there is little collaboration among teacher training institutes and between institutes and district administration and schools. Different institutions are responsible for staffing, curricula, examinations, and textbooks with little coordination (UNESCO 2005). In Sri Lanka, the lack of coordination among the Ministry of Education, National Institute of Education, national colleges of education, and provincial education administrators contributes to the poor quality and ineffectiveness of training programs.

Universities play an important role in pre-service education in top-performing education systems. In countries with a strong education system, universities are engaged in designing the curriculum of pre-service teacher preparation, based on state-mandated curricula and standards for primary and secondary schools. Thus, school curricula, teacher training, and learning standards are aligned. In Finland, teacher education is research based, and all eight teacher education programs are university based. In Shanghai, the Ministry of Education, the Shanghai Municipal Education Commission, and schools collaborate in teacher preparation, providing for stronger implementation and alignment between primary and secondary curricula and higher education. Shanghai Normal University prepares 60–70 percent of Shanghai's teachers. In Singapore, the National Institute of Education prepares all teachers in close collaboration with the Ministry of Education and schools. Thus, if a new teacher needs extra

support, the National Institute of Education gets immediate feedback from the schools and can make adjustments. In short, strong pre-service education programs appear to be linked to high-quality university support.

## Weak Governance of Pre-Service Education Programs Underlies Poor Quality

The poor quality of teacher education programs is attributable mainly to weak governance and inadequate quality assurance. The tremendous growth in the number of teacher education institutes speaks to a lack of regulation. There are more teachers being prepared than there are jobs available for them (see chapter 5). In India and Pakistan, many of the teacher education institutes are allegedly owned or promoted by powerful vested interests, whose primary concern is generating a profit. This creates unique governance challenges for managing the quality of teacher education institutes in the region (Pandey 2018).

The lack of capacity to enforce norms and standards also contributes to challenges in managing the quality of teacher education institutes. This has led to wide variation in quality and a proliferation of poor-quality teacher education institutions and programs. In India, for instance, the National Council of Teacher Education (NCTE) has responsibility for inspecting teacher education institutes. But it is able to visit only a small fraction of institutes every year. In 2011 it inspected 168 of approximately 13,000 (MHRD 2012). Making matters worse, members of the inspection panel do not always have the expertise needed to assess quality, which has resulted in some poor decisions by the NCTE (MHRD 2012). For example, the government of Haryana wrote to the NCTE in 2007 asking it to withhold permission to open any new teacher education institutes as there was no need for them. Yet the NCTE granted permission to 114 new institutes in 2009/10, 37 in 2010/11, 19 in 2012/13, and 19 in 2014/15 (Pandey 2018).

In Pakistan, a key constraint pertains to the lack of standards in teacher education programs, teacher certification, and accreditation of teacher education programs. A recent report notes large variations in the quality of teacher training institutes, both government and private, reflecting at least in part the lack of standards (UNESCO 2015). A government report noted the problem as early as 2009, commenting on the absence of professional standards, yet little has changed since then (Government of Pakistan 2009).

Finally, there are limited data tracking the performance of teacher education institutes in the region. While both India and Pakistan have been revamping the accreditation process for teacher education institutes, implementation has been slow. There is little easily available information on these institutes, especially private institutes. For teacher-candidates choosing where to study, there is little guidance or information on what is being taught in an institute, student graduation rates, and job placement rates.

## In-Service Professional Development Programs Could Compensate for Some of the Deficits of Pre-Service Training But Suffer from Their Own Shortcomings

In-service teacher training and professional development programs have increased substantially in all South Asian countries in the past 10–15 years. These programs are intended to help primary and secondary school teachers keep their knowledge and skills updated and inspire them to remain in teaching. To regularly improve instruction at the school level, teachers and schools need to be able to analyze the challenges they face in the classroom, have access to information on best practices to address these challenges, and receive external support tailored to their needs. Top-performing education systems around the world invest in teacher professional development practices to keep teachers' skills aligned with standards and curricula.

In many developing countries that have inadequate systems for pre-service teacher training, in-service teacher professional development is seen as a way to improve the quality of teachers and help them perform at the levels set by national standards and curricula. Teacher professional development policy is often viewed as an easier way to improve teacher quality than trying to reform more rigid pre-service teacher training systems (Popova, Evans, and Arancibia 2016). This is partly because they are of much shorter duration than pre-service programs, allowing more easily for changes in curricula.

### TEACHER PROFESSIONAL DEVELOPMENT PROGRAMS VARY IN SIZE, SPONSORSHIP, AND CONTENT

South Asian countries have instituted many types of teacher professional development, from large-scale, government-funded training programs to state-level programs and smaller programs designed for specific populations. In-service professional development can be classified by the level of centralization and by the types of organizations involved in its design and implementation. Most countries in South Asia mandate some teacher professional development activities to be carried out each year. In some instances, laws and policies go further to specify what types of training are required, who is certified to conduct the training, and other details. For instance, in India, under the Sarva Shiksha Abhiyan (SSA) program to strengthen primary school education and the National Mission for Secondary Education (Rashtriya Madhyamik Shiksha Abhiyan, RMSA) to strengthen secondary school education, teachers are required to take 20 teacher professional development days each year (NCERT 2016). For these programs, details of the professional development days and types of training are determined at the state level, and states may have additional requirements for teacher professional development activities. Such government-funded teacher professional development can vary considerably in quality and implementation. Often, such programs leave contract teachers out. They also do not cover teachers in private, unaided schools.

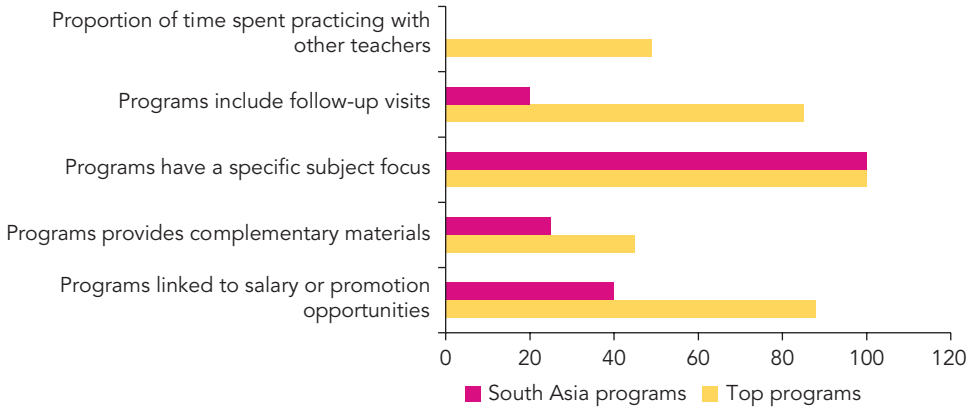
In addition to government-funded and state-level activities, hundreds of smaller initiatives from district and local governments, nonstate actors, and researchers provide professional development opportunities across the region each year. In many instances, South Asia has served as a laboratory for small-scale in-service teacher training programs piloted by nonstate providers. Some are later scaled up and adopted more broadly, such as the STIR education model to change teacher behavior and quality by focusing on ways to intrinsically incentivize and motivate teachers to improve their classroom teaching practices. Using a three-year engagement model, the STIR training seeks to empower teachers to be “change-makers” in their classrooms and schools. Other programs continue in small pockets of the region or may be one-time ventures, depending on the actors, context, and resources involved. These smaller-scale professional development activities tend to be designed and implemented alongside district and local government programs.

Country policies and requirements for teacher professional development activities do not differ much across the South Asia region. In India and Pakistan, states have more authority than the national government over the design and implementation of teacher professional development. On average, countries in South Asia require teachers to participate in 5–20 days of professional development activities each year. This varies depending on whether the teacher is a primary school teacher or a secondary school teacher. There are typically policies in place that mandate the kinds of institutions that can design and implement teacher training as well as what funding is available to cover the costs of teacher training programs and teacher expenses for participating in such programs. In several countries and states in the region, there are also policies in place to assign teacher professional development based on perceived needs. There are almost no policies requiring teacher professional development activities to be evaluated.

## CHARACTERISTICS OF TEACHER PROFESSIONAL DEVELOPMENT PROGRAMS ASSOCIATED WITH POSITIVE STUDENT LEARNING OUTCOMES

Teacher training programs that are positively associated with improvements in teacher quality and student learning outcomes share certain characteristics of design, delivery, and follow-up activities. A meta-analysis of evaluations<sup>2</sup> of teacher professional development program impacts on student learning outcomes in low- and middle-income countries around the world highlighted five characteristics associated with effective teacher professional development programs (figure 6.1): Important characteristics of effective professional development programs include links to career opportunities, having follow-up visits, and allocating time for teachers to practice (Popova and others 2018). Effective teacher training programs also help teachers gauge the academic competence levels of their students so that they can tailor lessons to student needs.

**FIGURE 6.1** How Evaluated Teacher Training Programs in South Asia Compare with Top Evaluated Programs Worldwide



Source: Popova and others 2018.

Note: Top programs are those that result in at least a 0.10 standard deviation improvement in student learning outcomes.

In South Asia, that means reaching students who are often well below the standards in the national curricula.

On paper, Bangladesh has one of the most comprehensive policies to support teacher professional development, including opportunities for observation visits to schools, participation in teacher and school networks, and opportunities for individual or collaborative research. Policies in other countries offer fewer types of professional development support, although Karnataka in India and Punjab and Sindh in Pakistan officially provide opportunities to analyze instructional practice through research, mentoring, or coaching (World Bank 2013). Despite these policies, there is little evidence, particularly from empirical evaluations, that teacher training is well-implemented or effective.

In general, however, evaluated professional development programs in India, Nepal, and Sri Lanka lag behind on characteristics associated with top-performing professional development programs (see figure 6.1). Of the 26 evaluated programs examined in Popova and others (2018), 6 were in South Asia (India, Nepal, and Sri Lanka). Notably, 73 percent of top-performing programs link teacher professional development activities to salary and promotion opportunities, but only 40 percent of the evaluated professional development programs in South Asia do so. Nearly half of top-performing programs provide complimentary materials alongside teacher professional development activities compared with a quarter of evaluated programs in South Asia. Most strikingly, 85 percent of top programs provide follow-up visits with teachers after professional development activities are completed compared with just 20 percent of evaluated programs in South Asia, and none of the evaluated programs report dedicating time for teachers to practice what they learn with other teachers. One exception is that

100 percent of both top programs and evaluated programs in South Asia have a specific subject focus (rather than focusing on general pedagogy, classroom management, training on specific tools, or other types of generalized training).

The sample of at-scale teacher professional development programs covered by the meta-analysis of teacher professional development program evaluations included the 10 largest programs implemented in Bihar, India, between 2012 and 2016 (Popova and others 2018). These large government-funded programs were designed by the government or the National Center for Educational Research and Training. They followed a cascade model, in which a master trainer trained other trainers, who then implemented the teacher professional development program. Most (90 percent) of the trainers were primary or secondary school teachers, and the remaining 10 percent were researchers. The programs varied considerably in size, from 469 teachers to 400,000 teachers (mean: 67,202 teachers). The average program in 2016 was 2.7 years old. The programs last about eight days on average. None of the programs include incentives linking teacher professional development programs to salary or promotion opportunities. According to program coordinators, 80 percent of programs included follow-up visits after the training and most of the programs dedicated time to discussion, but only 1 of the 10 set aside time for teachers to practice what they learn with one another.

## CHALLENGES TO THE EFFECTIVENESS OF TEACHER PROFESSIONAL DEVELOPMENT PROGRAMS

South Asian countries lack clear policies and practices governing the content and delivery of teacher professional development programs. Many top-performing education systems around the world have detailed policy requirements and regulations in place at the central and subnational levels for the design and delivery of teacher professional development activities. All teacher training activities are based on teachers' years of experience and perceived needs, so that teacher training is tailored to meet the teaching and learning needs of teachers directly. Furthermore, in systems such as Shanghai's and Singapore's, teacher professional development is designed and implemented under the direction of education ministries, thus ensuring that standards are met. Teacher professional development is closely linked to career incentives, and programs provide follow-up support and monitoring to help teachers improve the quality of their classroom teaching (Darling-Hammond, Wei, and Andree 2010; Liang, Kidwai, and Zhang 2016; World Bank 2012).

Teacher professional development activities throughout the region could be better linked to the perceived needs of teachers and their education systems. While teachers are often evaluated, performance evaluations are not conducted systematically; nor do they reflect good practice. This makes it difficult to ascertain areas where teachers might be underperforming and to assign them accordingly to appropriate professional development programs, a common practice among top-performing education systems.



Implementation capacity for teacher professional development programs is often weak. The key challenges include the large size of the teaching workforce and weak regulation of teacher professional development programs in South Asia. Education ministries often cite problems with the scale and expectations of programs serving large populations. Large-scale in-service training typically uses a train-the-trainers (cascade) model to prepare teacher-trainers in professional development programs (see box 6.2 for the case of RMSA in India). Teacher-trainers tend to be local or district government officials or primary or secondary school teachers, with some models having master trainers but others not. This affects the quality of the training they deliver. A recent randomized controlled trial assessing the impact of an active-learning teacher training program in Costa Rica found that the training not only failed to improve student learning

### **BOX 6.2 Process Evaluation of the National Mission for Secondary Education In-Service Teacher Training Program in India**

In 2016, the Indian Ministry of Human Resource Development and the National Center for Educational Research and Training conducted a process evaluation of in-service teacher training delivered under the Rashtriya Madhyamik Shiksha Abhiyan (RMSA; National Mission for Secondary Education) scheme focusing on delivery in nine states. Under RMSA, beginning in 2009/10, secondary school teachers were required to participate in at least 20 days of in-service teacher training a year. The evaluation highlighted large variations in training delivery and quality across the states.

#### **Is RMSA being implemented as intended?**

The evaluation found three primary areas in which RMSA is not being implemented as intended:

*Needs assessment.* Training is frequently conducted without an assessment of teacher needs.

*Training delivery.* There is an overreliance on lectures and traditional methods of instruction, rather than opportunities for teacher engagement and for teachers to practice what they learn.

*Monitoring and evaluation.* Many teacher training programs are not evaluated at all, and little is known about their impact on teacher knowledge and behavior or student learning.

#### **What explains the variation across states?**

A key difference was in the degree to which states decentralized responsibility for training development, implementation, and assessment to the district level. The study, however, does not say whether decentralization was good or bad for implementation compliance. All nine states relied on cascade models for training delivery, so the quality of instructors varied based on the types of or people who were trained as trainers and the methodology used.

*Source:* NCERT 2016.

outcomes but also that the impact was negative when the training was delivered through a cascade model rather than by the original professional team that designed the training program (Berlinski and Busso 2017).

There is little regulation of the implementation and quality of teacher professional development. Laws and policies are in place across the region mandating the provision of professional development programs, but none require that programs be evaluated. Training tends to be a one-time offering rather than continuous professional development designed to meet the needs of teachers and the students they teach. For instance, a recent evaluation by the Government of India of an in-service teacher training program implemented under RMSA noted the lack of needs assessments in each state and the variations in training delivery and quality across the states (see box 6.2) (NCERT 2016).

Overall, the greatest challenge is to improve the reporting, monitoring, and evaluation of teacher professional development programs to increase their impact on teacher knowledge and behavior and student performance. Monitoring government-supported teacher professional development activities based on the characteristics associated with effective teacher professional development programs (Popova and others 2018), not just on the number of days of training teachers receive each year, can provide evidence for improving the quality of training and ultimately the quality of teachers in the region. The World Bank has recently introduced a tool to help countries benchmark their in-service training programs, the In-Service Teacher Training Survey Instrument (Popova and others 2018).

## Notes

1. This chapter focuses on Bangladesh, India, Pakistan, and Sri Lanka for pre-service training based on availability of information.
2. Evaluations refer to programs that were rigorously evaluated using experimental or quasi-experimental techniques.

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## School Principals Find It Difficult to Support Teachers

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Studies link effective school principals to effective teachers and gains in student learning. Effective principals balance tasks related to instructional and organizational leadership.<sup>1</sup> In South Asia, principals are assigned to many administrative tasks, leaving little time for instructional or organizational leadership. They report finding it difficult to motivate and reward well-performing teachers and to penalize poorly performing ones. Principals in South Asia also receive very little professional development or guidance on how to do their job better. There are few financial rewards for being a principal rather than a senior teacher. Finally, while private schools give principals more authority, it is not clear whether this, by itself, translates into improved student learning.

There is little systematic research on school principals in South Asia. Using recent surveys of principals in four South Asian countries, administrative data, and case studies, this chapter provides an account of what it means to be a school principal in the region: who principals are, what they do, what challenges they face, and how they can be effective.<sup>2</sup>

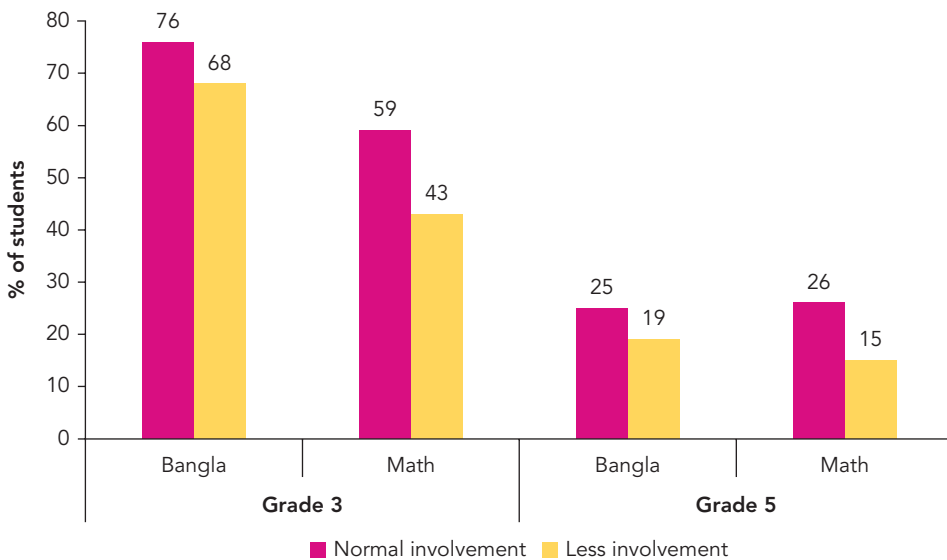
### Principals Can Play a Key Role in Improving School Outcomes

Several studies link high-quality principals with better school outcomes, such as reduced dropout rates and improved student learning (Hallinger and Heck 1998; Waters, Marzano, and McNulty 2003). A meta-analysis of 134 studies of school leadership shows that school leaders can have positive impacts on student achievement

(Robinson, Hohepa, and Lloyd 2009). Global top performers on standardized tests like the Program for International Student Assessment (PISA)—such as British Columbia (Canada), Hong Kong SAR, China, and Singapore—attribute part of their success to establishing strong school leadership models (Driskell 2016). Evidence from South Asia, albeit limited, also supports the importance of principals to the quality of key school outcomes. For instance, in Bangladesh, more engaged head-teachers add more value to student learning than others. Analysis of data for Bangladesh finds that students in schools with lower involvement of head-teachers in school activities perform worse on average in competency tests in grades 3 and 5 in Bangla and math (figure 7.1).

Evidence from India and elsewhere shows the importance of school management practices for improving student learning. A study of school management practices in several countries found that effective school management led to improved test scores: in India, a 1 standard deviation increase in management scores led to a 0.5 standard deviation improvement in the performance of students in their grade 10 board examinations (Bloom and others 2015). Management practices were scored in four broad areas: operations, monitoring, target setting, and people management. The study found similar results for countries that belong to the Organisation for Economic Co-operation and Development (OECD), providing strong support for the importance of effective school leadership.

**FIGURE 7.1** Student Competency in Bangla and Math Are Associated with Head-Teachers' Degree of Involvement in School Activities, Bangladesh, 2014



Source: DPE 2014, based on NSA 2013 data.

Effective principals excel in both instructional leadership and organizational leadership. The international literature suggests that principals who are most likely to improve student learning outcomes distribute their time appropriately across these two domains of leadership.<sup>3</sup> Instructional leadership focuses on the principal's role in facilitating teaching and learning by interacting directly with teachers and students in the classroom. Key activities include coaching teachers and ensuring teachers receive appropriate professional development (Hallinger and Heck 1998; Waters, Marzano, and McNulty 2003). Organizational leadership focuses on activities such as personnel management (teacher hiring, retention, and dismissal); building strong interpersonal relations within the school; maintaining facilities; managing budgets and resources; managing school schedules; completing paperwork; and communicating with external stakeholders such as parents, school management committees, and government functionaries (Grissom, Loeb, and Mitani 2015).

## Who Are South Asia's Principals?

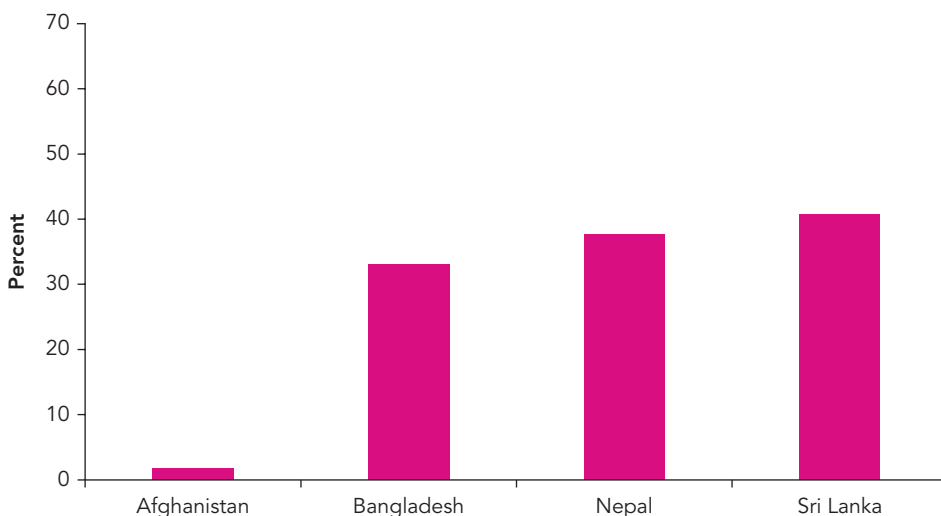
Principals are typically drawn from the pool of senior teachers, which means that the principal workforce tends to be older and not far from retirement. The average age of principals in South Asia is close to 50 years, while the average age of teachers is closer to 40. In Bangladesh, 26 percent of primary school principals and nearly 40 percent of secondary school principals are older than 50. The percentages are 37 percent in Afghanistan, 34 percent in Sri Lanka, and 41 percent in Nepal. Principals in developed countries also tend to be older, averaging 51 years in OECD countries, 54 years in Chile, and 49 years in Shanghai.

There are advantages and disadvantages to having an older principal population. An older principal is likely to have had more years of relevant experience and is more likely to be able to exercise authority effectively over subordinates. On the minus side, being close to retirement might limit principals' motivation to initiate long-term reform projects. The literature on the relationship between age and principal effectiveness is inconclusive. Results from surveys for this report are also inconclusive. However, as discussed subsequently, older principals might find it easier to manage some of the challenges associated with running a school system in South Asia.

Except for Sri Lanka, South Asian countries do not have a separate career track for principals. There are multiple paths to becoming a principal in South Asia, but they are rarely clearly documented. In Afghanistan, Nepal, Pakistan, and Sri Lanka a majority of principals advance from teaching assignments and another large share from administrative positions. In general, principals were not required to take any training to be eligible for becoming a principal. The situation is similar in India, with the exception of a few states. In Gujarat, applicants must clear a head-teacher aptitude test to become a principal. In West Bengal, principals are recruited by the West Bengal School Service Commission and must have teaching experience

Principals in South Asia are generally better qualified than teachers, especially primary school teachers, and they often teach.

**FIGURE 7.2** Less than 50 percent of Principals in South Asia Have a Master's Degree or Higher



Sources: Author calculations based on SABER-SDI, 2017 for Afghanistan; NSA 2015 for Bangladesh; and principal surveys conducted for the report in Nepal and Sri Lanka.

and pass a written examination. In Bangladesh, school principals are recruited through school management committees.

Principals in South Asia are generally better qualified than teachers, especially primary school teachers, and they often teach. They are also much more likely than teachers are to have a master's degree, with the exception of Afghanistan, where the prevalence of master's degrees is low across the board (figure 7.2). Their higher qualifications mean that principals are more likely to teach or to have taught at the secondary school level. In Nepal, for instance, nearly 79 percent of principals teach, with 38 percent of them teaching in secondary schools. In Sri Lanka, principals often teach more than one class, with more than 20 percent teaching three or four classes. Principals in South Asia are, however, not as well qualified as their counterparts in OECD countries or in Shanghai.

Overall, fewer women than men become principals in South Asia. In Sri Lanka, a slightly smaller percent of principals are women (71 percent) than men (76 percent). In

**Overall, fewer women than men become principals in South Asia.**

Bangladesh, a minority of principals are women at both the primary school level (37 percent) and the secondary school level (8 percent). In the absence of clearly specified recruitment practices, it is difficult to know why

gender differentials tend to favor men. It could be that the job of principal is highly demanding of time, and so women opt out because of their heavier burden of household duties (Ramachandran 2018). It could also be that principals gain their positions through networking with senior teachers, who also tend to be men. Or it could be that principal positions are in places where it is difficult for a woman to take her spouse (see box 7.1).



### **BOX 7.1 The Story of One Woman's Journey to the Post of Principal in Rajasthan: 35 Years and 19 Transfers**

Dr. Sunita Devi [name changed] was selected as a teacher in English and posted to a rural co-educational government school as her first post. At the same time, her parents decided that it was time for her to settle down and arranged her marriage to a lecturer living in the district. Within less than two years of her posting, she passed the public service examination and was promoted to headmistress in the same school. The promotion was fine, but she was not happy with the school. After pulling many strings, she managed to secure an urban posting, though not in her hometown. Within six months, however, she got a posting to her hometown as an assistant headmistress in a government girls' senior secondary school (considered a parallel posting). By this time, she had two daughters, and one of them was going to school in her hometown. Dr. Devi moved three times within her hometown. On the third move she was promoted to vice principal and joined the Teachers Training College. For family reasons, she managed to stay in the same town for the next 10 years.

Then she received a promotion to principal in a senior secondary school in another town. Yet another posting and another transfer! She was in a quandary over whether to decline the promotion and stay with the family in her hometown or take up the new assignment and move away from her family. Before she decided, her mentor/godfather advised her to move on saying that "something" would be done to bring her back home. She accepted the promotion, and in just four months she was transferred back to her hometown as principal of the girls' senior secondary school where she had earlier served as assistant headmistress. Her connections with a local politician and with officials of the education department helped her to "manage" her postings and stay in her hometown. From the girls' secondary school, she moved on to become a research officer in the Educational Technology Unit of the State Institute of Educational Research and Training in the state for a period of nine months. Thereafter, she had two postings as principal in two different schools, one on the outskirts of her hometown; then as Senior Assistant Director at the Board of Secondary Education; and finally as a professor at the teacher training college.

How does she view her frequent transfers? "Well, with every transfer, women like me, with families and children, go through a heart-rending time. I have not been a sufferer personally, but others around me suffered. Women face innumerable difficulties, there is no housing and no transportation made available to them. Then there are issues of safety and security...in the absence of family members who do you turn to for support and protection? Moreover, rural postings have limited or no facilities for education and employment, so the family has to stay in places where these are available."

Source: Ramachandran 2018.

A large number of schools in South Asia have no principal. Small schools may not have sanctioned positions for principals. In schools with sanctioned principal positions, vacant posts are either filled by teachers as acting principals or left vacant. When teachers perform the role of acting principals, their focus is the completion of administrative tasks. Other instructional and organizational management-related tasks take a backseat as they must also complete a full teaching load. And where there are no principals, the overall operation of the school suffers. In India, nearly 60 percent of primary schools and 54 percent of secondary schools do not have a principal. Policy in India prohibits schools with fewer than five teachers from having a formal head-teacher, resulting in a third of schools having no principal (Ramachandran 2018). In Bangladesh, 16,000 principal posts were vacant in

### **BOX 7.2 Procedural Delays Extend the Time from Application to Final Posting as a Principal, Karnataka, India**

The experience of B. Mallesha, a male teacher from a scheduled caste community in Karnataka with a master's degree documents the delays experienced during recruitment to become a headmaster. Four years elapsed between the time Mr. Mallesha applied for a high school headmaster post and his final posting.

Here are the details:

- Submission of application: December 2007
- Preliminary exam (objective type): February 2008
- Results of preliminary exam: June 2008
- Main exam (descriptive): December 2008
- Results of main exam and call for interview: July 2009
- Interview: September 2009
- Final list of selected candidates: February 2010
- Appointment letter sent: June 2012

Some 60,000–80,000 people applied and took the exam for the 629 posts available. Of these, only about a thousand cleared the exams and qualified for an interview.

Source: Jha 2015.

2017. In Sri Lanka, 20 percent of schools have principal vacancies and are served by an acting principal. The vacancy rate is much lower (under 3 percent) in Afghanistan and Nepal. Procedural delays also leave some principal positions vacant. From application to assignment as a principal can take several years (see box 7.2).

Principals in South Asia are paid on the same payscale as teachers and so do not earn much more than a teacher with the same experience. In India, school heads receive a few more salary increments (annual increase in basic pay) than teachers as well as an additional transportation allowance—but these are small. This is in keeping with the norms followed in most government service posts—civil servants who are promoted to a higher post remain within their cadre's pay scale (Ramachandran 2018). In-group discussions in India and Sri Lanka, principals reported feeling underpaid, considering the stresses of their job relative to a teacher's job. In Nepal, salary payments are frequently delayed for principals, as they are for teachers.

Pay may not be the main draw of the job of principal; status is important. Being a school head brings with it intangible benefits such as assigning duties to teachers, hiring guest teachers and temporary teachers, managing building construction projects, and so on. In India, the local government school, especially in rural areas, is viewed as an extension of the government. As the chief functionary of the government in the local area, school heads can also wield power by recommending caste certificates and income certificates, and preparing electoral rolls. Being able to use the position of school head

to leverage these other sources of power can be an incentive to some teachers to become a school head (mostly men) but a disincentive to others (such as women and people from socially disadvantaged communities) who are wary of working with local political power structures (Ramachandran 2018).

## Principals in South Asia Multitask, Leaving Little Time to Support Teachers

Principals undertake administrative tasks and tasks related to instructional leadership, but the latter are unlikely to reflect good practice. When asked about the tasks they felt they had most control over, principals pointed to budget-related tasks and tasks associated with instructional leadership, such as allocation of roles and responsibilities to teachers and performance appraisal. In Bangladesh and Nepal, 97 percent and 93 percent of principals said they would rather observe teachers in the classroom than hold meetings with district officials (Sabarwal and others 2018). This was true regardless of whether the principal headed a primary or a secondary school. But principals' understanding of their role in instructional leadership may not align with good practice. First, principals report spending most of their time on teaching or administrative tasks, not mentoring, appraising, or improving teacher performance. Second, principals are more likely to manage through top-down practices than to support teacher autonomy (Sabarwal, Abu-Jawdeh, and Masood 2018).

When principals practice instructional leadership effectively, they can have an important impact on student performance. Evidence from Bangladesh suggests that when strong school leadership creates an environment in which teachers actively exchange knowledge, student performance is better.<sup>4</sup> In Bangladesh, 93 percent of school leaders say that they promote teachers' mutual exchange of knowledge. In such schools, if principals are generally more engaged, then students learn even more. An examination of grade 3 student performance in Bangla shows that 76 percent of students meet competency standards if teachers' and head teachers' engagement is average compared with 60 percent when there is no exchange between teachers and involvement is below average levels (table 7.1).

Studies in Bangladesh show that students perform better when principals are more engaged.

### PRINCIPALS ENGAGE IN MULTIPLE TASKS UNASSOCIATED WITH STUDENT LEARNING GAINS

The main organizational tasks that principals take on are not associated with student learning gains. Principals surveyed felt that they had considerably more control over issues related to budget preparation and implementation—such as purchases of school equipment and supplies, and instructional leadership—than over tasks related to teacher management, such as hiring and retaining effective teachers and

**TABLE 7.1** Percentage of Students Achieving Grade-Relevant Competencies, by Degree of Involvement of Teachers and Head Teachers, Bangladesh, 2013

Grade	Subject	Teacher exchange	Total	Normal involvement	Less than normal involvement
Grade 3	Bangla	Yes	75.4	75.8	70.9
		No	67.4	72.6	59.7
	Math	Yes	58	59.1	45.8
		No	46.9	53.8	36.8
Grade 5	Bangla	Yes	25.6	26	21
		No	15.5	16.6	13.7
	Math	Yes	25.4	26.2	16.9
		No	17.4	21.5	11.1

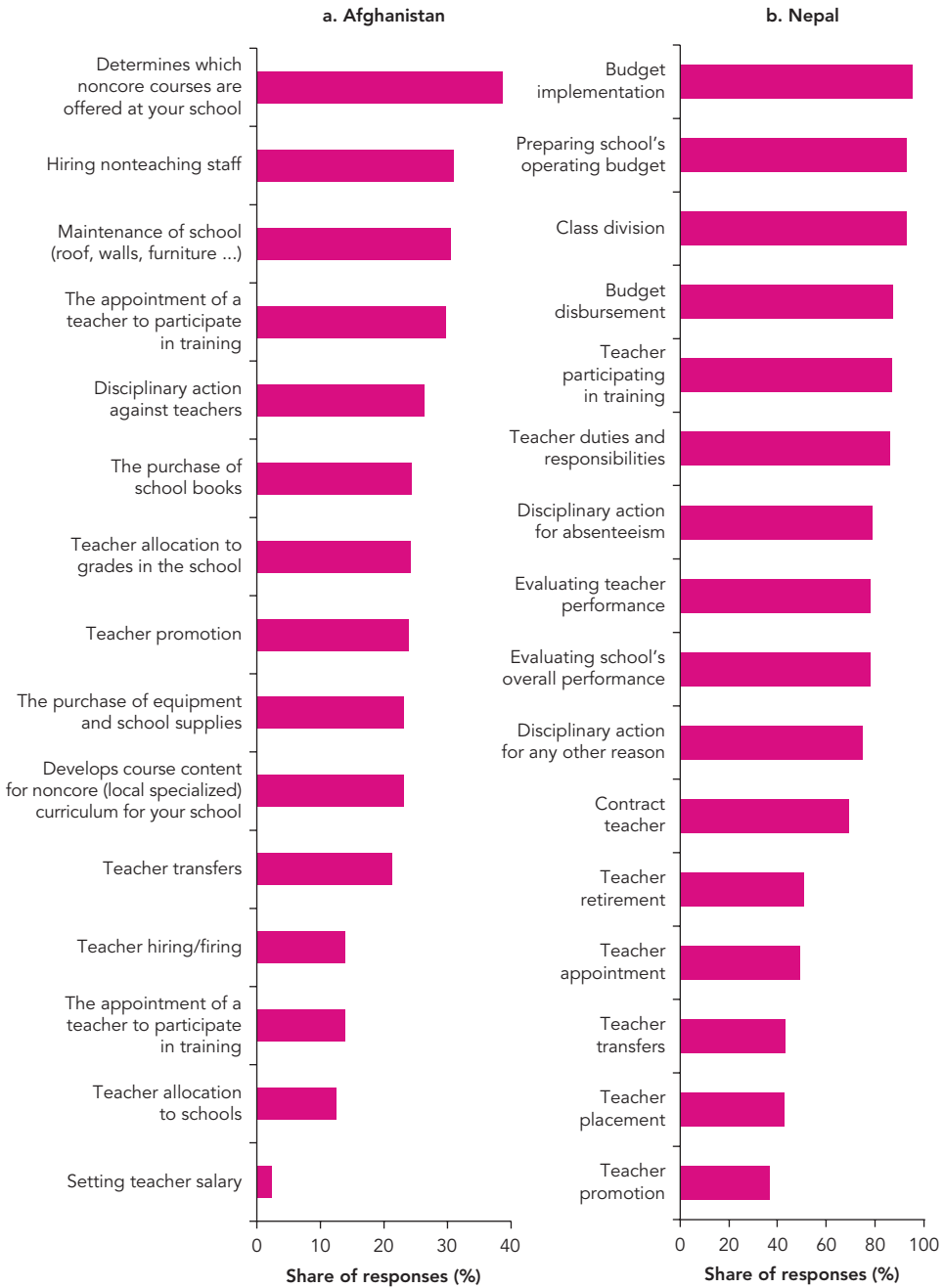
Source: Based on data from NSA 2013.

dismissing ineffective ones. Principals in government schools in South Asia have little say over staffing decisions. For instance, in Afghanistan, more than 60 percent of principals reported looking after school maintenance but only 14 percent were involved in teacher hiring and dismissal decisions. In Nepal’s government schools, nearly 80 percent of principals said that they were involved in budget implementation, but just 2 percent in teacher hiring decisions. In Sri Lanka, more than 85 percent of principals reported having a strong say in how the school’s operating budget was executed, while less than 5 percent felt that they had any say in teacher hiring. This is in contrast to international good practice on organizational leadership, where the most effective principals are those who make good strategic decisions on personnel management (Loeb and others 2012; Béteille and others 2012).

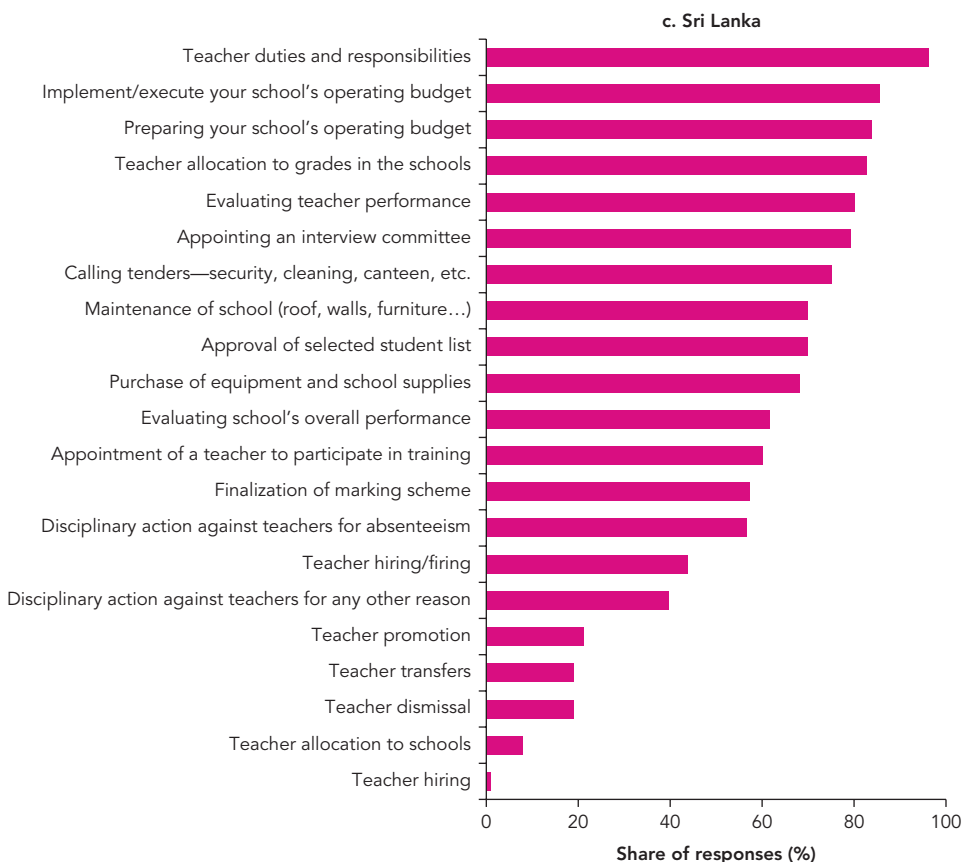
Knowing that instructional and organizational leadership is important does not mean that principals can find the time to pursue a consistent and effective strategy in either role. The international literature suggests that principals’ workdays are hectic, with frequent interruptions for problems that require immediate attention. They spend a large part of the workday in planned and unplanned meetings and completing administrative tasks.<sup>5</sup> As one study notes, “the nature and pace of events appear to control principals rather than the other way around” (Manasse 1985). This is also true in South Asia—a principal’s day is cluttered. Principals are expected to engage in a large and diverse range of school activities every day, from managing tenders for construction and implementing budgets, to teaching, managing staff, ensuring school safety, and engaging with the school management committee (figure 7.3). All these tasks and interruptions make time a scarce commodity for principals.

The unending rounds of administrative demands disrupt a principal’s day. For instance, in Nepal, head-teachers reported that they did not have time to strategize on ways to improve school quality since they had to focus on fund raising. They also

**FIGURE 7.3** Share of Principals with “a Lot of Voice” on Different Tasks, Afghanistan, Nepal, and Sri Lanka, 2017



(Figure continues next page)

**FIGURE 7.3** Share of Principals with “a Lot of Voice” on Different Tasks, Afghanistan, Nepal, and Sri Lanka, 2017 (continued)

Source: Author calculations based on SABER-SDI, 2017 for Afghanistan; and principal surveys conducted for the report in Nepal and Sri Lanka.

lamented that coordinating duties takes time away from instructional leadership. In Sri Lanka, several principals complained about having to manage financial matters, especially those relating to tenders, where political interference makes it difficult to make decisions based on merit. In Karnataka, India, principals are also responsible for managing building construction, maintaining school bank accounts, and coordinating with blocks or districts to implement specific programs, such as the distribution of scholarships, purchases of teaching and learning materials, and repair and maintenance of the school. Furthermore, school heads are expected to attend all administrative meetings. In some states in India, school heads also issue caste and income certificates.

Thus, the clutter that often overtakes principals' workdays likely impedes their ability to do their job well. There is widespread agreement among experts on three

important management practices of top-performing principals: they meet with at least half the teachers during the school year to evaluate their performance, use at least three of five recommended methods to assess teacher performance, and conduct regular classroom observations (at least once a month per teacher) and provide written feedback.<sup>6</sup> The World Bank's Systems Approach for Better Education Results—Service Delivery Indicators (SABER-SDI) were used to assess principals' use of these practices. In Afghanistan, the data suggest that while some principals follow at least one of the three good management practices, they have a poor grasp of overall school performance. For instance, while 87 percent of principals report conducting regular classroom observations, only 47 percent could correctly estimate the ability of individual teachers, and only 3 percent could correctly estimate all of the following: teacher's absence rate, individual teacher's ability, average student performance on single-digit addition, and average teacher performance on double-digit subtraction. In contrast, evidence from Bangladesh and Sri Lanka suggests that some principals manage the clutter of their job well, knowing which teachers were underperforming and in need of help.<sup>7</sup>

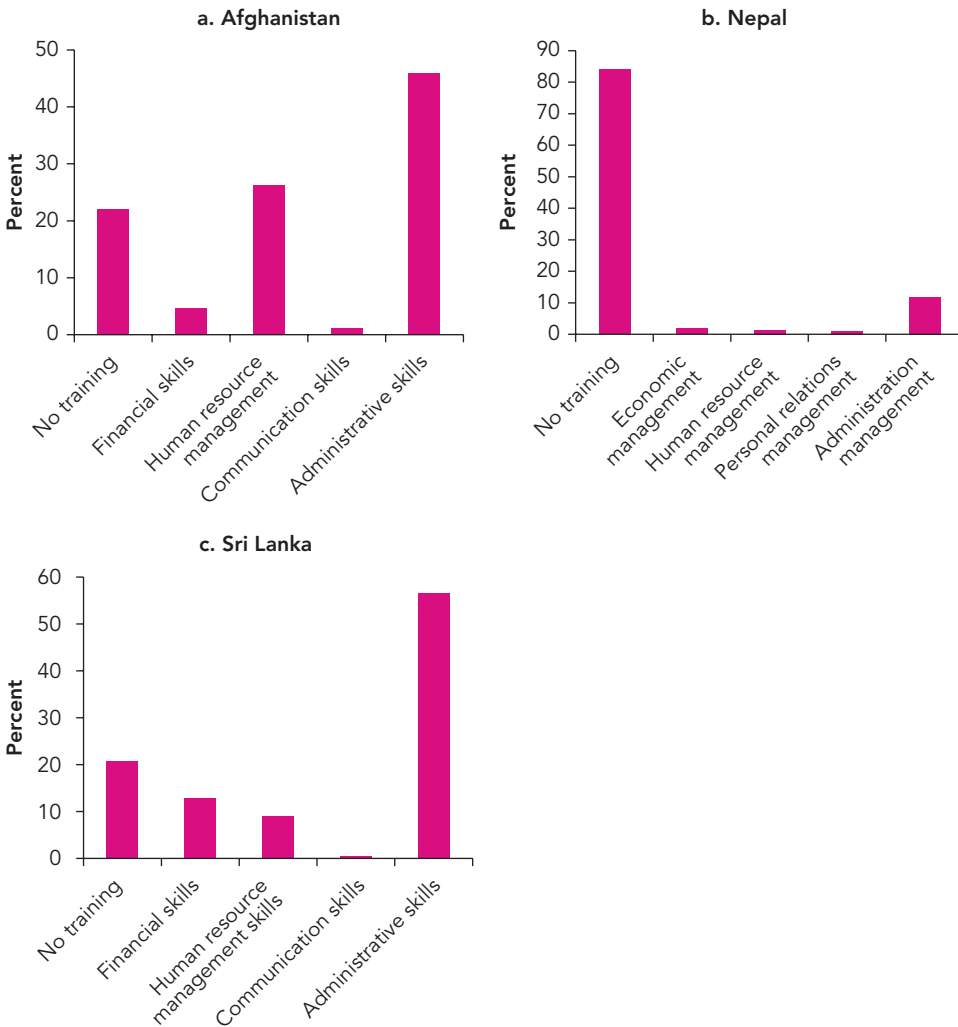
### PRINCIPALS WORK LONG HOURS AND RECEIVE LITTLE RELEVANT TRAINING

The job of principal is not easy. While most surveyed principals in Afghanistan (78 percent) and Sri Lanka (80 percent) reported having received training, the training did not prepare them adequately for the tasks in which they have a voice. As figures 7.4 and 7.5 show, in Afghanistan and Sri Lanka, there is a mismatch between principals' training and the areas in which they feel they have a say. For instance, principals in Sri Lanka report being required to handle budget-related tasks despite receiving little training in financial management. Especially important for teacher quality, principals report having a voice in evaluating teacher performance, but they receive minimal training in human resources management and communication skills. The situation is similar in other South Asian countries.

