

AFGHANISTAN: PROMOTING EDUCATION DURING TIMES OF INCREASED FRAGILITY



Public Disclosure Authorized

Public Disclosure Authorized

Public Disclosure Authorized

Public Disclosure Authorized



Table of Contents

- Figures and Tables 1
- Data Appendix 2
- Acknowledgments 4
- Glossary Of Commonly Used Education Indicators 5
- Acronyms 7
- Executive Summary 8
- Report Objectives 15
- I. Afghanistan: Education sector performance 16**
 - 1. Enrollment trends are rising with improvements in access and enrollment in primary schools, but “permanently absent students” mask the gap between enrollment and attendance and gains beyond this level of education are limited...21
 - 2. Socioeconomic, gender, and regional inequalities are prominent in Afghanistan. 25
 - 3. Learning outcomes are low and represent a real crisis. 31
 - 4. Student learning is negatively impacted by both the uneven prevalence of school supply indicators and the general under-qualification and irregular distribution of the teacher force 33
- II. Analysis of Education Spending in Afghanistan 41**
 - 1. Education spending has not kept up with enrollment growth given the multiple demands on the government budget. 42
 - 2. International donors have financed almost half of all education expenditures over the years, but over time, their contributions have decline 49
 - 3. While there is no significant waste at any particular subsector, each subsector does have its own share of inefficiencies. 51
 - 4. Afghanistan's education funding policy has not led to equity in access, attainment or outcomes. 53
- III. Conclusions and recommendations 55**
- Annex A: Tables and Figures 61
- Annex B: Satisfaction with Schools 93
- Annex C: Budget Execution 95
- References 96

Figures and Tables

- Figure 1 – The Structure of the Education System in Afghanistan 20
- Figure 2 - School enrollment and enrollment growth by level of education, MOE, 2011-2016 22
- Figure 3 - Enrollment at Higher Education Institutions, 2015 25
- Figure 4 - Attendance rates by socioeconomic variables, 2014 27
- Figure 5 - Enrollment shares by income quintile, and change in shares between 2012 and 2014 30
- Figure 6 - Number of schools by type and growth since 2012 33
- Figure 7 - State of school buildings and new school construction 35
- Figure 8 - University faculty, by gender and education level, 2015 40
- Figure 9 - Sources of education funding in Afghanistan 41
- Figure 10 - Education expenditure as a share of GDP and government expenditures 43



Figure 11 - Public education expenditure as a share of government expenditures and GDP, various low-income, highly indebted, fragile and conflict affected countries, and countries of South of South Asia, 2013 for comparison purposes 44

Figure 12 - Education expenditure growth, relative to GDP and Government spending 45

Figure 13 - Distribution of operating expenditures in MOE, 2013 through 2015 46

Figure 14 - Contributions of the NSP to education infrastructure and services, 2011 to 2015 48

Figure 15 - Contributions by international donors through the national budget and directly to projects, 2011 to 2015 (in AF\$ and in billions) 49

Figure 16 - Unit cost across different types of education, and as a share of per capita GDP, averaged between 2010 and 2015 52

Figure 17 - Poverty rate and attendance, 2014 54

Table 1 - Salary scale of the TVET teachers 39

Table 2 - Total funds spent on education, 2014 42

Table 3 - Total spending by the central government through sector ministries, type of spending and source of spending, 2010 through 2015 43

Data Appendix

Appendix Figure 1 - Comparison of unit costs across low-income countries 62

Appendix Figure 2 - GER according to UNESCO 62

Appendix Figure 3 - Number of schools by ownership and enrollment by ownership, 2012-2016 63

Appendix Figure 4 - Number of Teacher Training and TVET Institutes by Ownership and Enrollment 64

Appendix Figure 5 - CBE enrollment and classrooms by region 64

Appendix Figure 6 - TVET Enrollment, public and private, by gender 65

Appendix Figure 7 - Formal TVET Enrolled Students by Gender and Trade, 2013 public and private, by gender 65

Appendix Figure 8 - Students enrolled in formal TVET by gender and grade 66

Appendix Figure 9 - Female and male gross enrollment rates by province by level, 2014 66

Appendix Figure 10 - Attendance rates by region, 2014 67

Appendix Figure 11 - Reasons for staying out of school, by level and gender 2014 68

Appendix Figure 12 - Economic activity of children and youth, 2014 69

Appendix Figure 13 - Economic activity of children and youth, 2014 69

Appendix Figure 14 - GER by province and level, 2016 70

Appendix Figure 15 - Number of school aged children, teachers and students PTR, by region, 2014 70

Appendix Figure 16 - Grade 6 proficiency levels in math, reading and writing, for all students, and by gender 71

Appendix Figure 17 - Impact of various school characteristics on mean scores, by subject 71

Appendix Figure 18 - Learning outcomes by wealth, 2014 72

Appendix Figure 19 - Literacy rates by age and income groups, 2012 and 2014 72

Appendix Figure 20 - Number of classrooms per school, by sector, 2011 – 2015 73

Appendix Figure 21 – Growth in the number of classrooms, by sector, 2011-2015 73

Appendix Figure 22 - Status of Public TVET Institutions' buildings (excluding formal TVET schools) 74

Appendix Figure 23 - School infrastructure indicators, 2013 74

Appendix Figure 24 - Use of multiple shifts, share of schools with two or three shifts by year and region 75

Appendix Figure 25 - School infrastructure indicators, 2013 75



Appendix Figure 26 - Percentage of schools with science and math labs, 2012	76
Appendix Figure 27 - Percentage of formal TVETs with various learning infrastructure, 2013	77
Appendix Figure 28 - Percentage of formal TVETs with various learning infrastructure, 2013	78
Appendix Figure 29 - Correlation between availability of equipment and education outcomes in formal TVET	78
Appendix Figure 30 - Number of teachers by type of institution, 2013 and 2014, and PTR by region, in general education, 2014.	79
Appendix Figure 31 - Size of teaching force and gender shares, 2013 and 2014	79
Appendix Figure 32 - Pupil-teacher ratio in Islamic Education, 2014	80
Appendix Figure 33 - Highest degree obtained by teachers, 2011	80
Appendix Figure 34 - Teacher salaries as a multiple of GDP per capita	81
Appendix Figure 35 - Faculty in formal TVET institutions, 2013	81
Appendix Figure 36 - Funding at the Ministry of Education and Ministry of Higher Education	82
Appendix Figure 37 - Total and average out-of-pocket household expenditures per child in school going age, household average and national total, 2014	82
Appendix Figure 38 - Total annual household expenditure on education per member aged 6-24 year olds currently attending school	83
Appendix Figure 39 - Level of share of operating and capital budget at MOE, 2010 through 2015	83
Appendix Figure 40 - Distribution of operating expenditures in MOE, 2013 through 2015	84
Appendix Figure 41 - Private and Public formal TVET funding sources, 2013	84
Appendix Figure 42 - MHE budget, breakdown of the operating budget, 2010 through 2015	85
Appendix Figure 43 - Share of capital expenditures assigned to regions, averaged over 2011-2015	85
Appendix Figure 44 - Off-budget support to education projects, by subsector, 2011-2015, billions AFS	86
Appendix Figure 45 - Off-budget support by donors, 2011 to 2015, in billions of AFS	86
Appendix Figure 46 - Off-budget support by donors, by regional distribution	87
Appendix Figure 47 - Budget execution, 2010 through 2015	87
Appendix Figure 48 - Estimated population growth across various age groups	88
Appendix Figure 49 - Estimated population growth among 10 to 24-year-olds	88
Appendix Figure 50 - Projected number of students enrolled in school, 2015 v. 2030	89
Appendix Figure 51 - Gender parity (number of female students as a share of number of male students)	89
Appendix Figure 52 - Spending in a province as a share of total budget allocated to regions, by spending type, 2011-2015 average	90
Appendix Figure 53 - Relationship between the share of enrollment and share of expenditures (operating and capital) in each province, 2014	91
Appendix Figure 54 - Spending per pupil by province (in AFS), General Education	92
Appendix Figure 55 - Satisfaction with education services, 2014 and 2015	93
Appendix Figure 56 - Satisfaction with Technical and Vocational Education Institutes, 2013	94
Appendix Table 1 - Schools closed and re-opened because of security concerns, 2011	61
Appendix Table 2 - Provinces with the highest proportion of out-of-school children and girls	61