Principals work a long day. In Nepal, more than 60 percent of principals reported spending more than eight hours a day on school-related tasks (figure 7.5). In Sri Lanka, 85 percent of principals reported the same. While there are no time-use studies for principals in the region, group discussions with principals suggest that they often juggle multiple tasks each day, including teaching. Teacher management is especially difficult. In group discussions, head-teachers reported facing resistance from older teachers who had been teaching in the school before the head-teacher was assigned. This resistance often thwarted initiatives that principals might undertake to improve learning opportunities for students. For instance, in Nepal, some principals and head-teachers wanted teachers to hold additional

**Principals' workdays are long, and they receive little training in core areas of leadership, such as human resource management.**

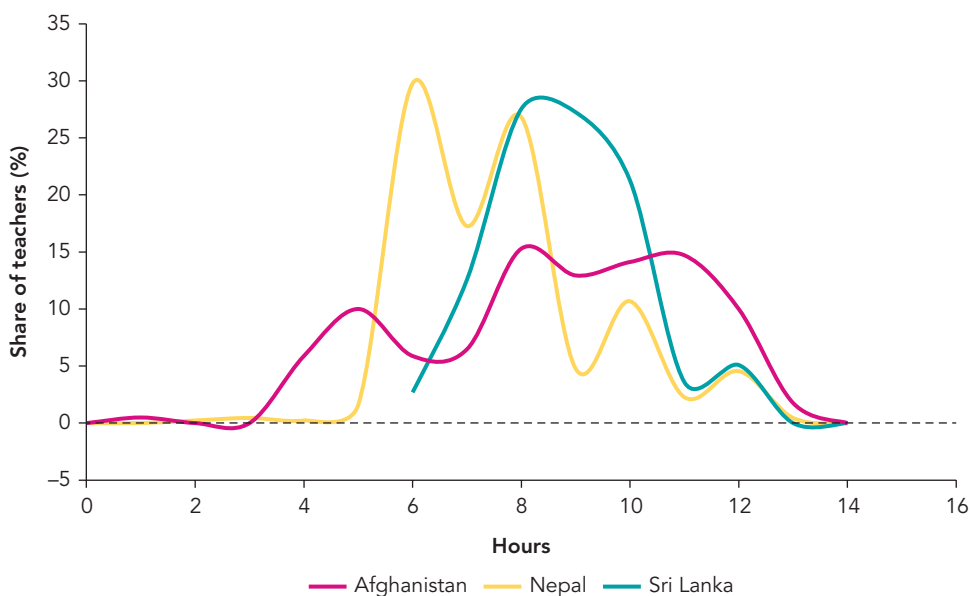
**FIGURE 7.4** Principals’ Professional Development Training Only Weakly Aligns with the Areas in Which They Typically Engage, 2017



Sources: Author calculations based on SABER-SDI, 2017 for Afghanistan; and principal surveys conducted for the report in Nepal and Sri Lanka.

coaching classes for low-performing students, to help them catch up. But teachers resisted those requests because in-school coaching sessions could cut into their private tutoring outside of school. Furthermore, head-teachers reported that teachers were opposed to hiring more teachers, possibly because it could call into question the quality of their own teaching or could reduce demand for their tutoring services (Shrestha 2017).



**FIGURE 7.5** Many Principals in South Asia Work More Than Eight Hours a Day, 2017

Sources: Author calculations based on SABER-SDI, 2017 for Afghanistan; and principal surveys conducted for the report in Nepal and Sri Lanka.

## PRINCIPALS FACE MULTIPLE IMPEDIMENTS TO MANAGING TEACHERS TO IMPROVE PERFORMANCE

Rewarding well-performing teachers is not straightforward. Teachers in Nepal reacted with resentment and even political opposition to principals' efforts to set up effective rewards systems to inspire better performance among teachers. Consequently, rewards ended up being distributed to all teachers in turn each year instead of being based on performance, thus undermining their ability to motivate good performance. Principals in Sri Lanka also found it difficult to motivate and reward well-performing teachers as they worried that it could lead to the formation of cliques among teachers and reduce collegiality.

Principals in all countries reported feeling constrained in their ability to manage poorly performing teachers. In Nepal, head-teachers have a legal right to appeal to transfer poorly performing teachers. However, many head-teachers admitted being reluctant to do so because of the power wielded by teachers and their unions. Because teachers are often affiliated with a political party, taking a firm stance on a poorly performing teacher could expose the principal to accusations of being against that party. Consequently, most head-teachers reported not using any penalties for bad teachers other than feedback (Shrestha 2017). In Bangladesh, principals reported

finding it difficult to take direct action against erring teachers (Sabarwal, Abu-Jawdeh, and Masood 2018).

Political threats often deter principals from reprimanding poorly performing teachers.

Schools face teacher shortages, especially at the secondary level, which makes managing the pool of teachers even more difficult. In many schools, teacher shortages make it difficult for head-teachers to give proper feedback, even when principals occasionally observe teachers in their classrooms. According to several head-teachers in Nepal, the Ministry of Education has not created any new secondary school teaching posts in 15 years or so, even though crowding is so severe at the secondary level that primary schools have been granted approval to add secondary-level classes to meet demand. This has created misalignments in teacher deployment, with teachers trained to teach at the primary level assigned to teach secondary-level classes and teachers trained to teach one subject having to teach another subject. Principals in several states in India raised similar concerns. This makes teacher appraisal especially challenging.

Finally, while parents' involvement with the school and with student learning has been shown to be important to student performance, there is mixed evidence on positive engagement by parents. Principals in Nepal and India report little support from parents. In Nepal, principals felt parents put undue pressure on the school to ensure students perform well in exams versus helping the school build a supportive learning environment for students. In Bangladesh, being vocal helps: vocal parents were more likely to get principals to spend resources even if learning outcomes in their school were good than were nonvocal parents even if learning outcomes in their school were poor (Sabarwal, Abu-Jawdeh, and Masood 2018). By contrast, principals in Sri Lanka actively engaged parents in the schools and believed that parents' involvement improved student learning regardless of student learning levels.

## Private School Principals Differ from Public School Principals in Some Respects, But Outcomes Are Not Much Better

In Nepal, private schools attract a better-qualified pool of candidates than government schools.<sup>8</sup> Private schools recruit principals with higher academic qualifications than government schools. While 58 percent of private school principals have a master's degree or higher academic qualification, less than 33 percent of government school principals have similar qualifications. As a consequence, 61 percent of private school principals also teach secondary school compared with 38 percent of government school teachers. Furthermore, private schools pay their principals more than government schools and are more likely to pay them on time. Private school principals are more likely to see themselves as organizational leaders (65 percent) than are government school principals (55 percent).

In Nepal, private school principals are more likely to be trained than their government school counterparts. However, training is most common in administrative management, an area where there is limited evidence of impact on student learning. Private school principals also tend to work more hours.

Principals in private schools in Nepal have much greater control over teacher management–related issues, such as teacher appointments, appraisals, promotions, and dismissals. International evidence finds that in schools that are effective in improving student learning, principals perform these types of tasks more effectively (Béteille and others 2012). In general, principals in private schools feel much more valued in making core decisions about how their school functions.

Private school head-teachers in Nepal provide feedback to teachers, either individually or in groups, and did not report facing resentment from teachers. For example, head-teachers sometimes conduct group feedback sessions enabling teachers to learn from one another. Head-teachers report asking teachers to conduct self-evaluations by comparing their students' average performances over time. Teachers are encouraged to identify problems and to propose solutions with help from the head-teacher and school management. Sometimes head-teachers ask teachers to set achievement targets for their classes within a multistep follow-up process, in which teachers first receive feedback on areas requiring improvement. If the same problem persists, teachers are given two chances to improve their performance and then receive a warning. In theory, consistently poorly performing teachers are to be terminated.

Private schools are, however, not immune from political challenges in teacher management. In one district, participating head-teachers unanimously agreed that firing bad teachers was difficult because of pressure from the private school teachers' union. These head-teachers believed that managing teachers was easier in government and community schools because head-teachers in government schools have the legal option (even if rarely exercised) of transferring poor teachers to another school.

Private school principals also face several pressures, often from parents, that may not align with better teaching and learning practices. For instance, private school principals report considerably more pressure from parents to show good exam results and pass rates. While head-teachers recognize that examination results are not fully reflective of students' cognitive and socioemotional skills, head-teachers feel compelled by parents' emphasis on higher examination scores to rely more on examination results than on other forms of assessments. Moreover, some head-teachers worried that a concentration on examinations incentivizes teachers to focus on rote learning rather than on more effective methods of teaching and can make teachers reluctant to implement new teaching strategies based on more interactive methods. There is also a temptation to simplify exams to raise scores. Furthermore, parental input is limited in private schools. Parents tend to believe that responsibility for learning lies solely with the school and that they have met their responsibility to student learning by paying the school fees.

In India, private schools that receive no government funding have been shown to have superior management practices to government schools. Private schools did

**TABLE 7.2 Mean Management Scores of Private and Public School Principals, 2016**

Management area	Public schools	Private schools
<i>Overall management</i>	1.81	2.15
Adoption	1.84	2.10
Use	1.74	2.13
Monitoring	1.83	2.20
<i>Operations management</i>	2.04	2.15
Adoption	2.06	2.11
Use	1.97	2.15
Monitoring	2.08	2.20
<i>People management</i>	1.26	2.13
Adoption	1.34	2.10
Use	1.19	2.09
Monitoring	1.26	2.21

Source: Lemos and Scur 2016.

Note: Schools were rated on a potential score between 1 and 5. A score between 1 and 2 suggests that practically no structured management practices or very weak management practices are implemented. A score of 5 suggests that well-defined management practices are in place, which are often seen as best practice in the sector.

better than government schools in an analysis of management practices: adoption of policies, implementation of those policies, and monitoring progress (table 7.2) (Lemos and Scur 2016).

But it is unclear whether these better management practices in private schools translate into improved learning outcomes. In a related study, private school students in India were likely to score higher in their grade 10 board exams than public school students. However, after private schools' ability to select students was controlled for, their better performance disappeared. The study suggests that two behaviors of principals, whether in public or private schools, are key to explaining better school performance: accountability (the extent to which the principal is accountable to external stakeholders) and leadership (the degree to which the principal has and communicates a well-articulated long-term strategy for the school). These factors are more important than principal characteristics or whether the school is private or public (Lemos and Scur 2016).

\* \* \*

In summary, principals in South Asia are burdened with a range of tasks that makes it difficult for them to give teachers the kind of leadership support they need to maximize their teaching effectiveness and improve student performance. At the same time, teachers do not always welcome such guidance from principals. Principals receive very little professional development in skills that could help them do their jobs better. The combination of large numbers of teachers with weak content knowledge, teaching skills, and professional norms and a lack of adequate and appropriate in-service support for

teachers—whether through professional development or strong school leadership—has led South Asia’s school system to a difficult place. Recent reform efforts within the region and internationally hold promise for improving teacher effectiveness. The next chapter takes a look at some of them.

## Notes

1. This chapter uses the terms “head-teachers,” “headmasters,” and “principals” interchangeably to denote the key school leader. In general, head-teacher and headmaster are used to refer to school leaders in primary schools, while principal is used to refer to school leaders in secondary school.
2. The chapter draws on recently collected primary data on principals in the South Asia region from the World Bank’s Systems Approach for Better Education Results (SABER) Service Delivery Indicators (SDI) for Afghanistan and Pakistan and modified versions of the SABER instrument, group discussions, and interviews in Nepal and Sri Lanka. Publicly available secondary data sources were used for Bangladesh and India.
3. Isolating the effects of principals from school effects is difficult for reasons of theoretical ambiguity, potential bias, and lack of reliability. Theoretical ambiguity means the lack of clarity about what construct is actually being captured. Potential bias means that some methods may misattribute the effects of other factors (positively or negatively) to principal performance. Lack of reliability means that some analysis approaches create noisy measures of performance, an issue that stands out as particularly salient for district-level evaluation where the number of schools is relatively small (Grissom, Kalogrides, and Loeb 2015).
4. Author calculations based on NSA 2013.
5. See Grissom, Loeb, and Mitani (2015) for a brief review.
6. The five methods are classroom observation, teacher assessment, student assessment, assessment of teachers’ methods, and teacher attendance records.
7. The study of Sri Lanka did not compare the principal’s estimation of teachers with actual teacher ability, as the Afghanistan SABER-SDI study did.
8. There is only limited evidence on principals in private schools in South Asia. Data on private schools were available only for Nepal. SABER-SDI survey results were expected for Pakistan by July 2018.

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## How Can South Asia Do Better on Teacher Policy and Practice?

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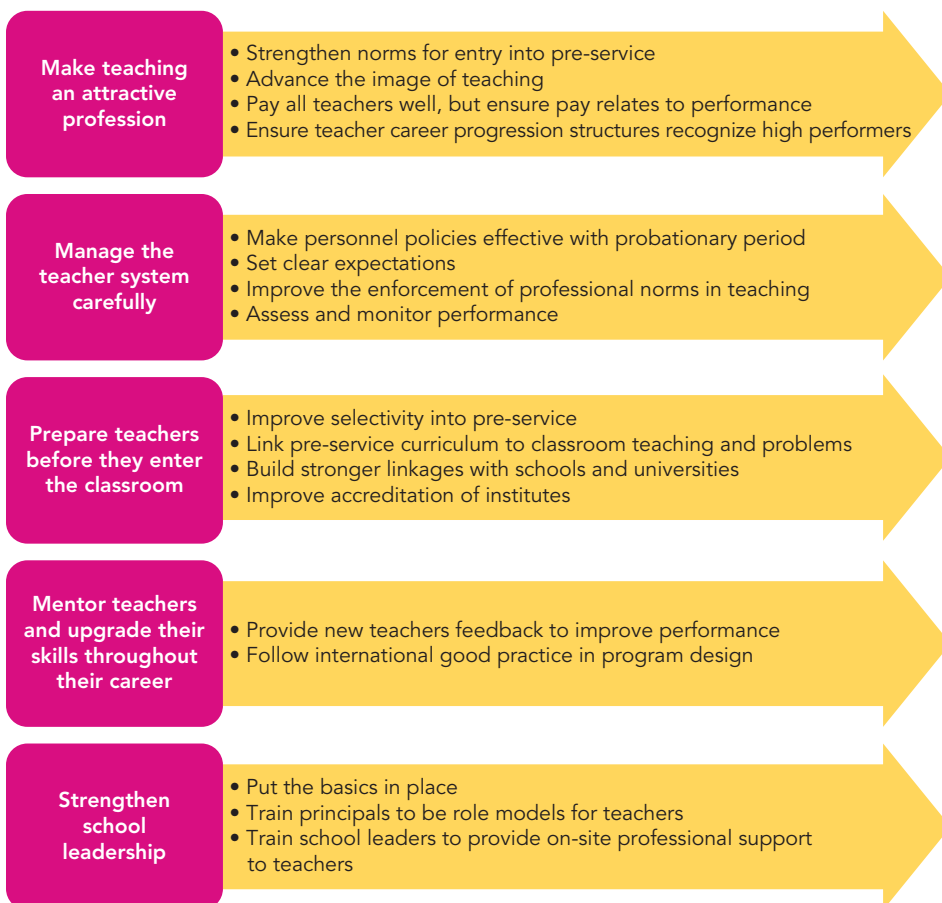
Chapters 3–7 provide a snapshot of South Asia’s teachers and the challenges the region faces in improving teacher quality. South Asia’s schools today have large numbers of teachers with weak content and pedagogical knowledge, as well as poor professional norms. Teacher management and motivation systems are weak, as are teacher pre-service education, in-service professional development, and other support mechanisms. This chapter charts the way forward for South Asia’s countries, drawing upon promising interventions in the region and beyond (figure 8.1).

### Make Teaching an Attractive Profession

South Asia’s schools do not attract as many talented teachers as might be needed to improve student learning. As discussed in chapters 4, 5, and 6, schoolteaching exhibits the signs of a second-class profession: barriers to entry are low, most teachers lack key content and pedagogical skills, many flout professional norms, and career progression structures are unrelated to performance.

For teaching to attract high-quality candidates, four things are important:

1. Strengthen norms for entry into pre-service education programs: Pre-service education programs serve as the first filter for who can become a teacher. Candidates for pre-service education programs in South Asia’s countries should be required to clear competitive entrance tests or have performed well in their graduating high school class. In countries where teaching is a highly esteemed career, such as

**FIGURE 8.1 Promising Interventions for Teachers**

Finland and Singapore, entry into the profession is regulated through highly selective pre-service programs (see chapter 6).

2. Advance the public image of teaching as a serious profession, with strong professional norms. The occupational prestige of teaching is low for several reasons, but creative approaches can make a difference (Béteille and Evans 2019). In response to the perceived low status of teachers among students and their families in Delhi, government schools in the city have organized well-publicized events to recognize top-performing teachers and bring teachers and students together to better understand each other's challenges and concerns.
3. Pay *all* teachers well, but ensure that pay is related to performance. Differentiating teacher pay based on contract status does little to improve the image or draw of the profession, especially if the same performance standards are expected from all.



Unlike many countries, government teachers in South Asia are paid well relative to GDP per capita. They are, however, not paid well relative to their peers in other jobs (OECD 2011). Importantly, higher teacher salaries are associated with attracting better candidates (Barber and Mourshed 2007; Hanushek, Kain, and Rivkin 1999) and with retaining teachers—yet, increasing salaries without any link to teacher performance or student learning does little to improve practice (De Ree and others 2017). The success of merit-pay programs depends upon design and implementation; most merit pay programs have not yielded the improvements in student learning expected of them due to failures in design and implementation (Breeding and others 2018). Another important issue is timely payment of salaries. Countries are working to reduce delays in payment through electronic payroll systems, whereby payments are disbursed directly to teachers. In India, the introduction of electronic payments reduced late payments from 51 percent in 2003 to 22 percent in 2010 (Muralidharan and others 2016).

4. Ensure teacher career progression structures recognize and reward high-performers. Across South Asia, teacher career progression is based on years of experience, not performance. In contrast, high-performing systems offer opportunities for lateral and vertical promotions based on propensity and performance. In Singapore, for instance, lateral promotions to other academic or managerial positions enable teachers to grow professionally yet remain closely connected to instruction if they choose (Darling-Hammond 2010; OECD 2012). When teachers enter the profession, they can choose one of three career tracks based on an initial assessment: (1) “Master Teachers” or “Principal Master Teachers,” who mentor other teachers, lead curriculum innovation, drive new pedagogies, and so on; (2) the leadership track for teachers who want to move on to leadership positions in the school or Ministry of Education; and (3) the specialist track for teachers who want to develop deeper knowledge and skills in a specific discipline and assume leadership roles in the ministry that focus on curriculum development and evaluation. Movement along each track (or between tracks, if teachers choose) is based on an appraisal system that uses multiple sources of information to assess teachers. In Shanghai, a five-tiered ranking system allows for professional advancement in teaching careers up to the level of “outstanding teacher” for teachers who demonstrate superior teaching practices.

## Manage the Teacher System Carefully

Teacher management involves managing the flow of teachers into the system *and* the stock of teachers in the system. As discussed in chapters 4 and 5, South Asia has witnessed a dramatic but unplanned increase in teachers, many of who come with weak content knowledge and lack professional norms. Improving the quality of the stock and the flow requires five key interventions:

1. Make personnel policies efficient and transparent, with a probationary period for new hires: The key personnel policies affecting the teaching workforce are flow-related (hiring) and stock-related (transfers and dismissals). In hiring, two practices are important: (i) a test assessing content knowledge and pedagogical theory; and (ii) a demonstration of teaching skills. Entrance tests are good practice for two reasons. First, if the test is well designed, it could be a good predictor of content knowledge and teaching practices. Second, merely requiring entrants to take a test improves the pool of teacher candidates (Estrada 2015).

Countries such as Bangladesh, India, and Pakistan now require teacher-candidates to take eligibility tests to join the profession. But countries will need to improve test instrument design and assessment to provide an accurate assessment of candidates' skills. Furthermore, teacher-candidates must demonstrate their teaching skills through interviews or mock lectures.

Transfer policies are important for teachers already in service because they determine working conditions in systems that are otherwise uniform in terms of pay. Having a clearly articulated transfer policy is therefore a first step toward creating a teacher-sensitive working environment. The teacher recruitment, deployment, and transfer system in Karnataka, India, is an example of a fair and transparent system. The Karnataka State Civil Services Act of 2007 (Karnataka Act No. 29) lays out three requirements for teacher transfers in the state (Government of Karnataka 2007). First, transfers can take place only once a year (before the school year begins) and can affect no more than 5 percent of sanctioned teacher posts in a particular cadre and seniority level in the academic year. Second, teachers must complete five years of mandatory rural service to be eligible for transfer,<sup>1</sup> and the likelihood of being transferred is directly linked to the time spent in a difficult location. Third, using information and communications technology (ICT), an online system is used for transfers, to increase transparency (Ramachandran and others 2018).

Teacher dismissal is difficult worldwide. Where school systems have been able to dismiss ineffective teachers, this has come after a long process of coaching the teacher to improve. An alternative is to put all new teachers on probation for a few years before deciding to continue or dismiss them. However, there is relatively little evidence of such practices worldwide, the two key hurdles being (1) poorly framed teacher contracts and (2) weak evaluation of teacher performance.

2. Set clear expectations: To perform well, teachers must know and understand what is expected of them. Establishing expectations is important to guide teachers' work and help teachers organize their time and resources. When expectations are clear and institutionalized, other key aspects of the profession (pre-service training, professional development, teacher appraisals, and so on) can be aligned to work toward a common purpose.

Chile's national Good Teaching Framework defining professional standards for teaching and school leadership is an example of good practice. The framework

clearly lays out the expectations for the profession and guides training, recruitment, and evaluation in Chile's decentralized education environment.<sup>2</sup> The framework defines teachers' tasks in four domains: preparation for teaching, creation of an environment conducive to student learning, teaching that allows all students to learn, and professional responsibilities. In South Asia, Pakistan's National Professional Standards for Teachers, developed in 2009, defines competencies, skills, and attributes essential for beginning teachers, experienced teachers, and teacher educators. Each standard includes a knowledge component, defining what the teacher must know; a disposition component, describing behaviors, attitudes, and values; and a performance and skills component, clarifying what the teacher can and should be able to do (Atta and others 2012; Government of Pakistan 2009). In India, while a national set of standards has not been developed for the teaching profession, the Right to Education Act lays down the responsibilities of primary school teachers. States incorporate these responsibilities in their rules and regulations with varying degrees of specificity. Tamil Nadu, for example, specifies weekly and daily schedules for public teachers in the state; Karnataka has a more balanced and comprehensive definition of teacher roles; and Rajasthan's definition is quite broad (World Bank 2017). But unlike Chile, there are no consequences for not meeting expectations.

3. Improve the enforcement of professional norms in teaching: One of the most visible violations of professional norms pertains to teacher absences without substitute teachers in place and unauthorized teacher absences. Pakistan's Sindh School Monitoring System offers a robust, technology-based monitoring system to track teacher attendance in public schools (Ansari 2018). The system uses a fingerprint-based biometric and photo system supported by global positioning system coordinates to monitor teacher attendance and school infrastructure in all districts in Sindh Province. The data thus generated are transmitted in real time to a centralized dashboard that is accessed for planning and decision-making by the Education and Literacy Department in the province. The data generated by the system have been used to initiate disciplinary action against 40,000 absent teachers and 6,000 absconders to date and to inform key administrative and policy actions in a timely manner.
4. Assess and monitor performance: Teacher evaluation helps to identify low-performing teachers so that they can receive appropriate professional development opportunities to improve their skills. There are many mechanisms for evaluating teachers: measures of inputs (teacher content knowledge and teacher preparation) to outputs (teacher practice in the classroom, peer feedback on a teacher's contribution to school processes) to outcomes (student test scores and student or parent feedback) (Bruns and Luque 2015). Combined measures of teacher performance can predict teacher quality better than any single measure (Kane and Staiger 2012). Chile's case provides an example (box 8.1).

### BOX 8.1 Chile's Teacher Professional Performance Assessment System

Chile's Teacher Professional Performance Assessment System is an example of a well-designed monitoring and evaluation system. In 2003, Chile implemented a new teacher assessment system to evaluate teachers against its national teacher standards. Evaluation is mandatory for municipal school teachers (44 percent of all basic education teachers in 2012). The evaluation tool includes four instruments: a structured self-assessment questionnaire (10 percent of the overall evaluation score), a portfolio with a written lesson plan and professionally made video of the teacher's classroom teaching (60 percent), a peer interview with a set of structured questions from a similarly trained teacher to assess how the evaluated teacher handles pedagogical challenges (20 percent); and third-party reports completed by the school director and pedagogical supervisor at the school (10 percent). Teachers are placed into one of four performance categories based on their scores (scores are assigned by an external learning assessment center according to a rubric defining the dimensions of the evaluation): unsatisfactory, basic, competent, and outstanding. High performance is linked to career advancement opportunities, and low-performing teachers are given professional development opportunities to improve their performance.

*Source:* Bruns, Barbara, and Javier Luque. 2015. *Great Teachers: How to Raise Student Learning in Latin America and the Caribbean*. Latin American Development Forum Series. Washington, DC: World Bank.

## Prepare Teachers before They Enter the Classroom

In South Asian countries, the curricula of pre-service education programs are not aligned with school curricula or with the realities of classroom practice. Countries face a common set of problems related to the quality of pre-service programs: poorly designed curriculum, emphasis on teaching theory over practice, inadequate assessments of conceptual and pedagogic skills, and assessments focused on cognitive skills to the neglect of social and emotional skills. A majority of teacher training institutes have no links to institutes of higher education and only weak links to schools and school curricula (MHRD 2012). Furthermore, because pre-service education programs are not linked to in-service professional development programs, they are rarely informed by teachers' experience in the classroom. Once teachers enter the classroom, they find little support in terms of mentoring or professional development.

1. Improve selectivity into pre-service education: Top-performing education systems run highly selective pre-service education programs. Countries in the region will do well to learn from the experiences of Japan, Shanghai, Singapore, and Vietnam.
2. Link pre-service curriculum to classroom teaching and problems: Pre-service curricula should contain both theory and practicum. In Finland, the Republic of Korea, and Shanghai, a practicum is required for primary and secondary levels, comprising at least a six-month classroom teaching component that is built into the curriculum. This allows teacher-candidates to learn to apply pedagogical skills and gain skills in classroom management.

3. **Build stronger linkages with schools and universities:** Strong pre-service education programs are linked to schools on the one hand, and high-quality university support on the other. In Shanghai, the Ministry of Education, the Shanghai Municipal Education Commission, and schools collaborate in teacher preparation, providing for stronger implementation and alignment between primary and secondary curricula and higher education. Shanghai Normal University prepares 60–70 percent of Shanghai teachers. In Singapore, the National Institute of Education prepares all teachers in close collaboration with the Ministry of Education and schools. Thus, if a new teacher needs extra support, the National Institute of Education gets immediate feedback from the schools and can make adjustments.
4. **Improve accreditation of institutes:** Quality assurance of teacher education programs needs to improve. India and Pakistan have made important headway. In India, the National Council for Teacher Education developed revised regulations in three key areas. First, it set stricter criteria for accrediting teacher education institutes that include learning outcomes, not just physical infrastructure. Second, it withdrew recognition from over 3,000 teacher education institutes that were unable to demonstrate basic credentials. Third, it publishes notifications of its accreditation and derecognition rulings on its public website, to help students and parents make more informed decisions about teacher education programs. Pakistan, too, has introduced a new accreditation process, but its quality and rigor are still unclear. The National Accreditation Council for Teacher Education lists teacher education programs on its website and identifies whether they are recognized or not.

## **Mentor Teachers and Upgrade Their Skills Throughout Their Career**

1. **Providing new teachers feedback to improve their performance:** How teachers are supported in the first few years of classroom teaching can have a substantial impact on their effectiveness and on student learning (Boyd and others 2009; Chingos and Peterson 2010; Hanushek and others 2005; Hanushek and Rivkin 2010; Rivkin, Hanushek, and Kain 2005). Induction programs provide a systematic structure of support for beginning teachers and, particularly programs that include practical training, can strengthen new teacher's skills. They can also protect students who are assigned a new teacher from paying the price of their teacher's inexperience (World Bank 2012). Induction programs usually assign a mentor or coach to new teachers to help them improve their teaching skills. Typically, teachers' performance is observed and assessed against a set of standardized criteria during a mandatory probationary period. Some education systems implement probationary periods without induction, but evidence suggests that combining the two works best (World Bank 2012). During the probationary period,

teachers' performance can be evaluated and poorly performing teachers can receive additional training or be dismissed (Kane, Rockoff, and Staiger 2008).

Successful induction programs around the world incorporate features that help new teachers while also engaging senior teachers in the overall quality of the school and learning environment (see box 8.2). For example, the New Teacher Induction Program organized by the Ministry of Education in Ontario, Canada, is meant to foster the growth of new teachers (Ontario Ministry of Education 2017).<sup>3</sup> It introduces new teachers to their local school and school board, appoints senior teachers at the school to mentor new teachers, and customizes professional development for subject-specific pedagogy and classroom management.<sup>4</sup> Similarly, Singapore and England have well-developed induction programs. In Singapore, master teachers receive training from the Institute of Education and are appointed to lead the coaching and development of new teachers in each school. In England, the National Literacy Strategy and the National Numeracy Strategy guide new teacher training that focuses on both effective pedagogies for teaching students and techniques to help teachers employ them (Darling-Hammond, Wei, and Andree 2010).

2. Strengthen in-service professional development to follow international good practice. These are the key elements of strong teacher in-service programs: (1) they should be linked to salary or promotion opportunities; (2) they should provide complementary materials; (3) they should have a specific subject focus; (4) they

### **BOX 8.2 Features of Successful Induction Programs**

Induction programs can improve the quality of new teachers, help them become successful practitioners, and boost student learning. By also engaging more senior teachers, induction programs can improve the overall quality of schools and learning environments.

The following characteristics are associated with successful induction programs:

- Account for the skills and profiles of new teachers—their academic qualifications, pre-service received, and any gaps between their education and time entering a teaching career.
- Customize training, coaching, and mentoring to meet the different skills profiles and types of teachers entering the induction program.
- Incorporate teacher assessment measures, typically evaluation and measurement against a set of standards or criteria that are comprehensive and aligned with the country's policies.
- Include a clear job description for mentors or coaches.
- Select qualified mentors or coaches that are seen as experts by their peers.
- Provide built-in incentives for coaches and mentors as well as new teachers by linking induction to promotion or salary.

Source: World Bank 2010.

should include follow-up visits; and (5) they should include time for teachers to practice together (Popova and others 2018). To improve instruction at the school level, teachers and schools need to be able to analyze the challenges they face in the classroom, have access to information on best practices to address these challenges, and receive external support tailored to their needs. South Asia offers some promising cases. In Delhi, the government launched a program to improve the quality of teaching and learning in public upper primary schools that incorporates these principles. Teachers receive regular training in new pedagogic methods to tailor their teaching to students' ability levels, and a dedicated cadre of mentor teachers supports teachers in the classroom. Teachers also led reform of the curriculum and developed new teaching and learning materials.

## Strengthen School Leadership

Effective school leadership can support and motivate teachers to perform. South Asian countries must consider the following:

1. Put the basics in place: This means addressing the shortage of principals in schools and ensuring that their time is spent on leadership roles versus more mundane administrative tasks.
2. Train principals to be role models: In 2008, the Government of India partnered with the nonprofit organization Kaivalya Education Foundation to build leadership in the school system. Since government school headmasters had no authority to hire or fire teachers and only minimal leadership roles, one way to motivate them was to provide a role model—someone who comes to work on time, treats women with respect, does not discriminate—that would guide teachers to reflect on their own behavior. An underlying assumption was that government employees, like employees in any other organization, were not just either high or low performers, and this variation was used to improve overall performance.
3. Train school leaders to provide on-site professional support to teachers: This is a significant departure from the top-down, cascade model generally applied across South Asia. A key feature of Sri Lanka's School-Based Teacher Development program is that teachers are at the center of improvement efforts, and they work collaboratively with the principal and other teachers to identify ways to improve student learning through teacher development (Ministry of Education Sri Lanka 2014). Schools implementing the program are empowered to identify and respond to teachers' needs and make better use of local resources. The role of school leaders is critical (SLAAED 2016). The program was successful in schools where principals had a clear understanding of its objectives and the administrative and academic leadership required to implement it. In schools where leadership, commitment, and staff capability were low, teacher development activities were informal and general.<sup>5</sup>

Sequencing teacher reforms, given fiscal and human resource constraints, is important. The trajectory of teacher reform in top-performing systems shows that they have evolved over time to reach their current level of effectiveness. Top-performing systems in East Asia, for instance, initially focused on hiring enough teachers to meet the basic needs of the system. As these economies developed, and the capacity of the education system grew, countries became more selective in determining who could become a teacher, mandating higher qualifications and gradually raising the status of the teaching profession. Teaching reforms aligned recruitment with strong teacher professional development, while a system of support and rewards kept teachers motivated.

## Notes

1. Exceptions are made in the case of specific circumstances outlined in the policy.
2. Called Marco para la Buena Enseñanza.
3. Ontario Ministry of Education 2017. The ministry defines new teachers as “all new teachers (including teachers trained out-of-province) certified by the Ontario College of Teachers (OCT) who have been hired into permanent positions—full-time or part-time—by a school board, school authority or provincial school to begin teaching for the first time in Ontario.”
4. Details about the training and the teacher assessment measures designed to evaluate new teachers are available on the New Teacher Induction Program website, along with comprehensive details about each stage of the induction process (<http://www.edu.gov.on.ca/eng/teacher/induction.html>).
5. A case study of Sri Lanka’s School-Based Teacher Development program provides a detailed description of the policy and a discussion on what worked and what did not work and the sustainability of the program.

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## Leveraging Private Schools in South Asia

**M**ost countries in South Asia have multiple types of private schools. Bangladesh has independent private schools and government-funded private schools. Independent schools include schools run by nongovernmental organizations, registered nongovernment primary schools, unregistered nongovernmental primary schools, community schools, and Qaumi ebtedayee madrassas. Government-funded private schools include Aliya ebtedayee madrassas, schools under the Reaching Out-of-School Children project, and Shishu Kallyan Trust primary schools (Bangladesh SABER EPS 2016). In India, private schools include private unaided (receiving no government funds) and private aided schools (receiving government funds). Nepal has independent private schools, referred to as institutional schools, and government-funded nonstate schools, including community-managed schools (Nepal SABER EPS 2016). Pakistan has private schools, but none that receive government funding. Sri Lanka has a very small private school sector. Private schools in South Asia can be further divided into high-cost and low-fee (typically run by nonprofits and/or subsidized by the government) and low-cost and low-fee (typically run by small entrepreneurs). The data and studies in this spotlight do not allow us to distinguish between the two types of low-fee private schools.

The share of low-fee private primary and secondary schools has grown rapidly in the region, except in Sri Lanka (see chapter 5). At the primary school level, the share of private school enrollment in total enrollment rose from 27 percent in 2007 to 38 percent in 2015 in India (DISE data for 2007 and 2015), from 13 percent to 17 percent in Nepal (Nepal Flash Statistics for 2007 and 2015), and from 30 percent to nearly 40 percent in Pakistan (AEPAM 2007, 2015). At the secondary school level, the increase has been even larger. While these data come from administrative sources, and household survey data show different numbers, both sources indicate a rising trend. Thus, household survey data estimates suggest that the share of children enrolled in private primary schools was 20 percent in 2007 but nevertheless rose to nearly 30 percent in 2014 in India (Kingdon and Béteille 2018).<sup>1</sup> In Pakistan, they were 30 percent in 2007 but rose to nearly 45 percent in 2015.

Private school growth rates are not evenly distributed across countries. In India, the largest growth in private schooling at the primary level has occurred in Andhra Pradesh, Tamil Nadu, Rajasthan, Uttar Pradesh, and the Union Territories. The politically left-leaning states of Assam and West Bengal had a low share of private schooling

in both 2008 and 2015. Another left-leaning state, Kerala, had a high share of enrollment in private schooling in 2008 but saw little growth through 2015. In Pakistan, the largest increase in private schooling has been in Punjab and Balochistan provinces.

Private school fees segment the sector into different markets. School fees vary considerably. In India and Pakistan, rich people (those in the top 20 percent of household per capita expenditures) spend disproportionately more on private school fees than poor people (those in the bottom 20 percent of household per capita expenditures) relative to their total expenditure (see table S3.1).

Multiple factors explain the rapid rise in demand. For many parents, private schools appear to be an increasingly attractive and affordable option. Parents are likely to be swayed by more visible indicators of quality when choosing a school, including their perception of a school's performance on high-stakes examinations, whether it offers more classes in English, its exclusivity, and its proximity to the home (Davies 2017). Data on performance in high-stakes examinations, such as the grade 10 board examinations in India, however, show mixed results. A study found that private schools in India performed better than government schools on the board examinations but that the results were likely driven by student effects (better students) rather than school effects (better schools) (Bloom and others 2015). Far from deterring parents from enrolling their children in private schools, this explanation might encourage them to do so, because it

**Table S3.1** Median Fees Paid in Private Schools in India and Pakistan, by Household Expenditure Quintile, 2007/08 and 2014/15

*Indian rupees and Pakistani rupees*

School level and country	Quintile 1 (poorest)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (richest)
<b>2007/08</b>					
Primary					
India	106	118	151	180	254
Pakistan	117	150	175	233	442
<b>Secondary</b>					
India	189	241	310	368	479
Pakistan	250	300	400	500	1,000
<b>2014/15</b>					
Primary					
India	167	300	417	625	1,115
Pakistan	323	500	550	750	1,500
<b>Secondary</b>					
India	342	583	833	1,250	1,917
Pakistan	600	883	1,100	1,583	2,500

Source: Gandhi and Bêteille 2018.



suggests a better peer group (exclusivity). Confoundingly, recent evidence from Delhi shows that government schools performed decidedly better than private schools on the 2018 grade 12 board exams but worse on the grade 10 exam.<sup>2</sup> Evidence from India also suggests that parents who send their children to private schools do so more because of an existing level of comfort with the notion of paying private providers for services than because of a perceived higher quality of service (Davies 2017).

There is little evidence, however, of greater learning among students in private schools than among those in government schools. It is often difficult to distinguish a school effect from a student effect. If different types of students go to private schools (say, wealthier and more motivated students), then student factors rather than something unique that private schools are doing could be driving any superior performance of private schools. Students are likely to differ not only on such measurable characteristics as wealth, but also on difficult-to-measure characteristics such as motivation. To the extent that studies can control only for easily measurable characteristics, whether because of methodological or data limitations, it is difficult to determine whether any higher performance of private schools is caused by something private schools are doing or by some unique characteristics of private school students. If it is student characteristics that make the difference (selection bias), then transferring students from government schools to private schools is unlikely to lead to learning gains.

Only a handful of studies have attempted to address selection bias in schools in the South Asia region: two in India (Muralidharan and Sundararaman 2015; Singh 2014) and one in Pakistan (Bau and Das 2018). These studies find little difference in the performance of government and private schools, but they do note some differences by subject and grade. One India study finds no evidence of a private school premium for urban areas but some evidence for rural areas, especially in English (Singh 2015). For students ages 8 and 9, there is no difference in math test scores between private and government schools. While there are differences in scores for students in private and government schools at age 15 in all subjects except Telegu (native language), the difference is small. The study concludes that the lack of significance or modest size of the private school premium in most dimensions (with the exception of English) indicates that simply expanding access to private schools, without concomitant reforms across the education sector, will not lead to appreciable improvements in learning.

The Pakistan study finds that teachers in public schools outperform those in private schools in improving student learning, but only marginally (Bau and Das 2018). While a 1 standard deviation increase in teacher value added leads to a 0.15 standard deviation improvement in student learning in public schools, it leads to a 0.10 standard deviation improvement in private schools. The second India study finds no difference in test scores in Telugu, math, English, and science/social studies between students who attend private school and those who attend public schools, suggesting that the cross-sectional differences in test scores across public and private schools reflect mainly omitted variables (Muralidharan and Sundararaman 2015) and point to considerable variability

in teacher value added in private schools (Azam and Kingdon 2015). Studies in other regions suggest that the variability in teacher value added is also true for teachers in government schools. Choosing between private schools and government schools based on student learning or teacher value added is hard.

One important policy concern is the per-student cost implications of these results, considering that costs are higher in government schools than in private schools, mainly because teacher salaries are higher in government schools. All studies point to the greater cost-effectiveness or productivity of private schools, which are able to produce roughly similar learning outcomes as government schools at much lower cost (Singh 2015; Muralidharan and Sundararaman 2015; Bau and Das 2018). Since teachers in government schools are compensated based on characteristics that do not correlate with teacher value added, such as seniority, these studies call into question the existence of a link between public financing and productivity in schools.

But households also spend on private coaching and tutoring, regardless of school type, which adds to overall costs. Among primary school-age students, about 29 percent of private school students and 24 percent of government school students were receiving private tutoring. Among secondary school-age students, however, a higher proportion of government school students (36 percent) than of private school students (30 percent) receive private coaching. Thus, while the private tutoring rate among private school students is similar at the primary and secondary school levels, the rate among government school students is much higher at the secondary school level. One explanation is that the supply of private schools is more limited at the secondary school level, which may prevent some government school students from going to a private school, and so they compensate by taking private tutoring.

A second concern relates to the equity implications of low-fee private schooling. Studies show an increasing trend of private schools serving more affluent students, male students, and, in the case of India, higher-caste students. The share of primary school-age children attending private schools in 2015 was about 19 percent in rural India, 25 percent in rural Pakistan, but 45 percent in urban India, and 54 percent in urban Pakistan. In India, primary school-age boys were 15 percent more likely than girls to attend private school, and secondary school-age boys were 20 percent more likely. In Pakistan, there was no significant gender gap in private primary school attendance, but secondary school-age boys were 15 percent more likely than girls to attend private schools (Gandhi and Bêteille 2018).

Some issues concerning private schools remain underresearched, limiting the understanding of the opportunities and challenges of private schools. Two are especially important. First, knowing the extent, cost, and quality of low-fee private schools in the region is challenging because of limited data on private schools that are recognized by the government and almost no data on unrecognized private schools. Schools may be unrecognized because they have not met government or legal criteria for operating a private school or because onerous paperwork discourages small schools from applying for recognition from the government. Pakistan, for instance, has never had a private school

census, so numbers are estimated. India collects data on private schools, but unrecognized private schools are not wholly accounted for. Recent counts are not available for Nepal or Sri Lanka. Without adequate information on private schools, it is difficult to assess whether private schools suffer from the same problems as government schools (for example, teacher content knowledge, teaching skills, and professional norms). Second, private schools are not immune from the political economy challenges plaguing government schools. Teachers in private schools also unionize, as with Pakistan's

### **BOX S3.1 Leveraging Private Schools to Increase Access and Improve Quality**

Three policy measures could encourage productive private sector contributions and help address capacity and resource constraints in education in South Asia:

#### **Reduce barriers to entry**

- Ease registration criteria and link them to education outcomes. For example, New York City's charter school system of publicly funded but privately managed schools has no minimum entry criteria. Instead, schools sign a five-year performance contract with the school system. Performance standards focus on the school's academic achievement, fiscal and organizational health, compliance with charter and other applicable laws, and plans for the next charter term.
- Increase incentives for private providers to expand service delivery, especially in secondary schools. This could include providing start-up funding or other incentives, such as public land, to increase access in underserved areas. In countries that have tuition caps, such as India and Nepal, removing the caps while providing financial support for disadvantaged students could also help schools expand. In Indonesia, Japan, Malaysia, and the Philippines, tuition fees are determined by the market and not artificially capped.

#### **Improve quality**

- Strengthen performance monitoring, with a focus on student learning outcomes. In the United Kingdom, the Office of Standards in Education, Children's Services, and Skills (Ofsted) carries out regular inspections that are linked to school improvement plans.
- Require all schools to provide parents with information on school performance.
- Improve the quality of government schools, as these are the baseline on which private schools operate to attract students.

#### **Enhance equity**

- Provide means-tested or poverty-targeted funding to enable lower-income students to attend private schools. In Pakistan, the Punjab Education Foundation launched an education voucher scheme in 2006 for underprivileged areas. The scheme enables children ages 4–7 to attend nearby schools participating in the education voucher scheme at no charge. There are no upfront costs, as schools participate based on a streamlined system of continuous quality assurance.

Sources: SABER-EPS Bangladesh 2016; and SABER-EPS Nepal, 2016.

All Pakistan Private Schools Federation and Uttar Pradesh's (India) Madhyamik Shiksha Sangh (private aided schools). Teacher turnover rates are also higher in private schools than in government schools. Little is known about these factors and their impact on teacher motivation and performance.

Nevertheless, capacity and resource constraints in the public school system mean that South Asian countries cannot improve educational outcomes for children, let alone educate the millions of out-of-school children, without a combined effort by government, households, and nonstate schools. With evidence showing that there is clearly a demand for education and a willingness to pay for it, South Asian governments could enhance educational opportunities for all children by leveraging private schools. This will mean addressing three challenges. First, barriers to entry are high for private schools. Registration criteria for new schools are often burdensome and linked to inputs rather than education outcomes, with several restrictions on fees (Nepal SABER-EPS 2016). Second, there is very little monitoring of learning outcomes except for routine high-stakes examinations. Finally, private schools disproportionately serve the affluent. Box S3.1 presents policy options to address these challenges.

## Notes

1. Analyses using household data for India and Pakistan come from a background note commissioned for this report (Kingdon and Bêteille 2018).
2. See <https://www.financialexpress.com/india-news/how-delhi-government-schools-performed-better-than-private-schools-in-cbse-12th-exams/1183001/>.

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## PART IV

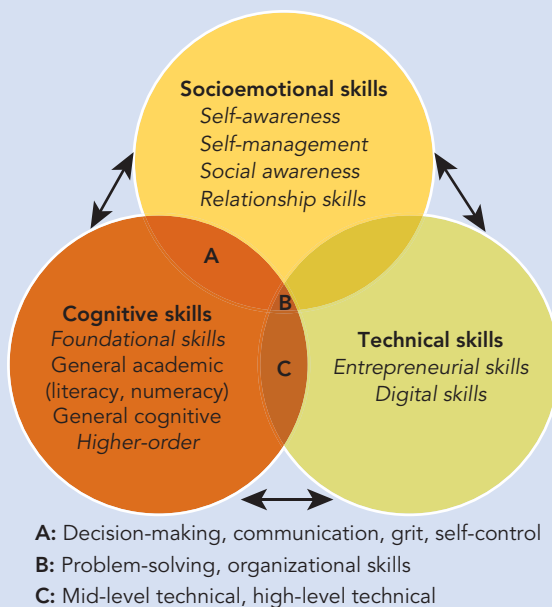
# Skills for Jobs in South Asia

In today's knowledge economy, skills are widely regarded as critical for productivity growth and economic competitiveness (Green 2011). Skills refer to more than educational qualifications and technical know-how. They span competencies that can enable individuals to adapt to a rapidly changing world while improving their well-being (OECD 2010; Winthrop and McGivney 2016).

Skills can be classified into three broad categories.<sup>1</sup> Cognitive skills, which include foundational and higher-order skills, are generally synonymous with the notion of learning and are required for personal and professional development. Technical skills are job specific and include the knowledge and expertise required to competently perform on the job. Socioemotional skills include behaviors, preferences, and values required to navigate interpersonal and social situations. In conjunction with cognitive and technical skills, socioemotional skills can enhance performance.

Skills can be acquired at all stages of life, from early childhood to adulthood. Cognitive skills are acquired during early childhood and reinforced through young adulthood. Technical skills can be acquired in school, at the workplace, or through specific training and education. Some socioemotional skills are acquired early, whereas others, like leadership, are better acquired during adolescence and reinforced during adulthood. Family environment, preschool, primary and secondary schools, and universities play a determining role in developing the skills of children, adolescents, and young adults. Individuals can also acquire skills geared to specific occupations and careers in a parallel set of schools and colleges.