Acknowledgements

The Afghanistan: Promoting Education During Times of Increased Fragility report was prepared by Nathalie Lahire with contributions from Sonali Ballal, Yesim Sayin Taylor, Yashodhan Ghorpade, Palwasha Mirbacha, Margherita Calderone, Matiullah Noori, and Abdul Hai Sofizada. The Ministry of Education generously provided data and assistance for completing this report. Christina Wieser supported the household survey data analysis. Faraidoon Shariq led the survey on external financing to the sector. The peer reviewers were Samantha De Silva, Ryoko Tomita and Yasuhiko Matsuda. Valuable comments on various drafts were also received from Keiko Miwa and Tazeen Fasih. Raouf Zia and Rafi Mohammad Farooq provided communications support.

The report was financed by the Afghanistan Reconstruction Trust Fund Research and Analytical Program, a sub-task under the overall Navigating Risk and Uncertainty Program led by Claudia Nassif.

The team is grateful for the generous support from Afghanistan Reconstruction Trust Fund Research and Analytical Program and co-financing received from USAID.



GLOSSARY OF COMMONLY USED EDUCATION INDICATORS

Indicator	Definition	Calculation Method
Attendance rate, net	Total number of students in the theoretical age group for a given level of education attending that level at any time during the reference academic year, expressed as a percentage of the total population in that age group.	Divide the number of students attending a given level of education regardless of age by the population of the age group which officially corresponds to the given level of education, and multiply the result by 100.
Gross enrollment rate	Number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education. For the tertiary level, the population used is the 5-year age group starting from the official secondary school graduation age.	Divide the number of students enrolled in a given level of education regardless of age by the population of the age group which officially corresponds to the given level of education, and multiply the result by 100.
Net enrollment rate	Total number of students in the theoretical age group for a given level of education enrolled in that level, expressed as a percentage of the total population in that age group.	Divide the number of students enrolled who are of the official age group for a given level of education by the population for the same age group and multiply the result by 100.
Literacy rate	Total number of literate persons in a given age group, expressed as a percentage of the total population in that age group. The adult literacy rate measures literacy among persons aged 15 years and above, and the youth literacy rate measures literacy among persons aged 15 to 24 years.	Divide the number of literates of a given age range by the corresponding age group population and multiply the result by 100. Alternatively, apply the same method using the number of illiterates to derive the illiteracy rate; or by subtracting the literacy rate from 100%.
Transition rate	Number of students admitted to the first grade of a higher level of education in a given year, expressed as a percentage of the number of students enrolled in the final grade of the lower level of education in the previous year.	Divide the number of new entrants in the first grade of the specified higher cycle or level of education by the number of pupils who were enrolled in the final grade of the preceding cycle or level of education in the previous school year, and multiply by 100.
Gross intake ratio (to Grade 1 of primary education)	Total number of new entrants in Grade 1 of primary education, regardless of age, expressed as a percentage of the population at the official primary school entrance age.	Divide the number of new entrants in Grade 1, irrespective of age, by the population of official school entrance age, and multiply the result by 100.



Survival rate, by grade	Percentage of a cohort of students enrolled in the first grade of a given level or cycle of education in a given school year who are expected to reach a given grade, regardless of repetition.	Divide the total number of students belonging to a school-cohort who reached each successive grade of the specified level of education by the number of students in the school-cohort i.e. those originally enrolled in the first grade of primary education, and multiply the result by 100. The survival rate is calculated on the basis of the reconstructed cohort method, which uses data on enrolment and repeaters for two consecutive years.
Gender parity index	Ratio of female to male values of a given indicator.	Divide the female value of an indicator by the male value of the same indicator.
Dropout rate, by grade	Proportion of pupils from a cohort enrolled in a given grade at a given school year who are no longer enrolled in the following school year.	Dropout rate by grade is calculated by subtracting the sum of promotion rate and repetition rate from 100. For cumulative dropout rate in primary education, it is calculated by subtracting the survival rate from 100 at a given grade (see survival rate).
Rate of out-of-school children	Number of children of official primary school age who are not enrolled in primary or secondary school, expressed as a percentage of the population of official primary school age. Children enrolled in pre-primary education are excluded and considered out of school.	Subtract the number of primary school-age pupils enrolled in primary or secondary school from the total population of official primary school age, divide the difference by the population of primary school age, and multiply by 100. Alternatively, subtract the adjusted net enrolment rate in primary education from 100.
Effective transition rate	Number of new entrants to the first grade of the higher level of education in the following year expressed as a percentage of the students enrolled in the last grade of the given level of education in the given year who do not repeat that grade the following year.	The number of new entrants to the first grade of the higher level of education (h+1) for the following year (t+1) is divided by the number of students enrolled in the last grade of primary education in the given year (t) minus the number of repeaters from the last grade of primary education in the following year (t+1) and multiplied by 100.
Repetition rate, by grade	Number of repeaters in a given grade in a given school year, expressed as a percentage of enrolment in that grade the previous school year.	Divide the number of repeaters in a given grade in school year t+1 by the number of pupils from the same cohort enrolled in the same grade in the previous school year t.

Source: <http://uis.unesco.org/glossary>



Acronyms

ALCS	Afghanistan Living Conditions Survey
ARTF	Afghanistan Reconstruction Trust Fund
CBE	Community Based Education
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
EMIS	Education Management Information System
JSDF	Japanese Social Development Fund
MOE	Ministry of Education
MHE	Ministry of Higher Education
MRRD	Ministry of Rural Rehabilitation and Development
NESP	National Education Sector Plan
NGO	Non-governmental Organization
NRVA	National Risk and Vulnerability Assessment
NSDP	National Skills Development Program
NSP	National Solidarity Program
ODA	Official Development Assistance
PED	Provincial Education Directorate
PFM	Public Financial Management
PTR	Pupil-Teacher Ratio
TLM	Teaching and Learning Materials
TVET	Technical, Vocational, Education and Training
UIS	UNESCO Institute of Statistics



AFGHANISTAN: PROMOTING EDUCATION DURING TIMES OF INCREASED FRAGILITY

Executive Summary

The past thirty years of conflict and political unrest in Afghanistan has decimated the country's education system in terms of staffing, premises, curricula, and student attendance, for both male and female students. The education sector has been at the forefront of the political battles and conflicts between competing interest groups during the wars of resistance and ideological and ethnic conflicts that have plagued the country over the past few decades (Changing Profile of Education in Afghanistan, 2013). The changing political ideologies have taken a toll on the quality of education services and weakened governance. The current Government is committed to tackling issues of security, poverty reduction, governance and shared and inclusive growth. It sees service delivery as playing a dual role in Afghanistan: promoting social cohesion and trust in public institutions, while laying the foundation for job creation and growth.

Within the context of increased fragility that Afghanistan has been experiencing, the current report aims to provide an up-to-date analysis of the country's education sector, including the use of public expenditures spanning over the past six years. Supported by recent administrative and household data and using the information from a primary survey of off-budget funding, the report provides more insights on key aspects of the education system performance and provides recommendations for reforms – along the themes of outcomes and expenditures.