This part of the report focuses on technical skills imparted through a wide array of programs designed to prepare students and adults for specific occupations and

**FIGURE P4.1** Typology of Skills

Source: World Bank 2018.

careers (chapters 9–11). Though customarily called vocational education and training, the recognition is spreading that along with technical skills, cognitive and socioemotional skills are also critical for satisfactory job performance. Increasingly, the literature refers to “skills training” or to “skills development systems” to describe the policies, institutions, and programs that strive to meet the labor market needs for skills and improve productivity and competitiveness in the economy.

After a brief overview of skills development systems, chapter 9 describes how, until recently, South Asia devoted less attention to these systems than other regions. As a consequence, skills development systems were small and reached few people. The last decade has been a turning point, however. Pushed by globalization, technological change, demographics, and other factors, governments in the region have come to view skills development as vital for improving productivity and growth and are focusing on improving and expanding skills development opportunities.

Motivated by a desire to build a competitive workforce and offer better job opportunities to youth, countries have developed new strategies to make skills development systems more flexible and responsive to the needs of the labor market and also more accessible (chapter 10). The strategies also signal an important policy shift, as evident in the growing role of the private sector. The emerging evidence shows that while systems have expanded and reached more people, labor market outcomes



have not yet improved as much as expected, despite some success. In countries such as Bangladesh and India, women appear to be at a disadvantage when it comes to accessing skills opportunities.

Why are labor market outcomes not improving as expected, and what can be done to make training more effective (chapter 11)? The starting point of the analysis is the recognition that the skills development strategies launched in South Asia are broad and complex and take time to work. Nevertheless, difficulties are evident even at this early stage of implementation, revealing errors in sequencing that require adjustment. This analysis leads to a series of corrective policy recommendations to address these problems, ensure that implementation remains on track, and achieve the desired outcomes. Important elements include a strong focus on data, using information and communication technology as appropriate; building more durable partnerships with the private sector; improving the quality of long-term training; and greater political will to improve quality.

## Note

1. See, for example, Cunha and Heckman (2010), Hanushek and Woessmann (2008), and Heckman and Rubenstein (2001).

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## Growing Interest in Skills Development in South Asia

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Countries differ considerably in how they provide skills training. Skills development systems can be highly regulated, as in Austria, Denmark, Germany, and Switzerland, which have dual-apprenticeship systems (generally, a combination of institution-based theoretical training along with on-the-job practical training provided by employers), or highly fragmented, as in the United Kingdom and the United States, where skills can be acquired in education institutions including schools and colleges, outside the education system, in community learning centers, independent training providers, or in firms. While some countries offer predominantly school-based training options (countries in Southern Europe, for example) or dual-apprenticeship-based training options (German-speaking countries), some others (in Africa, for example) offer both school-based and apprenticeship-based options. In developing countries, where a large share of employment is in the informal sector, training tends to take place in traditional apprenticeships (within a family or community). Across most developing countries, skills can also be acquired through work-based or on-the-job training offered by firms.

Skills development systems also serve different groups. Training programs can cater to individuals at different ages and stages of life. They are often designed for young people completing secondary or higher secondary education, to facilitate their entry into the labor market. But training can also address the needs of youth who have dropped out of formal schooling, those with lower levels of education, those lacking foundational skills, and those in especially vulnerable groups. Training systems may also serve adult workers in or between jobs (to upgrade their skills or learn new ones), unemployed workers in search of new job opportunities, and women seeking to return to the labor

market after a break. Skills development systems are thus often complex, with various combinations of programs offered by a range of providers to address the diverse needs of many different groups.

Until recently, skills development in South Asia received little attention from policy makers, and as a result programs were small and reached few people. Systems were often fragmented, with many providers (public, private, and nongovernmental organizations) acting independently. Formal programs served mainly youth between secondary school and the labor market. Quality was uneven, due to the lack of monitoring, clearly defined standards, and attention to labor market needs. Programs to acquire skills on the job were limited, in both the formal and informal sectors. Consequently, it is not surprising that only a small proportion of the population received training, and a much smaller proportion of firms, than in other regions of the world.

Over the last decade, however, South Asian governments have turned their attention to improving and expanding skills training opportunities. Several factors prompted this new interest. In addition to the realization that skills development systems were inadequate in capacity and quality to meet the needs of the labor market, governments felt a push to prepare for an anticipated large increase in the working-age population, which threatened high unemployment rates for large sections of the youth population. They also felt the need to respond to employers' discontent with the skills of the labor force and to meet labor market demand for higher-level and more adaptable skills to support growth.

This chapter presents information on the structure of skills development systems and closely examines the factors that have motivated governments to pay more attention to skills development.

## The Main Features of Skills Development Systems in South Asia

South Asia has several types of skills development programs. Formal, long-term programs are provided at certificate or diploma levels. At the certificate level, programs are generally one or two years and are open to trainees who have completed 8–10 years of general education (table 9.1). Diploma programs are longer, usually 3–4 years. Depending on the country, more advanced degrees, such as a bachelor's in technology, are delivered as part of the skills training system or within the higher education system. Short-term training, aimed at providing basic or specialized skills, generally lasts 3–6 months and leads to certification. In principle, training programs are open to everyone, although some programs have minimum eligibility requirements. Formal apprenticeship programs are also available in some countries, such as India and Sri Lanka, but serve only a small number of people. Generally 1–3 years in duration, they are regulated and lead to certification.

**TABLE 9.1** Formal Long-Term Skills Development Training in South Asia Can Be Accessed as soon as Grade 8 Is Completed, and Can Last for 2–4 Years

Education level	Bangladesh	India	Nepal	Pakistan	Sri Lanka
Secondary	<b>Secondary School Certificate (SSC)</b> Grade 8 pass required at entry 2 years of training	NA	NA	<b>Vocational training certificates</b> Grade 8 pass required at entry	<b>Certificates</b> General Certificate of Education (GSE) O level required at entry
Higher secondary	<b>Higher Secondary School Certificate (HSSC)</b> Grade 10 pass required at entry 2 years of training	<b>National Trade Certificate</b> Grade 8–12 pass required at entry, depending on trade 6 months–2 years of training <b>Apprenticeship training</b> Grade 8–12 pass required at entry 6 months–4 years of training	<b>Technical School Leaving Certificate (TSLC)</b> Grade 10 pass required at entry 18 months of training	<b>Vocational training certificates</b> Grade 10 pass required at entry Diplomas Grade 10 pass required at entry 1–2 years of training	<b>National Certificates</b> GSE O or A level required at entry
Post-secondary	<b>Diplomas</b> offered by polytechnics and monotecnics General or vocational SSC required at entry 4 years of training	<b>Diplomas</b> offered by polytechnics Grade 10–12 pass required at entry 3.5 years of training	<b>Diplomas or proficiency certificate levels</b> Grade 10 pass required at entry 3 years of training	<b>Diploma of Associate Engineering</b> Grade 10–12 pass required at entry 3 years of training  <b>B.Sc technology</b> 4 years of training	<b>Diplomas</b> GSE A level required at entry  <b>BA technology</b>

Sources: World Bank 2008, 2013a, 2013b; Dundar and others 2014; Asian Development Bank 2015.  
Note: NA = not applicable.

Informal programs include training acquired in informal apprenticeships or on the job. For the large proportion of the labor force working in the informal sector (from 40 percent to close to 90 percent across South Asia), on-the-job training or self-learning are the only way to acquire some practical professional skills. In India, for example, around 12 percent of the male population ages 15–59 reported on the National Sample Survey receiving or having received some informal training during July 2011–June 2012, and 4 percent reported receiving some formal training. In Afghanistan, over

Workers in the formal sector have some access to in-service training, but these opportunities remain limited in South Asia.

90 percent of training participants are in traditional apprenticeships. About 30 percent of enterprises in South Asia offer on-the-job training. This tends to be mostly in large enterprises (that is, in enterprises with 100 or more employees).

Formal skills training is offered by both public and private providers. Private providers include nongovernmental organizations (NGOs), which usually focus on poor and underprivileged groups; industry-based institutes or nonprofit training centers, created at the initiative of chambers of commerce and industrial groups;<sup>4</sup> private-for-profit providers, attracted by rising demand for training in trades that are in high demand from employers, such as information and communication technologies; and private providers whose programs are subsidized by the public sector.

The youth population, particularly first-time labor market entrants, is the main focus of skills training programs. Access to long-term training is reserved mainly for students who have completed at least 8–10 years of general education. These students are not typically from the poorest segments of the population. Long-term training is not available to youths with less than 8 years of education. Women also tend to be less represented than men in this type of training. The pool of potential applicants is likely to increase in coming years following the rapid expansion in enrollment in secondary education in many South Asian countries.

Access to short-term training is, in principle, more open and accessible (including to school dropouts, unemployed workers, and workers seeking new skills). New labor market entrants have remained the priority, and people who are already working have had little access to short-term training. Programs are frequently designed for particular population groups. For example, programs administered by the Indian Ministry of Agriculture are directed to rural youth, while programs administered by the Indian Ministry of Housing and Poverty Alleviation are designed for the urban poor. In Nepal, programs are directed to socially disadvantaged and other vulnerable groups. Several NGO programs across the region have designed short-term training programs for women or for economically disadvantaged groups in particular districts.

While there is a broad array of potential trades that could be taught in training programs, in practice there are just a few popular fields of training, and these differ for men and women. In India, for example, the 2011–12 National Sample Survey found that more than 70 percent of people receiving some kind of formal training, regardless of duration of the training program, were enrolled in five fields (table 9.2). For men, the most popular fields were computing (24.9 percent were receiving it at the time of the survey), electrical and electronic engineering (18.6 percent), mechanical engineering (13.5 percent), driving and motor repair (9.9 percent), and health and paramedical (5 percent). For women, the most popular fields were computing (28.4 percent), textiles (17.3 percent), health and paramedical (14.0 percent), beauty and hairdressing (8.4 percent), and office and business (3.9 percent). This pattern has changed only slightly over time among 15-to-59-year-olds.

**TABLE 9.2** More Than 70 Percent of Training Participants, Ages 15–59 Years, in India Are Concentrated in Five Training Fields, 2011–12

Field of training	Men (%)		Field of training	Women (%)	
	Receiving	Received		Receiving	Received
Computing	24.9	23.0	Computing	28.4	28.2
Electrical/electronic	18.6	15.9	Textiles	17.3	28.1
Mechanical engineering	13.5	9.6	Health/paramedical	14.0	10.6
Driving/motor repair	9.9	22.8	Beautician/hair	8.4	7.2
Health/paramedical	5.0	4.6	Office/business	3.9	4.6

Source: National Sample Survey, Round 68, 2011–12.

Note: The list of popular fields of training are likely to be different when only long-term, or only short-term, training is considered.

Similar patterns prevail in other countries in South Asia. In Nepal, some 38 percent of women and 57 percent of men in urban areas and 20 percent of women and 37 percent of men in rural areas were enrolled or had been enrolled in computing courses, and 48 percent of rural women were enrolled in dressmaking or tailoring courses (Raju 2017). Patterns are similar in Pakistan and Sri Lanka.<sup>2</sup>

In all South Asian countries, multiple ministries independently organize and offer training programs for the population groups they serve. Common ministries that offer training include ministries of women and social affairs, of tourism, of youth affairs, of transport, and agriculture. In Bangladesh, 22 ministries administer both accredited and nonaccredited programs. An example is the training programs in poultry, dairy, livestock, food processing, plumbing, and electronics offered by the Ministry of Women’s and Children’s Affairs. These are nonaccredited short courses offered to women in areas with local demand. In India, responsibility for training is spread across more than 20 ministries or departments. In Nepal, programs are run by ministries of education, industry, labor and transport, and agriculture. In Pakistan, many departments and agencies offer training, leading to considerable overlap. In Sri Lanka, besides the main ministry responsible for skills development, 14 other ministries undertake some training through 22 subsidiary institutions. This fragmentation and lack of coordination and quality control might not be as much of a problem if all actors shared a common vision and if information was widely available to the public about offerings, performance, and labor outcomes. Competition between actors would bring about some efficiencies. But this is generally not the case.

Ministries and other public bodies in charge of defining training offerings lack the capacity to analyze labor market developments, anticipate changes, and adjust offerings to industry needs. Program content and curriculum are often delivered unchanged year after year, often by instructors who lack adequate and appropriate industrial experience. Offerings are not adjusted to changes in demand, even as the number of participants in some programs shrinks and dropout rates mount. As standards are not always

clearly defined, the quality of training is highly variable and unknown to employers, who consequently do not attach much value to training certificates.

Training is highly fragmented and weakly monitored. Some training is regulated by a public body that is responsible for setting standards, affiliating programs, accrediting institutions, and certifying trainees. But other structured and organized programs are delivered without any affiliation or accreditation by a designated public body and without any coordination with other providers. This distinction stems not from a public/private divide but rather from the large number of training providers (public, private, and NGOs), many of them acting independently.

## Reasons for the Growing Interest in Skills Development in South Asia

Three broad factors have contributed to raising the interest of South Asian governments in skills development. These include the demographic changes that have swelled the ranks of the young working-age population in the region, employer discontent with the level of skills among labor force entrants, rapid transformations of the economy and the nature of work that demand higher and adaptable skills and flexible and agile training systems, and the desire to support growth. These factors are discussed next in the context of the countries in the region.

### DEMOGRAPHIC CHANGE, HIGHER EDUCATIONAL ATTAINMENT, AND FEAR OF YOUTH UNEMPLOYMENT ARE DRIVING INTEREST IN TRAINING

Skilled youth are needed to translate demographic transitions into economic dividends in South Asia. In 2010, about 1.7 billion people, or nearly 25 percent of the world's

The latest figures indicate that, every year, about 140,000 youth enter the labor market in Sri Lanka, 500,000 in Nepal, 1.5 million in Bangladesh, and 12 million in India.

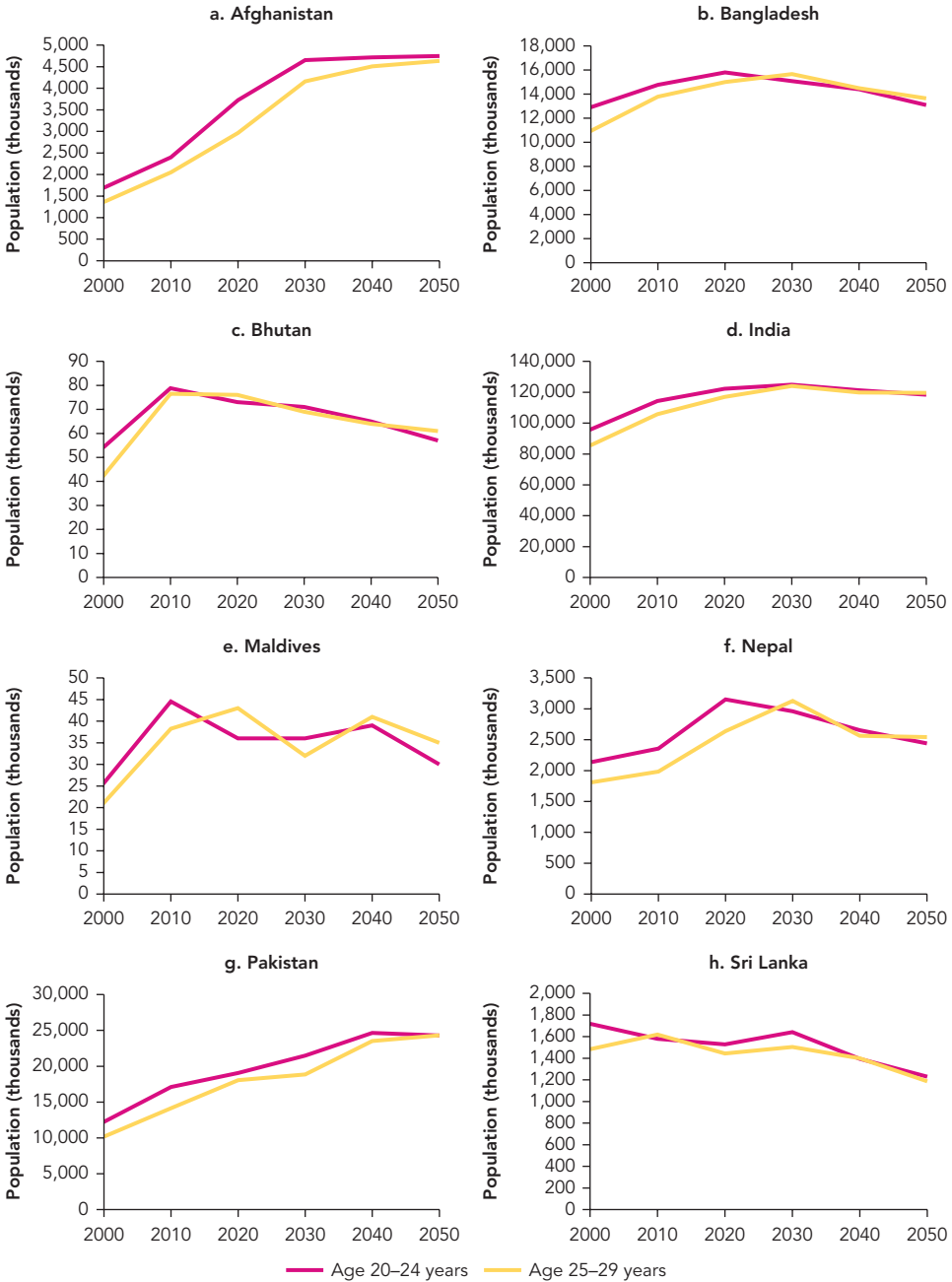
population, lived in South Asia. This number is projected to rise to 2.4 billion by 2050. The demographic transition resulting from declining fertility rates and improved life expectancy in most countries in the region has led to substantial increases in the working-age population (figure 9.1). Over the next two decades, more than a million youth a month will enter the labor force in South Asia. Bangladesh will have more than 15 million 25-to-29-year-olds by 2030; Pakistan will have 18 million and India 123 million. While the increase in the ratio of workers to total population in the region bodes well for economic growth, improvements in education

and training are critical for translating the demographic transition into an economic dividend.

Recent gains in educational attainment and rising youth aspirations have implications for skills development systems. In South Asia, the focus of education policy since the early 2000s has been on universalizing access to basic education. In all countries except Afghanistan and Pakistan, where challenges remain, most children enter and



**FIGURE 9.1** Over the Next 5–15 Years, the Population of Young Adults of Working Age in South Asia Will Continue to Grow as Countries Experience a Demographic Transition, 2000–50

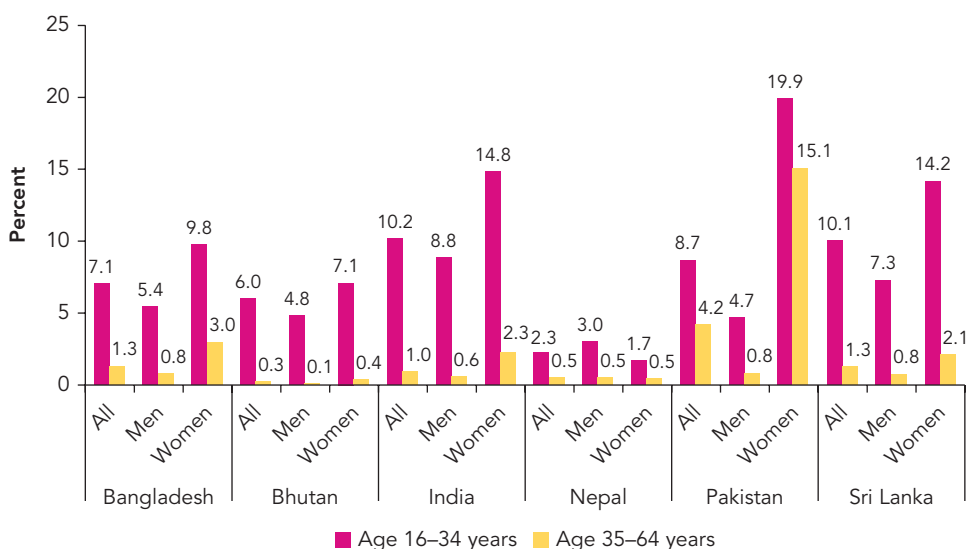


Source: World Development Indicators, based on the United Nations Population Division's World Population Prospects.

complete basic education and move on to higher levels of education.<sup>3</sup> Many students are first-generation learners and have higher aspirations for jobs and economic opportunities than their parents before them. Findings from surveys in Ethiopia, India, Peru, and Vietnam show that more than 60 percent of sampled 15-year-olds who could read at age 8 aspired to attend a university and have careers requiring a higher education. The majority feel confident of reaching that level (Rolleston and James 2011). The surveys also find that parents' aspirations for their male children are slightly higher than the child's own aspirations, but not for female children, whose aspirations for themselves are higher than their parents' aspirations for them (Dercon and Singh 2013; Sanchez and Singh 2016).

The movement of more and more students from secondary and higher secondary levels to postsecondary and higher education has increased pressure on governments to offer multiple pathways for transitions to the labor market. With most training programs in South Asia targeted to secondary and higher secondary completers, and youth aspiring to even higher levels of education and training, the current menu of skills training programs is unlikely to appeal to youth. Skills development systems need to take into account these realities to reduce youth unemployment. Overall unemployment rates in the 16–34 age group range from 2 percent in Nepal to 19.9 percent

**FIGURE 9.2** Unemployment in South Asia Is About Two Times Higher among Youth Than among Adults, and Higher among Women Everywhere, Except in Nepal, Latest Available Data



Sources: Bangladesh: Bangladesh Bureau of Statistics, 2013; India: National Sample Survey, 2011–12; Nepal: Central Bureau of Statistics, 2008; Pakistan: Pakistan Bureau of Statistics, 2014–15; Sri Lanka: Department of Census and Statistics, 2015.

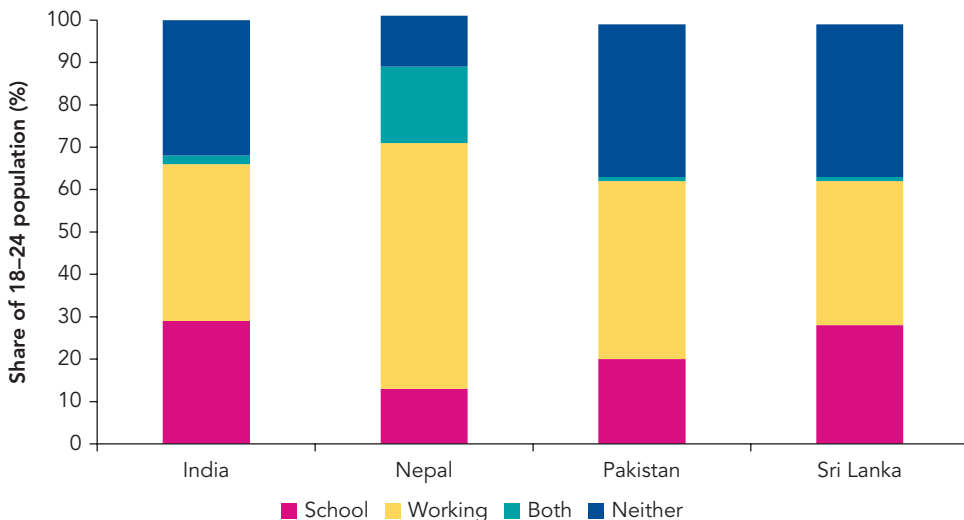
in Sri Lanka and India (figure 9.2), at least two times that in the 36–64 age group. Unemployment rates are higher among women: 20 percent in Pakistan, 15 percent in India, 14 percent in Sri Lanka, and 10 percent in Bangladesh. In the 18–24 age group, 12–36 percent of youth are not in education, employment, or training in Nepal, Pakistan, and Sri Lanka (figure 9.3).

## LABOR MARKET TRANSFORMATIONS

South Asia has the potential to become the next “global factory” (Lopez-Acevedo, Medvedev, and Palmade 2017), but this potential remains largely unrealized. Rising education levels, rapid urbanization, and swelling ranks of working-age young adults in the region could boost economic growth and make South Asia the next “global factory.” But for that to happen, South Asia needs to become more competitive, or else it risks falling behind in the global marketplace. That requires raising the level of its human capital to become more productive. More educated and better trained workers not only have better employment opportunities, higher wages, and more stable and rewarding jobs, but they are also more adaptable and mobile. This is important for ensuring the range of skills that are required as economies develop and diversify.

These unemployment rates and high share of youth not in any productive endeavor in a labor market in which firms complain of skilled labor shortages indicate that the training systems are not focusing on skills that are in high demand in the labor market (World Bank 2013a).

**FIGURE 9.3** More Than a Third of 18-to-24-Year-Olds Are Not in School, Training, or Employment in India, Pakistan, and Sri Lanka, Latest Available Data



Sources: Bangladesh: Bangladesh Bureau of Statistics, 2013; India: National Sample Survey, 2011–12; Nepal: Central Bureau of Statistics, 2008; Pakistan: Pakistan Bureau of Statistics, 2014–15; Sri Lanka: Department of Census and Statistics, 2015.

Globalization and technological disruption are changing the nature of work. Many jobs are fully or partially automated, and new types of jobs are being created across industries and sectors. Research on the automation potential of the global economy (McKinsey Global Institute 2017) finds that while the number of occupations that can be fully automated is relatively small (less than 5 percent), nearly all occupations can be partially automated, requiring individuals to work with technology. Technology is also enabling new forms of entrepreneurial activity. Google's Internet Saathi (Friends of the Internet) program in India, for example, trains rural women to use the Internet and then to provide a variety of services in their villages using Internet-enabled devices. These women can become local distributors for telecom products, field data collectors for research agencies, financial services agents, and so on. Research suggests that by 2030, automation

In emerging economies like India, labor demand is predicted to be higher at all levels of education, but the fastest rate of job growth will be for occupations requiring a college or advanced degree.

could require 75–375 million workers (about 3–14 percent of the global workforce), 3–38 million of them in India alone, to switch occupational categories, and that all workers will need to adapt to working alongside capable machines.<sup>4</sup> These workforce dislocations will require more education and better training. In emerging economies like India, labor demand is predicted to be higher at all levels of education, but the fastest rate of job growth will be for occupations requiring a college or advanced degree. Higher-order cognitive capabilities, logical reasoning and creativity, and social and emotional skills

will be required. These skills enable workers to better assimilate and use technology, innovate, and make efficient and informed decisions (Tan and Joy Nam 2017).

The transformation of labor markets requires agile and flexible training delivery systems. As chapter 1 shows, training systems are not delivering, with large gaps between what employers expect and trainees bring to the workplace. Training systems in South Asia will need to transform themselves to meet the needs of dynamic labor markets and to provide people with new, marketable skills throughout their lifetimes. This requires agile and responsive skills development systems that respond to data on the latest trends in participation, labor market requirements, and training technologies. Incorporating input from employers will be critical, as employers know what kinds of skills they need for their operations and understand the implications of newly adopted technologies on the demand for skills. Expanding employer participation in training and retraining will be critical going forward, and firms could play a more active role in education and training. Students and employers would both benefit from a stronger emphasis on science, technology, engineering, and mathematics in school, along with training in creative and critical systems thinking.

## Notes

1. For example, the Chittagong Skill Development Center or the Institute of Fashion Technology of the Bangladesh Garments Manufacturers and Exporters Association.
2. See NAVTTC and GIZ (2017) for Pakistan and TVEC (2017) for Sri Lanka.

3. See chapters 1 and 2 for detailed descriptions of educational attainment and transition to higher levels.
4. See McKinsey Global Institute (2017) for a detailed discussion on the analysis and different scenarios used for these estimates.

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## Twenty-First-Century Skills: A Shift in Learning Goals in South Asia?

Countries across the world are seeing a shift in educational aspirations for their youth, explicitly acknowledging the need for citizens to adapt constructively to the dynamism of the 21st century and the changing nature of work. Twenty-first-century skills—cognitive, socioemotional, and technical—are increasingly considered crucial for helping people develop the ability to learn, unlearn, and relearn over their lifetime and operate together in society. Globally, more than half of the 150 plus national education systems that were reviewed in a recent study include 21st century skills as part of their educational aspirations (Care, Anderson, and Kim 2016). Many countries identify specific skills such as problem solving and communication as valuable, and a smaller number of countries provide additional details about how these skills are integrated into the curriculum and how they are expected to develop through formal education and training.

South Asian countries' national statements of education mission and vision also emphasize student outcomes and qualities beyond the acquisition of traditional academic skills. These mission and vision statements focus more on national and social values and human rights than on learnable, transferable competencies. Curriculum outlines for South Asia show that over half the region's countries also identify competencies beyond these values and traditional academic goals. These competencies include creativity (Bhutan, Bangladesh, India, Pakistan, and Sri Lanka), critical thinking (Bangladesh, Bhutan, and Sri Lanka), decision-making in various forms (Bangladesh, Bhutan, Pakistan, and Sri Lanka), and others such as analytic thinking and problem solving. In addition, curricula sometimes reveal even more specificity about 21st-century competencies and goals. For example, the Primary Education Curriculum (2009) of Nepal's Ministry of Education calls for "install[ing] process skills like critical thinking, comparing, inquiring, reasoning, managing data" (Government of Nepal 2009, 41), while Sri Lanka's Education First report (2013) mentions "generic skills such as creativity, divergent thinking, initiative, decision making, problem solving, critical and analytical thinking, teamwork, inter-personal relations, discovering, and exploring" (Government of Sri Lanka 2013, 20). India's National Policy for Skill Development and Entrepreneurship (2015) references "training to focus on both technical and soft skills" (Government of India 2015).

Implementation of these curricula outlines and curricula is complex. Understanding that youth need a particular set of skills to live adaptively in the 21st century is not the

same as fully understanding what these skills are, how they develop, or how to teach them. What is the best way to teach communication and critical thinking? To incorporate this learning into traditional learning domains such as math and history? To adapt teaching strategies in classrooms to enable practice and development of the competencies? These skills have not traditionally been the focus of youth training courses offered by government or other providers or the focus of mainstream basic education systems. Consequently, these systems are not currently equipped to deliver on these new learning goals.

Integrating formal and informal curricula to promote these skills is also difficult. There is often an informal curriculum that supplements and sometimes supplants the formal curriculum. As Sri Lanka's Education First report recognizes: "Skills such as communication, decision making, creativity, productive thinking, leadership, inter-personal and intrapersonal skills are developed more through the 'hidden' curriculum than the formal subjects" (Government of Sri Lanka 2013, 33). And hidden or informal curricula are difficult to change for the very reason that they are not explicit. In part, this is precisely why countries are putting 21st-century skills in the spotlight—education does not appear to be equipping students with what society requires, thus making it important to explicitly identify these competencies in country statements of learning goals.

Curriculum plans in South Asian countries provide little evidence of understanding the nature of these skills or their learning trajectories in a way that supports teaching and learning them. That there are few examples of curriculum and pedagogical strategy documents that clearly incorporate these skills suggests that they are less evident in classrooms and training centers as well.

Strategies for countries attempting to integrate 21st-century skills into the formal curricula of schools, training systems, and colleges can be drawn from research from nine economies (Australia, Hong Kong SAR, China, India, Malaysia, Mongolia, the Republic of Korea, the Philippines, Thailand, and Vietnam) (Care and Luo 2016). The following recommendations are a starting point for implementing 21st-century competencies:

- Ensure that the competencies are understood by educators at all levels of the education system.<sup>1</sup>
- Establish detailed descriptions of each competency that identifies the student behaviors that teachers might expect to see and how they might vary with the proficiency level of the student.
- Locate where these behaviors might appropriately be demonstrated within mainstream school subjects and how they could be evaluated.
- Develop activity, task, and assessment templates for each competency of interest that teachers can apply across subjects.
- Draw on a regional resource bank of research and assessment tools.

Source: Based on the background note prepared for this report by Esther Care (2018), Senior Fellow, The Brookings Institution.

## Note

1. Optimizing Assessment for All, an initiative of the Brookings Institution coordinated through two regional groups (the Network on Education Quality Monitoring in the Asia-Pacific and the Teaching and Learning Educators' Network for Transformation), has convened countries to implement this first step. See <https://www.brookings.edu/product/optimizing-assessment-for-all/>.

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## Skills Development Strategies Are Promising, but What about Results?

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Over the last decade, growing interest in skills development led most South Asian countries to adopt new national strategies. The motivation has been similar: to equip the workforce for viable employment in national and international labor markets (Afghanistan), to enhance employability and adaptation to changing technologies and labor markets (Bangladesh), to equip the workforce with the knowledge and skills needed to contribute to growth (India), to augment human capital to provide employment with better income (Punjab, Pakistan), and to create a society in which everyone has employable skills (Sri Lanka).

The focus is on greater access, better (marketable) skills, and improved productivity and growth. There is an explicit recognition that the skills development systems in place are inadequate in quality and capacity to meet the needs of a rapidly changing labor market and to support growth. There is also agreement that they require both reforms and additional resources.

These new strategies reflect a major policy shift, particularly in the larger role given to the private sector in the design and delivery of training. Critical elements intended to improve the quality of offerings and make the system more flexible and responsive to labor market demand include new regulatory bodies for better coordination and quality control, a qualification framework to unify course offerings, and close partnerships with employers. Reforms also seek to make training more accessible, and to this end various financing incentives have been designed to encourage the private sector to participate more actively in the delivery of training. Several countries are also working to integrate the informal sector into the skills development system,

to use new financing instruments such as competitive funds to spur quality improvements or target specific population groups, and to introduce stipends and fee subsidies to stimulate demand.

While a sharp expansion in the delivery of training (particularly short-term training) and increased private sector involvement are already apparent, solid evidence on the labor market outcomes of reforms is still limited. The evidence available suggests that the employment rate of trainees is modest across the region (with some exceptions) and that a large proportion of trainees are unemployed, are not looking for work, or are pursuing further studies after completing training. This appears true for both short- and long-term training. Evidence of a positive impact on earnings is also limited. However, average outcomes mask large differences across programs, regions, and trainee characteristics. In South Asia, as in many parts of the world, outcomes seem to depend largely on program design and delivery mode, participant profiles, and program context. Impact can be positive in some cases, but not in others. Efforts to integrate informal sector workers into the skills development system, commendable given the large size of the informal sector in South Asian countries, have not yet brought clear benefits.

The following sections discuss these issues in more detail, beginning with the main reforms that have been launched and then exploring the results to date. The presentation focuses on Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Reference to Afghanistan is limited, due to a later start of reforms and less availability of information.

## Recent Changes in Skills Development Strategies

South Asian countries have clearly articulated skills development strategies (box 10.1). Countries have introduced a number of promising reforms to their skills development systems, some to improve the quality and market relevance of training offerings, and some to improve access. The reforms are motivated by the desire to build a competitive workforce and offer better job opportunities to youth. They all share one key feature: a much larger role for the private sector. Key reforms are discussed below.

### ESTABLISHING REGULATORY AND COORDINATING BODIES

Apex and coordinating bodies, either new or overhauled, have been established over the last decade in several countries (table 10.1). One aim was to make a single institution responsible for implementing the government's new strategy. Other aims were to better coordinate providers, reduce variability in the quality of offerings, and provide some guarantee of quality to potential employers of trainees.

Countries took slightly different organizational approaches. Bangladesh set up the high-level National Skills Development Council under the prime minister, with an executive committee and a secretariat responsible for overseeing implementation progress.

**BOX 10.1 Recent National Strategies for Skills Development in South Asia**

- Afghanistan: National Education Strategic Plan, 2017–21
- Bangladesh: National Skills Development Policy, 2011
- India: National Policies for Skill Development & Entrepreneurship, 2009 & 2015
- Nepal: National Technical and Vocational Education & Training Policies, 2007 & 2012
- Pakistan: Skilling Pakistan: National Skills Strategy, 2009–13; and Punjab Skills Development Sector Plan, 2018
- Sri Lanka: National Skills Development Plan, 2014–20

**TABLE 10.1 Regulatory and Coordinating Training Institutions Were Established in South Asian Countries**

Countries	Institutions	Mandates
Bangladesh	National Skills Development Council (NSDC) established in 2008	Overall policy guidance
	Executive Committee of the NSDC	Implementation of policies
	NSDC Secretariat	Monitoring of implementation progress; advice on curricula revisions; oversight of the operations of all training centers
India	National Skill Development Agency within the Ministry of Skill Development and Entrepreneurship established in 2013–14	Overall policy guidance; coordination and harmonization of all activities and stakeholders; monitoring and evaluation of programs; monitoring of implementation progress and achievement of targets; maintaining a logistics management information system
	National Council for Vocational Training	Defining standards and curriculum for long-term training
Nepal	Council for Technical Education and Vocational Training (CTEVT)	Standards and course accreditation
	National Skill Testing Board under the CTEVT	Testing and certification of skills formally or informally acquired
Pakistan	National Vocational and Technical Training Commission	Autonomous regulatory body sets national occupational standards and regulates accreditation and certification
	Punjab Technical and Vocational Training Authority	Management and supervision of training centers at the provincial level; registration of providers; curriculum development; controlling authority of the Trade Testing Board and of the Board of Technical Education (in charge of conducting exams and certifying candidates)
	Sindh Technical and Vocational Training Authority	
Sri Lanka	Ministry of Skills Development and Vocational Training established in 2015	Overall policy guidance; coordination of all stakeholders; implementation of government's strategy
	Tertiary and Vocational Education Commission	Policy formulation; quality assurance; monitoring

In India, the Ministry of Skill Development and Entrepreneurship was given the lead role. Nepal assigned responsibility for standards and accreditation to the Council for Technical Education and Vocational Training; under it, the National Skill Testing Board is in charge of certification. In Pakistan, the National Vocational and Technical Training Commission sets policies and standards at the federal level, while provincial authorities are responsible for regulatory oversight. In Sri Lanka, six large agencies delivering training through numerous centers and one commission in charge of policy design and quality assurance were placed under the umbrella of the Ministry of Skills Development and Vocational Training.

### ADOPTING A QUALIFICATIONS FRAMEWORK AND MOVING TOWARD COMPETENCY-BASED TRAINING

To unify course offerings across providers and ensure equal access to all potential trainees, most South Asian countries are developing national vocational qualification (NVQ) frameworks. South Asian countries are following the example of Australia, New Zealand, and the United Kingdom, in some cases with support from Germany. The aim is to set competency standards and curricula for each qualification level and corresponding occupation and then gradually to align all courses with the NVQ framework. Subsequently, qualification certificates can be awarded to trainees.

This harmonization of training will ease the progression from one level to the next, including the transition between technical and vocational education and training and higher education. Mobility can be further enhanced by the establishment of equivalence with qualification levels and competency standards in other countries. International recognition of training certificates can facilitate migration flows and access to jobs abroad.

Better quality control is another expected outcome. Greater homogeneity of course offerings is expected to facilitate accreditation of training institutions and to provide employers with easily accessible information about the skills of potential employees.

Sri Lanka was the first South Asian country to introduce the National Vocational Qualifications Framework, in 2005. This was followed in 2012 by the Sri Lanka Qualification Framework, which integrated the National Vocational Qualifications Framework and was expected to define all qualification levels and specify possible pathways between technical and vocational education and higher education (see box 10.2). In Bangladesh, the National Skills Development Policy of 2011 called for establishing a new National Technical and Vocational Qualification Framework and shifting from traditional training to competency-based training. India introduced the National Skills Qualification Framework in 2013, and Pakistan completed its National Vocational Qualification Framework in late 2014, with support from Germany. In Nepal, the qualifications framework is still under preparation, with donor support; it is expected to be completed by the end of 2019.



**BOX 10.2 The Sri Lanka Qualification Framework**

The Sri Lanka Qualifications Framework provides a comprehensive definition of skills and competencies. It integrates the National Vocational Qualification Framework and identifies flexible pathways permitting lateral mobility between vocational education and higher education by providing the basis for recognizing prior learning and credit transfer. In the technical and vocational field, National Vocational Qualifications range from basic entry level (level 1) to bachelor's degree (levels 7), with the first four levels of qualifications being occupational or vocational specific and levels 5 and 6 corresponding to more advanced competencies. Higher-level qualifications correspond to degrees granted by higher education institutions. In Sri Lanka, bachelor's degrees in technology fields are considered vocational; in some other South Asian countries oversight for these degrees lies with higher education departments or ministries.

*Source:* Ministry of Education (2012, table 1).

**ESTABLISHING CLOSE PARTNERSHIPS WITH EMPLOYERS**

Although a significant step, introducing a qualifications framework is still just the initial step toward greater harmonization of offerings and better quality assurance. Still needed are competency standards, qualification rules, curricula, teaching and learning materials, and assessment packages for each occupation and qualification level. For a qualification framework to be transformative, all those elements need to be developed in sequence and harmonized with the requirements of each sector of the labor market.

Aligning training content with required competencies and ensuring the labor market relevance of skills development programs require the active participation of potential employers. South Asian countries have been aware that many training programs had little labor market relevance and that job placements had consequently suffered. They recognized the need to engage employers in the process of setting up accurate and relevant specifications of the competencies required at each occupation level and in establishing curricula.

India has been particularly active in following a public–private partnership model and in engaging employers in identifying needs, defining standards, and creating curricula. In 2009 the National Skills Development Corporation was directed to establish Sector Skill Councils (SSCs), employer-driven organizations with representatives from industry, government, and academia. They operate as autonomous bodies intermediating between industry desires for training content and the institutions designing training curricula (see box 10.3). There are currently 38 SSCs, and nearly 400 corporate representatives sit on their governing councils. To date, SSCs have developed or revised and approved more than 6,000 national occupational competency standards and 2,000 qualification packages, and yearly revised a few hundreds (SSC website <https://nsdcindia.org/sector-skill-councils>).

Bangladesh and Sri Lanka are following a similar approach, but more slowly. In Bangladesh, 9 industry skills councils have been formed and another 20 or so

**BOX 10.3 Mandate of Sector Skill Councils**

The India National Skill Development Policy of 2015 sets out the following roles for the Sector Skill Councils:

1. Identify skills development needs for the sector.
2. Devise a skills development plan.
3. Determine competency standards and qualifications and have them notified as directed in the National Skills Qualification Framework.
4. Participate in setting up affiliation, accreditation, examination, and certification norms.
5. Plan and facilitate training of trainers programs along with the National Skills Development Corporation and the states.
6. Promote academies of excellence.
7. Pay particular attention to the training needs of members of scheduled castes and scheduled tribes, people with disabilities, and minority populations.
8. Ensure employment at decent wages to those whose skills meet the norms.

Source: <http://www.skilldevelopment.gov.in/ssc.html>.

are planned. In parallel, the government is partnering with major industry associations to establish training centers for low-skilled workers. In Sri Lanka, the government decided to start in four priority sectors. Industry skills councils are in place for information and communication technology, light engineering/ manufacturing, and building and construction, and have started reviewing and validating competency standards and training packages. A fourth council has been set up in tourism and hospitality but is not yet operating. The councils' mandates are similar to those in India. Pakistan is following a slightly different approach. In both Punjab and Sindh, provincial governments have identified sectors with high growth and employment potential and are signing partnership agreements with business organizations (trade associations, chambers of commerce) that have shown a willingness to cooperate in the design and delivery of training programs. Each business organization is matched with a training center that has adequate facilities and courses (GIZ 2016). Afghanistan also plans to establish competency standards and revise curricula in priority trades in consultation with employers.

In addition to soliciting business inputs into the content of training, as in other countries, India also wants the private sector to channel resources into skills development. To this end, the government set up the National Skill Development Corporation, a non-profit corporation with an equity base of 100 million rupees (Rs.), with a government share of 49 percent and a private sector share of 51 percent and with a wide mandate (see box 10.4). The Directorate General of Training, an entity within the Ministry of Skill Development and Entrepreneurship that is in charge of long-term training, also seeks partnerships with the private sector. About 80 percent of Industrial Training

**BOX 10.4 The India National Skill Development Corporation Mandate and Tools**

The National Skill Development Corporation (NSDC) is a nonprofit corporation with an equity base of 100 million rupees (with a government share of 49 percent and a private sector share of 51 percent). Private sector shareholders include 10 business chambers and industry associations. Its mandate is to create an enabling environment for the creation of training centers and market-driven programs, provide funding to support private initiatives, and attract private sector investment in the sector.

To exercise its mandate, NSDC has the following tools at its disposal:

- *Sector Skill Councils (SSCs)*, employer-driven partnership organizations set up as autonomous bodies with initial grant and capacity building support from the NSDC. The main responsibility of the 38 SSCs already in place is to align training content with industry needs (see box 10.3 above).
- *Debt and equity support to private training centers* that present a scalable, sustainable business model and seek to train people across all population groups in employable skills. Proposals are evaluated by a committee with diverse representation from government, industry, and nongovernmental organizations. Those selected can receive up to 75 percent of the project cost. As of January 2016, 267 proposals had been approved and 168 had received funding.
- *Management and financing of special schemes*, such as Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and UDAAN, through affiliated private training partners and with support from the SSCs. PMKVY was launched in 2015 and relies on over 8,000 training centers across the country. It aims to train 10 million people over three years. UDAAN is a special initiative in Jammu and Kashmir that is run with industry partners and aims to reach 40,000 youth over five years. Training costs are paid by NSDC to the training partners in three tranches.
- *A Skill Fund* to encourage companies to channel private resources for skills development. Indian companies with a net worth or revenue over a certain threshold are obliged to spend 2 percent of their average net profits over the last three years on social development (corporate social responsibility). Companies willing to use some of those payments for training can submit proposals that specify the trade, region, or social group that the company wishes to target. If approved, the private funds are pooled with matching grants from the government. In addition to financial incentives, NSDC can offer additional support, including identifying training providers and programs among the large pool of NSDC partners that would best meet the needs of the company.

Source: NSDC presentation to a World Bank mission, January 2016, Delhi.

Institutes are privately run, and in all publicly run institutes, institution management committees have been set up with private sector industrial partners. Some industrial training institutes have partnerships with large companies, such as Tata, Maruti, and Mahindra. Efforts are also being made to access the expertise and experience of organizations working worldwide, such as McKinsey,<sup>1</sup> and to join with private sector providers to train youth for particular occupations and sectors.

## INTEGRATING THE INFORMAL SECTOR INTO THE SKILLS DEVELOPMENT SYSTEM

Reform of the skills development system across South Asia has also sought to widen access to training by integrating the informal sector into the system and covering all types of training—formal, nonformal (unregulated), and informal. The idea is to enable people working in the informal sector who never had the opportunity to attend any formal training to receive a certificate after an assessment of their competencies and knowledge. It is expected that this could improve their social status, raise interest in getting formal training to upgrade skills and boost income, and facilitate a transition from the informal sector to the formal sector.

To implement this approach, the governments of Bangladesh, India, Nepal, and Sri Lanka have launched “recognition of prior learning” initiatives that invite workers to have their skills and competencies assessed and certified and ask employers to facilitate this process. The use of national vocational qualification frameworks would ensure harmonization of standards with those applied in formal training.

## INCENTIVES FOR INCREASED PRIVATE SECTOR PARTICIPATION IN THE DELIVERY OF TRAINING

Private sector participation has increased significantly in the region. Aware of the limitations that public training institutions face in trying to increase their offerings, countries have encouraged greater private sector participation by covering some or all of the costs through several financing mechanisms. In Bangladesh, governments have applied to schools offering vocational training the same approach applied to secondary schools, covering the salary costs of private centers through monthly payment orders. Some 1,600 private schools and technical colleges are beneficiaries of this support. In addition, subsidies are given to some private short-term course providers and polytechnics for market-demanded technologies.