Key Findings

Education outcomes: Access, Retention and Learning

Afghanistan has made great strides in improving access and enrollment in primary schools, but gains beyond this level of education have been limited. In 2016, out of a population of 34.66 million, more than 9.2 million Afghan youths and children were enrolled in school, representing a 9-fold growth since 2001. According to the UNESCO Institute for Statistics (UIS), the gross enrollment rate (GER) was 111.88, 55.64 and 8.66 for primary, secondary and tertiary education, respectively.¹ While the bulk of these students were at the primary school level, enrollments were 1.7 million in lower secondary, 920,000 in upper-secondary, and about 76,000 in technical, vocational, education and training (TVET). In addition, Islamic schools, which run from 1st through 14th grade, and community based-schools enrolled 300,000 and 400,000 students respectively. The share of the private sector in education is small, with private schools enrolling 2 percent of general education students and 5 percent of TVET and teacher training students. In the same year, higher education enrolled 295,000 students, with 44 percent of them in private higher education institutions.

¹The GER for primary and secondary education is from 2015 and for tertiary education from 2014.



Despite this progress, access outcomes are not equitable.

First, provincial analysis shows a high proportion of out-of-school children, including girls, exceeding 50 percent in 15 of the 34 provinces. The variations among the provinces range from 22 percent in Kabul (30 percent female) to 88 percent in Uruzgan (98 percent female). As expected, in the provinces with higher out-of-school population, the enrollment rate is also lower.

Second, there is a big gap between enrollment and attendance, witnessed by the fact that nearly a half of the enrolled students do not show up regularly at school. Only 43 percent of children and youth under the age of 24 actively attend schools, while the gross enrollment across this group is estimated at 95 percent. In Afghanistan, schools typically keep a student on the enrollment rolls for three years after the student stops attending. These are called “permanently absent” students and these numbers have implications for calculating unit costs per student as they are calculated based on official enrollment figures. This method underestimates unit costs substantially such that if the costs are adjusted for attendance, they would be double of those calculated using unadjusted enrollment data.

Third, there are systematic gaps in access outcomes among various groups. For example, girls are significantly less likely to attend school than boys, and girls with illiterate parents have an attendance rate of only 20 percent. The gender gap begins to show in early grades and it widens as students move up to higher grades. At the primary level, the gross enrollment rate (GER) for boys is 136 percent compared to 103 percent for girls. The GER among males at the lower secondary level is estimated at 97 percent, compared to 62 percent among females, indicating that boys are 1.5 times more likely to attend lower secondary school compared to girls. At the upper secondary level, boys' access is twice the rate of girls'; gross enrollment rates at this level are 66 percent and 32 percent respectively. The gender gap is particularly high in Paktika, Uruzgan, Loghar, Badghdis, and Kapisa. Rural children and youth are 10 percent more likely to be out of school compared to the national average; and the Kuchi children are 6 times more likely to be out of school.

Fourth, most children get a late start and drop out early. Children enroll in school generally late, at age 8 and enrollment declines rapidly beginning at age 12 (the official end of the primary cycle). Enrollment among 13-year-olds is only 70 percent of enrollment among 8-year-olds. The number of students enrolled in the last year of general education (12th grade) can be anywhere from 14 to 29 percent of the incoming cohort.

In addition to these considerable access challenges, the education system in Afghanistan is facing a learning crisis.

Many young Afghans do not know how to read and write. Only half of the population between the ages of 15 and 24 - the parents of the next generation of students and the new entrants to the workforce - is literate. Even among the children and youth coming from richest households, literacy is extremely low. According to the 2014 Afghanistan Living Conditions Survey (ALCS), only 63 percent of the 15 to 24 year-olds from the top income quintile are literate. In contrast, among the lowest income quintile, the literacy rate for this age group is now at 36



percent. Even more worrisome, among the 7-15 year-olds, literacy rates dropped from 38 to 31 percent over a period of two years.