In India, the National Skill Development Corporation offers funding to private projects following sustainable business models that seek to turn out employable people across all sections of society. Approved projects can receive up to 75 percent of project cost, with a combination of equity and debt at subsidized rates (grant funding can also be given in selected cases). In addition, the National Skill Development Corporation runs several national schemes—STAR, PMKVY, and UDAAN—through private centers, which receive public financing equal to the total cost per trainee.

Under the Enhanced Vocational Education and Training (EVENT) project,<sup>2</sup> Nepal introduced a voucher-based financing mechanism for short-term training in three urban centers that allows participants to choose their public or private training provider from a preapproved list. In other districts, a results-based financing mechanism was introduced that made the training provider responsible for recruitment and training. Reimbursement under both mechanisms was based on results at the

completion of training. It covered the cost of training and included a bonus for placing students in jobs three and six months after training.

In Sri Lanka, the government “purchases” training services from individual training providers in sectors considered of high priority and where public offerings are insufficient. The selection of providers is based on technical and financial proposals, and eligibility criteria include type of management, financial management controls, capacity utilization, and ability to provide job placement support and monitor results.

### NEW FINANCING MECHANISMS: COMPETITIVE FUNDS, STIPENDS, AND FEE SUBSIDIES

Governments are introducing new mechanisms to enhance the quality and relevance of skills development programs and to target the supply to particular population groups or regions. These mechanisms are open to both public and private providers and funded largely through donor-driven projects. Once tested and evaluated, these project-specific initiatives could be extended or modified to cover the entire skills development system.

Nepal’s EVENT project selects training providers competitively on the basis of defined criteria to receive funds to upgrade their training facilities and equipment, retrain their trainers, and strengthen their management and monitoring. Eligibility criteria include adequate infrastructure, capacity to increase enrollment, commitment to accommodate trainees from underserved areas, and internal efficiency indicators. Selection is based on the ranking of eligible providers using a point-based assessment system with additional criteria (such as affiliation and accreditation, instructor availability, institution–industry linkages, completion rates, and graduates’ labor market experience). Under the initial EVENT project, selected public and community institutions received matching grants (matched 2:1) up to a specified maximum amount.<sup>3</sup> In addition, institutions (including private ones) could receive performance grants based on a set of achievement indicators reflecting access, quality, relevance, and equity that are specified in their contract.

Punjab and Sindh provinces in Pakistan have introduced competitive training funds. The Punjab Skills Development Fund was established in 2010 to encourage the provision of short-term training targeted to poor and vulnerable groups. Competition is open to public and private providers (including public–private partnerships and not-for-profit institutions). Selected institutions receive funds that cover variable course-related costs, including tuition and a stipend, training materials, and examination and certification fees. One selection criterion is a commitment to give preference to poor students. In Sindh, the competitive funding is directed to programs rather than institutions, to foster the establishment of market-driven programs. Important selection criteria are economic rationale, industry exposure, and job placement opportunities.

Fee subsidies and stipends have also been used to stimulate demand and promote access to training to disadvantaged students. Nepal gave full or partial fee subsidies

and stipends to nearly 5,000 girls, Dalits, and marginalized Janajatis over the course of the initial EVENT project (2011–17). Two approaches for selecting trainees (categorical targeting initially and proxy-means testing subsequently) were used and evaluated before considering scaling up this initiative. The Council for Technical Education and Vocational Training also provides scholarships to students using categorical targeting.

## What Have We Learned about the Results So Far?

The new strategies have been driven by a desire to improve the chances of employment and the earnings prospects of the youth population and, by reaching more of the workforce, contribute to growth. Evaluating whether skills development programs have improved the labor market outcomes of trainees is thus critical in determining how effective the reforms have been. It is even more critical now that more resources are being invested in the sector and more people are participating in skills development programs.

### ACCESS TO SKILLS DEVELOPMENT PROGRAMS HAS INCREASED CONSIDERABLY

Country strategies set ambitious quantitative targets. The Bangladesh National Skills Development Policy 2011 envisaged a 50 percent increase in enrollment over five years. India's 12th five-year development plan (2012–17) called for training 400 million workers by 2022. Punjab Province in Pakistan aims at 2 million people trained by 2018. The Sri Lankan Development Plan (2014–20) envisages a doubling of the country's training capacity.

Even though mostly unrealistic, these targets have given impetus to development of the skills development system and, notably, to a rapid increase in the number of private providers.

Private for-profit providers have been attracted by the increase in demand for training in particular trades that are in high demand by employers. Several nongovernmental organizations (NGOs) have launched programs, often supported by aid agencies. Industries have entered into partnerships with government agencies. But the most important factor for attracting providers has been the policy of offering financial incentives to increase participation by the private sector in the delivery of training. Partial or full subsidies have allowed private providers to expand without charging fees or charging reduced fees.

As a result, enrollments in skills development programs (both long and short term) have increased sharply.<sup>4</sup> In Bangladesh, enrollment in formal training institutions almost doubled between 2009 and 2015. In India, enrollment in short-term training increased nearly fourfold between 2011 and 2016, reaching more than 8 million people, even as enrollment in long-term training increased only slightly.<sup>5</sup> In Nepal, the number of technical and vocational education and training graduates increased from 15,000 in

2000 to 80,000 in 2010. In Pakistan, enrollment in programs under the Sindh Technical Education and Vocational Training Authority increased 50 percent over six years.

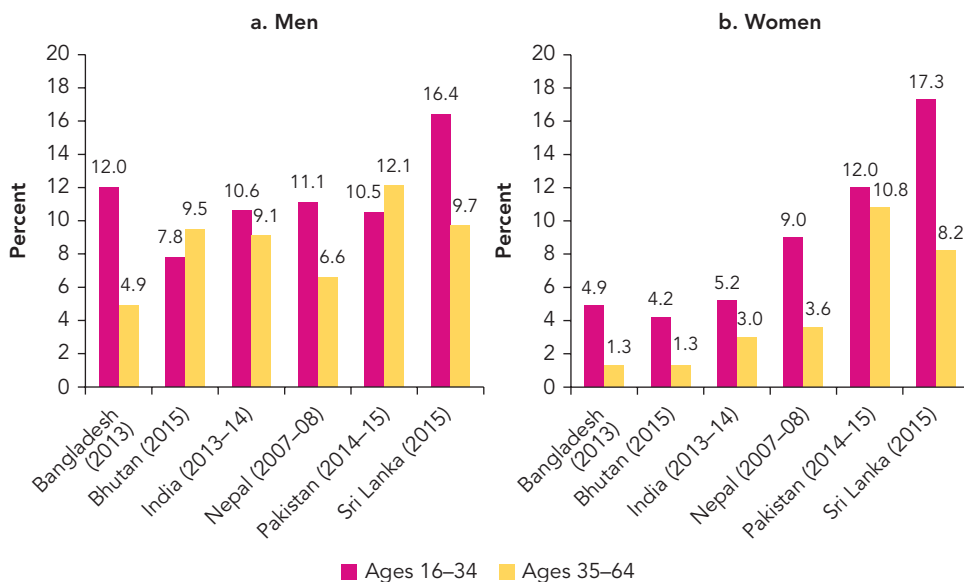
It is thus no surprise that the incidence of training is higher in younger population cohorts than in older cohorts (figure 10.1). Participation of young men and women in training has risen in all the countries examined, with the exception of men in Pakistan. The largest increases occurred for men in Bangladesh, Sri Lanka, and Nepal. More recent survey data would likely show even larger gains.

**LABOR MARKET OUTCOMES FOR SHORT-TERM TRAINING ARE MODEST ON AVERAGE, BUT AVERAGES HIDE CONSIDERABLE HETEROGENEITY**

Growing awareness that a skilled labor force is critical to sustain growth has led countries to focus more on the labor market outcomes of their programs. Although systematic evaluation systems are not yet in place, governments have been open to conducting tracer studies and even some impact evaluations.<sup>6</sup> Tracer studies for short-term training have been conducted in Afghanistan,<sup>7</sup> Bangladesh, India, Nepal, Pakistan, and Sri Lanka.

All the studies reviewed here require some caveats. Tracking graduates after completion of training is difficult because of changes in location and phone numbers. Thus, the

**FIGURE 10.1** Proportion of Men and Women That Have Participated in Some Training, in Selected South Asian Countries by Age Group, Latest Available Data



Sources: Bangladesh: Bangladesh Bureau of Statistics 2013; India: Ministry of Labour and Employment, Annual Labor Force Survey, 2013-14; Nepal: Central Bureau of Statistics 2008; Pakistan: Pakistan Bureau of Statistics 2014-15; Sri Lanka: Department of Census and Statistics 2015.

response rate has sometimes been low and the sample size smaller than optimal. Employment outcomes were assessed 6 or 12 months after training or at variable survey intervals, and biases may arise because some surveys were conducted before reforms were introduced and others after some reforms were launched. There are also important methodological differences among studies using a control group. Some compared individuals selected for (“assigned” to) training with individuals with similar characteristics who were not selected, while most other studies compared trainees who completed the training with nonparticipants. While the first type of study looked at the effectiveness of a program for those who were eligible for it, the second type considered only people who have completed the training.<sup>8</sup> In the first group, people who apply but do not enroll and those who drop out or fail to graduate are left out of the analysis.

Reviewed programs are diverse. In India, programs are run by ministries and administrative structures and focus on different population groups (rural or urban youth, poor or all socioeconomic groups). What they all have in common is the separation of the financing from the delivery of training, which can be done by public or private institutions. In Bangladesh and Nepal, as well, the delivery of training can be done by public or private providers. In contrast, in Pakistan, delivery is largely by private providers, while in Sri Lanka all the reviewed programs were delivered by public institutions. Some programs were implemented at the national level (India, Sri Lanka) or the provincial level (Pakistan), while others were implemented within a “project” context (Nepal) or at an institutional or district level (Bangladesh, Nepal). A majority of training courses reviewed were short term (less than one year), but some programs may last up to three years. Datasets do not code these separately, and so they cannot be differentiated for analysis. Despite all the caveats and diverse features, the findings are worth analyzing and deriving some preliminary lessons and implications.

Because employment outcomes were measured over a short period of time (a maximum of two years), it cannot be determined from these studies whether any positive effects are sustained over the long term. The finding in the India study of considerable employment churning even over the first two years following training (World Bank 2015) suggests that important insights could be gained by extending the period of evaluation.<sup>9</sup> Overall, the evidence accumulated so far is too limited to draw robust conclusions, and more impact evaluation studies are needed. Except in Nepal, post-training employment rates are modest, and many former trainees are not working, looking for jobs, or pursuing other studies or training.

The employment rate for all graduates about one year after completion of training is around 23–35 percent in Bangladesh, India, and Pakistan (table 10.2). In these countries, a large proportion of graduates from short-term programs—close to half in Bangladesh and probably also in Punjab, Pakistan—are not working, not looking for jobs, or not pursuing other studies or training several months after completing their training. In Sri Lanka, post-training employment rates are somewhat higher, but a large proportion of graduates are inactive or pursuing other studies following training. Only Nepal stands out with a very high post-training employment rate.



**TABLE 10.2 Employment Outcomes of Short-Term Training Programs in Selected Countries: Results of Tracer Studies, Latest Available Data**

Country and program	Employed (%)	Looking for a job (%)	Inactive (%)	Pursuing further training or studies (%)	Program characteristics
<b>Bangladesh, 2013</b>					
Measured after 6 months	33	18	11	38	National program; 6 months of training; sample drawn from students enrolled in 36 institutions and 93 trades
Measured after 12 months	29	20	13	38	
<b>India, 2012<sup>a</sup></b>					
All programs measured after 1–2 years			Inactive or pursuing training/studies		National programs with different target groups: Poor rural youth (RSETI and ASDP); poor urban youth (STEP-UP); urban and rural youth with no socioeconomic distinction (NSDC and SDIS)
NSDC	32	47		21	
SDIS	26	56		18	
STEP-UP	29	20		51	
ASDP	25	16		58	
RSETI	23	67		10	
<b>Nepal, 2016<sup>a</sup></b>					
Training conducted by preapproved public and private training providers	89	Unemployed or inactive		11	Programs in preapproved public and private providers in selected districts and urban centers; beneficiaries selected after interviews; 2 modes of financing (vouchers or result-based)
<b>Pakistan, Punjab</b>					
		Looking or inactive			Programs delivered by public training institutions under TEVTA and by competitively selected providers under PSDF
TEVTA, 2010	28			28	
PSDF, 2012 men	42	44		37	
PSDF, 2012 women	19–28	21		35	
<b>Pakistan, Sindh</b>					
Benazir Bhutto Shaheed Youth Development Program (BBSYDP), 2008–09	26	56	4	14	A 3-month to 1-year program targeted to semiliterate as well as educated unemployed
<b>Sri Lanka, 2014–15</b>					
Measured at survey time					National programs:
VTA	56	22	22		VTA targets rural population (86% of courses < 1 year)
NAITA	56				NAITA (apprenticeship; 6 months–3 years)
DTET	47				DTET (1 year or less)
NYSC	39				NYSC targets rural youth (courses 3 months–1 year)
Ocean University	56				Ocean University (courses 10 days–1 year)

Sources: For Bangladesh, World Bank (2015a); for India, World Bank (2015b); for Nepal, Development Vision-Nepal (2016); for Punjab, World Bank (2012); for PSDF, Research Consultants (Rcons), (2012); for Sindh, Pakistan, ILO (2010); for Sri Lanka, ADB, MSDVT, and TVEC (2017).

Note: Bangladesh data are from a multicohort tracer study of 2,000 graduates who completed training 6 months ( $n = 994$ ) or 12 months ( $n = 928$ ) before the fieldwork in December 2013–February 2014. For India, a survey was conducted in late 2013 of 2,620 trainees who graduated in 2012 from five government programs. For Nepal, data are from a 2015 survey of 3,832 graduates and aspirants (eligible but not selected for training) under the EVENT project. For both graduates and aspirants, the sample size for the two financing modalities (vouchers or result-based) are approximately equal. For Punjab, Pakistan, the data for TEVTA are from a survey of 932 trainees who graduated in 2010 from training centers run by the Punjab Technical Education and Vocational Training Authority; the data for PSDF are from surveys of 1,500 male trainees and 685 female trainees who graduated in 2012 from the Skills for Jobs program run by the Punjab Skills Development Fund, with training providers selected through a competitive process. For Sindh, Pakistan, the data are from a survey of 3,395 graduates from the first phase of the Benazir Bhutto program (2008–09). For Sri Lanka, data are from a survey of 1991 graduates who completed their training between October 2014 and end September 2015.

a. Study includes a control group.

Being inactive or pursuing other training or studies after training appears to be a personal choice rather than a result of difficulty finding employment. Although all programs aim at training clients for employment, not all trainees have this motivation. Some 50 percent of Bangladeshi training program graduates reported in a survey that they had participated just to have something to do but also acknowledged that they needed more skills to become employable (PSDF n.d.; World Bank 2015a). Similarly, in a survey of current training participants in India, 28 percent indicated that they did not intend to look for a job at the end of training but rather to pursue other studies (World Bank 2015ab). In Sri Lanka, a number of graduates indicated that they were not necessarily interested in employment but considered it useful to get language or information technology skills while waiting to enroll in formal higher education (ADB, MSDVT, and TVEC 2017). Other reasons offered for not working are distance from home (especially for women), low salaries, and preference for a government job.

Women have a much lower employment rate than men in Bangladesh, Pakistan, and Sri Lanka.<sup>10</sup> Twelve months after completion of training, the employment rate in

In all three countries, a majority of women enroll in courses that impart skills for which there are few job opportunities, such as tailoring, beautician, home economics, and office secretarial work. Information and communication technology, another popular area, also yields few job opportunities for women.

Bangladesh was 21.2 percent for women and 33.3 percent for men (World Bank 2015a). In Punjab, Pakistan, the employment rate for graduates of programs under the Technical Education and Vocational Training Authority was 12 percentage points lower for women than for men (World Bank 2012). For graduates of Punjab Skills Development Fund programs, the difference between women (19–28 percent) and men (42 percent) was even greater (table 10.2). In Sri Lanka, employment rates were also lower for women than for men across all provinces, but more markedly so in northern and eastern provinces (ADB, MSDVT, and TVEC 2017).

Nepal's program stands out. Its better outcomes (89 percent employment post-training) may be due to the fact that this program is not implemented at a national level but within a project and with strict parameters on the selection of training providers and trainees. (See box 10.5 for details.) Training providers under the project are thus likely to be of better than average quality and applicants the most motivated. In addition, the payment system to training providers provides strong incentives for results: the first half of payment covers the cost of training and the second half is conditional on graduates' employment and income verification three and six months after training.<sup>11</sup> Variances in the quality of institutions and in the motivation and aptitudes of trainees are likely to be much greater in a national program that is implemented across the country with less strict (or less strictly enforced) parameters. Interestingly, the study included a control group of training aspirants who had met the eligibility conditions but had not been selected. The employment rate for this group was 77 percent—high, but below the 89 percent for former trainees.

### **BOX 10.5 Design Features of a Short-Term Training Program with High Employment Outcomes: The Nepal EVENT Project**

The Enhanced Vocational Education and Training (EVENT) project initiated in 2011 gave training priority to disadvantaged youth, especially those living in underdeveloped regions. The project offered short-term training through public and private providers under two modalities: voucher-based training and results-based training.

In the voucher-based training, training candidates were preselected before being given a voucher that they could use to purchase training from a preapproved list of institutions. Criteria for selecting trainees included gender, economic status, and caste. In addition, an interview (30 percent of the score) assessed the candidates' attitudes toward skills training and the likelihood of completing the training and seeking employment. Following selection, voucher recipients attended a training fair that provided information on the offerings of each training provider on the approved list to reduce search costs and achieve a better match between trainees and training providers. Voucher recipients had up to a week after the fair closed to choose a provider, and training providers had the prerogative to reject an applicant. Twenty-nine training providers were approved to participate based on eligibility criteria such as quality of instructors, availability of physical facilities, and success in job placement. Training providers were reimbursed for their cost in four installments: 10 percent after trainee enrollment, 40 percent after training completion and submission of a skills test report, 25 percent after employment and income verification three months after training, and 25 percent after employment and income verification six months after training. This voucher-based program was implemented in three urban areas.

In the results-based training, which was implemented in a few districts, training providers were responsible for recruiting and training candidates. Reimbursement was made in the same four installments, and with the same conditions, as in the voucher-based training.

The heavy weight put on employment and income verification likely induced programs to vet applicants carefully. Under both modalities, trainees had opportunities for on-the-job training after completion of the training course, and more than 80 percent of trainees benefited from it. Some 89 percent of trainees were employed following training.

As of September 2016, some 70,000 youth had been trained under the EVENT project, and a follow-up project EVENT II intends to use similar design features.

*Source:* World Bank 2011b.

### **Solid Evidence That Short-Time Training Makes a Difference in South Asia Requires More Extensive Use of Control Groups**

No firm conclusion about the effect of training can be reached without knowing what would have happened in the absence of training (counterfactual). Whether the employment rate observed after training is high or low does not answer this question. What matters is knowing whether training made a difference and increased the employability of youth and by how much. Answering this question requires comparing situations with and without training and thus requires data not only on

**In only two countries, India and Nepal, have studies attempted to measure the “intent-to-treat effect” or the “treatment effect.”**

trainees but also on a group of individuals with similar characteristics who did not receive training (control group). Evidence on this is scarce in South Asia.

In the India study of five large national programs, an experimental design (with trainees and nontrainees randomly selected) was not possible, so data from a survey of youths of similar age and socioeconomic background as the trainees but who did not participate in the training were used to estimate the counterfactual (World Bank 2015b). Another Indian study (Maitra and Mani 2017) used a randomization design to evaluate a small NGO program in stitching and tailoring targeted to women in low-income households. The Nepal study of the EVENT project (referred to in table 10.2) included comparison with a control group but not an econometric analysis. A later study collected a new set of data and conducted a rigorous analysis using randomization but evaluated the impact of the voucher-based modality only and not of the full program (Bhatta and others 2016).<sup>12</sup> An earlier evaluation of a short-term training initiative undertaken by an international NGO in partnership with the government of Nepal (Chakravarty and others 2015), and a recent analysis, also in Nepal, of the labor market effects of training (any formal off-the-job training) based on labor force survey data also both used control groups (Raju 2018).

Estimates in the two India studies (of the five national programs and the small NGO program) and the two Nepal studies (the earlier and later studies of the EVENT project) indicate that the short-term vocational training programs were successful in improving the labor outcomes of participants. All four studies found a positive effect on both employment and earnings. In India, participation in the five large short-term programs increased the employment rate by 7 percentage points overall, with a stronger effect for women (12 percentage points) than for men (4.5 percentage points). Women participating in the small NGO program in India were 6 percentage points more likely than men to be employed, and 4 percentage points more likely to be self-employed. The Nepal studies found an even stronger effect on employment (15–16 percentage points), which was stronger for women than for men in the earlier study but with no significant difference in the later study. In all these cases, a positive and significant earnings premium was found, and there was an additional positive impact on the number of hours and days worked (Nepal, India NGO program) or on the probability of obtaining a formal work contract (India national programs). However, the study of the third Nepal program, based on labor force survey data, finds positive employment effects only for women and no wage earnings effect for either gender (Raju 2018). A possible explanation for these differences in findings may be that the latter analysis was conducted at the national level, and thus covered the entire population and a wider range of providers, whereas the other two studies covered a specific, more narrowly defined program.

#### Evidence Indicates That Average Outcomes Hide Large Differences across Programs, Regions, and Trainee Characteristics

From the data analyzed so far, as well as from all the tracer studies, it clearly emerges that averages hide large heterogeneity across programs, regions, and trainee characteristics.

This is well illustrated by the India study (World Bank 2015b) of five national programs implemented in five states. While a positive employment and earnings effect was found for the entire sample, separate analyses for each program found a positive effect only for three of the five programs. Another striking difference was linked to location: even after controlling for the personal characteristics of trainees and nontrainees, program outcomes were far better in some states than in others.

The analysis in the India study also shows that the personal characteristics of trainees—such as their marital status, their age, and their previous work experience—matter for employment outcomes. Being married raised the employment probability for both men and women. Age also played a role. While training improved outcomes for participants 20 years and older, it had no impact on young people ages 15–20. And previous work experience significantly increased the probability of employment. Training also had a greater impact when classroom training was combined with apprenticeship. The Nepal studies also found that training effects on employment differed by types of training (Chakravarty and others 2015) interacted with schooling status, educational attainment, and areas of residence for women (Raju 2018), and were larger for nonmigrants than for migrants (Bhatta and others 2016). There were also differences based on gender, which were discussed above.

The Bangladesh study points out that having prior work experience or benefiting from job placement support makes a substantial difference (World Bank 2015a). The Sri Lanka case underlines the usefulness of including language and soft skills in training programs (ADB, MSDVT, and TVEC 2017).

### Rough Estimates Suggest That Programs with a Positive Impact Are Likely to Be Cost-Effective

While detailed information on costs differentiated by types of programs, course duration, location, and other factors is not available, some information on average cost is available for estimating cost-effectiveness. India's National Skill Development Agency reported in 2015 an average cost of Rs 18,000 per participant across programs funded by the government (MSDE 2015). The average duration of such programs is approximately 600 hours, for an average hourly cost of Rs 30. Using the average estimates of employment effects (an increase of 7 percentage points) and wage effects (an increase of 21 percentage points) of short-term national programs (World Bank 2015b), it appears that the investment cost will be recouped if those working after training remain employed for at least 21 months. The India study of an NGO program targeted to women in poor households (Maitra and Mani 2017) reported a lower average cost of Rs 5,585 (including personal time costs) for a six-month training program and concluded that program costs could be recovered with less than four years of employment. These estimates indicate that programs that yield positive outcomes would be cost-effective even if benefits

Although the tracer studies conducted in Bangladesh, Pakistan, and Sri Lanka do not allow precise estimates of employment effects, they do support the findings of considerable heterogeneity in outcomes of training depending on trades, program design, types of training providers, and regions.

are not sustained over a long period. Whether these conclusions apply to other programs and countries is uncertain. Nevertheless, the relatively low budget allocations to education, particularly to vocational training, across South Asia suggest that current short-term skills training programs are not very costly.

### International Experience Is Largely Consistent with Evidence for South Asia

Short-term training programs have been widely and increasingly used in many parts of the world to improve the employability of particular population groups. The emphasis has been mainly on youth as in South Asia, but unemployed and underemployed adults have also been a focus. These programs have been evaluated, albeit with various degrees of rigor, in many parts of the world, including in some developing countries (see box 10.6).

No general statement can be made about their impact. Impact can be positive in some cases, null in others. But research has also identified some of the conditions

What emerges clearly from international evidence is that training programs are far from uniform in duration, content, providers, and target groups and that outcomes depend largely on the program design and delivery mode, participant profiles, and program context.

under which the chances of success are higher. Some of the factors that have repeatedly been found to be critical for success are close links with employers and good knowledge of labor market conditions, careful selection of good-quality providers with well-prepared instructors, a combination of classroom teaching and practical on-the-job training or apprenticeships, the integration of soft skills into the program content, and the selection of motivated trainees with solid foundational skills. Although evidence from South Asian

programs is still scarce, the findings discussed in previous sections are consistent with these findings from international experience. In South Asia, as in other regions, there is a large diversity of programs and outcomes, and the factors that have been shown to increase the chances of success seem similar.

### LONG-TERM TRAINING (DIPLOMA LEVEL) SHOWS SOME PROGRESS BUT STILL DISAPPOINTING OUTCOMES

Longer-term training programs would be expected to attract more motivated students than short-term training and to provide them with a more complete set of skills that would make them more attractive to employers. Most training institutions delivering longer-term programs would also be expected to be well established, with adequate staff, equipment, and learning materials. All of this implies more investment in time, resources, and human capital and should lead to better labor market outcomes than short-term training.

International evidence tends to support these hypotheses. Findings for Brazil, Indonesia, and Thailand show that individuals completing long-term formal training

**BOX 10.6 International Evidence on the Impact of Short-Term Training Programs**

Many short-term training programs have been evaluated in recent years in various parts of the world. Several meta-analyses have also been conducted. These studies indicate the heterogeneity of training programs in duration, modes of delivery (classroom, workplace, or a combination), content (theoretical, practical, or both), types of skills imparted (technical, soft), additional services (job placement, counseling), funding modalities, and others.

In a meta-analysis of 345 studies of training programs in 90 countries, Fares and Puerto (2009) found that the combination of classroom and workplace training increased the likelihood of positive labor market outcomes over those of classroom training alone. This review also noted that comprehensive packages that offer supplementary services like counseling, job placement, and soft and life skills increase the chance of success. In another meta-analysis, Card, Kluve, and Weber (2015) reviewed more than 200 econometric studies and found average impacts close to zero in the short run but turning positive 2–3 years after completion of the program.

Valerio and Roseth (2016) reviewed some 129 program evaluations and several meta-analyses, systematic reviews, and project documents. For programs targeting out-of-school youth, they found that the bulk of programs increased the probability of employment and higher earnings but that the size of effects varied by program, with many clustered in the small-effect size group. Also, outcomes varied by gender, age, and location in some programs.

McKenzie (2017) summarized the results of 12 evaluations of programs in eight countries and found a significant impact on employment and earnings in some of the studies, concluding that “these studies show the promise of vocational training to have some impact but that these impacts are modest in many cases.”

Of particular relevance for South Asia are programs conducted in Latin America. Programs implemented in Argentina, the Dominican Republic, Chile, Colombia, Mexico, Panama, and Peru have features that many South Asian programs have or seek to have: financing is separated from the provision of training; providers are competitively selected; training content is labor-market driven, not set by the government; classroom training is often followed by internship; and on average, the investment cost per participant is modest, ranging from \$300 to \$750.

Some of the evaluations of these programs have had an experimental design, relying on randomization, others a nonexperimental design. Results suggest that the employment effect ranges from null (or not statistically significant) in Argentina and the Dominican Republic to positive and significant (around 5 percentage points) in the other countries. The impact is even higher (at 6–12 percentage points) for some groups, such as women in Colombia and Panama. As elsewhere, results show substantial heterogeneity by age, gender, and region. Higher impacts are obtained, in general, among women and younger people. The analyses also find a small positive impact on earnings. In addition, in most cases, there is a significant impact on job quality, measured as getting a formal job, having an employment contract, or receiving health insurance.

Sources: Fares and Puerto 2009; Ibarrarán and Rosas-Shady 2009; Gonzalez-Velosa and others 2012; World Bank 2015a; Card, Kluve, and Weber 2015; Valerio and Roseth 2016; McKenzie 2017, 7.

are more likely to be employed after training than secondary and higher secondary school graduates without training; see Almeida and others (2015) for Brazil, Newhouse and Suryadarma (2011) for Indonesia, and Moenjok and Worswick (2003) for Thailand. In these countries, training program graduates also report higher wage premiums. In Brazil, the wage advantage for training at the higher secondary level is about 10 percent, whereas in Thailand it is more than 50 percent. A study pooling data from 11 high-income countries also finds that individuals with training face better employment prospects than those with only a general education at the start of their working life (Hanushek and others 2015).

The few studies of the impact of long-term training in South Asia that compare labor market outcomes of people with a general education only and people with some techni-

In Nepal, where data permitted distinguishing short- from long-term training, longer-term courses were associated with an increased likelihood of employment and higher wage earnings for men but with only an increased probability of nonfarm work for women (Raju 2018).

cal education and vocational training seem consistent with international evidence. Some analysis has been done in India, Nepal, and Sri Lanka using labor force survey data and in Sri Lanka using the Skills Towards Employability and Productivity (STEP) survey data. Simple wage regressions estimated in India indicate a wage premium for those having some formal technical education or training (Riboud, Savchenko, and Tan 2007).<sup>13</sup> In Sri Lanka, estimates show positive (and rising over time) returns to both education and technical or vocational education and training (Savchenko 2013).

The few tracer studies that have been conducted in the region give a much less positive picture, raising questions about the capacity of training institutions to respond to market demand. In Bangladesh, where polytechnics offer four-year diploma courses to secondary school graduates, nearly 200,000 students were enrolled in this type of program in 2015. Data for a sample of graduates who completed their training in 2013 and 2014 suggest that they do not easily find jobs, despite holding diploma-level technical credentials (World Bank 2016). One to two years after graduation, only 37 percent of graduates were working full- or part-time, and as many as a quarter remained unemployed, suggesting prolonged joblessness and bumpy school-to-work transitions (see table 10.3). Continuing their studies seems to be the strategy followed by a third of the graduates. For some of them, this is a personal choice since polytechnic studies give students in technical and vocational education tracks a pathway to go on to higher education. But for other unsuccessful job seekers, this seems to be a coping strategy to improve the prospect of finding acceptable jobs. Female graduates and rural graduates face a higher probability of unemployment and reduced opportunities for further studies.

In India, a 2006 tracer study of graduates of industrial technical institutes, which offer a two-year craftsman training program to about 700,000 youth each year, painted a fairly dark picture: only 26–34 percent of graduates found work within a year (see table 10.4). One or two years after graduation, more than two-thirds of graduates



were unemployed, and as in Bangladesh, nearly 40 percent of graduates had gone for further training, education, or apprenticeship. In addition, a number of institutional deficiencies were detected: a high proportion of instructor vacancies, absence of in-service training for instructors, and no rationalization of course offerings. Following this assessment, several reforms were introduced: establishment of management committees to engage with local industry and bring in management and industrial expertise, creation of counseling and placement cells, and an upgrading of some institutes. The analysis also confirmed what had been noted in earlier discussions of short-term training, that is, the large variation in outcomes across states and types of training providers.<sup>14</sup>

There are some bright spots, however. Successful examples can be found among the Indian industrial training institutes and the Bangladesh polytechnics. For example, the Indian industrial training institutes that partner with large enterprises such as Maruti Suzuki to offer a two-year certificate program in automobile service and repair report a very high placement rate. And for two training institutions in Sri Lanka, the University of Vocational Technology (UNIVOTEC) and the Ceylon-German Technical Training Institute (CGTTI),<sup>15</sup> the employment rate of graduates is reported to be more than 80 percent (ADB 2017). UNIVOTEC offers three-year programs leading to a bachelor's of technology and a bachelor's of education technology, while CGTTI offers three- and four-year programs in automobile engineering. These institutions enroll a small number of trainees (hundreds) and operate in one location. CGTTI is also an example of a very tight training partnership with industry including on-the-job training for its students.

A more recent tracer study of 2012 graduates found some improvement, suggesting that the new initiatives, if fully implemented, could bring positive results.

### THERE IS NOT YET CLEAR EVIDENCE OF IMPACT FOR ATTEMPTS TO REACH THE INFORMAL SECTOR THROUGH RECOGNITION OF PRIOR LEARNING PROGRAMS

In South Asian countries, except Maldives and Sri Lanka, regular wage or salaried workers represent a fifth or less of total employment. Casual laborers and low-end self-employed workers constitute the bulk of the labor force. Even in Maldives and Sri Lanka, self-employed workers represent nearly half the labor force (World Bank 2011a, 4). Most of these workers acquire skills informally on the job.

The large size of the informal labor market and the low skills of its workers have motivated efforts to reach these workers and integrate them into the skills development system. Boosting their productivity and enhancing their employability are critical for the region's growth prospects. To initiate the process of integration, governments began with programs to certify skills acquired by workers outside the formal training system. The expectation was that this would signal the market value of workers' skills to employers, raise workers' interest in formal training programs to further upgrade their

**TABLE 10.3** More Than Half of Polytechnic Graduates in Bangladesh Are Not Working One or Two Years after Graduation  
Percent

Characteristics of graduates	Working (salaried)	Self-employed	Further education	Unemployed	Not looking for work/not studying
Men	38	1	33	23	5
Women	30	1	24	40	5
Metropolitan	35	1	41	19	3
Urban/semi-urban	40	1	30	21	7
Rural	36	3	7	53	4
All	38	1	33	25	3

Source: World Bank 2016.

**TABLE 10.4** Employment of Industrial Technical Institute Graduates in India Is Showing Some Progress over 10 Years, 2006 and 2016

Gender	Year of graduation	Proportion finding a first job (%)			Proportion employed at time of survey in 2006 (%)
		Within 6 months	Within 12 months	Within 18 months	
All	2004	25	34	34	65
	2005	21	26	27	74
Men	2004	29	39	40	62
	2005	24	30	31	72
Women	2004	16	19	19	78
	2005	13	14	14	84

Year of graduation	Wage employed or salaried, 2016	Self-employed/family business	Unemployed		
			Looking for work	Not looking for work	
All	2012	46.5	5.5	30	18

Sources: For 2012 graduates, MSDE (2017); for 2004 and 2005 graduates, World Bank (2007).

Programs for recognition of prior learning are now in place in Bangladesh, India, Nepal, and Sri Lanka.

skills, and eventually increase their productivity and thus their employability. India, for example, has made it a key component of its 2015 National Skills Policy and has run these programs on a pilot basis in all major sectors, with the help of Sector Skill Councils.

Running a recognition of prior learning program has proved to be complicated. The programs entail several phases: selecting jobs for assessment, establishing standards at par with those used in formal programs, mobilizing participants at their workplace,

selecting and enrolling participants, assessing them, and certifying them. Studies were conducted in Bangladesh, India, and Nepal to assess implementation and evaluate impact. Although these studies were conducted differently,<sup>16</sup> they share some findings:

- In all countries, mobilization was a challenge, both because workers did not see the program as important or useful and because many employers were reluctant to allow their workers to participate. The lack of awareness of potential benefits by both candidates and employers was a significant barrier.
- Workers who participated were motivated by expectations of higher status in their current job and higher incomes and benefits, not greater mobility.
- Design and organizational issues were challenging: which job roles to select for assessment, what eligibility criteria to apply, and how to mobilize participants. Once assessment tools were prepared and assessment centers identified, new issues arose: how to synchronize the participation of employees from different work sites, how to overcome employer reluctance to share information on salaries and working conditions (necessary for a baseline), and how to overcome employer resistance to releasing employees for testing and employee loss of wages during the assessment period.
- Although not all design issues were effectively addressed, a majority of participants were satisfied that the process had tested their skills appropriately.

These studies yielded suggestions for improving the administration of the recognition of prior learning programs, in particular for raising awareness of the potential benefits among employees and employers, but none offered clear evidence of economic benefits. In Bangladesh, there was some indication that participants' salary increased, but the increases were not corrected for inflation and there was no control group. In India, an evaluation suggests that participation in programs boosted self-esteem and peer recognition of skills, but it found no economic benefit. In Nepal, there is some evidence that unemployed male workers found a job within a month of certification and that those who were employed were promoted within a month (four months for female workers), but the response rate for this question was less than 50 percent and there was no control group. These studies do not provide information on the cost of these programs, but the organizational complexity suggests that the programs are not cost-effective.

These studies do not provide information on the cost of these programs, but the organizational complexity suggests that the programs are not cost-effective.

These weak results suggest the need for a change in implementation strategy for recognition of prior learning programs. They could begin with information campaigns about the programs and their potential benefits for both employees and employers. Then, programs could be run on a small scale, ensuring that workers could have access but with only motivated workers participating. In Bangladesh, where financial

assistance was used to encourage participation, only 30–40 percent of participants indicated that they would be interested without financial assistance. Even in industrial countries with well-established training systems that have included recognition of prior learning programs since the 1980s or 1990s—such as Australia, New Zealand, and the United Kingdom—difficulties emerged because of the complex assessment process and limited awareness of potential benefits. All the programs had mixed outcomes.

## Notes

1. McKinsey runs a program called “Generation” in several countries. In India, it offers short-term training programs in areas such as beautician, health care, and hospitality in partnership with the government, foundations, and private providers.
2. The EVENT project is supported by the World Bank. Other training programs/projects funded by donors and run by different ministries may follow different financing mechanisms.
3. In the follow-up project, approved in 2017, the government decided to use only performance grants and no longer provides matching grants.
4. Data sources are administrative data of respective countries and World Bank project documents. For Bangladesh, see World Bank (2016).
5. See <http://www.nsda.gov.in/skill-target-report.html>.
6. Tracer studies are surveys of training program graduates that take place some time after the end of training (often 6 months to 2 years later). The surveys include questions on type and duration of training completed, transition to work, employment, and earnings.
7. Afghanistan is not included in this analysis because of an external environment that has deteriorated over time and has greatly affected job opportunities. In all other countries, the economic outlook has been favorable, with fairly high growth rates over the whole period. So, differences in outcomes are more likely to be related with differences in design and operation.
8. Said differently, some studies estimate an intention-to-treat effect while others look at an after-treatment effect.
9. World Bank 2015. Comparison of employment status 1–2 years after training showed that many trainees placed after training completion lost their jobs (or quit) and were looking for different opportunities, while others spent time searching immediately after completion of training and entered the labor market later.
10. See World Bank (2015a).
11. India has also made partial reimbursement of cost conditional on achieving a 70 percent placement rate of trainees. But this part of the payment covered only 10 percent of the cost. Given the difficulty of reaching this 70 percent target, many training providers simply decided to forgo this part of the payment (PwC 2014).
12. Bhatta and others 2016. The study also references an earlier study that also attempted to measure the impact of short-term training (Chakravarty and others 2015).
13. Riboud, Savchenko, and Tan 2007. Preliminary estimates with more recent survey data suggest that the wage premium may have increased over time.

14. A total of 11,028 trainees who graduated from 500 ITIs across 20 states were interviewed.
15. CGTTI was created in 1959 after an agreement was signed between the Government of Sri Lanka and the Federal Republic of Germany. It became a Sri Lankan government organization in 2010.
16. The Nepal study is based on 463 observations, the India study on 1,512 observations, and the Bangladesh study on 1,000 observations.

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## How Can South Asia Do Better on Skills Development?

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Even though reforms of skills development systems vary in scope and depth across South Asia, they share similar objectives and directions. Over the past decade, these reforms have resulted in expanding the system and increasing the number of participants, but there is still not enough solid evidence that labor market outcomes have improved as expected. Why labor market outcomes are not showing major improvements and what can be done about it are the subject of this chapter. After a decade of implementation, it is possible to identify implementation issues that slow progress. This makes it possible in turn to revisit strategies and identify some corrective actions to make skills development not only more available, but also more attractive and effective.

The complexity of the new strategies cannot be denied. Achieving the expected results in terms of quality and quantity requires a combination of factors: strong government will, behavioral changes among potential participants (especially youth) and enterprises, and partnerships between the public and private sectors. The successful experiences of countries like the Republic of Korea and Singapore show that transformation of the skills development system can take several decades and requires continuous adjustments. Key factors to improve alignment with the needs of the labor market are revising standards and curricula and keeping teachers' knowledge and equipment aligned with technological changes. Both of these processes take time and regular adjustment. Changing behaviors and perceptions about skills development may also be more difficult than anticipated, and those who lose out as a result of the reforms may resist changes.

Errors made in the sequencing of actions or implementation call for adjustments. A few cautionary signs emerged from the review of recent experience in chapter 10. There has been too much focus on quantitative targets (number of people trained) and

too little on results (quality and relevance of programs, employment and income gains), as well as too much focus on short-term training relative to long-term training, which is more likely to lead to large productivity increases. There has been too little evaluation of impact, and monitoring has been missing in many cases. The establishment of partnerships with industry—a crucial component—is progressing very slowly in some countries. Even in India, the most advanced in reforms, some adjustment in implementation is needed.

Addressing these implementation issues would increase prospects for success. First, more efforts upfront on collecting, analyzing, and using information would help in anticipating changes and acting on evidence. Giving better information to the public—youth, families, and enterprises—about labor market trends, growing sectors, job and training opportunities, and effective programs would help potential trainees make informed decisions, bring greater competition to the sector, and gradually change public perceptions about the usefulness of skills development.

The lack of rigorous labor market analysis and insufficient monitoring of performance prevent efficiency gains and informed decision-making.

The primary focus should be on long-term training, and expectations for short-term training should be modest. Long-term training has larger and more lasting impacts on the employability and productivity of workers. Reaching high targets for number of people trained is likely to have much less impact than delivering high-quality programs that meet labor market needs, carefully selecting providers and trainees, and matching trainees with appropriate programs.

Opening up more opportunities for adult workers already in the labor force rather than focusing only on youth just entering the labor market could also improve outcomes. Labor markets are changing. Jobs are constantly disappearing, and new skills are in demand. Thus, rising numbers of workers, in jobs or between jobs, will need to acquire new skills to change occupations or to engage in new tasks within the same job. For these workers, employment may be at risk, and short-term retraining may be enough to help them adjust.

Countries should experiment with new ways to engage employers in the skills development system. Several South Asian countries have established Sector Skills Councils to increase participation of businesses. These are important change agents. But other forms of partnerships should also be encouraged—for example, engaging the private sector in training centers for particular trades.

## What Factors Are Slowing Progress?

THE SKILLS DEVELOPMENT STRATEGY IS COMPLEX,  
WITH MANY MOVING PIECES

The new strategies for the skills development system described in chapter 8 have the same goals as most education reforms: turning out more and better skilled people.



Turning out more trained people requires raising awareness of the benefits of skills training among potential trainees and enterprises, convincing them that training is a valuable investment that will yield better employment, income, and productivity outcomes. It also requires engaging the private sector in partnership with the public sector. The public sector alone does not have the resources needed to scale up training.

Turning out better-quality workers, with enhanced employment opportunities, means raising the quality of training and making it more market-relevant. This will require action on two fronts. First, once qualification levels are defined and competency standards are developed for each level, outdated traditional training can be eliminated and replaced by competency-based training. A broader set of skills, including soft skills, can be imparted as part of the revised curriculum. Active involvement of businesses is needed both for identifying training needs and competencies and for developing curricula and assessment criteria and methods, so that skills meet labor market demand and training certificates have market value. Second, registration of providers (public and private), accreditation of programs based on well-established criteria, and auditing of providers for compliance with norms and standards will signal to potential trainees and employers that training meets quality standards.

## TRANSFORMING THE VISION INTO REALITY TAKES TIME

Implementing such a strategy requires a strong government that is able to set policies and standards, ensure quality, monitor and evaluate programs, fully engage the private sector, and promote behavioral change among trainees and enterprises.

### Revising Standards and Curricula Is a Lengthy and Continuous Process

Upgrading the content of all training courses and ensuring their market relevance is a lengthy and painstakingly slow process. It first requires gaining the interest of employers and ensuring their active and continuous involvement. In a world of rapid technological change, this involvement must be continuous. Identifying needs and competencies and developing curricula and teaching and learning materials also require the participation of appropriate experts.

The revision of standards and curricula is ongoing in all South Asian countries. All countries are working on setting competency standards and curricula that meet industry needs, on developing soft skills in addition to technical skills, and on unifying course offerings (bringing them into the national vocational qualification framework, wherever it has been developed). It is difficult, however, to ascertain how many courses and programs have been revised so far. Also unclear is whether revisions that have been made really meet industry needs and international standards. Cumbersome revision processes also affect the speed of transformation. (In Sri Lanka, for example, nine years after the introduction of a national vocational

Changes are likely to happen faster where strong partnership agreements—with domestic as well as international business organizations—have been formed and where the need for workers with particular skills has been strong.

qualification framework, competency standards have been revised for only about a third of occupations.)

### Bringing Trainers' Knowledge and Experience, As Well As Equipment, in Line with Technological Developments Takes Time

Trainers have to be able to teach and explain the revised materials and new techniques. They have to be familiar with new technological developments and open to transmitting the broad set of both technical and soft skills demanded by employers. Rigid recruitment processes, weak career progression structures, low and noncompetitive wages, and lack of opportunities for upgrading skills may result in a cadre of trainers who lack practical industrial experience and motivation for introducing changes.

Bangladesh, for example, has a serious shortage of teachers in its polytechnic institutions (World Bank 2006). Afghanistan has launched a sectorwide assessment of technical competencies of its 2,500 trainers and a domestic and international retraining program that will take several years to fully implement. In Sri Lanka the average vacancy rate of trainers ranges from 30 percent to 50 percent. To address this issue, Sri Lanka has introduced some flexibility in recruitment norms (giving more weight to industrial experience), instituted performance allowances, and offered a range of in-service training programs to trainers. These efforts have been constrained by budget limits and administrative rules.

Equipment and facilities also need to introduce trainees to new developments and practices. Equipment and training materials in some sectors and in remote areas may not have been updated, particularly where budgets have been very tight for a long time. And even where funding is available for procuring training materials and equipment, decision-making may be heavily centralized, leading to long delays. The problem is exacerbated by the small size of most training centers, which can make the provision of equipment not only costly but also cost-ineffective.

### Changing Behaviors and Perceptions Is Hard, Especially Where Social Demand for Skills Development Is Weak

Raising interest in training among potential trainees and employers may require considerable effort. Public information on the job opportunities that skills training can open up to trainees is limited, and families and students often view skills training as a backup option or a transitory step. Most families whose children are completing secondary education prefer for them to enter higher education institutions rather than vocational training programs. In fields such as information and communications technology, business management, and English that have considerable involvement by the nonsubsidized private sector, there has been a willingness to pay fees, but the availability of free

Attracting students has been difficult in some areas, despite the existence of job opportunities, and trainees often decide to pursue other studies after completing their training, rather than moving directly into a job.

### **BOX 11.1 Why Management Information System Data May Not Always Lead to Policy Changes**

The Sri Lanka Vocational Training Authority (VTA) was established to reach the rural populations and provide them with training in employable skills. In 2015, VTA had 1,021 teachers and 239 training centers offering 129 courses in 18 sectors, ranging from rubber and plastic to information and communication technology.

Management information system data showed that enrollment was highly concentrated (68 percent) in 18 of the 129 courses delivered. In some of the other courses, enrollment ranged from 10 to 163 students and dropout rates ranged from 20 percent to 92 percent. Data also showed that 12 percent of teachers taught the courses in which dropout rates exceeded 20 percent. Data were also able to identify which centers attract the most students, which have the highest completion rates, and even which (18 centers) have courses with zero enrollment.

These data raise a number of questions that should be investigated. Why is enrollment so low in some courses? Why are dropout rates so high? They suggest that efficiency measures such as rationalizing course offerings should be considered. But how these data feed into policy decisions is unclear.

*Source:* Government of Sri Lanka, MSDVT, TVEC 2016.

or partially subsidized training and stipends has been a determining factor in increasing demand. Attracting students has been difficult in some areas, despite the existence of job opportunities, and trainees often decide to pursue other studies after completing their training, rather than moving directly into a job. Demand for training is further weakened by the knowledge that employers question the quality and relevance of many training programs and attach little value to training certificates. Changing the attitudes of families and employers will take time, but change could be accelerated if more information was available on the programs and evidence was shared more broadly on the improving quality of programs and job outcomes.

Despite official government endorsements of strategies and objectives, resistance to changes is sometimes encountered. Programs seeking to change their offerings may have difficulty staffing and funding them. They may need to hire new instructors specialized in a field in high demand and to lay off other instructors. Partnering with industry may expose the obsolescence of equipment and learning materials. Institute and government agency directors may therefore delay changes to avoid having to deal with difficult management issues. Funding mechanisms may also slow change by threatening the loss of financial resources that go to particular courses or programs. A recent analysis of data from the Sri Lanka Vocational Training Authority illustrates these points, suggesting that even when evidence points to ways to improve efficiency, actions may not follow or may be delayed (box 11.1).

## **IMPLEMENTATION PROBLEMS HAVE SLOWED PROGRESS**

Multiple implementation problems have slowed the pace of reforms, from fragmentation and lack of coordination, to inadequate data information systems, more emphasis on quantity than quality, and insufficient involvement of the private sector.

### Fragmentation and Coordination Problems Have Not Been Fully Addressed

Coordination of activities within the public sector is still weak. In Bangladesh and Sri Lanka, high-level committees were set up to ensure harmonization of strategies across ministries and departments and oversee implementation of the national strategy. They were also meant to show the strong government commitment to skills development reforms.<sup>1</sup> But those committees rarely met. In Sri Lanka, a high-level interministerial committee chaired by the secretary of treasury met for the first and last time in 2014. The composition of those committees, with many high-ranking officials with little time and many other responsibilities, can make them ineffective. More important is to build strong managerial capacity in implementing institutions, calling on those high-level committees only when important policy decisions need to be endorsed.

Thus, public sector responsibility for skills development remains fragmented, limiting advances in quality assurance and efficient management. In Bangladesh, skills development remains the responsibility of several ministries. In Sri Lanka, six agencies (responsible for about 70 percent of all training) have been placed under the Ministry of Skills Development, but other ministries still run their training programs independently. Even the six agencies under the Ministry of Skills Development retain a large degree of autonomy, with separate boards and different human resource management rules.

India and Pakistan face even greater complexity since responsibility for skills development is shared between the central and state or provincial levels.

In India, a long process of consultation is ongoing to persuade states to follow the strategy designed and implemented at the central level. Even at the central level, the Ministry has not yet been successful in coordinating and harmonizing the activities of stakeholders involved in delivering short-term and long-term training. In Pakistan, there is still a lack of clarity on the accreditation and regulatory roles of

provincial stakeholders with respect to the national authority. At the provincial level, the Punjab Technical Education and Vocational Technical Authority is both regulator and training provider, a clear conflict of interest. Assessments are carried out by two agencies (Punjab Board of Technical Education and Trade Testing Board) whose functions overlap, and there is no coordination between departments and agencies that run their own programs.

### The Information System Is Still Inadequate for Planning and Decision-Making

South Asian countries do not use labor market, household, and enterprise surveys systematically to reveal trends in demand for skills and changes in employment opportunities. Ministries and agencies in charge of policy and coordination do not have the capacity to conduct such analyses. Only India had an ambitious plan in this area but is currently reconsidering it. In Sri Lanka, the Census Bureau had agreed to include in national surveys questions of interest for developing vocational training plans and to make data available for analysis. Yet the Tertiary and Vocational Education Commission

still lacks qualified staff to analyze survey data, and the labor market analyses that it does publish get their data from newspapers and job announcements. In other countries, labor market analysis is done by other government agencies, and planning to identify training needs is not based on the regular collection of information on the labor market or on employer surveys.

All South Asian countries collect some data for this purpose, but accuracy and completeness vary. For example, there may be data on each training provider, but the data are not consolidated at the agency or provincial level. Information may be gathered in separate, unlinked datasets. Such fragmentation makes it impossible to measure the performance of centers, programs, and teachers and to identify causal factors. This also limits the ability to monitor system performance to inform policy decisions.

A strong information management system is needed not only to identify labor market trends and demand for skills, but also to assess performance of training programs and outcomes for graduates.

### There Is Too Much Focus on Quantitative Targets (Enrollments) and Not Enough on Performance and Outcomes

National plans have set high, well-publicized quantitative targets but have given much less attention to measures of performance. As a consequence, implementing agencies pay much more attention to quantitative targets than to qualitative ones. This is both a cause and a consequence of inadequate information systems. For example, Bangladesh subsidizes some 1,600 private institutes but disbursement is not linked to performance.<sup>2</sup> Datasets on public and private training institutions contain no information on employment outcomes or overseas demand by occupation. Sri Lanka collects information on enrollment and completion rates but does not systematically monitor employment outcomes. And even when the information is available at the institute level, it does not seem to be used to expand courses in high demand (and shrink others) or to reward high-performing teachers (see box 11.1). A similar situation is encountered in Nepal and Pakistan.

Attention to employment outcomes is slowly growing in the region, however, and some discussion of using performance-based financing is taking place. Nepal is applying this approach to a subset of providers under the Enhanced Vocational Education and Training (EVENT) project supported by the World Bank. India has made part of the payment to providers conditional on achieving a 70 percent employment rate in its flagship short-term training program financed by the central government (Pradhan Mantri Kaushal Vikas Yojana). Some state programs are also following this approach. Several countries provide some part of skills training financing on a competitive basis, and there is agreement in principle to allocate public funding based on performance. Governments have been open to conducting tracer studies, and some programs have been evaluated. Yet, there is little evidence that these data are used to inform policy-making, and government agencies still do not apply any systematic measures of performance and outcomes.

### Quality Assurance Is Still Weak

Coordinating agencies in India and Sri Lanka are revising the registration and accreditation criteria applied to public and private providers and courses. Bangladesh and Nepal are still using previously developed criteria. All countries intend to apply the new or existing criteria to all public institutions and to urge private providers to abide by these norms as well. Private providers submit applications for training programs to the relevant public authority, but these authorities generally lack the capacity to verify the information or to check for compliance. In addition, it is mainly private providers that receive public funding that seek registration and accreditation (this is one of the criteria for eligibility), whereas private providers that are financed entirely by industry or fees show little interest in registering.

### Sector Skill Councils Are Not Yet Fully Operational or Need Fine-Tuning

Sector Skill Councils or partnership agreements with industry are a crucial component of the skills development reform programs. They are meant to be the interface between employers, government, and the skills development system and the change agent that will transform a supply-driven system to a demand-responsive one. Getting them right is thus critical.

While the governments of Bangladesh, India, and Sri Lanka have endorsed the concept, implementation is taking place at different speeds. India is by far the most advanced, having set up 38 Sector Skill Councils (SSCs) within five years. Bangladesh is a distant second, with nine councils. Sri Lanka has set up just three.

India has had enough experience with the councils to draw some lessons. The government appointed a committee to review and recommend measures to improve the functioning of the SSCs and is rethinking its implementation strategy (Government of India, MSDE 2016; Government of India, NSDC 2016b). The following are the main issues raised by the review:

- ***The importance of ensuring strong ownership by employers and adequate representation of key economic sectors.*** The success of a SSC depends largely on the strength of ownership by employers. Ensuring that all size firms are well represented in the governing council is critical. The review committee expressed a concern that industry representation was too small in a number of SSCs (it should be at least 40–50 percent), that large employers were not always included, and that some companies were not even aware of the existence of the SSC. It also recommended that SSCs represent the high-growth, priority sectors and high employment-share sectors (both organized and informal). Some SSCs may not meet these criteria.
- ***SSCs have been assigned too many tasks, given their capacity limitations, and quality has suffered.*** The list of tasks is extensive: identifying skills needs, preparing a skills development plan, establishing competency standards and qualification packages, and developing norms and standards for accreditation, assessment, certification, and training of trainers. This may overextend the capacity of newly established

institutions with just a small number of staff. The review committee questioned the capacity of SSCs to analyze sectoral demand for skills and thus to prepare a skills development plan. It also expressed doubt about the expertise of the consultants who developed the standards and qualifications. The SSCs need a well-staffed team of industrial experts, academicians, and trainers.

- ***National occupational standards are too numerous and too narrow.*** The large number of narrowly defined occupational standards seems to reflect a payment system that is proportional to the number of standards produced. Defining occupations and specialized training in a narrow way, which runs counter to practice elsewhere, is unlikely to help workers entering a labor market with rapidly changing technology and work organizations that require flexibility and nimble adjustment to change. The review committee also questioned the quality of the norms and standards for accreditation, assessment, certification, and the training of trainers programs because of the speed at which they were developed.
- ***Difficulty of assuming both a facilitating and an implementing role.*** Perhaps the most important criticism concerns how the SSCs, which were intended mainly to develop occupational standards and facilitate apprenticeships and job placement, became closely involved in implementing short-term training programs, especially the central government's flagship program, PMKVY. They were asked by the Ministry of Skill Development and Entrepreneurship to design training programs and assemble training providers and assessment bodies. Taking on these additional roles likely diverted attention from other programs, in particular those run by state governments, which constitute the bulk of the country's training programs. They also have not influenced the long-term training programs run by the industrial training institutes.
- ***SSC financing poses a potential conflict of interest.*** At the time of their establishment, SSCs received a government grant, but they also receive funding from fees (membership, affiliation, apprenticeship, and assessment fees). These additional sources of revenue were authorized with the expectation that they would gradually rise and the SSCs could become self-sustaining. However, these additional financing sources present a potential conflict of interest. SSCs are responsible for setting assessment standards, but the financial incentive is to maximize the number of assessments rather than to set high standards.

## What Is Most Important to Do Next?

### COLLECT MORE AND BETTER INFORMATION UPFRONT

Improving data collection and use has been part of all skills development strategies across the region, but efforts have been halting. All countries have rapidly expanded training before making the major improvements in information that could have provided

a strong evidence base for reforms. Information is most urgently needed for labor market analysis and at the sectoral level.

Without periodic analysis of the labor market, training programs are in the dark about what skills are needed and how they are rewarded and thus about how to modernize and adapt to changing realities. Labor force and enterprise surveys should include relevant data on training, and key ministries need staff who are able to analyze labor market data. All countries in South Asia conduct labor force surveys or household surveys. In the past the information on training was at a high level of aggregation that did not permit detailed analysis. Although some fine-tuning is still needed, the most recent rounds of surveys have included more information that can be linked to demographic, education, employment, and earnings data (table 11.1).<sup>3</sup> But having data is just the first step. Ministries that are implementing the skills development strategies need to build their capacity for regular analysis.

**TABLE 11.1** Questions in Labor Force Surveys Pertaining to Technical and Vocational Training, Selected South Asian Countries

Question	Bangladesh (2013)	Bhutan (2015)	India (2013–14)	Nepal (2007–08)	Pakistan (2014–15)	Sri Lanka (2015)
Completion of professional/technical/vocational training? (yes/no)	✓	✓	✓	✓	✓	✓
Formal training		✓	✓			✓
Informal training		✓	✓			
Off-the-job training					✓	
On-the-job training					✓	
Area of training	✓	✓	✓	✓	✓	✓
Duration of training	✓	✓	✓	✓	✓	✓
Type of provider/ source of training	✓		✓		✓	✓
Nature of certificate		✓				✓
Preference for training by respondent	✓			✓		
Reason for training						✓
Timing of training over working life		✓			✓	
Training was useful in getting current job			✓			
Training was relevant for current job			✓			

Sources: Questionnaires of labor force surveys in each country.



A monitoring system is needed at the sector level to measure the performance of programs, centers, and instructors. The system should include data on inputs and outputs of the training sector: on staffing and capital resources, availability of teaching and learning materials, enrollment, socioeconomic background of students, completion rate for each course, and certification/testing and job placement of graduates. Databases should be linked to allow statistical analysis. As it may be difficult to monitor labor market outcomes for each graduate beyond the initial placement at the end of a training period, tracer studies and impact evaluations for a sample of trainees are additional sources of information that should be used systematically for the main programs. Only when such an array of data is available is it possible to assess capacity and resource needs, rationalize course offerings, measure and reward teachers for performance, and allocate funding across programs more efficiently. Delaying progress in this area prevents efficiency gains and limits the scope for informed policymaking.

The monitoring system set up by India's National Skill Development Corporation, although still limited to the activities of the corporation, shows what can be done to track training delivery and ensure efficient use of public funds (box 11.2). Importantly, the system not only collects data but also has mechanisms to verify them. While this system uses technology tools, less sophisticated systems could also provide useful information to policymakers.

All countries collect some of these data, but they do not yet have a comprehensive and fully functional monitoring system.

Extending the period of evaluation beyond the customary one or two years would provide further insights to policymakers, helping them decide how far to push the current expansionary strategy on skills training. Most impact evaluations of skills training worldwide have tracked trainees for a period of six months to two years. But even if a positive impact is found over this period, there is no guarantee that benefits will be sustained over the long term. Recently, a few studies tracked individuals over a longer period and found that effects dissipated.<sup>4</sup>

A longer period of evaluation would also help countries adjust the balance between general and vocational education and training. An analysis of labor market outcomes over the life cycle of workers from several Organisation for Economic Co-operation and Development countries reveals a trade-off between general education and vocational training.<sup>5</sup> While vocational education and training provide an initial employment advantage relative to general education and thus facilitate school-to-work transition, it becomes a disadvantage later in life due to the obsolescence of some job-specific skills and less adaptability to changing environments. Having a longer evaluation period could become even more important with the expected faster changes in labor markets expected as a result of increasing automation and digitalization. It is of particular relevance for South Asian countries at a time when several are contemplating expanding not only vocational training but also vocational education as a separate stream in secondary education.

The public—families, youth, and enterprises—would also benefit from access to some of this information. Knowing about labor market trends, expanding and shrinking

### **BOX 11.2** Monitoring Processes at the National Skill Development Corporation in India

The monitoring system of India's National Skill Development Corporation (NSDC) combines robust technology platforms and tools with independent monitoring mechanisms.

*At the first level, monitoring mechanisms are concerned with the accreditation, affiliation, and continuous monitoring of all training providers working with the NSDC or the Sector Skill Councils (SSCs). This is managed through a single window clearance system. Empaneled inspection agencies periodically assess training centers on compliance and performance standards metrics. Additional mechanisms such as self-audit reporting, call validations, and surprise visits are used to identify and penalize fraudulent centers. Training partners under NSDC's investment portfolio are managed through a loan management system that can generate early signals in case of poor performance.*

*At the second level, monitoring of training delivery is managed through the Skill Development Management System that serves as an end-to-end transaction management software for the entire life cycle of skills acquisition. An independent monitoring agency facilitates social and financial monitoring and the evaluation of ongoing projects, focusing on tracking training partner performance through quarterly conference calls, surprise visits, validation of training data uploaded by partners, and validation of candidate details through an outsourced call center agency. The financial monitoring ensures that only training partners that have achieved training, job placement, and other targets receive subsequent funds. A monitoring app has been created for visiting inspectors to submit monitoring reports on their smartphone in real time. To monitor candidate enrollment and training efficacy, NSDC also uses an outbound dialer, an interactive voice response system, and bulk messaging services.*

NSDC executive management has access to a custom-designed business intelligence tool that provides a visual interface to various dashboards and reports of NSDC's short-term training programs, recognition of prior learning programs for internal sector jobs, and other special projects.

Monthly evaluations of SSCs monitor progress toward agreed-on milestones and ensure that financial assistance is used as specified at the time of approval. In addition, the SSC Governance Team at NSDC attends all SSCs' Governing Council meetings to raise pertinent issues. Financial monitoring of SSCs is the same as for training partners.

*Source:* NSDC staff.

sectors, new job and career opportunities, course offerings, performance of training centers, and successful programs would help students and their families make informed choices about types and fields of study (see box 11.3) and reduce the risk of future skills mismatches. Having this information might also help overcome the lack of interest among many young people in enrolling in training courses. In Sri Lanka, after the government identified the need for skilled workers in rapidly growing sectors (construction and hospitality), it gave contracts to private training providers. Even with that assistance, training providers were unable to attract participants in these fields.<sup>6</sup>

Easy access to information on training program offerings and outcomes might also bring some competition among training providers and motivate quality improvements.

**BOX 11.3 How Chile Shared Labor Market Information with the Public**

Chile set up the website “Mi Futuro” to share a wealth of information and guidance with students on professional training and higher education options. The website offers guidance on how to select a career path and what the prerequisites are for entering each field of study.

Through a search function, students can find information on courses and programs offered by any higher education institution or professional and technical college in the country. Students can get access to key indicators for each field of study, such as employability and earnings during the first few years of work experience. Data are also available on enrollment, pass rates, number of professors and instructors, and fees per institution. The site also provides information on scholarships/stipends and explains how to apply for them.

In addition, the website includes students’ stories of their own experience and recent news about the sector.

Source: [www.mifuturo.cl](http://www.mifuturo.cl).

Enterprises would gain more confidence in what the training sector can offer and would be more inclined to participate and perhaps contribute financially. Information would also reach the numerous small firms that operate in the informal sector, making them more aware of the value of skills training and certification. If information were obtained from all actors and providers in the sector, it would reduce inefficiencies by bringing into the open information on differences in offerings and performance, thus encouraging competition. There are many ways to bring information to the public: radio, TV programs, publications, websites, and periodic visits to high schools. All should be explored and used extensively.

With more and better information on the labor market, the skills development system could become more agile and more responsive to changes in demand; with good monitoring and evaluation data, decisions could be evidence-based and lead to efficiency gains; and with wider dissemination of both types of information, families and youth could make more informed choices and employers could gradually gain confidence in the system and provide increased support.

### IMPROVE THE QUALITY OF LONG-TERM TRAINING (INCLUDING APPRENTICESHIP) TO BOOST PRODUCTIVITY

As discussed in chapter 10, international evidence shows that training programs of several years’ duration can have a positive impact on labor market outcomes. See, for example, Almeida and others (2015) on Brazil, Moenjak and Worswick (2003) on Thailand, and Newhouse and Suryadarma (2011) on Indonesia. This type of training entails a fairly large investment in time and money for both trainees and government. Most students willing to dedicate two or three years of their life to this type of training would likely be strongly motivated to succeed. Trainees would already have 10–12 years

of general education and therefore come to this training with foundational skills. At the end of the training period, they should have acquired additional valuable skills required for specific occupations or fields.

Yet evidence from South Asia indicates that, with a few exceptions, large-scale training programs do not achieve the expected labor market outcomes, on average. Many graduates either do not find jobs or are compelled to go for further education and training to improve their job prospects. Similarly, formal apprenticeship programs are underutilized. Deepening industry involvement, integrating soft skills into the program, and expanding occupational coverage could make apprenticeship more attractive to employers.

Overall, improving the quality and relevance of long-term training programs should be a priority in South Asia, ahead of the creation of many new centers. In all successful programs, partnering with industry has been a key factor (the Ceylon-German Technical Training Institute in Sri Lanka, India's industrial training institutes that partner with companies such as Maruti, Tata, and Samsung). These partnerships can help to design programs that meet the needs of the sector, provide access to modern tools and equipment and experienced instructors, and facilitate combining classroom and on-the-job practical training (see box 11.4).

### KEEP EXPECTATIONS FOR SHORT-TERM TRAINING REALISTIC TO INCREASE THE CHANCES OF SUCCESS

The objective behind the large expansion of short-term training was to rapidly turn out skilled labor and to provide employment opportunities to a large number of

#### **BOX 11.4 An Example of a Successful Partnership with Industry: The Government of India and Maruti Suzuki**

Maruti Suzuki, a large car seller in India, partners with 101 government-run industrial technical institutes to conduct training in automobile service and repair. This partnership benefits some 6,000 students a year through a combination of classroom and on-the-job practical training. Maruti has also set up automobile skill-enhancement centers in 15 industrial technical institutes across 11 Indian states, outfitting each with modern tools and equipment.

This partnership benefits from the experience of Maruti's own Training Academy, set up in 2012, which identified the skill deficiencies (both technical and behavioral) of workers at all critical points of the supply chain (factory, dealerships, and service centers) and developed training content that covers technical and behavioral aspects and matches the needs of the company.

Another advantage of this partnership is the possibility of having some of the training conducted by Maruti staff, who are familiar with the most recent technological developments.

*Source:* National Council of Applied Economic Research, Maruti Training Academy case study.

young people. While the assumption was likely that these young workers would then enter the workforce and acquire higher-level skills on the job, this does not appear to be happening. Only about a third of trainees, on average, get jobs at the end of training, and how long they keep them is unknown.

### Expectations Should Be Modest

Even when a positive impact on employment and wages has been found, it is usually modest. This should not be surprising. Impact is likely to be small because the investment is small (Lalonde 2003). A three- or six-month course of training, often offered at a low cost, cannot be expected to build as much human capital as several years of education or training. Thus, while these programs may help trainees get a job—an important goal in itself—they are not going to lead to substantial increases in productivity and competitiveness.

### Design Matters: Not All Programs Perform Equally Well

How the program is designed and implemented is key for success. Programs differ in content, duration, location, and types of participants and providers. Several features that increase the chances of positive labor market outcomes have been identified in South Asia and in the international economics literature (see box 11.5). They include the use of apprenticeships or a combination of classroom and practical training, the inclusion of training in soft skills, the provision of additional services such as counseling and job placement, and, most important, a close partnership with employers. Building those elements into training programs would increase the probability of higher employment and wages for graduates.

### Desired Labor Market Outcomes Also Depend on How Training Providers and Trainees Are Selected

Programs need to clarify their objectives and match trainees with the right program. The main objectives of skills development programs have not always been clearly articulate. Was it to give “some” skills to as many youth as possible? Was it to increase the productivity of the labor force and the competitiveness of the economy to drive growth? Or was it to remove barriers to entry in the labor market for the most vulnerable groups? The design of programs should match their objectives. Consideration of background, motivation, and aptitudes of training candidates can increase the probability that they will successfully complete the program. But designing programs tailored for particular population groups and specific objectives can go even further and lead to a more efficient use of public resources.

The Nepal EVENT project shows how attention to quality in the selection of providers and to motivation and aptitude in the selection of trainees can lead to high employment rates following training (see box 10.5 in chapter 10). Similarly, the McKinsey Generation program in India, designed for unemployed or underemployed youth ages 18–29, uses multiple filters in recruiting trainees to ensure a good fit for

### **BOX 11.5** Factors Found to Increase the Chances of Positive Labor Market Outcomes for Skills Training Programs

Several factors have been identified from research conducted around the world as systematically increasing the probability of a positive impact of training on employment and wages:

- Partnerships with industry for program content, sharing of instructors, placement of trainees.
- Workplace learning or apprenticeship period as component of skills development programs.
- Comprehensive packages including career guidance/counseling and support for job placement.
- Inclusion of training in soft skills, such as problem-solving, organizational skills, aptitude for teamwork in addition to technical skills.
- Inclusion of training in basic skills (literacy and numeracy) for trainees with weak education background.
- The careful selection of good-quality providers with well-trained instructors.
- The selection of motivated trainees.

*Sources:* World Bank 2018; and OECD 2011.

the job (see box 11.6). Employment outcomes suffer when skills development programs enroll trainees with no intention of looking for jobs or franchise training

**Focusing too much on maintaining high enrollment targets and achieving high employment rates seem to be incompatible goals.**

providers without careful verification of the quality of their infrastructure and staff. While it is possible that skills acquired through training will generate benefits later, even if graduates do not get a job immediately, evidence of such long-term benefits is lacking. And even if there are delayed or lasting effects, it is debat-

able whether scarce public resources should be used for this purpose.

Trainee selection is particularly relevant in the fields that are most popular among women, such as tailoring, dressmaking, and beautician. Because of women's social and family constraints and lack of mobility, women who take these courses may not end up with jobs unless there is a local employer or possibilities for self-employment. Women interviewed during or after training often acknowledge that they do not intend to work but believe that their newly acquired skills will benefit their households, making their domestic work more productive. Thus, it becomes a matter of policy whether public financing of skills development programs should include programs that provide such nonmarket benefits.

The content of training needs to be tailored to the target population of trainees. Skills development programs designed to increase productivity and entrepreneurial capacity

### **BOX 11.6** Generation: Matching Trainees and Programs and Working Closely with Employers

Generation, a McKinsey-supported program launched in India in 2015, is run in partnerships with local employers, foundations, and government agencies. A 2018 program aiming to train 5,000 students is run in partnership with the National Skill Development Corporation. Trades covered include health care, hospitality, beauty and wellness, and retail. The program design has several important elements:

**Direct engagement with employers.** Before launching training in a particular trade, local employers confirm the number of vacancies into which graduates could be placed; identify the most important technical, behavioral, and mindset skills required; and develop and deliver the most appropriate curriculum.

**Recruitment of candidates.** Eligibility criteria include candidates' interest and commitment and personal characteristics that are consistent with the target profession and with the potential employer's application requirements. In addition, candidates must complete a number of tasks during a one- to two-week probationary period to demonstrate their diligence and persistence.

**Integrated 5–12 week work-readiness training.** The program is short and intensive, with more than 75 percent as a practicum, and includes job-specific technical skills and behavioral skills relevant for the target profession and for the workplace in general.

**Social-support services.** The program offers transportation assistance, stipends, and child care to reduce dropout.

**Data collection.** Data are collected on each applicant from the day they apply to the program, to performance during the program, job placement, and job performance to develop insights about program effectiveness and make corrections when needed.

Program administrators report an 83 percent placement rate, with 70 percent of graduates still employed one year out.

*Source:* McKinsey 2018.

in a particular sector are likely to get better results by training older workers who have a good general education and some work experience. For them, the course content may be largely technical. On the other hand, interventions to address the constraints of vulnerable populations may need to be broader, to compensate for the lack of foundational skills; may need to teach soft skills in addition to technical skills; and may need to adjust the content to the labor market environment. The value of this kind of tailoring can be illustrated by a study evaluating five large short-term programs in India, which found no employment effect for trainees ages 15–20 but a positive impact for trainees ages 21 and older (World Bank 2015).

To improve employment outcomes for women, whose labor force participation is low, course offerings should be closely tied to local labor market conditions. Programs may also need to conduct information campaigns to encourage women to enter traditionally male-dominated occupations. The EVENT project in Nepal offered some training

only for women interested in nontraditional trades; 67 percent of 5,000 women trained gained employment.

### Countries Should Consider Offering Short-Term Training Opportunities to Adult Workers Already in the Labor Force

Rapid technological change leads to the disappearance of some jobs and the creation of new ones, requiring workers to perform new tasks and learn different skills. For workers with years of experience, short-duration training (whether on leave without pay or with support from employers) may be sufficient to deepen skills in a particular area or to teach workers how to adopt a new production process or technology. It could also be useful for unemployed older workers who need some retraining between jobs. Several studies have shown greater impact of training for workers who already have some work experience (World Bank 2015; Lalonde 2003). However, South Asian countries have made little use of this type of training, likely because employers are not yet sold on the value of the training system. Publicizing information about successful programs and partnerships could help to change employers' perceptions.

## FORGING STRONG PARTNERSHIPS WITH EMPLOYERS IS CRITICAL FOR ALIGNING SKILL SUPPLY WITH DEMAND

Involving employers in training programs is an important element of successful labor market outcomes. Involvement can range from seeking employers' advice or inputs for identifying training needs to establishing partnerships for defining occupational standards and program content and job placement and facilitating workplace or apprenticeship programs. The employers' role may be advisory or decision-making and can be established at the national level, by sectors, or structured regionally or at the level of an individual institution.

Partnerships can facilitate recruitment of practitioners from industry at mid-career or on part-time arrangements and make it possible for instructors who have been away from industry for a long time to retool, as shown in the example of a partnership with Maruti Suzuki (box 11.4).

Close partnership with employers may also help address the challenge of recruitment and retention of instructors by providing access to the right practical professional expertise.

In South Asia, three countries have established Sector Skill Councils (SSCs) with an extensive mandate as the interface between employers, government, and the skills development system (see above). In other regions where such councils have been introduced, they have demonstrated that they can be important change agents (see

box 11.7). To be effective, they must be genuinely representative and recognized as such by a majority of employers in the sector. Employer acceptance might take time to develop, as employers must be convinced that these institutional reforms lead to better-skilled workers. Confidence can be built gradually, provided that programs devote attention to keeping employers informed about successes.



### **BOX 11.7** Some Examples of Successful Interventions by Sector Skills Councils in Chile

In Chile, industry or sector skills councils meet regularly to discuss strategies and skills gaps. Summaries of their deliberations are made available to the public. Through program accreditation and providers' certification, the market adjusts the supply to meet the needs of employers. For example, the Mining Sector Skills Council, launched in 2012, addressed the challenge of low interest among youth and difficulty filling job openings. The council undertook several studies and developed a sector strategy that included accreditation and competency standards, fast-track training and retraining programs, and measures to attract youth to training. This partnership of public, private, and academic stakeholders rapidly succeeded in mobilizing resources (the Ministry of Labor approved a \$15 billion budget) to train workers for entry-level and maintenance occupations, conduct further studies, and implement the strategy.

*Source:* Almeida and others 2016, 55.

SSCs have taken on important tasks and responsibilities.<sup>7</sup> They have identified needs and developed standards and qualifications, important for showing what directions a sector should take and for aligning course offerings and curricula with economic development needs. Newly created SSCs have few technical staff and resources, and some of them may not be ready to conduct sophisticated labor market and skills gap analyses. However, from the start, they have been able to provide useful inputs, relying on labor market analysis conducted by other organizations, drawing information from available job portals (such as Babajob in India), and filling information gaps with simple surveys of SSC members.

Given the need for constant adjustments to keep training relevant, adapting standards developed in other countries, whenever possible, may be ways to simplify the work of SSCs. With a large proportion of the labor force migrating to other countries, it is important to adjust training programs to working conditions in other countries. Countries that have adopted qualification frameworks—such as Australia, New Zealand, and the United Kingdom—have already revised their frameworks several times to make them more relevant. Getting standards revised and approved takes time, so ways to speed up the process should be explored to prevent standards from becoming obsolete before they are even released. One way is to adapt standards developed in other countries. In India, for instance, 15 SSCs have established agreements with their counterparts in the United Kingdom to benchmark standards for 82 job roles. Similar agreements have also been reached with Australia, Japan, and Singapore.

Occupations and qualifications should not be defined too narrowly. In an economy that is diversifying rapidly, narrowly defined occupations can impede adjustment to changes in production processes and job requirements. This would be contrary to the trend observed in the rest of the world toward broadening occupations to enable greater worker mobility and flexibility (see box 11.8).

**BOX 11.8 Broadening Occupational Standards: The Example of Germany**

Germany is broadening its apprenticeship training programs to make workers more mobile and employable over their working life. The modernization of occupation standards is needed to increase internal (multitasking) and external flexibility, to facilitate further training and to ensure that workers have a better understanding of their roles in work processes.

Take the example of the industrial metal trades, whose standards were revised twice since the 1980s because of rapid changes in technology and work organization. In 1987, 45 trades were combined into six occupations with 16 specializations. In 2004, the distinction between occupations and specializations was abolished, and training was provided in five broad occupations. Instruction in joint core competences (such as teamwork) and occupation-specific competence is now provided throughout the entire training period.

*Source: Evans and Bosch 2012.*

SSCs need secure funding to function well. Whether SSCs should be funded by the government or be self-sustaining is a subject of debate in the region. Governments have been reluctant to finance SSCs, which they consider private institutions that should support themselves. Sri Lanka allocates some budget financing to SSCs, but there has been some resistance to releasing the funds. In Bangladesh, two SSCs receive external project financing; the others, which receive no government funding, barely function. In India, after receiving an initial grant, SSCs were allowed to collect assessment and affiliation fees.

While SSCs may gradually become self-sustaining, it is unrealistic to expect this to happen from the start, especially while the private sector is still uncertain about the quality of the skills development sector. Even in developed countries like Australia and the Republic of Korea, SSCs benefit from government funding. Introducing a levy on the industry (on the wage bill) to finance the SSCs, as is done in other parts of the world, runs the risk of opposition from the private sector. It might be more prudent to strengthen the partnerships first, before embarking on such measures.

**FORTIFY POLITICAL WILL AND ADVANCE ON SEVERAL FRONTS**

Implementing the lessons laid out here to advance and keep reforms on track requires strong political will. To succeed, the skills development strategy requires a strong government able to play its role in policy development and quality control, but also capable of inducing behavioral changes and encouraging the private sector to participate in the design and delivery of skills training and eventually in its financing.

The political will to act in all these areas will need to be sustained over many years. At stake is not just creating more opportunities for training, but also making sure that a larger proportion of the population enters the labor market with better employment and income prospects and is well equipped with the broad set of skills needed to adjust to a world of rapid technological changes.

The task ahead in skills development is no different than it is in education: improvements require advancing on the same three fronts (World Bank 2018):

- Assessing the impact of programs.
- Acting on evidence to define priorities and choose the most effective interventions.
- Aligning all actors, public and private, so that the whole system works to create more and better skills in the population.

## Notes

1. In Afghanistan, a high-level steering committee chaired by the chief adviser to the president was recently established. It endorsed the reforms in January 2017. It is still too early to assess whether it will play a significant role overseeing implementation of the reform agenda.
2. Secondary schools delivering Sector Skill Council certificates (vocational) and technical colleges. See table 8 in ADB (2015).
3. In India, data on earnings are missing in the labor force survey. The Periodic Labour Force Survey was launched in 2017 and will provide data on training, employment, and earnings, and allow detailed analysis. The survey will provide annual national estimates for the urban and rural areas and quarterly estimates for urban areas (<http://mospi.nic.in/Periodic-Labour-Surveys>).
4. For example, Alzua, Cruces, and Lopez (2016) evaluated a job training program for low-income youth in Argentina and found sizable gains 18 months after program completion. But these average effects dissipate in the medium term (33 months) and long term (48 months).
5. Hampf and Woessmann (2016) analyze 2011–12 PIAAC (Program for the International Assessment of Adult Competencies) data on 16 OECD countries. Hanushek and others (2017) analyze data on labor market outcomes of workers in 11 countries drawn from the International Adult Literacy Survey (IALS).
6. In a first contract with a private training provider to give construction training to 600 participants, only 22 students enrolled. In another contract with a private institute in the hospitality sector, the target was to train 460 workers; 306 students enrolled, and 143 completed (information provided by the Ministry of Skill Development and Vocational training of Sri Lanka).
7. World Bank 2018.

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## PART V

# Higher Education in South Asia

Higher education in South Asia covers both academic programs and professional degree programs following school completion. It is organized distinctly from (vocational) skills or training (covered in the previous chapters). Higher education in the region has two important structural features. First, it is a vast system. South Asia has more than 42 million students, 34 million of whom study in India in more than 50,000 higher education institutions; Bangladesh and Pakistan both enroll more than 2 million students. Second, the system is diverse and complex. All countries in South Asia have a large nonstate/private higher education sector: in Afghanistan, Bangladesh, India, Nepal, and Maldives, nearly half or over half of students are enrolled in a private higher education institution. The largest higher education systems—those in Bangladesh, India, Nepal, and Pakistan—also operate under an affiliation system, whereby government-funded universities affiliate with nonautonomous government and private colleges, which typically enroll the majority of students. Finally, many students are enrolled in distance education programs, sometimes at institutions dedicated to distance learning.

Chapter 12 describes the higher education system in South Asia. Demand has been growing rapidly, averaging 9 percent a year, and is expected to continue to grow. But the supply-side response has been mixed, with institutions suffering from faculty shortages, particularly for PhD-level positions. This is true of both public and private institutions. In most countries, learning outcomes are not systematically tracked, with the recent exception of engineering institutions in India. While this limits conclusions on whether learning levels are improving, employer satisfaction studies suggest the technical skills of graduates are inadequate. Finally, there is little indication that women students and the poor are benefiting from the growth of the system. In short, growth appears to be low-quality and unequal.

What underlies the weak performance of the higher education system in the region? Chapter 13 argues that poor governance, complicated by the rapid increase in institutions, lies at the heart of the problem. Across countries, the higher education system is overregulated and undergoverned. Three issues stand out. First, governments play a significant role in influencing what happens at higher education institutions. In most countries, the system promotes standardization at the cost of autonomy—with implications for internal governance, for what and how students are taught, and for incentives to undertake research. It also has implications for private higher education institutions, which are fettered by rules and unchecked for quality. Second, the affiliation system is overburdened with responsibilities, many of which lead to the further fragmentation of the system. Third, quality assurance systems are new in several countries, tend to be input focused, and have low coverage and limited human resources capacity. In short, efforts to regulate higher education institutions and promote general standards have compromised those institutions' autonomy, while poor quality assurance mechanisms have limited accountability.

Countries are aware of these challenges, and have embarked on reforms in their higher education systems to address them. As chapter 14 argues, countries must focus on three things: boosting efficiency, improving quality, and expanding opportunity. Boosting efficiency will require consolidating small, unfeasible higher education institutions. It will also require better governance systems and data platforms driven by information and communication technology (ICT). Improving quality will require tracking student outcomes, such as learning and employability. For instance, India recently participated in an international study of student learning in engineering, leveraging ICT to improve data quality and implementation of the study. Improving quality will also require recruiting more faculty and improving their quality through professional development opportunities embodying good practice. In research, countries have made progress, increasingly using competitive funding to reward performance. Expanding opportunity will require better targeting aid, helping women and first-generation college-goers, and leveraging the private sector.

## Higher Education in South Asia: Rapidly Growing, Diverse, and Unequal

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**H**igher education in South Asia has two important structural features: it is vast, and it is diverse and complex. It covers both academic programs, such as history and physics, and professional degree programs, such as engineering and law. The higher education system is separate from the skills development system, which includes vocational education and training (covered in part III). South Asia has more than 42 million students—34 million of them in India alone—who study in more than 50,000 higher education institutions; Bangladesh and Pakistan each enroll more than 2 million students (EdStats/UIS 2018; India MHRD 2016). Because of the enormous number of students enrolled, concerns about quality and equity feature prominently in public debates.

The best-known institutions in the region are public universities, but private institutes are increasing in number. All countries in South Asia have a large number of private institutions of higher education. In Afghanistan, Bangladesh, India, Maldives, and Nepal, nearly half or more than half of students are enrolled in a private institution of higher education. The largest higher education systems—those in Bangladesh, India, Nepal, and Pakistan—also operate an affiliation system, whereby nonautonomous public and private colleges, which typically enroll the majority of students, affiliate themselves with government-funded universities (see later in the chapter). Finally, many students are enrolled in distance education programs, sometimes at institutions dedicated to distance learning.

Demand for higher education continues to grow rapidly in the region, averaging 9 percent a year, but the supply of faculty has not kept pace. Ample evidence indicates that growth in demand is unlikely to slow soon, as gross enrollment rates remain lower

than in other regions, despite a 3.8-fold increase in student numbers during the last 15 years (see chapter 1). But the supply-side response has been mixed. While the number of higher education institutions has grown in line with demand, driven largely by the private sector, faculty shortages are endemic in both public and private institutions, particularly for PhD-level positions. In most countries, learning outcomes are not systematically tracked (see chapter 2), with the recent exception of engineering institutions in India. While this limits the ability to draw conclusions on whether learning levels are improving, employers are signaling that the average quality of technical skills among graduates is low (see chapter 8). Labor market outcomes are mixed. Wage returns to higher education remain high on average, but only for graduates, ages 30 and older, and many graduates have difficulty finding a job. The system remains highly unequal, with little indication that women and poor people are benefiting from the system's growth. On the bright side, research outcomes have been improving—likely driven partly by the growing pool of PhDs in the region as well as by increased government attention to research outcomes. This chapter describes these features of the higher education system in South Asia in more detail.

## A Diverse System with a Complex Governance Arrangement

South Asia's higher education system is diverse, comprising universities, colleges, and stand-alone institutions. Qualified and high-income undergraduate students in the region have numerous choices for higher education. Depending on the country, they can attend a nonaffiliating university, the constituent college of a nonaffiliating or affiliating university, an affiliated college, or a degree-awarding institution (sometimes known as an autonomous institution).<sup>1</sup> Degree-awarding institutions and autonomous colleges operate independently, teaching their own curriculum, conducting their own examinations, and issuing their own degrees. Postgraduate students have similar options, though institutions with postgraduate programs are expected to undertake research—which is not necessarily the case for other institutions.

In addition to bricks-and-mortar offerings, a substantial share of students are enrolled in virtual programs or external degree programs. In these programs, students take exams but do not receive any teaching from the university (though students may pay a private tutor). Roughly a quarter of students in Pakistan and over half of students in Sri Lanka are enrolled in such programs (Dundar and others 2017). The proportion is smaller in India, 11 percent, though the number is high, at 3.8 million students (India MHRD 2016). The Bangladesh Open University offers a variety of instructional radio programs, television programs, and YouTube clips to more than 540,000 students, according to the university's own figures. In some countries, institutions are starting to offer degree programs online, though that is still rare. As part of a global trend, a variety of regional massive open online course projects have also started, such as the National



Programme on Technology Enhanced Learning, which features a range of courses offered by the Indian Institutes of Technology. Finally, students can study abroad (see spotlight 5 on the internationalization of higher education).

## THE PRIVATE SECTOR

The private sector—universities, colleges, and stand-alone institutions—have played an important role in meeting demand for higher education in South Asia.<sup>2</sup> All countries have private universities, colleges, and stand-alone higher education institutions.<sup>3</sup> The private sector absorbs 67 percent of enrollment in India, 66 percent in Nepal, 43 percent in Bangladesh, 42 percent in Afghanistan, and 18 percent in Pakistan (India MHRD 2018; Aturapane 2013; Millot 2018). In Sri Lanka, where the private sector is all but absent from school education, private higher education absorbs a non-trivial 20 percent of enrollment (Dundar and others 2017).

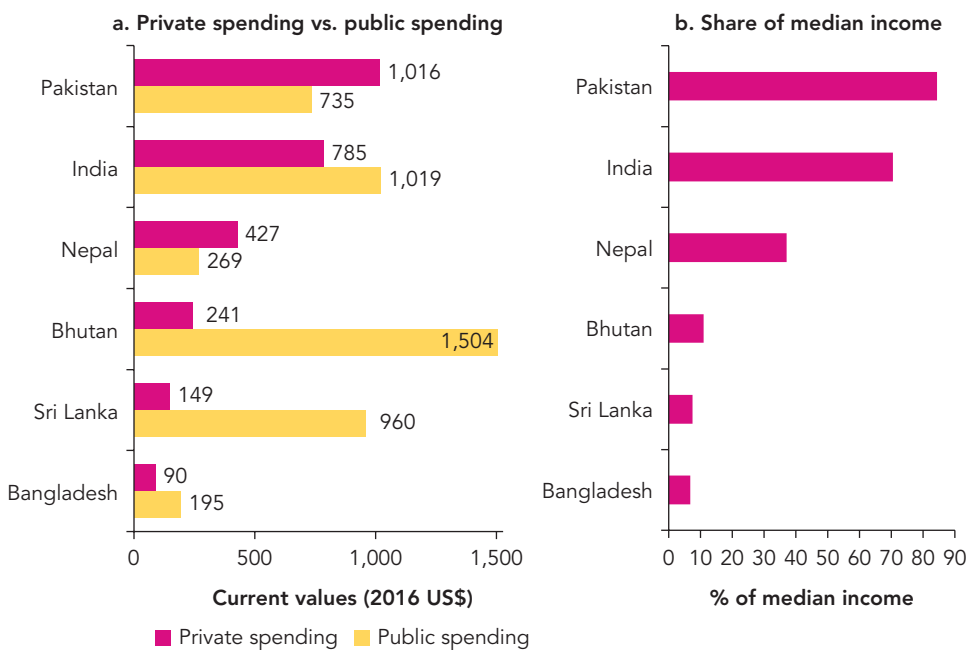
The private sector—universities, colleges, and stand-alone institutions—have played an important role in meeting demand for higher education in South Asia.

Private colleges can be aided, meaning that they receive some funding from the government, or unaided, meaning that they are funded solely by fees or charitable contributions. In Bangladesh, nearly 20 percent of the budget of public colleges (referred to as Monthly Pay Order, or MPO, colleges) comes from the government; the rest comes from student fees. While the government covers the basic salary of MPO teachers and staff, many teachers at MPO colleges are not eligible for this funding. So even public colleges must generate substantial resources from fees. In India, private aided colleges receive grants from their state government and are eligible for funding from the national-level Universities Grants Commission. In Afghanistan and Pakistan, private colleges are funded through student fees. In Pakistan, private universities are eligible for research funding from the Higher Education Commission, but this practice is limited. In Afghanistan, Bangladesh, and Pakistan, private colleges have considerable financial autonomy, especially in determining their fees; but in India, private unaided college fees are strictly regulated through state-level Admission and Fee Regulation Committees, following Supreme Court judgments that education cannot be an activity for profiteering.

With the rise of private higher education, household spending on higher education has increased substantially over the last few years. In Nepal and Pakistan, private spending now substantially outweighs public spending (figure 12.1). Among families with a child in higher education, spending on higher education accounts for over a third of median household income in Nepal and over two-thirds in India and Pakistan. Increased spending reflects increased demand. But when the burden falls disproportionately on poor people, the resulting stress and strain may not result in a fruitful education experience.

In general, individual private colleges have fewer students than individual public colleges do. In India, nearly 22 percent of colleges enroll fewer than 100 students, 63 percent enroll fewer than 500 students, and only 4 percent enroll more than 3,000 students. The majority of these are likely to be private colleges (78 percent of colleges are managed by the private

**FIGURE 12.1** Private Spending on Higher Education Substantially Outweighs Public Spending in Nepal and Pakistan, Latest Available Data



Sources: Public spending, United Nations Educational, Scientific, and Cultural Organization Institute of Statistics and World Bank EdStats database; private spending, household surveys (2010 Bangladesh Household Income and Expenditure Survey, 2012 Bhutan Living Standards Survey, India National Sample Survey 71st round [2014], 2011 Nepal Living Standards Survey, 2016 Pakistan Household Integrated Economic Survey, and 2012 Sri Lanka Household Integrated Economic Survey); median income (Diofasi and Birdsall 2016).

sector) (India MHRD 2016). The average enrollment among private colleges in Bangladesh and Pakistan is unknown but thought to be small (World Bank 2016). The situation differs in Afghanistan and Sri Lanka, though it reflects a supply shortage and poor regulation more than a careful attempt to reach an optimal size. Private higher education institutions average 750 students in Afghanistan and 10,000 in Sri Lanka (Dundar and others 2017). Both universities and colleges need a critical mass of students and faculty to function effectively. While this may be obvious in the sciences, engineering, and medicine, where equipment costs and interdisciplinary collaboration justify the need for a certain number of faculty and students, it also holds true for other disciplines. Faculty with different specializations are needed for a successful humanities program as well.

## THE AFFILIATION SYSTEM

Another important characteristic of South Asia's higher education system is the affiliation system, which is a legacy of British rule on the subcontinent and exists in Afghanistan, Bangladesh, India, Nepal, and Pakistan (Yoong Lee 2011). Under the most general form of the affiliation system, nonautonomous colleges affiliate with

government-funded universities. The university is known as the “affiliating university,” and the college is known as the “affiliated college.” Affiliating universities help ensure quality at entry by affiliating only with colleges that meet certain specifications and by providing the curricula and administering examinations for their affiliated colleges. Standardized curricula and examinations help maintain uniformity, but at the cost of autonomy and flexibility, both of which contribute to effective higher education systems. Students in affiliated colleges typically receive their degree from the university.

The structure of the affiliation system varies by country, but only public universities can serve as affiliating universities, and they must meet specific criteria. In Bangladesh, the National University affiliates with all colleges, except engineering colleges, which the Science and Technology University affiliates with. However, there have been some discussions about decentralizing the affiliation system. In Pakistan, affiliated colleges are broadly defined as degree-level colleges that offer and teach the programs of the affiliating university and are administered by provincial governments. The Indian system resembles the Pakistani one, though affiliating universities have two types of colleges: constituent colleges, which are autonomous (like the university), and affiliated colleges, which are not autonomous.<sup>4</sup> In Nepal, colleges are called campuses and are classified as public, community, and private (affiliated) campuses. More than 1,000 colleges, the most by far, are affiliated with Tribhuvan University.

The reach of the affiliation system is considerable. In three of the four biggest higher education systems (Bangladesh, India, and Nepal), most students in higher education are enrolled in an affiliated college, while in Pakistan just over a quarter of students are enrolled in such colleges (table 12.1). For the most part, these colleges provide undergraduate programs, although some also offer graduate degrees. The attractiveness of the system lies in its reach, with many affiliated colleges operating in semi-urban areas.

Affiliating universities affiliate with both public and private colleges. In Afghanistan, colleges typically affiliate with foreign universities, such as American University. In Bangladesh, 1,471 of the 1,731 affiliated colleges are private. In India, nearly 90 percent of colleges affiliated with technical affiliating universities are private. In Pakistan, most affiliated colleges are public, but private college presence remains large. For example, in Punjab 30 percent of the 886 (nonprofessional) affiliated colleges are private (World Bank forthcoming).

**TABLE 12.1** Size of the Affiliated College Sector in South Asian Countries, Latest Available Data

Country	Number of universities	Number of affiliated colleges	Share of enrollment in affiliated colleges (%)
Bangladesh	130	1,759	74
India	799	39,071	81
Nepal	9 <sup>a</sup>	1,309	66
Pakistan	175	3,750	27

Sources: Bangladesh, World Bank (2016); India, MHRD (2016); Pakistan, Pakistan Higher Education Commission (2017); Nepal, Educational Management Information System.

a. Nepal also has five health academies.

## COURSES OF STUDY

Countries in South Asia offer a range of higher education programs, with the most common structure being three to four years for undergraduate education and one to two years for postgraduate (predoctoral) education. Bangladesh offers three-year (pass) and four-year (honors) degree programs; India offers three-, four-, and five-year degrees at the undergraduate level; Pakistan offers two- and four-year undergraduate degrees; and Sri Lanka offers three-year undergraduate degrees.

The region has a strong tradition in liberal arts, but science, technology, and engineering are quickly gaining in popularity. Social science and humanities remain the most popular fields of study in every country except India, where they are on par with science and engineering (table 12.2). Science and engineering have become the most popular fields in India, with nearly half of the student population graduating from such programs; in Bangladesh and Sri Lanka, about a quarter of students are enrolled in such programs. In Afghanistan, Bhutan, and Nepal, education and health are the dominant fields of study.

## Enormous Growth in Student Numbers

The average annual growth rate over the period was 14 percent, with the lowest growth rate in Sri Lanka and Bhutan (6 percent) and the highest in the Maldives (35 percent; see chapter 1). Growth was steepest in the 2000s, but even today the system is growing substantially and is unlikely to slow down (see figure 12.2).

India's higher education system grew from 9.4 million students in 2000 to 34.6 million students in 2015. This makes India the second-biggest higher education system in the world (after China), having surpassed the United States in

In South Asia, enrollment in higher education grew a staggering 387% over 15 years, from 11 million students in the early 2000s to 42 million students today.

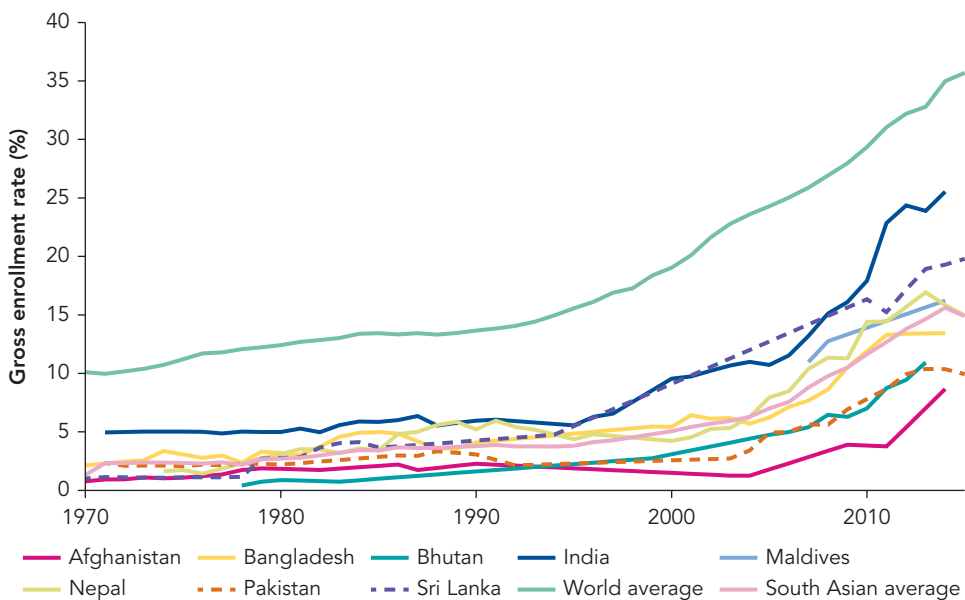
**TABLE 12.2** Distribution of Students in Higher Education in South Asia by Subject Area, Latest Available Data  
Percent

Country	Science and engineering	Social science and humanities	Education and health	Other
Afghanistan	18	49	25	8
Bangladesh	22	74	4	0
Bhutan	28	36	36	1
India	44	44	10	3
Nepal	15	51	30	0
Sri Lanka	22	67	11	0

Sources: India, National Sample Survey 71st round (2014); Nepal, Educational Management Information System; all others, United Nations Educational, Scientific, and Cultural Organization Institute of Statistics and World Bank EdStats database.

Note: Percentages for each country may not sum to 100 because of rounding.

**FIGURE 12.2** Gross Enrollment Rates Indicate Room for Growth in South Asia's Higher Education System, 1970–2015



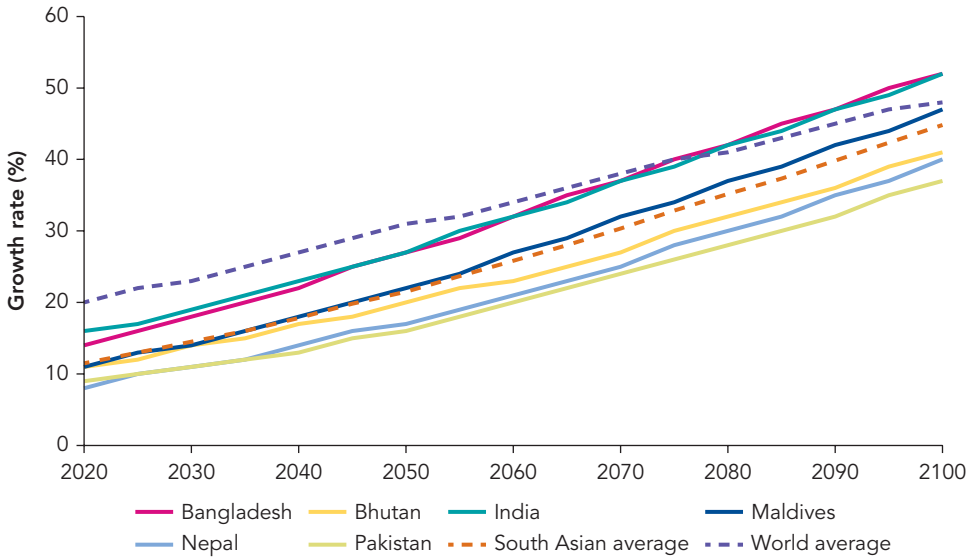
Sources: United Nations Educational, Scientific, and Cultural Organization Institute of Statistics; and World Bank EdStats database.

Note: The gross enrollment rate is the number of students divided by the total number of people in the relevant age group (normally ages 18–23).

2010. Six institutions a day open to accommodate growing demand, and nearly 1 million students enter the Indian labor market each month. Bangladesh and Pakistan have also seen sizable growth: both passed the 1 million mark in the early 2000s and now enroll nearly 2 million students. Enrollment in the rest of South Asia remains modest: in the hundreds of thousands in Afghanistan, Nepal, and Sri Lanka; and below 10,000 in Bhutan and Maldives, which only recently opened universities.

Several signs suggest that South Asia's higher education system will continue to grow in the coming years. First, enrollment as a share of the eligible population (gross enrollment rate) is still low, at about half of the global average. Gross enrollment rates are among the lowest in the world in Afghanistan (9 percent), Pakistan (10 percent), and Bhutan (11 percent). Rates are a little higher in Maldives (16 percent) and Sri Lanka (20 percent). At 27 percent, higher education enrollment in India is high for the region but low compared with the world average of 36 percent. Enrollment in the region's higher education systems is projected to grow almost linearly in the coming decades (average enrollment in the region reaching 30 percent by 2070) (see figure 12.3) (Lutz and others 2014). And that growth will be at a quicker pace than the world average. The growing youth population across the region will translate into substantial growth in the absolute number of graduates as well, even if the share of youth will grow slowly.

**FIGURE 12.3** Enrollment in South Asia's Higher Education System Is Projected to Grow Almost Linearly in Coming Decades, 2020–2100



Source: Lutz, Butz, and KC 2014.

Note: The y axis shows the projected percentage of 25-to-29-year-olds with higher education degrees.

This means that the number of higher education institutions is likely to grow exponentially to meet both the absolute and relative growth in student numbers.

## Quality in Supply and Outcomes Has Not Kept Pace with the Increase in Demand

The growing supply of institutions of higher education means that more people can now enter college, a testament to government efforts to improve access. But students must also complete their studies and learn. Dropout rates provide one indication of how well education meets student needs and of education quality. The region is just starting to collect dropout data, but initial indications are that the problem is substantial. Bangladesh's National University estimates that 26 percent of students drop out of honors programs (which are for the best college students), and in Sri Lanka, the number of degrees awarded is substantially less than the number of students who enrolled several years earlier (as few as 40 percent of students who pursue a science degree finish within three years) (Dundar and others 2017).

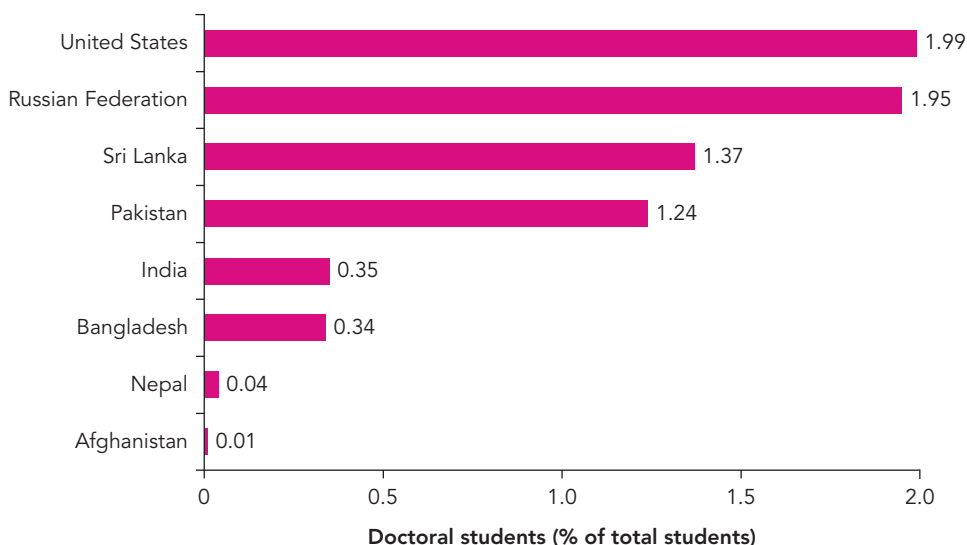
On the input side, a common theme in all South Asian countries is the lack of adequately qualified faculty. While there are plenty of students, there are not enough qualified faculty to teach them. Expanding tertiary education systems require having enough

qualified teachers, particularly those with PhDs. The number of doctoral students is on the rise across the region, but the pipeline of doctoral students is probably far from adequate to meet the increasing demand. While it is hard to find precise supply and demand data, the pipeline of doctoral researchers is generally lower in South Asia than in other parts of the world (figure 12.4). Furthermore, there is limited evidence on whether these students will pursue a career in teaching. In India, 40 percent of university posts remain unfilled because of difficulty finding good-quality candidates (Jain 2015). In Sri Lanka, 27 percent of faculty positions (3,100 positions) remained open in 2014 (Dundar and others 2017). Pakistan has increased the number of PhD holders among university faculty to around 27 percent of the total (13,000) and aims to nearly triple that number by 2025. The share of faculty with doctoral degrees is about 45 percent in Sri Lanka and 5 percent in Afghanistan. Both Pakistan and Sri Lanka are increasing the share of doctoral students by sending vast numbers of students abroad through scholarship programs. Pakistan is the biggest receiver of Fulbright scholarships in the world.

South Asia's higher education system is fettered by high faculty vacancy rates.

On the outcome side, average learning is low, though evidence remains limited. A student who completes university is expected to have academic skills in specific areas and higher-order thinking skills, such as critical thinking and creativity, which employers consider to be among the most important skills for college graduates (Alkhairy and

**FIGURE 12.4** The Share of Doctoral Students in the Total Student Population in South Asia Is Well Below the Level in the United States and the Russian Federation, Latest Available Data

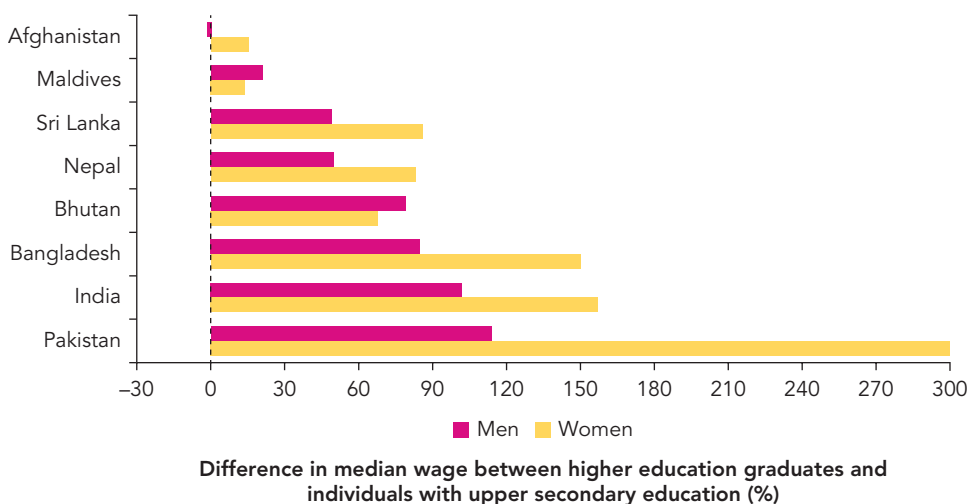


Sources: United Nations Educational, Scientific, and Cultural Organization Institute of Statistics; and World Bank EdStats database.

others 2009; Arum and Roksa 2011; Bok 2006; Crawley and others 2014). Despite high and increasing interest from policy makers and researchers, few studies have examined whether university students are obtaining these skills. In basic and secondary education, skills are often measured through international learning assessments, but such assessments are still being developed in higher education, with varying success. Surveys of adult learning paint a grim picture. The share of individuals with at least some higher education who cannot read a three-sentence passage fluently is 9 percent in Bangladesh and India and 4 percent in Pakistan (Kaffenberger and Pritchett 2017). These findings suggest that some graduates have not even mastered the basic skills that are typically taught in primary education. And engineering students in India performed more poorly at the start of their program than did engineering students from other (non–South Asian) countries, reflecting poor preparation before college. However, the students from India made considerable gains during their program (Loyalka and others 2018).

Employment outcomes are rosier: evidence suggests that the economic returns to higher education have been growing throughout South Asia in the past few decades (Montenegro and Patrinos 2014). The difference in the median wage between higher education graduates and individuals with upper secondary education is substantial (figure 12.5). The only exception is men in Afghanistan, who probably face an uncertain labor market because of internal conflict and fragility. This is true particularly in Pakistan, where women with a higher education earn up to 300 percent more than

**FIGURE 12.5** The Median Wage Differential between Tertiary and Secondary Education Graduates Is Substantial in Nearly All South Asian Countries, Latest Available Data



Sources: 2012 Afghanistan Household Income and Expenditure Survey, 2010 Bangladesh Household Income and Expenditure Survey, 2012 Bhutan Living Standards Survey, India National Sample Survey 68th round (2011–12), 2009/10 Maldives Household Income and Expenditure Survey, 2011 Nepal Living Standards Survey, 2016 Pakistan Household Integrated Economic Survey, and 2012 Sri Lanka Household Integrated Economic Survey.

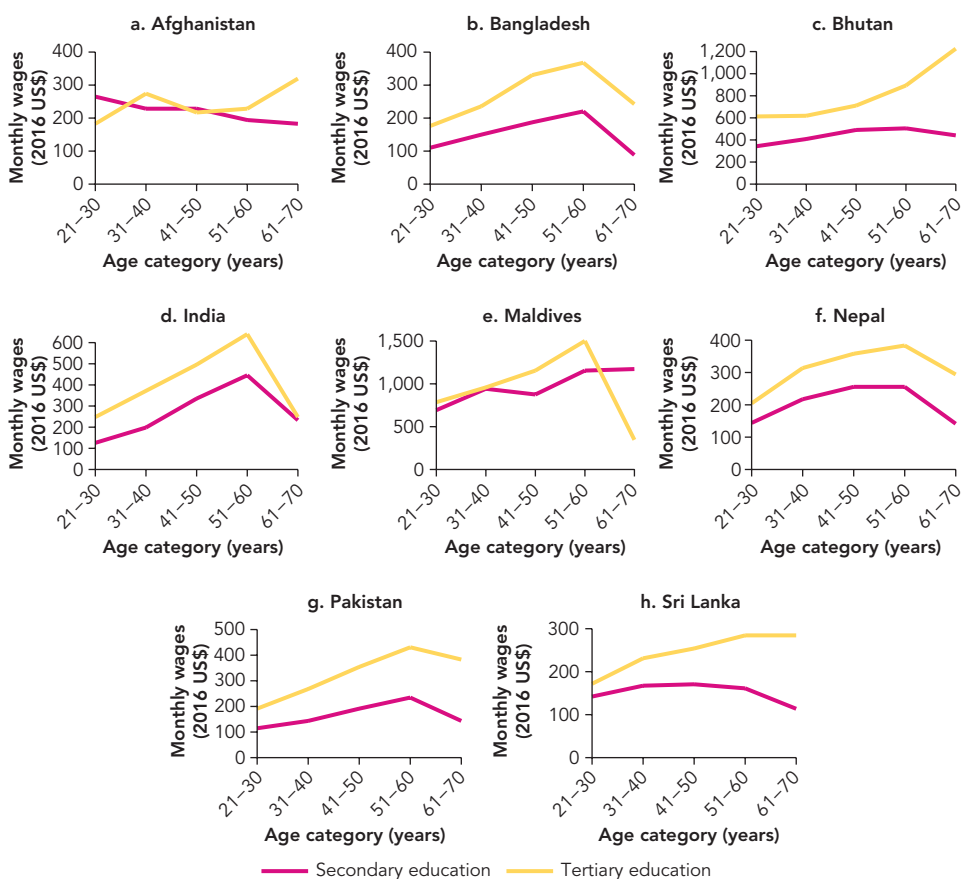
Note: Wages were measured in 2016 U.S. dollars.



women with an upper secondary education, and men with higher education earn 114 percent more than men with upper secondary education. The regional average returns to higher education are substantially higher than the world average and the high-income country average. These returns materialize because education provides skills and certificates that can be used to obtain better-paying jobs.

Higher wage returns do not immediately accrue to young graduates; rather, the return grows over a lifetime. Wage returns tend to rise with age and decline again for the oldest group active in the labor market (ages 61–70). The largest difference in wages between graduates of higher education and of upper secondary school is at ages 31–60 (figure 12.6). Thus, young people may not benefit financially immediately after receiving

**FIGURE 12.6** Higher Wages for Graduates of Tertiary Education Than Secondary Education in South Asia Grow over a Lifetime, Latest Available Data



Sources: 2012 Afghanistan Household Income and Expenditure Survey, 2010 Bangladesh Household Income and Expenditure Survey, 2012 Bhutan Living Standards Survey, India National Sample Survey 68th round (2011–12), 2009/10 Maldives Household Income and Expenditure Survey, 2011 Nepal Living Standards Survey, 2016 Pakistan Household Integrated Economic Survey, and 2012 Sri Lanka Household Integrated Economic Survey.

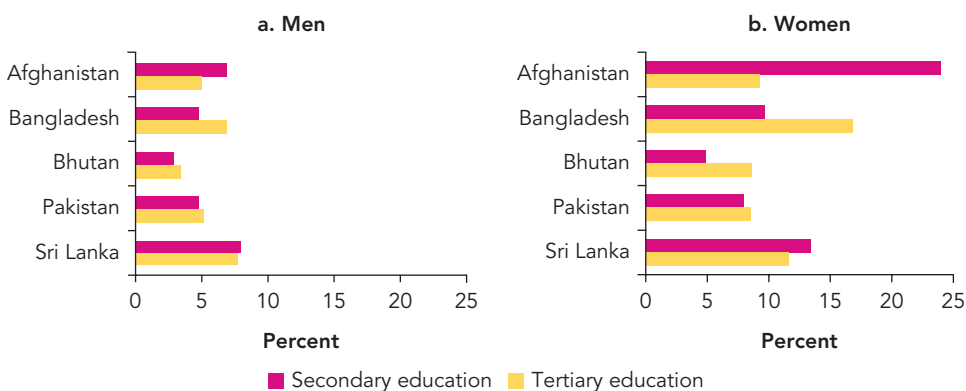
Note: Selection effects were not controlled for.

their degree. Much of the delay in returns is due to different levels of labor market experience: those with secondary education who enter the labor market at an earlier age accrue experience (and income) before those with a tertiary education.

Job prospects are not automatically better for people with a tertiary education, and their unemployment rates are sometimes higher than for those with only a secondary school education (figure 12.7). Afghanistan is an exception, though better opportunities there do not materialize into higher wages. In Bangladesh, finding a job is more difficult for people with a higher education degree than for those with a secondary education certificate. This may be due partly to a mismatch between graduate expectations and employer perceptions of the quality of education. In other words, higher education graduates might find that they are overqualified for some jobs but underqualified for the ones they want and hoped that higher education would bring them.

What about other indicators of quality? Many studies classify university systems using annual international rankings, such as those by Times Higher Education, QS World Rankings, or Shanghai Jiao Tong Ranking. But international rankings have serious flaws as proxies for higher education quality. Some countries, such as India, are creating national rankings (box 12.1), but those have severe flaws as well. First, the indicators included in these rankings are heavily biased toward research output. They track publication impact scores, which can be influenced by a few highly cited papers. Most higher education institutions in South Asia do not focus on research, so the rankings provide little insight into system quality. Second, the rankings do not take into account the value added in terms of learning outcomes, the quality of teachers, or the student experience. Hence, they do not help students make informed choices that affect whether they learn marketable skills. Third, the rankings tend to favor English-speaking

**FIGURE 12.7** Job Prospects Are Not Automatically Better for People with Tertiary Education Than for Those with Secondary Education, Latest Available Data



Sources: 2012 Afghanistan Household Income and Expenditure Survey, 2010 Bangladesh Household Income and Expenditure Survey, 2012 Bhutan Living Standards Survey, 2016 Pakistan Household Integrated Economic Survey, and 2012 Sri Lanka Household Integrated Economic Survey.

Note: The x axis shows the percentage of all graduates who are unemployed.

**BOX 12.1 India's National Institutional Ranking Framework**

One alternative to international ranking is the use of national rankings, which compare institutions on nationally relevant criteria. The Indian National Institutional Ranking Framework (NIRF) is one such tool.

The NIRF ranks institutions based on five parameters:

- Teaching, learning, and resources
- Research and professional practice
- Graduation outcomes
- Outreach and inclusivity
- Perception

Institutions self-report data, and the scores and data for all institutions are publicly available on the NIRF website. NIRF can randomly audit institution records to validate the data submitted. The data for the research parameters are populated from international databases such as Scopus and Web of Science. A total of 3,319 institutes participated in the 2017 NIRF rankings.

*Source:* For more information on NIRF, see <https://www.nirfindia.org/Home>.

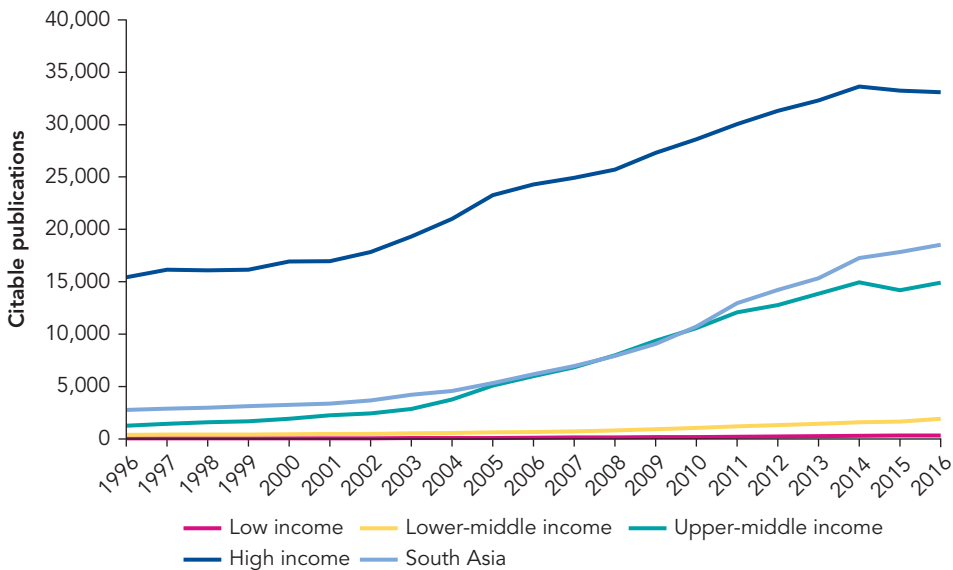
countries, because the rankings count mostly English-language publications. Though this may favor some South Asian countries, it means that countries in the region are not compared on a level playing field.

None of the universities in the region fared well in the 2018 Times Higher Education Rankings. No country had a university in the top 200, and India was the only country with a university in the top 400: the Indian Institute of Science and IIT Bombay. Among the top 1,000 universities, India had 30, Pakistan had 4, and Sri Lanka had 1. Two universities in the region (the Institute of Science in Bengaluru and the Indian Institute of Technology in Delhi) were ranked in the top 200 in the 2017 QS World Rankings. No university in the region was included on the 2017 Shanghai Jiao Tong Ranking.

Research output is increasing at a faster rate in South Asia than in upper-middle-income countries (figure 12.8). Though this does not mean that research quality is high, increasing output is a first step to developing a more competitive research landscape. Part of the improvement is a result of the increase in doctoral candidates, at least some of whom are likely to be conducting meaningful research. In Pakistan and Sri Lanka, the share of doctoral students in the population is nearing that of high-income countries, though the rest of the region remains behind.

## Will Poor People Benefit from Growth?

A key question is whether poor people in South Asia will benefit from the growth in higher education. The answer seems to be a resounding no—at least for now. While a

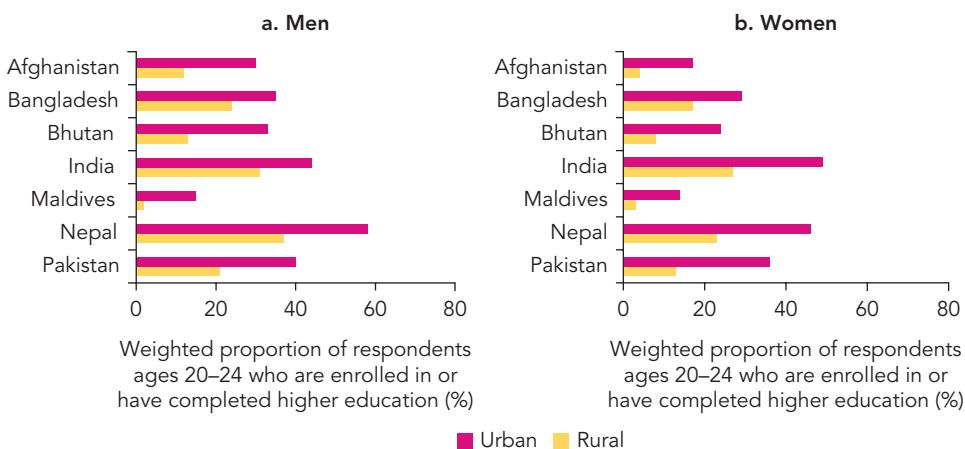
**FIGURE 12.8** Research Output from South Asian Universities Is Increasing, 1995–2015

Source: SCImago (n.d.) (<https://www.scimagojr.com/countryrank.php>) based on data from Web of Science ([www.webofknowledge.com](http://www.webofknowledge.com)).

growing education system provides opportunities to more people, it does not necessarily provide more equal opportunities. The privileged may be in a better position to use the new opportunities because they have access to better primary and secondary education or live in urban areas where there are more higher education institutions. Girls may face barriers in accessing higher education because their families may not allow them to move to urban centers, may not invest in their education, or may force them to marry early. This should be a concern, particularly at a time when both the social and economic returns to education are rising.

Household surveys give an idea of who has access to higher education. While there are many ways to show disparities in access (Arum, Gamoran, and Shavit 2007), this section presents the results descriptively to highlight the problem in an accessible and comparative way using the latest available data. Access to higher education is highest for Indian men and women in urban areas, where well over half enroll, and lowest for Maldivian men and women in rural areas, where virtually no one has access to higher education (figure 12.9). Across the region, the situation is most difficult for women in rural communities. In Afghanistan, Bhutan, and Maldives, rural women have a less than 10 percent probability of enrolling in higher education, and in Pakistan the probability is only marginally better, at 13 percent. This is because social norms, gendered risks (such as the threat of sexual violence),

**FIGURE 12.9** Access to Higher Education in South Asia Is Highest for Indian Men and Women in Urban Areas, and Lowest for Maldivian Men and Women in Rural Areas, Latest Available Data



Sources: Most recent Demographic and Health Surveys; 2012 Bhutan Living Standards Survey; and India National Sample Survey round 71.

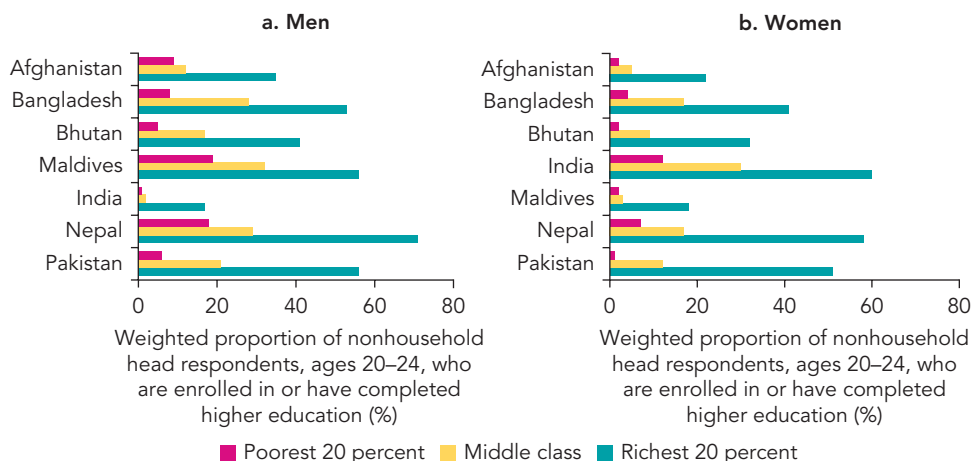
and a limited supply of women's colleges determine who enrolls and who does not. In Afghanistan, rural women are about 10 times less likely to enroll than urban men are. The highest probability for rural women is in India (27 percent), but rural women there are choosing lower-quality institutions than men are. In fact, women in India forgo an estimated 20 percent of their postgraduate earnings by choosing safely accessible, but lower-quality, colleges (Borker 2017).

In nearly all countries, children in the poorest 20 percent of households face the greatest difficulty accessing higher education, and for poor girls, the probability is virtually nil. But even middle-class children, particularly girls, face difficulties. Only in Bangladesh, India, Nepal, and Pakistan is the probability of accessing higher education over 10 percent for middle-class girls; the probability for men is over 20 percent (figure 12.10). In India, the probability of accessing higher education is 56–60 percent among children in the richest 20 percent of households but only 12–19 percent among children in the poorest 20 percent.

After other factors are controlled for, parents' education is the strongest predictor of a child's education success (figure 12.11). In India, around 54 percent of boys and 71 percent of girls in highly educated households (households where the head has a higher education) in India have access to higher education, while less than 20 percent of girls from low-educated households (households where the head has primary

*In nearly all countries, children in the poorest 20% of households face the greatest difficulty accessing higher education, and for poor girls, the probability is virtually nil.*

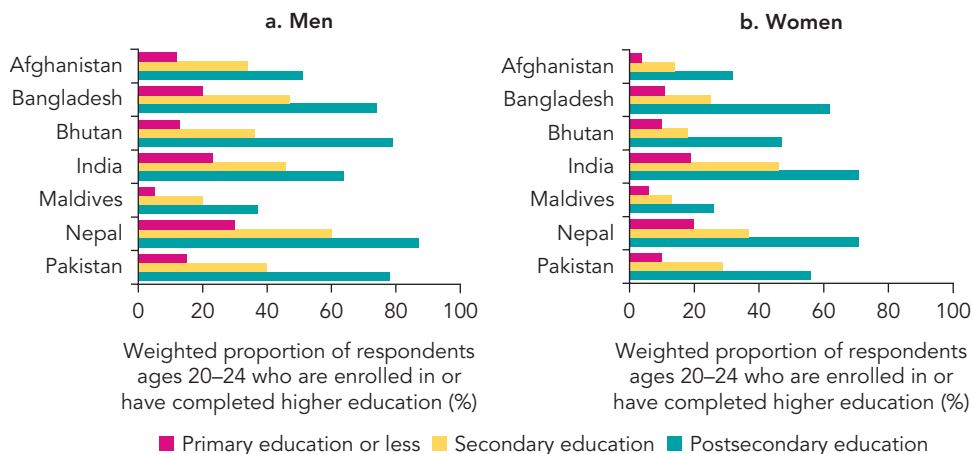
**FIGURE 12.10** Boys in Richer Households Are More Likely to Access Higher Education in South Asia, Latest Available Data



Source: Most recent Demographic and Health Surveys, 2012 Bhutan Living Standards Survey, and India National Sample Survey 71st round (2014).

Note: Wealth is proxied by consumption expenditures, which are not directly comparable to the wealth indicator in Demographic and Health Surveys. The x axis shows the weighted proportion of non-household head respondents ages 20–24 who are enrolled in, or have completed, higher education (percent).

**FIGURE 12.11** The Probability of Accessing Higher Education in South Asia Rises with Parents' Education



Sources: Most recent Demographic and Health Surveys, 2012 Bhutan Living Standards Survey, and India National Sample Survey 71st round (2014).

Note: The x axis shows the weighted proportion of non-household head respondents ages 20–24 who are enrolled in, or have completed, higher education (percent).

education or less) have access. In Bhutan, the difference is largest between boys in low-educated households (13 percent) and boys in highly educated households (79 percent). Girls in households where the head has a primary education or less in Afghanistan have the lowest success rates, followed closely by boys and girls in households where the head has a primary education or less in Maldives.

Is relative inequality increasing? While a growing higher education system provides more opportunities for everyone, it does not necessarily provide more equal opportunities. One way to understand this is to look at relative inequality rather than absolute inequality (Narayan and others 2018). Absolute inequality refers to whether children have more opportunities in education than their parents did. In a system with low absolute inequality, children may have better opportunities than their parents but still be worse off than their peers. Relative inequality refers to whether people can rise above their position in society. In a system with low relative inequality, children who start out poor can become middle class, depending on their ability and life choices. South Asia has reduced absolute inequality in education, but countries are performing very poorly on relative inequality. Bangladesh and India rank near the bottom for the share of children born in the poorest 50 percent of households who can rise to the top quartile.

As higher education continues to expand in South Asian countries, it is likely that non-traditional groups will eventually improve their access to higher education. But it may take a long time. The most advantaged children are typically the first to benefit from the expansion of higher education. This pattern is referred to in the literature as “maximally maintained inequality” (Raftery and Hout 1993). The primary reasons for this persistent pattern are poor academic preparation (because of low-quality secondary schools) and early dropping out (due to social norms or high costs of schooling). It is therefore likely that the region will continue to struggle to give children from low-income households access to higher education, despite efforts by both government and higher education institutions.

## Notes

1. Some universities, such as the University of Delhi, serve the postgraduate population exclusively, while their constituent and affiliated colleges serve both undergraduate and postgraduate students.
2. Countries use different terminology in categorizing private education. Bangladesh distinguishes between private colleges with and without monthly pay orders (in which staff are paid by the government). India distinguishes between government-aided and nonaided institutions. Afghanistan, Pakistan, and Sri Lanka distinguish between public and private institutions.
3. The exception is Sri Lanka, which does not have a private university.
4. In a few states in India, polytechnics (non-degree-granting institutions) are also affiliated with the affiliating technical university.

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## What Will It Take to Internationalize Higher Education in South Asia?

The international exchange of people and ideas in higher education is not new. But in the past decade, that exchange has really taken root. As economies have become more interconnected and competitive, there is increasing pressure on higher education systems to stay relevant and to provide students opportunities to expand their knowledge of other societies and develop the skills required to work in globalized sectors. That means that teaching and learning must be global in outlook and practice. There has also been tremendous growth in market-driven initiatives fueled by increasing demand for higher education, alongside declining public funding and diversification of providers and methods of delivery (IAU 2005).

### What Is the Internationalization of Higher Education?

The internationalization of higher education has been defined as an “intentional process of integrating an international, intercultural, or global dimension into the purpose, functions, and delivery of postsecondary education, in order to enhance the quality of education and research for all students and staff and to make a meaningful contribution to society” (De Wit and others 2015, 29). There are two main pillars of internationalization (Knight 2012). One is cross-border education, which includes the movement of people—but also of programs, providers, services, ideas, and policies—across borders. The other is internationalization “at home,” which focuses on expanding the benefits of internationalization to local students in their home institutions and countries without the need to travel abroad.

Cross-border education, the first stage of internationalization, is the most visible form in most South Asian countries. Students and families are the main actors, personally financing study abroad, although governments may support the education abroad of a few meritorious or disadvantaged students. In host countries, governments usually have a more prominent role in formulating policy to make higher education attractive by offering tuition incentives, simplifying visa requirements, making work and immigration policies more conducive, and so on.

The mobility of programs, providers, and higher education services across jurisdictional borders requires a larger role for government than the movement of students. This second stage of cross-border education is often linked to national priorities and requires strategic planning and policies for registration of foreign providers, recognition

of qualifications, quality assurance, and accreditation mechanisms, among others. Internationalization efforts can include establishing twinning partnerships between institutions, branch campuses of foreign institutions, joint degree programs, and other arrangements. The growth of cross-border education in Malaysia following the Private Higher Education Institutions Act of 1996 is a good example.

Education hubs are the third and latest stage of cross-border internationalization, involving a wider and more strategic configuration of actors. This is also a country-driven model to position itself within a region or beyond as a reputed center of higher education and research. Hong Kong SAR, China; Singapore; and the United Arab Emirates, for example, have positioned themselves as education hubs in their regions.

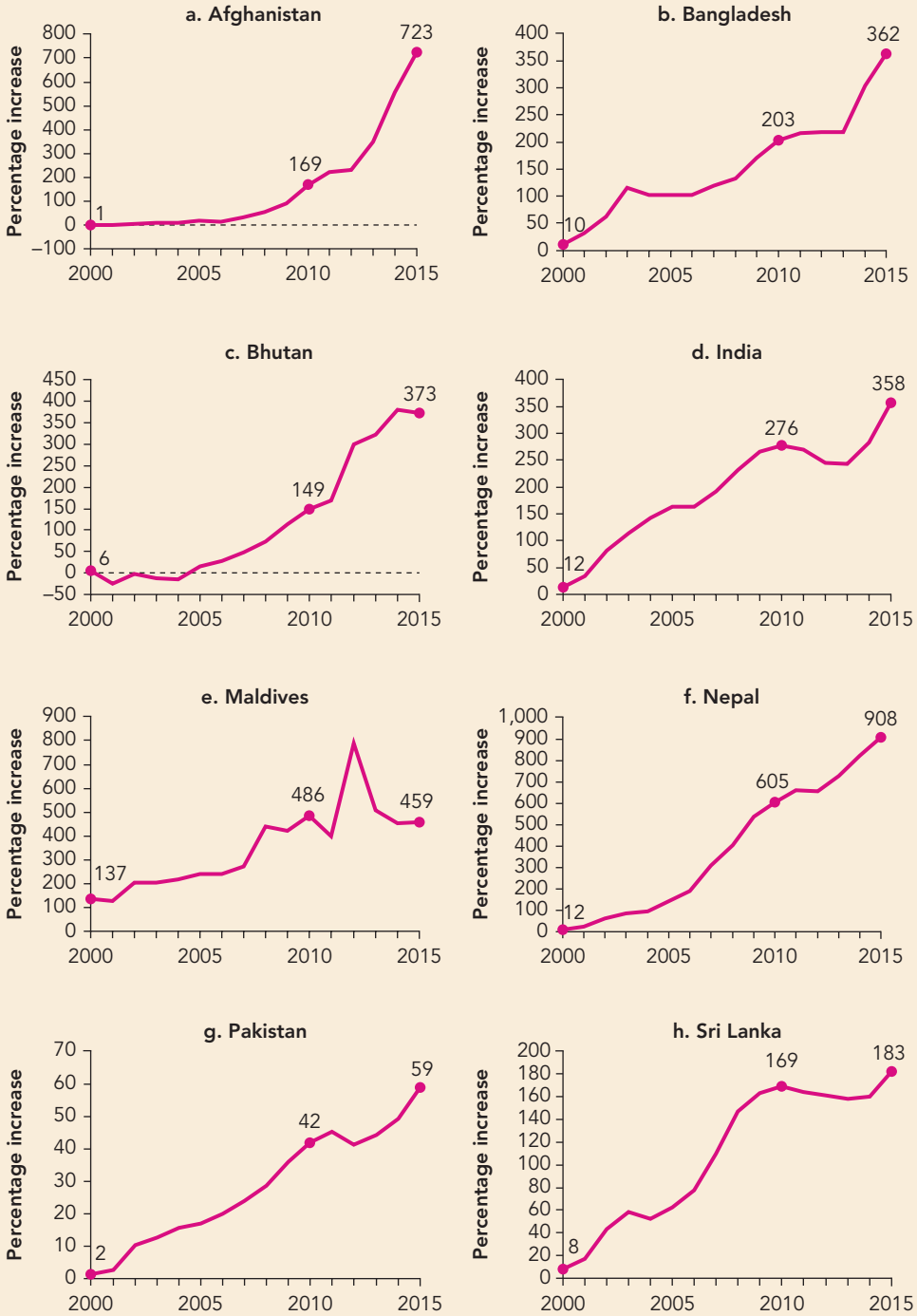
## Stirrings of Cross-Border Internationalization in South Asia—with Some Signs of Progress

The internationalization of higher education in South Asia is at the first stage in most countries, with large numbers of students studying abroad. In 2015, more than 420,000 students from South Asia were pursuing higher education in other countries. This constitutes about 9 percent of outwardly mobile students globally and is a higher share than that from Latin America and the Caribbean (5 percent), Central Asia (5 percent), and Sub-Saharan Africa (7 percent). The largest shares of outwardly mobile students are from Europe and North America, followed by East Asia.

Since the early 2000s, the number of outwardly mobile students has increased in almost all South Asian countries. India has the largest share in South Asia (more than 60 percent of the total) and the second-largest number (250,000 students) in the world. The highest growth in outbound mobility since 1999, however, has been in Nepal, which has experienced a 900 percent increase (from under 5,000 outbound students in 2000 to 39,000 students in 2015), with the period of highest growth in student mobility coinciding with Nepal's rapid economic growth and poverty decline after 2006. Pakistan has the second-largest group of outwardly mobile students from South Asia, but the growth in outbound mobility has been slower than in other countries in the region (figure 1).

English-speaking OECD countries like Australia, the United Kingdom, and the United States are the most popular destinations for South Asian students. Within the region, India is among the top five destinations for many students from South Asia looking for higher education opportunities outside their home countries.<sup>1</sup> India is the top destination for students from Bhutan and the second-most-popular destination among students from Afghanistan and Nepal. This movement is enabled by bilateral agreements and encouraged by their geographic proximity and the (relatively) better quality and larger size of the higher education sector in India.<sup>2</sup> Indian universities have also set up branch campuses in other countries. India is the fifth-largest source of branch campuses in the world; in 2012, it had 17 branch campuses in countries including Malaysia, Mauritius, Nepal, Singapore, and the United Arab Emirates (OBHE 2012). Sri Lanka also receives students

**FIGURE S5.1** The Share of Outbound Students from South Asia Has Increased Sharply since 1999



Source: UNESCO Institute for Statistics.

from South and Southeast Asia. In 2014, 3,000 international students from Myanmar, India, Pakistan, Bangladesh, Maldives, and Thailand were studying in Sri Lanka.<sup>3</sup>

Governments in South Asia recognize the importance of internationalization, as evident from the regulations laid down in some of the countries (table S5.1). However, at least in India, the absence of legislation overseeing these regulations means that internationalization is driven largely by private institutions operating outside a clear legislative framework (Yeravdekar and Tiwari 2017).

Indian universities can set up collaborations with universities abroad based on guidelines issued by the University Grants Commission and the All India Council for Technical Education (AICTE).<sup>4</sup> Despite the size and scope of the higher education sector in India, these regulatory agencies have recognized few collaborations. In 2015/16, for example, AICTE approved just 12 foreign collaborations. Several unregulated foreign collaborations operate outside this structure. The same is true in Pakistan, where many foreign collaborations are established and operate without formal approvals (Agarwal n.d). Discussions on how to regulate foreign universities establishing campuses in India have recently intensified, and they focus on the impact they could have on the quality and standards of higher education in the country. Initiatives by the Indian government to establish Institutions of Eminence will provide greater flexibility and independence to selected institutions to establish international partnerships, structure courses and programs, and admit foreign students and faculty.<sup>5</sup>

Many countries in the world are trying to attract foreign students. China's efforts are especially notable as it aims to become an international education hub attracting

**TABLE S5.1** Policies Supporting the Internationalization of Higher Education in South Asian Countries

Policy	Bangladesh	India	Nepal	Pakistan	Sri Lanka
Provision for internationalization in policy framework		✓	✓	✓	
Scholarships/loans for outbound students		✓	✓	✓	
Different fee structure for foreign and local students	✓	✓	✓	✓	✓
Exchange programs for faculty and scholars	✓	✓	✓	✓	✓
Branch campuses of foreign universities permissible			✓	✓	✓
Joint degree programs with foreign universities		✓	✓		✓
Dual degree programs with foreign universities		✓			✓
Branch campuses of local universities in other countries		✓		✓	

Source: Based on survey of World Bank staff on internationalization policies/schemes in South Asia.

500,000 foreign students by 2020 (see box S5.1), a realistic goal, considering that around 440,000 foreign students were studying in China as of 2018. South Asian countries have made similar periodic announcements about attracting foreign students, but only recently have they had a real strategy. Sri Lanka has enacted legislation to allow branch campuses of foreign universities to locate in Sri Lanka, and a local private university has partnered with a UK-based university to offer undergraduate programs in selected fields.<sup>6</sup> The government aims to attract 10 foreign universities to Sri Lanka and increase international student enrollment to 50,000 by 2020. India's recently launched *Study in India* program seeks, among other objectives, to double India's market share of global

### **BOX S5.1 How the Internationalization of Higher Education Helped China Reach the Frontier of Science and Technology**

China has transformed itself over the 1990s and 2000s into a science and technology powerhouse. It is now the second-largest performer in research and development (R&D) in the world and accounts for 20 percent of global R&D expenditures. It turns out the largest number of undergraduates with science and engineering degrees, it is second in the world (behind the United States) in science publications, and by 2050 it aims to lead the world in science and innovation. The global mobility of people and ideas, encouraged and supported by the Chinese government, has been instrumental to achieving this status.

**Expansion of higher education.** Since the late 1970s, China has focused on expanding and improving the quality of its higher education system. National investments in new colleges and universities and the expansion of existing institutions led to increases in the number of students with bachelor's and higher degrees. The government also invested in improving the quality of the university system and creating world-class academic centers.

**Outbound mobility of students and researchers.** In the late 1970s, few Chinese students could finance their study abroad. The government extended support to a limited number of students in keeping with the national goals. As the outbound flow of students increased over the 1980s and 1990s, the government changed its strategy and endorsed overseas education. For self-financing students, the government simplified procedures for studying abroad. For highly talented, meritorious students, the government financed their foreign education at top-tier universities. To facilitate training and participation in advanced research, the government set up the national high-level university researchers' program, which subsidized travel abroad for more students and researchers.

**International research collaborations.** Considerable efforts were made to encourage Chinese students studying abroad to return home after completing their studies and to attract foreign talent to lead research activities in China. The government offered researchers high salaries and opportunities by investing heavily in science infrastructure. By the 2010s, China was spending more than all major countries (except the United States) on R&D. Along with increases in doctoral degree holders, scientists, and engineers and the expansion of higher education, China was set up for huge increases in scientific output. The number of papers written by Chinese scientists increased substantially because of collaborations with scientists at home and abroad. The international collaboration was mainly with the United States, where there was a large diaspora of Chinese students who stayed in the United States after completing their studies.

Sources: Freeman 2015; Li 2016; and Veugelers 2017.

education exports, improve the global rankings of its higher education institutions, and attract more foreign students to India.<sup>2</sup> The program targets students from 30 countries in Asia and aims to increase foreign student enrollment from 45,000 to 150,000–200,000 by 2022. Fee waivers and scholarships have been proposed to attract foreign students, and the government has earmarked Rs. 1.5 billion for the program.

## Internationalization at Home—an Unexplored Agenda

Despite government, institutional, and family efforts, the number of internationally mobile students in the region is small. Consequently, a key challenge in South Asia is the need to provide students with opportunities to acquire an international, multicultural awareness at their home institutions, along with the skills and global competencies that internationalization promotes. Such internationalization at home involves transforming classrooms and campuses into spaces that intentionally develop global, international, and intercultural competencies among students by internationalizing the curriculum, teaching and learning, assessments, and research activities. Instruments used to internationalize teaching and learning can include guest lectures by speakers from international companies or local cultural groups, guest lectures by faculty from foreign universities, case studies in an international context, digital learning, and online collaboration. Structured interactions with foreign students and students who studied abroad can make meaningful contributions.

The focus on learning outcomes and the use of digital technologies and online platforms in the internationalization process has been limited. As discussed in chapter 14 and highlighted in box S5.2, India is making some progress on assessments to measure both cognitive and noncognitive skills acquired in higher education. The assessments are designed to measure skills (in content and noncognitive areas) that are comparable across international contexts.

### **BOX S5.2 Assessments to Measure and Compare Content and Noncognitive Skills across National Contexts**

As part of the World Bank–supported Technical Education Quality Improvement Project III in India, the Ministry of Human Resource Development and the All India Council for Technical Education are working with Stanford University to implement low-stakes assessments of students’ academic, higher-order thinking, and noncognitive skills. The content tests are designed to systematically compare math and physics skills in computer science and electrical engineering programs across countries. The test of critical thinking (part of the HEIghten suite of assessments from the Educational Testing Service) was developed to be culturally neutral so that the test can be administered to students in different countries. The tests have also been administered in Russia and China.

*Source:* Government of India–World Bank TEQIP III Project.

Much work can be done to promote virtual exchanges and virtual mobility in South Asian higher education institutions. Several models of online communication techniques to connect faculty and students for global learning and intercultural experiences have been developed and used in other countries. A case in point is the Collaborative Online International Learning (COIL) Center at the State University of New York, which has pioneered a pedagogical approach for using technology to advance the internationalization of teaching and learning (ACE 2016). COIL involves team teaching with faculty and students across two or more countries in a structured way such that the success of students in each class depends upon the success of the others. The COIL method has been adopted by numerous institutions around the world.

Supportive and strategic leadership and capable academic staff are critical success factors for internationalizing higher education institutions (Carroll 2015; Leask 2015). An EU study found that academics in 95 percent of European institutions are aware that skills acquired abroad can have an impact when they return home (EU 2014). The study also underscored the need to build skills and engagement among academics as prerequisites for successful internationalization (Beelen and Jones 2015). In a global survey on internationalization, nearly 70 percent of participating South Asian institutions responded that they provided professional development for faculty to enhance their ability to integrate international and intercultural dimensions into teaching. South Asian institutes also gave this activity the highest priority among other internalization-at-home activities.

The South Asian diaspora is a fundamental stakeholder in internationalization efforts but has not yet been used to its full potential. The Indian diaspora alone totals more than 30 million people across 130 countries. Some efforts are being made to connect with the diaspora through scholarships for diaspora children, as in India, and through professional opportunities for the diaspora to engage in the home country, as in Pakistan. Examples from Chile, Colombia, and Mexico indicate that engaging the diaspora requires building a system that enables the diaspora to become involved with local institutions, even while being based abroad. Mexico has established a formal network of scholars (based in North America, Europe, and other regions) and creates opportunities for these scholars to engage with the higher education system at home, even while being based outside their home country (Marmolejo 2009).

## Notes

1. Primary data on inflows of students from other countries to South Asian countries for higher education are available for India. Some information is also available for Sri Lanka from secondary sources. Data on outbound student mobility for all South Asian countries are available from the UNESCO Institute for Statistics.

2. For example, the Indo Nepal Treaty of Peace and Friendship, 1950 (Agarwal n.d.).
3. See <https://thepienews.com/news/sri-lanka-opens-university-system-foreign-investors/>.
4. Regulations issued by the two regulatory bodies can be found at <http://pib.nic.in/newsite/PrintRelease.aspx?relid=168712>.
5. See <http://pib.nic.in/newsite/PrintRelease.aspx?relid=176204>.
6. See <https://www.uclan.ac.uk/news/uclan-partners-with-universal-college-lanka.php>.
7. See [http://mhrd.gov.in/sites/upload\\_files/mhrd/files/Stay%20in%20India%20release.pdf](http://mhrd.gov.in/sites/upload_files/mhrd/files/Stay%20in%20India%20release.pdf).

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## Managing the Complexity and Growth of the Higher Education System Requires Strong Governance

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**G**overnance of the higher education system—the way institutions are organized and managed to promote autonomy and accountability—encompasses external relations, internal relations, and the intersection between the two. Higher education institutions routinely engage with the outside world and system-level entities: the government, businesses, and the community. The government’s role is paramount because it determines the rules and regulations that govern higher education institutions. But higher education institutions are also complex organizations, characterized by internal configurations of power, meaning that internal governance is important as well.

Internal governance has three aspects: strategic, organizational, and operational. Strategic governance involves formulating a long-term view of an institution’s activities and accordingly making choices to support the view. Organizational governance involves managing the unique organizational features of a higher education institute—its matrix structure, knowledge ethos, tolerance of dissent, and consensual decision-making processes. Operational governance focuses on executing policies pertaining to admissions, scheduling classes, faculty recruitment, campus safety, and the like.

External and internal relations often intersect in influencing key aspects of a higher education institution’s performance. In countries across South Asia, governments play a key role in determining who sits on a higher education institution’s board of governors, who leads the institution, and who gets hired to teach. Given the importance of leadership and faculty quality to an institution’s performance, deciding who sits on the board—an external function—ultimately determines how effectively internal

leadership and teaching functions will be performed. Internal functions influence external ones too. For instance, whether an institution can coordinate examination test-setting, invigilation, checking of answer sheets and declare results on time in a fair and transparent manner influences its relationship with employers and funders.

Three things stand out in this chapter's examination of governance in higher education institutions in South Asia. First, governments significantly influence what happens within higher education institutions. In most countries, the higher education system promotes standardization at the cost of autonomy, which has implications for internal governance, for what and how students are taught, and for the incentives to undertake research. It also has implications for private higher education institutions, which are both fettered by rules and unchecked for quality. Second, the affiliation system, prominent in several countries, is overburdened with responsibilities. Affiliating universities no longer serve the mentorship role envisaged for them but rather are expected to undertake, despite limited staff, a range of quality assurance and administrative duties for several hundred institutions. Third, quality-assurance systems in higher education are new in several countries, tend to be input focused, and have low coverage and limited human resources. In short, efforts to regulate higher education institutions and promote general standards have compromised those institutions' autonomy; at the same time, poor quality-assurance mechanisms mean limited accountability.

## **Governing the Rapidly Expanding Higher Education System Will Be a Challenge for Governments in South Asia**

Governments play a key role in financing, providing, and regulating higher education in South Asia. Despite private involvement in higher education, governments are important funders of higher education in the region. The limited data on private contributions make it difficult to estimate the government's share. Government involvement in higher education in South Asia signals a commitment to ensuring equity in access, maintaining quality, and generating research and development. Governments thus fund many higher education institutions' capital and maintenance costs as well as student scholarships to stimulate demand. Governments also manage the delivery of higher education by establishing or running institutions. Finally, governments regulate higher education through policies, legislation, governance guidelines, and quality assurance systems.

The extent of the central government's involvement in higher education differs by country. Afghanistan, Bangladesh, Bhutan, Maldives, and Sri Lanka have a centralized higher education system, with the central government incurring the bulk of expenditures and provision. In India, Nepal, and Pakistan, state, local, and provincial governments lead the financing and provision of higher education.

Legislation and policy formulation for higher education involve multiple levels of government. In all countries in South Asia, central bodies formulate regulations, but

in the countries with federal systems, province- and state-level entities also play a key role. In India, the University Grants Commission, an autonomous body under the central Ministry of Human Resource Development, is responsible for granting academic autonomy to central and state colleges.<sup>1</sup> From the central government's perspective, it is important to have uniform standards for autonomy across the country. But states have their own procedures for granting autonomy to state colleges. From the state government's perspective, it is important to contextualize autonomy. In Pakistan, the Higher Education Commission is entrusted with multiple tasks pertaining to quality control, but provinces play a key role in other quality-related aspects, such as choice of leadership and faculty. Even more centralized systems can be complex—for example, because of overlapping influences, as in Sri Lanka, where the Ministry of Education and Highways and the University Grants Commission have overlapping responsibilities (World Bank 2017a).

Governments in South Asia have advanced equity and quality, but the system's dramatic expansion complicates those goals. Governments in South Asia are expected to oversee numerous higher education institutions, both public and private. This is no easy task. In India alone, six institutions open each day (including weekends) (Kapur and Mehta 2017). Ensuring that basic standards are met during such rapid growth has been difficult.

In the interest of accountability, governments have tried to standardize several processes. But an unintended consequence is excessive standardization of process and too much centralization in decision-making. Consider, for instance, regulations on academic, administrative, and financial autonomy. Such regulations aim to ensure basic standards in higher education institutions; but on the ground, they leave higher education institutions with little say about their mission, leadership, curriculum, student policies, faculty choice, and examinations. In Bangladesh, a single institution, National University, is responsible for preparing examinations for more than 150,000 students across some 1,800 colleges. In Nepal, Tribhuvan University is responsible for examinations in more than 1,000 colleges. Not only do colleges affiliated with these universities have no say in examinations, delays of several months in the posting of results lead to considerable loss in class time (World Bank 2016a, 2015). In Pakistan, the curriculum that affiliated colleges follow is highly standardized and rarely revised, leaving colleges unable to adapt to changes in the labor market in real time or even with a reasonable lag. In Sri Lanka, the central government—through the Ministry of Education and Highways and the University Grants Commission—is responsible for policy making, financing, allocating teachers and students to institutions, accrediting institutions, and ensuring quality; provincial authorities have no say.

Addressing the governance challenges associated with the rapidly growing higher education system in South Asia has created three problems: too much standardization, piecemeal adoption of policies rather than internally coherent reform, and duplication of roles and responsibilities.

Standardization has promoted process-based accountability at the cost of performance accountability. A talented professor in an affiliated college might find it difficult to conduct innovative research since research funds are often allocated to institutions

as block grants, without any requirement for allocating the resources based on merit or innovation. Institutions often allocate their resources based on criteria such as seniority instead. Until recently, public universities in Bangladesh filled in a predetermined expenditures template detailing annual funding needs to the Ministry of Education through the University Grants Commission.<sup>2</sup> Such centralization characterizes other countries as well, such as India's agricultural universities and Sri Lanka's universities.

The large number of private higher education institutions in South Asia with considerable differences in quality complicates the task of ensuring equitable and quality higher education. Numerous private players operate outside the ambit of regulatory bodies. Many are run by powerful vested interests that obtain affiliation or registration and accreditation by sidestepping the standard requirements (Dhanuraj and Kumar 2015), which has eroded the private sector's credibility. To curtail this behavior, governments have adopted standards and procedures that have had the unintended effect of hindering the entry and growth of all private providers instead of differentiating between high- and low-potential providers. For instance, private colleges in India and Pakistan are charged higher fees for affiliation than government colleges. But in India, student fees in private colleges are tightly controlled, which puts such colleges at a disadvantage when they are charged higher fees for affiliation. In Sri Lanka, an ideological opposition to private higher education has led some institutions to establish themselves as companies that coach students to prepare them to earn degrees from universities abroad. The ideological opposition likely prevents credible entities from joining the tertiary sector, while doing nothing to discourage noncredible ones. Not only is entry difficult, but so is exit. India charges poorly performing affiliated colleges closing fees, often for each program. Those colleges cannot afford to close because decreasing demand reduces their revenue. Meanwhile, some students are misled into applying to troubled institutions.

Well-intentioned policies to protect students could hurt higher education quality. To protect students from being exploited through high fees, India's state-level Admissions and Fees Regulatory Committees set the admission criteria and fees for private colleges every three years. The implications for equity are clear, but the implications for quality are not. Fees at nearly 500 private unaided colleges in Uttar Pradesh, for instance, are highly uniform (more than 70 percent are within 1 standard deviation of the mean), despite differences in cost of living across the cities where the colleges are located (Béteille and Mitra 2015). But uniform fees eliminate the incentive for higher education institutions to strive for excellence by reducing their ability to distinguish themselves with better faculty, who generally must be paid more.

For reforms to be successful, policies must not only champion learning; they must also be internally coherent. This has been difficult in South Asia. Faculty are expected to engage in cutting-edge research, but they have little incentive to engage in revenue-generating research or consultancies because of policies that restrict their ability to benefit financially from their efforts. Likewise, centralization of examinations leads to delays in releasing student results, which puts students entering the labor market

at a disadvantage. Even when the curriculum incorporates innovative elements, the examination system does not change, so students are disinclined to study anything beyond what will be rewarded in the examination process.

Duplication of roles and responsibilities across government entities causes delays and creates further challenges for higher education. As discussed above, in all countries, central bodies formulate key regulations, but in countries with federal systems, province- and state-level entities also play a key role. This creates a governance challenge, as central and province- and state-level agencies often send institutions different signals. In India, University Grants Commission recognition and autonomy confer several advantages, including access to funds, but the state governments decide whether to forward applications from state colleges. On the one hand, state governments are closer to state colleges than the University Grants Commission, and their go-ahead adds weight to the application; on the other hand, it adds steps to the process without clear benefits for colleges. Colleges may also be required to follow state government guidelines, which might be at odds with those of the central government. The state of Kerala, India, recently took issue with the term “autonomy,” which it views it as synonymous with privatization and hence profiteering. Consequently, none of the colleges in the state can apply for academic autonomy to the University Grants Commission, constraining their prospects.

Even within more centralized higher education systems, such as those in Bangladesh and Sri Lanka, overlapping responsibilities create confusion and delays. In Bangladesh, multiple agencies are involved in policy making, development, recruitment and training, regulation, and quality control (table 13.1). The Ministry of Education deploys teachers, but several other agencies both within the education system (such as the Department of Secondary and Higher Education, National University, and the National Academy for Educational Management) and outside it (such as the Ministry of Public Administration and the Public Service Commission) are involved in recruitment for public institutions, with final approval given by the prime minister. The entire process of recruitment, from drafting of requisition to deployment of teachers to vacant posts, takes nearly two years. In Sri Lanka, the Ministry of Education and Highways and the University Grants Commission coexist at the center, creating role confusion and blurring the lines of accountability. In addition, these entities are entrusted with accreditation on the one hand and allocation of financing on the other, creating a conflict of interest.

## Too Much External Control Has Weakened Internal Governance

External attempts to control quality have weakened internal governance within higher education institutions in South Asia. All countries recognize the importance of sound internal governance. Universities are headed by a vice-chancellor (accompanied by a registrar, who is responsible for day-to-day administrative issues), and colleges are headed by a principal or director. Each is expected to report to a board of governors

**TABLE 13.1** Institutional Matrix of College Education Governance in Bangladesh, 2016

Agency	Policy making		Development projects		Personnel (recruitment and training)		Regulatory role		Curricula development		Quality control	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Ministry of Education	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
Ministry of Public Administration					✓	✓	✓	✓				
University Grants Commission	✓	✓					✓	✓				
Public Service Commission					✓	✓	✓	✓				
Non-Government Teachers' Registration and Certification Authority		✓				✓		✓				
National University	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
Department of Secondary and Higher Education	✓	✓	✓	✓	✓	✓	✓	✓			✓	
Board of Governors	✓	✓					✓	✓				
National Academy for Educational Management					✓							

Source: World Bank 2016a.



(sometimes referred to as a board of management or council), a group of appointed or elected individuals who serve as a governing authority. The board is expected to provide guidance in terms of vision, mission, and strategy to achieve that mission, with the goal of ensuring that quality standards are maintained and external influences do not compromise the institution's functioning.

Two factors inhibit the performance of boards of governors of colleges and universities in South Asia. First, the bodies are often technically underprepared to undertake the task. They may not understand what good governance entails, let alone their role in planning, organizing, and monitoring the processes and procedures required for good governance. In a survey of engineering colleges in India in 2017, nearly 40 percent required guidance on assembling a board of governors, understanding the board's role, and differentiating among board members' roles (Lee 2017).<sup>3</sup> Second, boards of governors can be politically influenced, and these influences often divert the college from its long-term vision. In several state government-funded colleges in India, the chair of the board of governors is a prominent state politician. This gives the board democratic legitimacy but can also create problems when political influence interferes in decisions on faculty recruitment and promotion, construction, and equipment purchase (Kapur and Mehta 2017; Dundar and others 2017; Usman 2014).

**Boards of Governors—meant to steer higher education institutions—are often technically unprepared, have little time, or are politically influenced, which limits their ability to help colleges.**

Principals in higher education institutions in South Asia have little say in key decisions. In Bangladesh and Pakistan, principals in public colleges have little autonomy in most areas—including human resources, procurement, and finances—for which decisions are made at a higher level. Principals also have little say in terminating permanent faculty members, who are high-ranking civil servants (Latif 2017). In Sri Lanka, colleges have autonomy in theory, but most powers are constrained by strict regulations and University Grants Commission oversight. The commission recruits faculty and determines student admission limits. Furthermore, the high vacancy rate for principal positions across the region results in individuals serving as a full-time principal in one college and an acting principal in one or more colleges. This likely limits a principal's capacity to be an effective leader.

Little of this is surprising because decision making in higher education institutions in South Asia is often influenced by unhealthy politics, both within institutions and within the higher education system. In India, executive councils and boards of governors of some institutions have failed to protect the charter, with boards in these institutions typically chaired by politicians and comprising members who are unaware of how to steer a higher education institution. While the rules of the central University Grants Commission and All India Council for Technical Education prohibit political representation on the boards of higher education institutions, states have separate rules, and often the chairperson is a senior politician. In Pakistan, higher education institutions often have a powerful vice-chancellor selected on the basis of political criteria and a large but weak senate/board. This has meant centralization of decision making by a

decision maker who may not be technically suited for the job. In Sri Lanka, a recurrent theme is the appointment of university officials based on political and personal factors rather than on professional criteria. Maintaining quality and high standards is difficult in such a scenario. Furthermore, these factors have eroded public trust in higher education and affected research performance (box 13.1).

## An Inefficient Affiliation System Hampers College Autonomy

The affiliation structure is fettered by three key challenges. First, the number of colleges is excessive. With several hundred affiliated colleges, affiliating universities cannot properly mentor colleges, especially not to the point where they could operate autonomously. Bangladesh's National University is affiliated with 1,470 government and nongovernment colleges, serving 1.9 million students. Dr. A. P. J. Kalam University in Uttar Pradesh, India, is affiliated with 841 colleges.<sup>4</sup> Nepal's Tribhuvan University is affiliated with 1,123 colleges. Pakistan's University of Sargodha is affiliated with 400 higher education institutions. This is in stark contrast to the traditional affiliating university model in Oxford University or Cambridge University, where the affiliation

### **BOX 13.1 Poor Governance Hinders Research at Higher Education Institutions in South Asia**

In the United States, the Morrill Act (1862) set the long-term vision for higher education in the country. Universities emerged, strongly influenced by the need to manage a large, untamed geography. Control of universities was left with state governments, and long-term success was linked with how well universities met local demands, especially local industry needs and priorities set in the state legislatures. Consequently, a primary activity of early U.S. universities was to provide skills for a range of professions important to local economies—and the results are particularly apparent in land grant universities' contributions to agriculture. Even today, nearly half of university funding comes from government agencies such as the Department of Defense, the Department of Energy, the National Aeronautics and Space Administration, and the National Institutes of Health to support a clear strategy for the application and transfer of knowledge.

The situation in South Asia is different. Except for a handful of universities and institutes, such as India's Institutes of Technology, limited autonomy and incentives constrain the ability of institutes to undertake innovative research projects and activities. Faculty have little say in their research projects and limited qualifications and incentives to seriously engage in research. Most faculty do not have a MPhil or doctoral degree, which would qualify them to conduct research. The proportion of faculty with an MPhil or PhD in Bangladesh, Pakistan, and India is well below 30 percent. Only Sri Lanka bucks the trend: nearly 60 percent of faculty members have an MPhil or PhD. Pay and promotions, with few exceptions, are not determined by the quality of research. Furthermore, faculty receive few benefits from undertaking industrial consultancy assignments or face few penalties for not doing so.

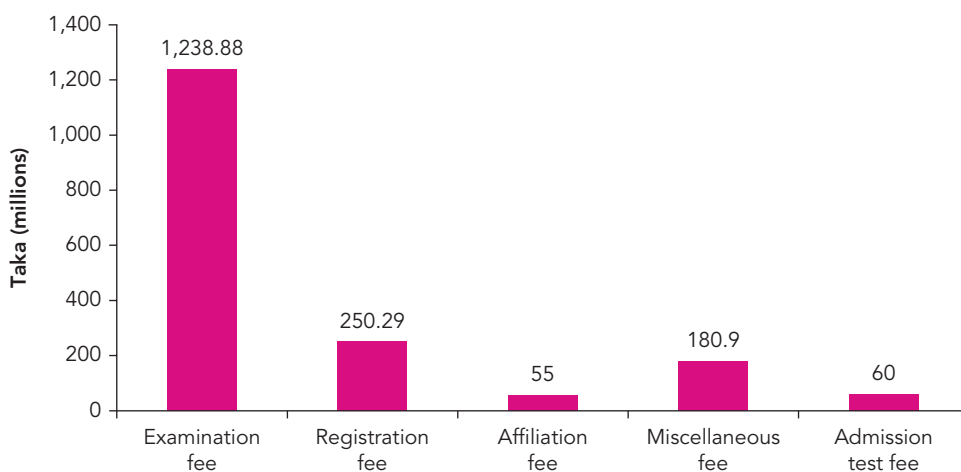
*Sources:* World Bank 2016a, 2016b; Dundar and others 2017.

system originated and affiliated colleges number under 50. Second, many affiliating universities lack the human resources to be effective, which limits their ability to undertake tasks associated with affiliation, such as examinations, in a timely manner.

Third, the substantial power of affiliating universities in South Asia in areas such as examinations and the revenue generated through fees creates perverse incentives that work against their core mission of developing institutions. On the one hand, affiliating universities are expected to oversee several colleges and generate revenue from the fees that those colleges and their students pay (such as affiliation and examination fees). On the other hand, they are expected to facilitate colleges that seek autonomy. Having affiliating universities' revenue come primarily from fees provides a disincentive for the universities to promote autonomy for affiliated colleges because that autonomy would mean a loss of revenue. Bangladesh's National University does not receive any funding from the government or the University Grants Commission;<sup>5</sup> its main sources of income are examination and registration fees from students at affiliated colleges, followed by other types of payments from those colleges (figure 13.1). In fiscal year 2014/15, total income from these sources was Tk. 1.79 billion (or about \$21 million), up 28 percent from the previous year. Visvesvaraya Technological University in Karnataka, India, depends on affiliation fees as its primary source of revenue. (Examination fees, which have not increased in the past 18 years, cover the cost of providing the examinations.) Affiliation fees have helped the university generate a large corpus fund, so the incentive is to increase the number of affiliated colleges rather than help them become autonomous.

Affiliating universities have little incentive to help affiliated colleges with autonomy.

**FIGURE 13.1** Examination Fees Are the Main Source of Income for Bangladesh's National University, 2014/15



Source: National University Annual Budget 2014/15.

Routine administrative tasks take the front seat for affiliating universities in South Asia, while more substantive roles take the backseat. Bangladesh’s National University does not provide any direct assistance to its affiliated colleges for conducting academic programs, even though its charter gives it responsibility for developing curricula, prescribing academic programs, providing training, organizing student admissions, conducting

### **BOX 13.2 The Logistics of Examinations in Affiliating Universities in Bangladesh and Pakistan**

The examination system at Bangladesh’s National University is highly centralized. The main steps consume considerable time and money:

- The university’s controller of examination prepares a subject-wise panel of examiners, pooling teachers from public universities and affiliated colleges, with the approval of the academic council.
- The controller prepares a subject-wise examination committee consisting of four to five members from the examiner panel, with the approval of the vice chancellor.
- The examination committee for each subject appoints the course-wise question setters, the script examiners, the laboratory examination evaluation, and the oral examination examiners.
- Based on the examination committee’s list, the controller’s office dispatches letters and other documents to the question setters.
- The controller’s office receives questions in sealed envelopes from the question setters, and the examination committee moderates the questions and sends them to the office in sealed envelopes.
- The controller’s office sends the examination questions for printing.
- University personnel pack the sealed examination question papers, and the district administration collects and stores them under their custody.
- On examination day, the examination conducting committee distributes the question papers to the exam centers.
- After the exams are completed, the answer scripts are packed course-wise and sent to the university by post or by hand delivery, and the controller’s office distributes the answer scripts to the examiners for evaluation.

Pakistan’s system is similarly centralized. Examinations are conducted by the Controller’s Office of Examinations in the affiliating university. Typically, one external and one internal examiner share responsibility for determining the examination content. Examination centers and proctor staff are nominated and determined by the Controller’s Office, as are the examination marking and results publication processes. Examiners are selected by the respective departmental board of studies at the affiliating university. The practice is to appoint the internal examiner from the affiliated college (public college) and the external examiner from the affiliating university’s department. Examiners and “paper-checkers” are often unable to meet submission deadlines for the checked-answer sheets to the Controller’s Office, resulting in delays in posting exam results and in starting new academic sessions and completing ongoing academic session—termed a “session jam.”

Sources: World Bank 2016c, 2017.

examinations (see box 13.2 for details on the examinations system in Bangladesh and Pakistan), and conferring degrees.<sup>6</sup> Most of the university's budget for affiliated colleges goes to nondevelopment items, including salaries and examination-related expenses. The largest share of expenditures on affiliated colleges goes toward conducting examinations and some teacher training. This fiscal structure leaves the university with insufficient resources for instructional quality and development. Similarly, Visvesvaraya Technological University in Karnataka, India—an affiliating university—provides little mentoring help for affiliated colleges to become autonomous. Instead it focuses on conferring affiliation, developing curricula, conducting examinations, and conferring degrees.

Affiliated colleges in South Asia lack the capacity for research. Across the region, conducting research in affiliating universities and colleges has been difficult because of a lack of funds; weak research capacity; insufficient staff interested in applying research to the real world; and unavailability of modern teaching, learning, and research facilities. The vast share of funding for government-affiliated colleges is reserved for recurrent expenditures, mostly salaries; very little goes to improving the quality and relevance of tertiary education and developing research capacity. Private colleges have few resources for research and receive little direct aid from their affiliating universities. In Bangladesh, India, Nepal, and Pakistan, the curriculum at affiliated colleges is set by the affiliating university and rarely revised. With little prospect of bringing new knowledge into the curriculum, there is also little motivation to undertake research to generate new knowledge.

## Weak Quality Assurance Systems Hamper Accountability

Across countries in South Asia, central and province- and state-level entities are entrusted with quality assurance of higher education institutions. Third-party quality assurance includes three types of activities: (1) control of entry, to ensure that only institutions that meet certain criteria in terms of infrastructure, faculty availability, and course offerings can operate; (2) accreditation, to ensure that institutions meet certain standards beyond the basic criteria; and (3) autonomy, to allow institutions that exceed certain standards to operate more freely. In a mature system, with different levels of accreditation, one could envision all institutions that meet basic criteria being granted autonomy, and graduated accreditation to ensure accountability in those institutions.<sup>7</sup> Colleges could thus innovate and grow in a self-directed manner, and accreditation could determine which colleges were doing well and could continue to grow and which needed to be closed. But this is not the case in South Asia, where autonomy is given sparingly to both government and private higher education institutions, and typically only after they receive accreditation.

Control of entry is undertaken at the subnational level in those South Asian countries with a more federal structure and at the national level in others. In Bangladesh, preliminary college affiliation-related activities were recently delegated to six regional centers, while affiliation per se remains in the hands of National University. In Pakistan,

provincial governments approve the establishment of higher education institutions, while in India, state governments play a similar role through their affiliating universities. In Sri Lanka, the process is centralized, with the Ministry of Higher Education and Highways working alongside the University Grants Commission to approve establishment of higher education institutions. Other ministries also run their own higher education institutions (Dundar and others 2017).

Control of entry for private higher education institutions remains weak throughout South Asia, with quality at entry especially poorly regulated. In India, all private colleges are required to meet criteria determined by their affiliating university or a central regulatory entity, but the criteria are not always met in practice (Béteille and Mitra 2016). In Pakistan, private higher education institutions can operate only after being recognized by the Higher Education Commission, but several institutions operate without such recognition and without being affiliated with a recognized university. To help consumers, the Higher Education Commission's website lists 175 "unrecognized" institutions and 151 "illegal/fake" institutions (Millot 2017). A similar situation prevails in Afghanistan as well as in Sri Lanka, where 13 private higher education institutions are recognized by the government, but many more operate without recognition (Dundar and others 2017).

Accreditation has a short history in most countries in South Asia, with central entities undertaking such activity. Afghanistan established the National Commission on Quality Assurance and Accreditation in 2009. In Bangladesh, the Quality Assurance Unit was established within the University Grants Commission and initiated quality assurance in Bangladesh's public and private universities. Parliament passed legislation in March 2017 to formally establish the Bangladesh Accreditation Council, but the council has yet to be formed. Two of India's largest accreditation bodies—the National Assessment and Accreditation Council, and the National Board of Accreditation—began functioning as autonomous bodies relatively recently (in 1994 and 2010, respectively). Nepal's accreditation agency started in 2008. Pakistan's Higher Education Commission was founded only in 2002, after which accreditation activities were systematized. In Sri Lanka, accreditation activities were formalized in the past 10 years. In all countries, accreditation of public and private higher education institutions happens at both the institute level and the program level and is undertaken by different agencies at each level (except in Afghanistan and Sri Lanka, where there is no systematic process for accrediting private higher education institutions). In Pakistan, three agencies are in charge of accrediting private higher education institutions: the Higher Education Commission, professional accreditation councils, and provincial regulators. If the purpose of accreditation is to maintain uniformly high standards across the sector, subjecting public and private higher education institutions to different standards might be counterproductive.

Quality assurance systems for higher education in South Asia suffer from four sets of problems: understaffing, a focus on inputs rather than outcomes, coordination challenges, and uneven coverage of private institutes. Quality assurance systems across the region are severely constrained by a lack of staff. This affects both affiliation/

registration and accreditation. Afghanistan lacks staff with the skills to undertake licensing, coordination of quality assurance reviews, and accreditation (Aturupane and others 2013). Some 20 percent of public colleges in Pakistan applied for affiliation after the academic session had begun, indicating that there are not enough systems or people in place to enforce regulations, and nearly 58 percent reported no follow-up inspections by the affiliating university (Latif 2017). In India's Uttar Pradesh, affiliation is online, without any physical verification of whether conditions have been met.

Accreditation of higher education institutions in South Asia has similar problems. After being criticized for the quality of accreditors, India's National Board of Accreditation streamlined its hiring of accreditors. But credible accreditors are still in short supply, so institutions often have to wait for a year or more for accreditors to visit. And by the time accreditors visit, the information in their application needs to be updated, a task that consumes considerable resources. Pakistan's Quality Assurance Division is severely understaffed and unable to carry out its functions in a satisfactory and timely manner. The Quality Assurance Agency suffers from similar constraints.

Quality assurance processes for higher education institutions in South Asia are input driven rather than outcome focused. The key parameters for accreditation pertain to infrastructure and staffing, not to learning, employability, or knowledge creation and transfer—the core goals of higher education institutions. An unintended consequence of a focus on inputs—especially faculty availability and qualifications, which are outside the control of public colleges—is that many higher education institutions cannot meet the criteria for accreditation, through no fault of their own. In Bangladesh, 3,286 of 14,205 sanctioned posts in government colleges were vacant in 2014, according to the Directorate of Secondary and Higher Education. In India, faculty vacancy rates in state engineering colleges can exceed 50 percent. In Pakistan, many public colleges have similar vacancy rates. Given that faculty members of public colleges are not appointed by the college, basing accreditation on something that is out of its hands is unproductive.

Furthermore, faculty qualifications remain weak across countries in South Asia, which further compromises quality. In Pakistan, the proportion of faculty members with a PhD in 2012/13 was roughly 30 percent in public higher education institutions and less than 20 percent in private ones.<sup>8</sup> In other countries, imbalanced and under-trained teaching staffs in most colleges reduce the chance of accreditation.

The existence of multiple entities for accreditation of higher education institutions in some countries causes confusion and delays. In Pakistan, the Higher Education Commission coordinates enforcement of quality assurance with two entities: the Quality Assurance Division, and the Quality Assurance Agency. This overlap in functions creates confusion and brings activities to a standstill. Accreditation of public colleges is handled by two types of accreditation councils. One type was established by the federal government, with a council for each professional discipline (for example, engineering, medical, dental, and law). These nine councils check quality standards and award certificates to graduates from accredited institutions, allowing them to practice in these disciplines. The other type is an in-house accreditation council

established by the Higher Education Commission.<sup>9</sup> These four councils operate under the umbrella of the Quality Assurance Agency and use the agency's guidelines for accreditation in business, computing, agriculture, and teacher education. Because they are under the Higher Education Commission's ambit, their legal status remains unclear, and their legitimacy is sometimes questioned. In India, accreditation of institutes is done by the National Assessment and Accreditation Council, while accreditation of specific programs is done by specific agencies, such as the All India Council of Technical Education for engineering programs. Institutes that seek both types of accreditation must undergo procedures administered by both councils, even though there is a fair amount of overlap in content. Having common procedures, including data-sharing mechanisms, would speed up the process and reduce the administrative burden on institutes applying for accreditation.

Quality assurance processes in several countries in South Asia are not designed to help private higher education institutions reach excellence, let alone hold them accountable for their performance. As mentioned above, accreditation processes for private higher education institutions in Afghanistan and Sri Lanka are nonexistent or nascent. In Pakistan, accreditation of private institutions is undertaken by multiple entities, and there is little clarity on whether standards are being enforced. Independent quality assurance of private institutions is likely to benefit students, governments, and employers because they will know the value of the degree being offered, which will in turn motivate institutions to improve.

## Poor Targeting of Financial Aid and Little Support for First-Generation College Students Makes Leveling the Playing Field Difficult

The growth in demand for higher education in South Asia leaves behind students from the lowest-income quintiles (see chapter 10). There are three main reasons for this.

First generation college-goers face several hurdles—academic, cultural, and financial—that make their college journeys especially challenging.

First, students from the lowest income quintile likely attend low-quality schools, which makes it difficult for them to pass school-leaving exams. Those who pass might not pass college entrance tests. Second, the costs of attending college, especially nontuition and opportunity costs, are considerable (table 13.2). And public colleges can be quite expensive, even if less than private colleges, in fields such as engineering. Some students

receive financial aid, but it is inadequate to attract more first-generation students to college. The share of students who received a tuition waiver or a stipend for studying at the undergraduate level or higher was 20 percent in India,<sup>10</sup> 14 percent in Bangladesh (Bangladesh Bureau of Statistics 2016), and 6.2 percent in Pakistan.<sup>11</sup> Furthermore, targeting of financial aid remains weak. The share of students in the richest quartile who



**TABLE 13.2** Mean Expenditures on Higher Education, by Type of Institution in India, 2014  
Rupees

Type of institution	Tuition fee	Books	Private coaching	Other expenditures
All higher education	32,473	5,216	3,897	5,201
Government professional or technical	34,434	7,227	6,535	7,421
Private professional or technical	67,037	7,850	3,278	8,744

Source: India National Sample Survey 71st round.

receive financial aid was 5.3 percent in India (compared with 8.3 percent of students in the poorest quartile) and 4.6 percent in Pakistan (compared with 6.2 percent of students in the poorest quartile).

Third, student decision making in South Asia is complicated by the sheer difficulty of the adjustment to higher education for most students. First-generation collegegoers are at a particular disadvantage, as are those who have little family support or family history of successful participation in higher education, or a disadvantaged socioeconomic background. Much needs to go right for students as they encounter a new environment with different administrative requirements and more rigorous academic demands than those they might have previously encountered. Effectively supporting students as they navigate and adjust to this new environment can offset the need for resources to hire more academic or student service counselors, procure better technology, or build larger facilities.

Governments in South Asia have been unprepared for the dramatic expansion of higher education in the region. Governing a growing and diverse sector has been difficult. A key challenge has been the tension between centralization, to ensure that minimum standards are maintained in higher education institutes, and autonomy, to encourage excellence. The unintended consequence of centralization of higher education systems has been too much standardization but few high standards. The affiliation system—a characteristic feature in Bangladesh, India, Nepal, and Pakistan—further undermines college autonomy without improving accountability. Poor data systems and weak quality assurance mechanisms also complicate accountability. Finally, as governments try to manage their expanding higher education systems, the poor often receive limited support, because financial aid policies are weakly targeted and other support mechanisms are still nascent. Despite these challenges, South Asian countries are rising to the challenge of managing diverse and growing higher education systems. Chapter 14 discusses this in greater detail.

## Notes

1. Autonomy can be categorized as academic autonomy, administrative autonomy, and financial autonomy, and pertains to the ability to make decisions in those realms.

2. The University Grants Commission is a separate entity under the Ministry of Education and is responsible for managing higher education institutions in Bangladesh.
3. See Lee 2017.
4. At the state level, affiliating technical universities affiliate with the majority of engineering colleges (government, government-aided, and private). These universities grant affiliation based on inspections of technical colleges to ensure compliance with regulatory guidelines. Fifteen affiliating technical universities affiliate with 4,171 technical colleges (Department of Higher Education 2015). The majority of these colleges are engineering colleges, and 84.6 percent are private (accounting for 83 percent of undergraduate intake). The affiliating technical universities serve key functions for all their affiliated colleges, including managing admissions and examinations, setting curricula, and granting degrees. Further, 70 percent of students pursuing a PhD do so through an academic department of the affiliating university (Department of Higher Education 2015).
5. However, the university implements several small development projects with government funding.
6. To be eligible for affiliation, a college must have a governing body, an adequately strong and qualified teaching staff, suitable facilities, and financial resources to provide for continued maintenance; it must have been functioning for at least three years and receive salary subvention for teachers from the government; and there cannot be any other affiliated college within 8 kilometers (except in metropolitan, industrial, and municipal areas). Affiliation is also subject to approval of the Syndicate (Board).
7. In India, the National Board of Accreditation grants two types of accreditation: one for two years (which cannot be renewed), and one for five years (which is renewable).
8. Sharif (2016) puts the proportion at 33 percent for both public and private higher education institutions.
9. Three more councils are to be established.
10. India National Sample Survey 71st round (2014).
11. 2015–16 Pakistan Social and Living Standards Measurement.

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## How Can South Asia Do Better in Higher Education?

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Reforms in higher education in South Asia have focused on similar themes: access, equity, and quality (table 14.1). Within access, equity concerns have driven public expansion, with interventions to address infrastructure (building more colleges, especially in underserved areas) and the social and financial dimensions of access (adopting affirmative action policies and scholarships, though targeting remains poor). In terms of quality, institutions and inputs have been driving factors, with a focus on the teaching–learning experience (providing faculty professional development) and research generation (increasing practical research). Countries have also started taking system-level reform in higher education seriously. The two most common reforms pertain to governance and quality assurance through accreditation and ranking.

In improving higher education systems, countries in South Asia should focus on efficiency, quality, and opportunity. Boosting efficiency will require mechanisms to consolidate multiple small unfeasible higher education institutions. Affiliating universities can play an important role, but their incentives will need to be aligned with curbing fragmentation rather than with implicitly promoting it (see chapter 13). Strengthening external and internal governance, as well as building data platforms on student outcomes, will inculcate a culture of transparency and accountability in the system. This is especially important because more advanced forms of quality assurance might require considerably more financial and human resources than countries currently have.

Improving the quality of higher education in South Asia will require leveraging technology to carefully track student outcomes, such as learning and employability. No country in the region, with the recent exception of India for engineering colleges (see later in the chapter), tracks learning outcomes. Examination systems have several

**TABLE 14.1** Key Ongoing Reforms in Higher Education in South Asia, by Country

Country	Access and equity	Tracking learning	Employability	Research	Governance	Examination reform	Collaboration with private sector
Afghanistan: Higher Education Development Program	✓		✓				
Bangladesh: Higher Education Quality Enhancement Project and College Education Development Project	✓		✓	✓	✓	✓	
India: National Higher Education Mission and Technical Education Quality Improvement Project	✓	✓ <sup>a</sup>	✓	✓	✓		✓
Nepal: Higher Education Reforms Project	✓			✓	✓	✓	✓
Pakistan: Tertiary Education Support Program	✓		✓	✓			
Sri Lanka: Higher Education for the Twenty-First Century Project and Accelerating Higher Education Expansion and Development	✓		✓	✓	✓		

Sources: World Bank 2011, 2015a, 2015b, 2016a, 2016b, 2017.

a. For the Technical Education Quality Improvement Project only.

problems, including the infrequent updating of material tested and lack of comparability across years. No country tracks student employability either. Without tracking these indicators, there is no way to know what is working and what is not. Countries have been investing in recruiting faculty and in providing in-service professional development, but to gain from these investments, countries must link training with performance and career incentives, provide follow-up training, offer a subject focus, provide trainees with material they can use as they resume their jobs, and encourage practicing and engaging with colleagues. Countries have made progress in research, increasingly by using competitive funding to reward performance.

To reach more students meaningfully, countries in South Asia must better target student financial aid, help girls and first-generation collegegoers, and leverage the private sector. Targeting financial aid is important because students who can afford to pay are sometimes heavily subsidized, while students who cannot pay are left out of the system. To help girls and first-generation collegegoers adjust to college life, countries should prepare students before they enroll through bridge courses and orientation programs, as well as provide ongoing support during college. Finally, given the private sector's key role in making college available to more students, better regulating the sector and improving performance incentives could boost the quality of private colleges.

## Toward a More Efficient Higher Education System

Across South Asia, access to higher education has improved because more higher education institutions have opened over the last decade (see chapter 12). Governments have opened colleges in places where underserved populations could easily access them. Sensing a market, the private sector has also expanded dramatically in many countries, further increasing access.

As more colleges open to serve more students in South Asia, two challenges arise: operating small higher education institutions, and attracting faculty to such institutions. The average size of higher education institutions in the region is too small to permit diversification of curriculum, allow for interdisciplinary collaboration, or attract high-quality faculty (see chapter 12). It is difficult for an institution with 100 students to offer a choice of disciplines or invest in equipment. So while governments and the private sector have opened many colleges, many are not operationally feasible, raising aspirations but not fulfilling promises. Faculty vacancy rates are high across the region, often reflecting the difficulty of attracting faculty to small, remote colleges.

### GOVERNMENTS NEED TO CURTAIL FRAGMENTATION IN THE SYSTEM

Reforms are needed at three levels. First, small colleges—that is, colleges with fewer than 1,000 students—should be incentivized to form clusters, merge, or close if not performing well, while good performers should be incentivized to grow. Forming clusters or merging will allow colleges to share and benefit from each other's strengths

and resources (Salmi and others 2002; Linden, Arnhold, and Vasiliev 2008). This includes the capacity to design curricula and evaluations, develop a capable faculty, and build strong leadership teams.

Second, affiliating universities should affiliate only with viable higher education institutions—those of adequate size and sufficient funding—and licensing and registration bodies should ensure that this is the case. The role of affiliating universities should be to provide quality support to 10–20 colleges, with the long-term objective of improving their performance or merging or closing them. To do this effectively, affiliating universities will need to develop a robust internal quality assurance framework and provide colleges with support services, such as help with measuring the quality of teaching and learning and designing curricula and examinations. For this to happen, the incentives for affiliating universities need to be realigned: affiliating universities currently have little incentive to support autonomy for, or closing of, affiliated colleges because affiliating universities survive on fees from affiliated colleges (for administrative tasks such as affiliation and examination fees). Affiliating universities also charge affiliated institutions fees for closing programs—another disincentive for closing an unviable program. Affiliating universities will need to find revenue sources unrelated to affiliation, such as the support services mentioned above, to meaningfully fulfill their affiliation role.

Third, governments in South Asia must further strengthen the higher education regulatory and licensing framework, including enforcement of licensing. Governments have a key role to play by providing effective stewardship for the higher education system and improving accountability. An important element of improving accountability is enforcing mechanisms to ensure better information disclosure and transparency at every level. Affiliating universities and their colleges should be required to disclose information related to university–college structure, faculty qualifications, and students' performance both during their studies and after graduation (once they are employed).

## BETTER GOVERNANCE AND DATA CAN BOOST EFFICIENCY

Providing higher education institutions with the autonomy to manage their academic, administrative, and financial work strengthens efficiency because institutions are typically better placed than a more distant centralized entity to determine effective approaches for themselves. But there are some caveats. First, not all colleges are ready for autonomy, especially public colleges, many of which have little experience taking initiative or making decisions (Independent Evaluation Group 2011). Such colleges will need to be mentored and developed before they can improve operations on their own. Second, colleges need strong internal leadership—specifically, a well-informed and committed board of governors—to chart a vision, help the college meet its goals, and hold the administration accountable for performance. Third, sound internal and external quality assurance mechanisms must be in place to help the public gauge performance and hold institutions accountable for performance.

Governments across the region recognize these issues, and many have made or are making significant reforms. Bangladesh has embarked on an ambitious reform program



that includes a 15-year plan to strengthen institutional autonomy, build capacity, and develop quality assurance and accreditation strategies. India has an elaborate program for developing strong governance mechanisms within higher education institutions by strengthening boards of governors (box 14.1). Nepal has been encouraging the decentralized and autonomous management of affiliated and constituent colleges. Pakistan is revisiting its affiliation system to make it more efficient. In Sri Lanka, all 15 universities under the University Grants Commission are revamping their quality assurance mechanisms, including building strong internal quality assurance units.

Effective governance for higher education ultimately depends on timely, reliable, accessible, and meaningful information—in other words, good data. Such data can help leaders make better decisions while building accountability. For example, to gauge how well students are faring after graduation, detailed data tracking student employability over time are important. Consistently weak labor market outcomes in a field could suggest the need to revamp education programs in that field. For leaders of an institution who make financial decisions on procurement, a register of their, their family members', and their business associates' significant financial and other interests can promote transparency and help prevent abuse in procurement decisions. For students contemplating where to go to college, data on student performance and employment following graduation are also valuable.

Several countries in South Asia have improved data collection and use for decision making. The Government of India has been conducting an annual web-based survey of higher education since 2010, collecting basic data on the institution, teachers, non-teaching staff, programs, infrastructure availability, students enrolled, examination

Countries in the region, such as Bangladesh, India, Nepal, and Sri Lanka, have embarked on ambitious reform programs to strengthen institutional autonomy.

#### **BOX 14.1** Strengthening Internal Governance in India's Higher Education Institutions

The Good Governance Program, initiated by the Government of India under the Technical Education Quality Improvement Project, provides several resources to help higher education institutions improve internal governance. Created by the country's leading industrialists and education professionals as well as international governance experts, the resources include a template for institutions to undertake a governance self-review and form their own governance development plans. Recognizing that members of the boards of governors in higher education institutions require guidance on how best to fulfill their role, the program also provides a good practice guide for governance bodies that includes guidance on several themes, including openness and transparency, roles of a chairperson, attributes of a governing body, and autonomy and accountability.

The Good Governance Program also contains detailed case studies of institutions that have successfully reformed their governance, including tips on what did and did not work. These resources are available on the Technical Education Quality Improvement Project's good governance website ([www.teqipgoodgovernance.in](http://www.teqipgoodgovernance.in)).

results in the terminal year, and financial information. Data coverage and quality have improved over time. Sri Lanka conducted a detailed study of 16,000 college graduates, looking at the sector in which graduates were employed, their monthly salary, the process of finding employment (including wait times) (Ramanayake and others 2012), and the prevalence of unemployment and underemployment. Bangladesh, India, and Pakistan periodically conduct tracer studies. All these studies yield important information but are rarely conducted with a long-term vision for generating and sharing data to inform decision making. For instance, India's annual survey collects important data, but it is still difficult to accurately estimate faculty vacancy rates and student dropout rates. Sri Lanka's unique employment study was conducted only once. Furthermore, accessing data at the institution level, which is important for accountability, is difficult.

To strengthen higher education accountability, online platforms that encourage transparency hold promise.

To leverage the power of data for higher education accountability, online platforms that encourage transparency hold promise, especially when more elaborate quality assurance mechanisms are difficult to implement. Several countries outside South Asia have designed user-friendly platforms to help decision makers, including students, access the information most relevant to them. Such platforms work best when the government requires higher education institutions to disclose information, including on the institution's structure, faculty qualifications, and student performance. In the United States, the Gainful Employment Act requires higher education institutions to disclose information on several parameters to qualify for federal funds, with severe penalties for misreporting. The information is used to compile college report cards, which are published on a publicly accessible website (<https://collegescorecard.ed.gov/>), providing students accurate and relevant information to make decisions about college. Several other countries make information publicly available as a mechanism to build accountability (box 14.2). Because quality assurance systems in the region are burdened with high expectations and constrained by inadequate resources (see chapter 11), using technology to build platforms that make information publicly available holds promise for improving accountability.

## Improving the Quality of Higher Education

To improve the quality of higher education, countries in South Asia must focus on three areas. First, they must track student outcomes to know whether students are benefiting from their higher education experience. Second, they must invest in helping teachers become more effective. Third, they must invest in research, as this forms the knowledge base on which an economy thrives.

### TRACKING STUDENT OUTCOMES

Countries in South Asia have not been tracking student outcomes in higher education systematically, making it difficult to know what is working and what is not. Two types of

**BOX 14.2 Data Transparency Is Key to Quality Assurance and Accountability**

Addressing weaknesses in a higher education system is difficult without good data. Good data can provide the evidence base for effective policies and system accountability. But for this to happen, the data collected must be timely, reliable, accessible, and meaningful. If data take too long to reach consumers or if people do not trust the data, the power of data is lost. A key way in which countries ensure credibility of data and accountability is by putting data online, often on platforms that can be accessed by students as they decide what to do. Examples include:

- The United Kingdom's designated data body, the Higher Education Statistics Agency, regularly publishes data on various aspects of the U.K. higher education system (for example, students, graduates, staff, and institutions), and the agency's community dashboard (<https://www.hesa.ac.uk/news/23-04-2018/qaa-community-dashboard>) has helped improve transparency.
- The European Commission's U-Multirank (<http://www.umultirank.org>) provides a user-driven approach to international ranking of higher education institutions. It compares the performance of higher education institutions along five dimensions—teaching and learning, research, knowledge transfer, international orientation, and regional engagement—and allows users to develop their own personalized rankings.
- The United States has created a platform for helping students compare higher education institutions based on cost, graduation rate, and graduates' salary (<https://collegescorecard.ed.gov>). For each higher education institution, the platform provides details on financial aid and debt, graduation and retention, student body composition, test scores, and academic programs.

student outcomes are especially important: student learning and employability. Countries undertake high-stakes examinations for students during admissions, at the end of each year or semester, and at the end of the program. Even though countries repeatedly consider revising curricula, the examinations system remains untouched and outdated. Test content, logistics, and cheating all need urgent attention. A recent exception is Nepal, which has embarked on reforms to strengthen the examination system in its largest affiliating university, Tribhuvan University. Reforms include key changes in the academic calendar, computerization of student records, and strengthening the implementation capacity for conducting examinations in a timely and efficient manner (World Bank 2015b).

No country in South Asia participates in low-stakes testing to improve course curricula and pedagogy and create institutional accountability. However, a recent exception is India and its engineering colleges. In 2017, as part of a Government of India–World Bank project, the Technical Education Quality Improvement Project III, a sample of engineering colleges in India began participating in a rigorous study to assess student learning gains in key engineering fields and identify their potential correlates. The program is designed to measure and internationally benchmark levels and gains in academic and higher-order thinking skills

India has piloted a high-quality longitudinal system for assessing student learning and higher-order-thinking skills in engineering colleges.

of students in undergraduate engineering programs in India and to understand the factors that affect skills development. The study has also been conducted in China, the Russian Federation, and the United States.

The study of student learning gains provides important lessons for conducting large-scale, sample-based tests in higher education. First, it is important that the test have the desired psychometric properties (reliability, validity, fairness, and the like), can measure skills gains for individuals over time (vertical scaling), and can compare skills levels and gains across countries and institutions. It is also important to localize the content, which means involving local experts to check it. Second, the instrument must be pilot-tested in the context where it will be implemented. Two types of pilots are important: a clinical pilot, and a field-based pilot. The clinical pilot tests for language ambiguity (especially important if the language has been translated), formatting, and the like. The questions for the field-based pilot are then generated based on the results of the clinical pilot. The field pilot tests the questions again, but also tests the process for proctoring the examinations and providing test-takers technical support through a dedicated helpline. Third, because it is a low-stakes test, there must be mechanisms to engage students so that they complete the test properly and reappear for subsequent rounds.

In the last decade, awareness of the importance of improving the employability of college graduates has been increasing in the region. This awareness comes on the back of several studies documenting the low employability of tertiary education graduates and the increase in the number of placement cells,<sup>1</sup> especially at institutions with professional fields. More recently, countries have started seeing the importance of student internships with industry. India's All India Council of Technical Education recently issued colleges a 10-point action plan to improve the performance of engineering colleges—one of the action points requires colleges to ensure that students have internships for at least three summers. Sri Lanka's Higher Education for the 21st Century project's competitive Quality and Innovation Grants program includes a window on strengthening student engagement with industry.

As with learning, countries in the region must now systematically track the labor market outcomes or employability of graduates. Countries in the region do not have systems to help students gauge the employment prospects for graduates of particular programs, including average length of employment, type of jobs they undertake, or when they change jobs. Without such information, it is difficult for incoming students to judge whether specific programs are economically meaningful. While all countries have conducted studies on employability, this needs to be systematized and regularized to track changes and understand what is working and what is not.

## IMPROVING STUDENT OUTCOMES BY INVESTING IN FACULTY RECRUITMENT AND TRAINING

Countries in South Asia are attempting to improve student outcomes by investing in faculty recruitment and faculty training. Bangladesh recently embarked on an effort

to improve the teacher management system by basing recruitment of nongovernment teachers on merit. The country hopes to address the challenge of the poor quality of teachers at entry in private higher education institutions. For training faculty, countries have combined both domestic and international intellectual resources to modernize the way faculty engage with students. Afghanistan, which faces a shortage of skilled trainers, is helping instructors improve through a “train the trainer” program, whereby universities send faculty with the potential to become master trainers abroad to receive intensive training on student-centered teaching and learning. Once they return to Afghanistan, they are expected to train other faculty (World Bank 2018). In Bangladesh, teachers will be trained through a training consortium that includes a reputable international academic partner (World Bank 2016a; Nagashima and others 2018). In India, faculty members in Technical Education Quality Improvement Project–funded engineering colleges are trained through knowledge incubation cells led by faculty members of top-ranking Indian Institutes of Technology.

To ensure that training is meaningful and leads to changes in the classroom, a few principles are important. The same principles that hold for training primary and secondary school teachers are likely to hold for training college teachers. These include linking training with performance and career incentives, having follow-up training, having a subject focus, providing trainees with material they can use as they resume their jobs, and encouraging practicing and engaging with colleagues. In addition, for training to make the most impact, trainees should be matched carefully with training programs. This can be complicated by the fact that higher education institutions have high faculty vacancy rates, which make it difficult to sacrifice faculty teaching time for professional development. One solution is to earmark nonteaching days for professional development and link them with incentives for participation in training and for subsequent performance.

## INNOVATIVE FUNDING MECHANISMS CAN BOOST RESEARCH

To stimulate knowledge creation and transfer, countries across the region have innovated with different forms of competitive funding. Bangladesh’s Academic Innovation Fund, initiated under the Higher Education Quality Enhancement Project in 2009, introduced an instrument for allocating additional public funds to universities that emphasize innovation and accountability. The fund broke away from the status quo of top-down centralized funding in favor of a bottom-up, collaborative approach built on trust and competence between academics and top officials of the Ministry of Education, the University Grants Commission, and universities. To date, the fund has supported 439 projects in 28 public and 9 private universities through four rounds of selection. Fund projects have helped revamp teaching–learning and research facilities, introduce quality assurance mechanisms at the national and institutional levels, build university–industry partnerships, develop fabrication labs, and create technology transfer offices (Nagashima and others 2018).

**Bangladesh's Academic Innovation Fund has institutionalized processes for encouraging high-quality research.**

Bangladesh's Academic Innovation Fund has changed the mindset on research in the country, by altering how funding is allocated to research and by internalizing good practices, such as peer review and project management and monitoring. Several factors explain these successes, including building trust and gaining support for the activity from the start. Bangladesh emphasized the need to ensure equitable access to resources by leveling the playing field for all universities. Universities of similar size and capacity were grouped into the same categories, which gave new and smaller colleges, such as private colleges, and large and established public universities an equal opportunity to compete for funds. The project has also solicited the involvement of academia at all stages, thereby creating a transparent and fair process that has helped build acceptance of the competitive funding mechanism across the higher education community (box 14.3). Because projects supported by Bangladesh's Academic Innovation Fund are implemented by academics at the institutions, project managers and their teams have undergone training on all aspects of

#### **BOX 14.3 Lessons on Implementing Competitive Funds to Stimulate Innovation and Research in Bangladesh**

- Consensus-building through a well-accepted strategy or guiding principal eased the introduction of new and innovative reform instruments in Bangladesh's highly politicized higher education system. As a result, the higher education community was open to the idea of the Academic Innovation Fund as a means to achieve common goals.
- Continuous collaboration and information sharing support trust building and buy-in with implementation-level entities. Academia has been closely involved at all stages of the Academic Innovation Fund process, which has provided a sense of ownership and responsibility for the success of the activity. Projects are planned, developed, and implemented by university teachers, which makes the success of the fund synonymous with the success of academia.
- Capacity building of academics in proposal writing, procurement, financial management, and project management is essential for the successful implementation of innovation funds.
- Transparency and competence in proposal review are crucial for the legitimacy that drives active and widespread participation.
- Gradual intensification of research and experimentation through multiple grants provides additional opportunities for academics to develop new technologies and products for commercialization.
- To ensure buy-in of all stakeholders in the politically sensitive higher education sector, rapid and visible benefits from the activity need to be widely disseminated to support reform implementation in the long run. Benefits were visible to the government and higher education community in the initial Academic Innovation Fund rounds, which has supported subsequent rounds and sustainability, despite changes in leadership over time.

Source: Nagashima and others 2018.

project implementation and management, including procurement, financial management, and monitoring and evaluation. And regular reporting systems are in place to track the progress of each subproject and address field-level challenges. The Higher Education Quality Enhancement Project collects quarterly financial and activity progress reports through a project management information system that tracks the more than 400 projects and identifies challenges.

The Academic Innovation Fund experience emphasizes the importance of creating a strong pool of peer reviewers, developing better processes for sharing resources, and improving maintenance of costly equipment. The quality of peer review has not always been satisfactory. However, external reviews and follow-up reviews ensure quality, and the process has created a pool of peer reviewers to support future competitive funding activities of the Ministry of Education and University Grants Commission. Another challenge in such interventions pertains to sharing facilities among higher education institutions, especially very expensive and unique laboratory equipment. Stronger academic monitoring at the field level coupled with an electronic inventory system could improve the practice of shared facilities.

Countries have also used competitive funding to stimulate academia–industry links, thereby facilitating knowledge transfer. Sri Lanka’s Higher Education for the 21st Century project introduced competitive Quality and Innovation Grants, with one window focusing on research dissemination and commercialization. As a result of these grants, nine faculties in universities produced research outputs that had commercial potential and value (Aturupane, Herat, and Abeytunga 2018). The selected grant awardees reported the culture as being more favorable toward conducting applied research with commercialization potential, partnering with the private sector, adopting internal reforms in performance, and improving institutional management. This was a major achievement in an environment where there was little interest in academia to link with business for research.

**Sri Lanka’s Quality and Innovation Grants have fast-tracked research dissemination and commercialization.**

To ensure that research is commercialized, appropriate procedures and legislation are important. A beneficiary survey revealed that participants in Sri Lanka’s Quality and Innovation Grants wanted more measures to link producers of research to financial institutions, markets, and relevant government agencies and to relevant procedures, legislation, and means to obtain patents on the products that they develop (SLBDC 2016). Table 14.2 presents some core initiatives that can help foster university–industry collaboration based on Sri Lanka’s and international experience.

## **Tools to Meaningfully Expand Opportunity for All Students to Access Higher Education**

Governments in the region have demonstrated a strong commitment to equity in higher education. To help underserved students access higher education and make the best of

**TABLE 14.2** Some Core Initiatives for Policy Reforms to Strengthen University–Industry Collaboration

Initiative	Short-term (6–12 months)	Medium to long term (1–5 years)	Responsibility
<b>Establish an intellectual property rights policy for publicly funded research.</b>	Define and implement clear intellectual property rights rules for publicly funded research to encourage the use of research results and ensure effective and timely legal protection of intellectual property (inspired by the U.S. Bayh-Dole Act).	Authorize universities to develop their own intellectual property policies and licensing agreements within a national framework.	National Intellectual Property Office; Ministry of Industry and Commerce; Ministry of Science, Technology, and Research; University Grants Commission; universities.
<b>Create better possibilities for universities to retain revenues from university–industry collaboration.</b>	Ministry of Finance to Revise Public Finance Circular 380 so that the rules are more flexible and enable universities to respond faster to industry demands for research and development, consultancy, and services and give university researchers better incentives to engage in university–industry collaboration.	Ministry of Finance to issue a revised Public Finance Circular 380. Ministry of Higher Education and Highways and the University Grants Commission to consider revising the University Act of 1978 to facilitate university–industry partnerships, consultancies, and services.	Ministry of Finance; Ministry of Higher Education and Highways; University Grants Commission; universities.
<b>Strengthen research and development funding schemes for joint projects between universities/public research institutions and companies, based on national and international experience.</b>	Review the funds that have been made available for joint research and development projects in terms of amount, utilization, process, outcomes, management, and implementation.	Based on the assessment, scale up good practices of existing research and development funding schemes.	Ministry of Science, Technology and Research; Ministry of Higher Education and Highways; University Grants Commission; National Science Foundation.
<b>Establish open innovation spaces and business incubators at universities and make available seed money for faculty and students to develop start-ups.</b>	Universities will establish open innovation spaces and business incubators where students, faculty, and companies can work. Make available seed money for faculty and students for prototype development and start-ups for promising projects.	Universities will systematically promote faculty and student innovation and entrepreneurship through courses, competition, and awards. Funds will be mobilized through donors and sponsorships.	Ministry of Finance; University Grants Commission; Ministry of Higher Education and Highways; Ministry of Science, Technology, and Research; universities; business associations; angel and venture capital companies.

Source: Larsen and others (2016).



their higher education experience, governments must target financial aid better, provide girls and first-generation collegegoers targeted nonfinancial support, and leverage the contributions of the private sector.

### ADMISSIONS POLICIES AND FINANCIAL AID ARE IMPORTANT WAYS FOR COUNTRIES TO REFLECT THEIR COMMITMENT TO EQUITY

Government-regulated higher education admissions policies in South Asia reflect a commitment to equity. Across countries, all publicly funded higher education institutions have seats that are reserved for students from specific categories. In Bangladesh, seats are reserved for hill tract students, handicapped students, and children of freedom fighters. In India, seats are reserved for students from Scheduled Caste or Scheduled Tribe backgrounds and, in some states, for specific groups in the Other Backward Classes. Both countries require private colleges to reserve seats for specific groups as well. In Pakistan, seats are reserved for students from Federally Administered Tribal Areas, Azad Jammu, and Kashmir; university employees; and wards of armed forces personnel. For some universities, such as Quaid-i-Azam University, admissions depend on the domicile of the applicants seeking admission (Millot 2017).

Financial aid from the government is unlikely to keep pace with increasing demand, however, indicating the need for other funding mechanisms. Worldwide, governments have moved away from financial aid to help students afford college to student loans. Student loans can be conventional mortgage-type loans or income-contingent loans, which link repayments to the earning capacity of borrowers. Education loan markets in South Asia offer the conventional type of loan (Krishnan 2017). To be effective, student loan schemes should be need-based and generally available. A detailed study of India's student loan scheme suggests that while the scheme is need-based, it is not generally available as it requires students to provide proof of parents' ability to repay the loan. Students from low-income households may not be able to provide a satisfactory co-obligant or collateral security. A product that pegs the repayment rate and schedule to the borrower's capacity to earn and repay would be more generally available. But such a scheme would depend on having detailed data on the quality of courses, institutions, and students' employability. It would also benefit from a more equitable pattern of risk-sharing, with colleges being cosignatories to the loan (Krishnan 2017).

### HELPING GIRLS AND FIRST-GENERATION COLLEGOERS ADJUST TO COLLEGE ACADEMICS AND ROUTINES IS CRUCIAL

First-generation collegegoers are often poorly prepared, typically having had substandard schooling. Colleges often grapple with the challenge of having to teach students who were poorly prepared at the secondary level (see chapter 13). The problem is compounded when faculty are in short supply. Across the region, colleges offer remedial programs, but they are typically of low quality and carry the stigma of classes for poor performers. While the program's impact has yet to

India's All India Council of Technical Education recently put forth a 10-point agenda for reform in technical colleges, which includes an induction program for all new students.

be measured, it is important that the need was recognized and resources were allocated to address the problem.

Helping girls and first-generation collegegoers adjust to college life can reduce dropout rates and improve outcomes. A greater focus on student decision making has been a primary driver of innovation in other contexts, including in community colleges in the United States,

where increasing programmatic structure and decreasing administrative bureaucracy have improved student adjustment, academic success, and ultimately completion (Scott-Clayton 2011).

To explore potential behavioral solutions, it is critical to first identify what decisions and actions students are expected to make in order to successfully transition from the first to the second year. These decisions and actions can be broken down into academic, environmental, and administrative categories (table 14.3). Identifying the critical moments in each category can illuminate how contextual factors may be systematically biasing student behavior. For instance, missing deadlines might be assumed to stem from carelessness or a lack of concern about consequences. While some students might

**TABLE 14.3 Behavioral Solutions for Common Student Barriers in South Asian Higher Education**

Category	Problem	Tested solution
Academic	Low uptake of tutoring support services	Proactive, well-timed, and persistent outreach (ideas42 2015)
	Students of disadvantaged backgrounds perform worse when reminded of their backgrounds	Writing exercises to focus on potential for growth rather than fixed abilities (Aronson and others 2001)
	Students of disadvantaged backgrounds perform worse in general than other students	Short writing exercises to affirm values and abilities (Cohen and Sherman 2014)
Administrative	Failing to re-enroll during the gap between semesters	Well-timed SMS prompts and reminders (Castleman and Page 2013)
	Inefficient course selection	Personalized, simplified outreach (ideas42 2016)
	Difficulty completing complex forms	Short individual counseling sessions (Bettinger and others 2012)
	Missing deadlines to complete important processes	Prompting students to plan ahead (ideas42 2015)
Environmental	Low family support in academic preparation	Targeted outreach to parents (Kraft and Rogers 2015)
	High dropout rates among at-risk students with behavioral disorders	Cognitive Behavioral therapy sessions (Cobb and others 2005)
	Lack of mentorship and peer group uptake for first-year minority students	Video in which role models discuss challenges they have overcome (ideas42 2016)

be ambivalent, a larger number likely intend to make the deadline but are derailed by avoidable contextual influences. A common reason for missing deadlines is the planning fallacy, or the underestimation of how long it will take to complete a given task, even a familiar task. Not factoring in time for unexpected difficulties or precursor steps in a process will inevitably lead to difficulties in meeting deadlines. India has pioneered efforts to help first-generation collegegoers adjust to college life through a pilot series of behavioral interventions under the Technical Education Quality Improvement Project. Students receive guidance on planning their study time in the six weeks prior to their final examinations through structured weekly text message–based reminders on their mobile phones.

### COUNTRIES SHOULD LEVERAGE THE CONTRIBUTIONS OF THE PRIVATE SECTOR TO INCREASE OPPORTUNITIES FOR STUDENTS

Fees notwithstanding, private higher education institutions have played an equity-enhancing role in several countries by expanding access to students from underrepresented groups in higher education. In Bangladesh, private colleges have made it easier for women to go to college, except for lower-income students, who find private colleges prohibitively expensive (Nagashima and others 2018). In India, private institutions have made it far more likely that lower-income students and students from Scheduled Caste and Scheduled Tribe backgrounds will benefit from an engineering education today than a decade ago (Béteille and Mitra 2015). In Pakistan, private higher education institutions have also made education more accessible to women and lower-income students (Milot 2017).

Countries in South Asia will benefit from a more proactive approach to leveraging the private sector for improving access to higher education. Four steps can help this approach work. First, countries should develop a policy plan for private higher education. No country in South Asia has a coherent policy plan or roadmap for developing the private higher education system. Ministries of higher education and accreditation bodies are understaffed, even as activities within the system increase, many driven by private colleges.

Second, countries should set up an independent agency to cover quality assurance and accreditation of both public and private higher education institutions. While this is true for accreditation in India, the agencies are different in Pakistan and Sri Lanka. Establishing a national standard for all higher education institutions will reduce doubt and controversy surrounding private institutions.

Third, countries should expand low-interest and interest-free student loans. Sri Lanka's 2017 Budget Proposal included an interest-free loan scheme (soft loan) for up to Rs. 800,000 per student for enrolling in one of 26 recognized private higher education institution study programs. Students would have up to 12 years to pay off the loan, with payback beginning within 5 years. An estimated 6,400 students were eligible, though only 1,100 took advantage, indicating the need for greater outreach.

Fourth, countries should level the playing field by encouraging and facilitating private institutions to undertake research. In countries across South Asia, few government resources are available to private institutions to undertake research. In Bangladesh, only public higher education institutions can access the limited research grants provided by the government, which excludes numerous private universities.<sup>2</sup> Moreover, prior to the Academic Innovation Fund in 2009, no funding mechanism encouraged basic and applied research in universities. The fund was open to private universities—the first time such institutions had access to competitive public funds to meet financing gaps for development activities. Allowing competition between public and private providers ultimately created a more level playing field for accessing resources. Afghanistan also provides private institutions with research grants, though the amounts are small. Such interventions are more the exception than the norm.

The challenge of steering the higher education sector in South Asia cannot be underestimated. Nonetheless, governments in the region have embarked on reforms to improve access, quality, and equity. Greater focus on consolidating unfeasible units, tracking student outcomes, investing in faculty and research, and leveling the playing field for all students will help South Asia reap the benefits from its education system.

## Notes

1. Placement cells are units within universities and colleges that help student get internships and jobs.
2. Prior to the introduction of the higher education project in 2009.

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## How Can South Asia Do Better?

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**W**ith 40 percent of the world's 5–14-year-old population and 34 percent of the world's 15–24-year-old population, South Asia's ability to grow and sustain domestic stability will depend on its education system's performance—and its inclusiveness—over the next 15–20 years. As this report shows, South Asia's education system, has achieved a lot, but it also faces considerable challenges at every level: before school in school, and beyond school. These challenges are magnified by the sheer volume of the school-going and youth population, as well as the socioeconomic, linguistic, and cultural diversity of the region. For instance, India alone has 19 national languages and thousands of dialectal variations—and designing large-scale assessments systems can pose considerable challenges when there is so much diversity.

In this report, we suggest that a strategic approach to improving South Asia's education outcomes—before school, in school, and beyond school—must be based on three critically important principles:

- ***Giving children a head start:*** Early childhood experiences have a profound impact on brain development. Improving the incidence and quality of early childhood care can significantly impact learning and later life outcomes for South Asia's children. Today, 89 million children under age 5 in South Asia are at risk of not reaching their development milestone, a colossal risk for the region. This is no surprise as governments spend only 1–3 percent of their education expenditures on early childhood care, except Maldives, which spends 10 percent. Governments must increase their commitment to early childhood development (ECD) through higher budgetary allocations and improving the capacity of early caregivers and trainers for young children to benefit from subsequent educational opportunities.

- ***Aligning education systems at every level toward learning:*** For early childhood, schools, skills-training, and higher education systems to align toward learning, four things are essential: better measurement of outcomes; addressing low capacity to deliver; minimizing coordination failures across ministries, as well as the state and non-state sectors; and accountability for outcomes. At every level of education, South Asia's countries will benefit from better measurement of learning, skilling, and employability outcomes: without knowing whether outcomes are improving or not, policy is handicapped. Countries must improve the capacity to deliver by ensuring that high-quality human resources are deployed in educational institutes as well as administrative offices. Better coordination between multiple ministries, especially in early childhood care and skills, is crucial for efficiency. Finally, accountability systems must innovate, using technology where feasible, maintaining a balance between extrinsic and intrinsic motivation.
- ***Leveraging South Asia's untapped resources: women, information communications technologies, and nonstate players (WIN).*** Improving the skills of women—comprising 50 percent of South Asia's population but under 30 percent of its labor force—will improve average education outcomes for this and the next generation, as well as bring productivity gains (World Bank 2011). ICT can transform education when used as part of a larger coherent effort, a big advantage for South Asia given the high levels of ICT use. Nonstate players could provide more agile solutions to the quality challenge at every level of education.

## Political Commitment Is Indispensable in Translating Good Principles into Sound Policy

Successful reforms require political commitment and the careful management of political opposition. Even when unhealthy politics seem deeply entrenched, as when teacher unions protest accountability-oriented reforms and local politicians support them, difficult reforms have been possible. South Asia provides important examples of how political impetus is core to driving such reforms. For instance, Karnataka, India, was able to successfully implement a fair and transparent technology-enabled process for teacher recruitment and transfers because of political will, consensus-building by senior politicians, and careful management by the bureaucracy. Successive political regimes in Karnataka, advised by a high-quality consistent bureaucracy, made incremental improvements, and ultimately weakened resistance from local politicians and teacher unions. Sindh, Pakistan, was able to implement a school-monitoring system for verifying teacher attendance using biometrics. This was possible because of local political support and a capable bureaucracy that ensured the ready availability of state-of-the-art technology. While the effort continues to be resisted by errant teachers, the majority are duty-bound, and support the system as it instills professionalism.

Effective interventions, even when not large-scale reforms, may require political support. Sri Lanka has introduced competitively funded projects to improve the learning outcomes



and socioemotional skills of arts graduates in universities, despite opposition from arts academics to competitive funding and the focus on soft skills. This has been due to the advocacy of the University Grants Commission and the Ministry of Higher Education, and the sensitive management of this reform by academic champions from these faculties. Afghanistan is introducing university degree programs in an international language, English, to improve the quality of learning, with political leadership that is carefully phasing in this reform, commencing with selected degree programs and rolling it out gradually.

Just as political commitment is crucial, unhealthy politics can steer education systems off course. Embodying the principles outlined in this report can be difficult because unhealthy politics often derails education systems and frequently causes technical misalignments. Political economy challenges arise because education systems involve many stakeholders with multiple, often contradictory, interests (World Bank 2017). Participants in education institutions have a vested interest in how the system works, including its structure and funding—and not just learning. Actors in education systems are often driven by their values or ideology, possibly because policy results are not immediately apparent. Reforming systems in the face of unhealthy politics is difficult as actors actively pursue ways to preserve the status quo.

Unhealthy political interference can arise at multiple points in the policy agenda: goal setting; policy design; implementation; evaluation; and reform sustenance. In South Asia, one of the most visible manifestations of unhealthy politics, pertains to policy design whereby teachers receive high salaries despite high absence rates or poor performance. Given teachers' political power, politicians are often reluctant to enforce strict accountability policies. But politics permeates other terrains as well. At the heart of coordination failures across ministries in early childhood development in the region is something of a turf war, with the advantages of coordination paling relative to the disadvantages for each individual ministry, such as a possible loss of budget, personnel, or decision-making power. Other examples include state control of the appointment of vice-chancellors and boards of governors in colleges; committee meetings that never take place; parents condoning cheating on examinations; or simply collecting mountains of data but not in a format that facilitates decision-making.

Successful reforms teach us four things about managing political economy effectively. First, political support is essential. Often, such efforts are undertaken by a senior politician, who is well-regarded across party-lines, and can build a consensus as well as manage or negotiate with opponents. Second, a high-quality bureaucracy that recognizes effective policy and maintains consistency across successive political regimes—despite the political expediency of announcing new policies to reverse earlier ones—is crucial in reform efforts. Third, good data that can be readily used are essential for facilitating decision-making. Because Sindh had data on teacher absence, it was able to quantify the problem and design a system to curb it. Finally, preparation and timing are essential for success. For instance, when Karnataka finally passed the Teacher Transfer Act in the legislature, it was also ready with the technological capacity needed to implement the act. When Sindh, Pakistan, launched the school-monitoring system, there was already enough discontent regarding the poor functioning of schools, and therefore, broader support for strict policies.

## Technical Solutions Reflecting Good Practice Are Essential

In addition to political will, technical solutions known to be effective are important. Often governments, pressured by the need to act, undertake solutions that are not optimal. A common example is that of in-service teacher training, where practice across the region contrasts with international good practice. Teacher training sessions tend to be one-time events lasting a few days, with little incentive for teachers to participate meaningfully or for subsequent follow-up and mentoring. Good practice, on the other hand, suggests that teacher professional development should be frequent, linked to incentives, and involve interaction between colleagues. It should come as no surprise, then, that teacher quality remains poor in South Asia's schools. Examples of poor technical solutions abound in the region, but there are also instances of wise practice in South Asia. Table 15.1 provides a basic list of recommended practices in specific areas from the region and beyond.

**TABLE 15.1** Sector-Specific Recommendations

Key policy action	Specific steps	Good practices and innovations from the region and beyond
<b>Overarching actions</b>		
Assess and track learning	<p><b>IMPROVE</b> measures of student learning:</p> <ul style="list-style-type: none"> <li>• In ECD, ensure performance indicators for the quality of preschools</li> <li>• In schools, measure learning early, when interventions have a bigger payoff <i>and</i> at other critical junctures, such as grades 5, 8, and 10.</li> <li>• In skills training programs, track skills attainment and labor market outcomes</li> <li>• In higher education, track domain-specific and domain-general skills, and labor market outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Hong Kong SAR, China's Education Bureau's Quality Assurance Framework for Kindergarten</li> <li>• Afghanistan and Nepal Early Grade Reading Assessment</li> <li>• Nepal's Enhanced Vocational Education and Training Project (EVENT)</li> <li>• India's Technical Education Quality Improvement Project (TEQIP)</li> </ul>
	<p><b>USE</b> the results of assessments and labor market analyses in policy making</p>	<ul style="list-style-type: none"> <li>• Brazil's Index of Basic Education Quality and the United Kingdom's use of League Tables</li> <li>• Chile's <i>mi futuro</i></li> </ul>
	<p><b>COMMUNICATE</b> assessment results to the public</p>	<ul style="list-style-type: none"> <li>• Pakistan school report cards experiment under LEAPS</li> <li>• India ASER reports</li> <li>• Brazil and the United Kingdom publish school test scores for accountability</li> </ul>

(Table continues next page)

**TABLE 15.1** Sector-Specific Recommendations (*continued*)

Key policy action	Specific steps	Good practices and innovations from the region and beyond
<b>Before school</b>		
Early childhood development	<b>INVEST:</b> Increase government investment in early childhood development and use it consistently with the actions below.	<ul style="list-style-type: none"> <li>Maldives spends 10% of education budget</li> </ul>
	<b>REGULATE</b>	
	<ul style="list-style-type: none"> <li>Responsive parenting</li> <li>Age-appropriate curriculum</li> <li>Occupational standards for care-givers/teachers</li> </ul>	<ul style="list-style-type: none"> <li>Jamaica's program teaching care-givers psychosocial stimulation</li> <li>India's National Early Childhood Care and Education Policy, which includes the National Curriculum Framework and Quality Standards for ECCE</li> <li>The Republic of Korea's Nuri curriculum</li> </ul>
	<b>COORDINATE</b>	
	<ul style="list-style-type: none"> <li>Include education interventions in existing health, nutrition, and protection services for children, ages 3 and younger</li> <li>Include health and protection services in existing educational interventions for children above age 3</li> </ul>	<ul style="list-style-type: none"> <li>Jamaica's and Mexico's early childhood interventions</li> </ul>
	<b>TARGET</b> early childhood development interventions to infants and young children from disadvantaged households and groups	<ul style="list-style-type: none"> <li>Develop partnerships with non-state providers to reach remote areas</li> <li>Government-led efforts in Japan, Korea, and Singapore</li> </ul>
<b>In school</b>		
Increase teacher effectiveness	<b>ATTRACT:</b> Make teaching an attractive profession <ul style="list-style-type: none"> <li>Strengthen norms for entry into preservice</li> <li>Advance the image of teaching</li> <li>Pay all teachers well, but ensure pay relates to performance</li> <li>Ensure teacher career progression structures recognize high performers</li> </ul>	<ul style="list-style-type: none"> <li>Shanghai, China</li> <li>Delhi, India; Shanghai, China</li> <li>India (Andhra Pradesh experimental evidence from APREST), Singapore</li> <li>Singapore, Shanghai</li> </ul>

*(Table continues next page)*

**TABLE 15.1** Sector-Specific Recommendations (continued)

Key policy action	Specific steps	Good practices and innovations from the region and beyond
	<p><b>MANAGE</b> the teacher system carefully</p> <ul style="list-style-type: none"> <li>• Make personnel policies fair and transparent</li> <li>• Set clear expectations</li> <li>• Improve the enforcement of professional norms in teaching</li> <li>• Assess and monitor performance</li> </ul>	<ul style="list-style-type: none"> <li>• Karnataka's technology-based recruitment and transfer system, India</li> <li>• Chile's Good Teaching Framework</li> <li>• Sindh's technology-based teacher management system</li> <li>• Punjab, Pakistan (Service Delivery Indicators); Bihar Teacher Education study; Chile's Teacher Professional Performance Assessment System</li> </ul>
	<p><b>PREPARE</b> teachers <i>before</i> they enter the classroom</p> <ul style="list-style-type: none"> <li>• Improve selectivity into preservice</li> <li>• Link preservice curriculum to classroom teaching and problems</li> <li>• Build stronger linkages with schools and universities</li> <li>• Improve accreditation of institutes</li> </ul>	<ul style="list-style-type: none"> <li>• Finland, Singapore</li> <li>• Finland, Singapore</li> <li>• Finland, Singapore</li> <li>• India, National Council for Teacher Education</li> </ul>
	<p><b>MENTOR</b> teachers and <b>UPGRADE</b> their skills throughout their career</p> <ul style="list-style-type: none"> <li>• Provide new teachers with feedback to improve performance</li> <li>• Follow international good practice in program design</li> </ul>	<ul style="list-style-type: none"> <li>• Shanghai's teacher development system</li> </ul>
	<p><b>STRENGTHEN</b> school leadership</p> <ul style="list-style-type: none"> <li>• Put the basics in place</li> <li>• Train principals to be role models for teachers</li> <li>• Train school leaders to provide on-site professional support to teachers</li> </ul>	<ul style="list-style-type: none"> <li>• India's Kaivalya Foundation's efforts with headmasters</li> <li>• Sri Lanka's School-Based Teacher Development</li> </ul>
<b>Beyond school</b>		
Strengthen skills training	<p>Partnering with the <b>PRIVATE SECTOR</b> is critical</p> <ul style="list-style-type: none"> <li>• Engage in curriculum design</li> <li>• Engage in internships and work-place readiness programs</li> </ul>	<ul style="list-style-type: none"> <li>• India's Sector Skills Councils</li> <li>• India's Industrial Training Institutes' links with Maruti, Samsung, and Tata</li> </ul>
	<p>Focus more on performance and <b>OUTCOMES</b> and less on the numbers trained</p>	<ul style="list-style-type: none"> <li>• Nepal's EVENT</li> </ul>
	<p>Invest in <b>LONG-TERM TRAINING</b> for more productivity gains</p> <ul style="list-style-type: none"> <li>• Build long-term ties with industry</li> <li>• Increase uptake of formal apprenticeship</li> </ul>	<ul style="list-style-type: none"> <li>• India's Industrial Training Institutes' links with Maruti, Samsung, and Tata</li> <li>• Sri Lanka's Ceylon-German Technical Training Institute</li> <li>• India's National Apprenticeship Promotion Scheme</li> </ul>

(Table continues next page)

**TABLE 15.1** Sector-Specific Recommendations (*continued*)

Key policy action	Specific steps	Good practices and innovations from the region and beyond
Improve the performance of higher education systems	<b>Improve EFFICIENCY</b>	
	<ul style="list-style-type: none"> <li>• Curtail fragmentation</li> <li>• Improve governance, data, and transparency</li> </ul>	
	<b>Improve QUALITY</b>	
	<ul style="list-style-type: none"> <li>• Invest in faculty recruitment and training</li> <li>• Innovative funding mechanisms to encourage research</li> </ul>	<ul style="list-style-type: none"> <li>• India's TEQIP</li> <li>• Bangladesh's Innovation Funds</li> <li>• Sri Lanka's AHEAD supporting commercialization of innovation</li> </ul>
	<b>Expand OPPORTUNITIES FOR ALL students</b>	
	<ul style="list-style-type: none"> <li>• Use admissions policies and financial aid strategically</li> <li>• Help first-generation college-goers adjust to college routines</li> <li>• Leverage the private sector</li> </ul>	<ul style="list-style-type: none"> <li>• U.S. Title IV Funds and Gainful Employment Act</li> <li>• AICTE, India's 10 Point Agenda. Behavioral approaches under TEQIP, India</li> <li>• Brazil's tax breaks to private universities for admitting disadvantaged groups at lower fee</li> <li>• Sri Lanka's 2017 budget proposal to significantly underwrite educational expenses of low-income students in private colleges</li> </ul>

## Prioritizing by Balancing Quick, Effective Actions with Those Needed to Sustain Impact

How should governments prioritize across different policy options? Governments must meet multiple objectives, while operating under political pressure, tight time-lines, and budgetary constraints. This makes prioritization important. While this report provides several strategies and policy actions known to be effective in addressing key challenges before school, in school, and beyond school, pursuing them all at once may not be feasible. Governments may want to pursue policy options that are quick to implement (less than a year) and provide immediate results, while simultaneously sowing the seeds for longer-term reform that is needed to sustain the immediate wins. In the case of assessment, for instance, in countries where assessment systems are completely nascent, the priority needs to be on fostering classroom-level assessment. Once this basic piece is in place, countries can develop quick, low-cost national assessments. Where classroom and national assessments are established, much can be gained from participating in global and regional assessments that enable performance benchmarking. The ultimate objective is to conceive of “assessment systems,” where different parts serve different needs—but are aligned. Table 15.2 provides possible prioritization strategies in other areas.

In summary, South Asia has made considerable progress in improving access to education and skilling at every level. It now needs to improve quality and ensure that everyone can access educational and skilling opportunities. Prudent policy, based upon the principles and practices discussed in this report, combined with political impetus, will help South Asia do much better. There is no time to lose.

**TABLE 15.2** Prioritization Strategies

Policy Reform	Quick Actions with Big Impact	Actions to Sustain Impact
<b>Overarching</b>	<p>Shift the focus to learning outcomes in all policy communications, whether government orders or policy reforms</p> <p>Ensure unit-level tracking of student learning. For instance, in classrooms, teachers should track the performance of every child throughout the year. In skills training centers, trainers should track the performance of every trainee.</p> <p>Communicate the results of assessments to key stakeholders such as students and parents</p>	<p>Develop national assessment systems that regularly track learning.</p> <p>Participate in international assessments to benchmark country performance</p> <p>Build robust labor market tracking systems</p> <p>Use learning and labor market data to inform parliamentary discussions and policy</p>
<b>Before school</b>	<p>Deploy public communications tools on importance of appropriate ECD interventions</p> <p>Use simple behavioral approaches to reach parents, such as Ready4K!</p> <p>Regulate curriculum and standards</p>	<p>Increase public financial investment</p> <p>Coordinate stakeholders</p> <p>Improve targeting of interventions</p>
<b>In school</b>	<p>Advance the image of teaching as a serious profession using public communications tools</p> <p>Strengthen the norms for entry into preservice education programs</p> <p>Mentor teachers and train only using good principles of in-service training.</p> <p>Instill biometric systems to encourage attendance</p>	<p>Improve teacher management</p> <p>Improve teacher pre-service training</p> <p>Strengthen school leadership</p>
<b>Beyond school</b>	<p><b>Skills Training Systems</b></p> <p>Engage the private sector in curriculum design, internships and workplace readiness programs</p> <p>Shift the focus to employability versus quantitative expansion</p> <p>Monitor labor market developments</p> <p><b>Higher Education</b></p> <p>Improve data on higher education</p> <p>Invest in attracting high-quality faculty and training them</p> <p>Help first-generation collegegoers adjust to college routines using simple behavioral mechanisms</p>	<p>Improve the quality of long-term training programs</p> <p>Continuous tracking of outcomes</p> <p>Curtail fragmentation</p> <p>Improve governance and transparency</p> <p>Improve financial aid systems</p>

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## ECO-AUDIT

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According to a new study, over 35 million school-age children in South Asia are not in school today. Another 20 million children are “learning poor,” in that they cannot read and comprehend an age-appropriate paragraph. And more than 40 million youths (ages 15–29) in the region are not in education, employment, or training. Together these statistics represent the unfulfilled potential of human capital.

To improve, South Asia’s education systems must focus on three critically important principles. First, countries must give all children a head start through adequate and effective investments in early childhood development. Second, countries must adopt an outcome-oriented approach and align education systems at every level toward learning. Third, countries should leverage the region’s untapped resources—women, information and communication technology, and nonstate players—to strengthen their education systems.

*Ready to Learn: Before School, In School, and Beyond School in South Asia* presents the latest data on education in the region and documents key innovations that have improved system performance. It also discusses the challenges faced by South Asia’s education system and makes recommendations for improving outcomes, based on innovations in the region and beyond. The report covers the entire spectrum of education, from early childhood development to skills training and higher education, including several chapters on teachers and principals.

*Ready to Learn* is a timely resource for the region, providing policy and decision makers with strategic advice on how to make their education systems more agile, effective, and equitable—and ready for the future.



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