A 2013 assessment of 6th graders from 13 provinces in Afghanistan revealed that learning outcomes remain low: in math, only 9 percent of students exhibited grade level proficiency. In reading, 12 percent of students and, in writing, nearly half of the students could not demonstrate grade-level proficiency. Students perform better in all subjects if the school has a system of monitoring teacher absenteeism or if the school can provide each student with at least one textbook. These variables increased scores, on average by half a standard deviation.

Other factors contributing to low learning outcomes and thus the learning crisis include the low qualification of teachers and inadequate learning environment, with *the teacher force remaining generally underqualified*. Half of general education teachers have not completed Grade 14, which is the minimum qualification requirement for teachers at this level. Of the 5,500 teaching faculty in higher education, only 36 percent have a Master's or PhD degree. The distribution of teachers is uneven across regions and is not correlated with the number of students or school age population. In addition, only 13 percent of the teachers are women, a low figure especially as having female teachers plays a key role in parents' decision to send their girls to school.

The learning environment is not favorable in many schools due to supply-side indicators, such as construction of schools, which are dependent on funding availability and their use. Half of all schools lack buildings; more than 40 percent of them do not have surrounding boundary walls – an important factor for security reasons. Over a third of schools have two or more shifts. 30 percent of schools in Kabul teach three shifts resulting in a considerable reduction of the actual teaching time. Only 10 percent of schools in Afghanistan have science laboratories, with great variations across the country.

Education expenditures

Education spending in Afghanistan has reduced over the past five years; only considerable donor financing has kept the sector afloat to deliver basic services. However, substantial resources are needed to prepare for the increase in students attending secondary education. At the same time, efficiency gains can be obtained by reducing drop-out and repetition rates, boosting execution rates, improving allocation of funds to benefit the neediest, and holding deconcentrated education structures accountable for more equitable service delivery to schools and reporting.

Key findings

Despite enrollment growth, education spending in Afghanistan has declined over time as a proportion of the government budget. During the period of 2010-2015, thanks to the growing economy, the total government budget tripled, but this growth did not translate into a larger share of the budget being allocated for education. In 2015, the share of education spending in the government budget was 13 percent, a significant decrease from 25 percent in 2010.



Public spending on education is mostly geared towards salaries. In 2015, the Ministry of Education (MOE) received about AFS46 billion from the central government, a 3 percent growth from the previous year. 58 percent of this amount went to recurrent expenditures and almost all of these funds (91 percent) covered wages and salaries. Goods and services received only 3 percent; an extremely low number given the needs in schools.

Most of the education expenditures were spent at the general education level. General education expenditures accounted for 69 percent of the budget (student share of this program is 95 percent), but budget records do not distinguish between spending at different levels (primary, secondary, etc.). Another 11 percent went to curriculum development and education management; benefitting largely general education students. In 2015, the Ministry of Higher Education (MHE) received about AFS8.6 billion, 15 percent of the total budget, a 9 percent decrease from the previous year. This allocation needs to be aligned to the enrollment share; currently the allocation is disproportionately high compared to higher education's enrollment share of 3 percent even accounting for higher unit costs at this level.

Between 2010 and 2015, the contribution of international donors and development partners has varied between 40 and 50 percent of the education budget. Total international funding peaked in 2013 with contributions of over AFS30 billion, but since then it has declined to about AFS24 billion. Some of the off-budget funds are managed by the Afghanistan government, allocated and spent through the budget, and some are directly given to the projects. In recent years, donors are most often channeling funds through the national budget rather than financing projects directly. The largest program among them (US\$438 million equivalent to AFS28 billion) is the World Bank-funded Education Quality Improvement Project, which was implemented from 2008 to 2017.

Off-budget support to education has largely favored primary and secondary education projects, which received 42 percent of all off-budget support, with TVET and teacher training programs receiving about 34 percent and higher education projects receiving nearly 17 percent. It is not clear why donors choose to directly support projects instead of channeling funds via the state budget, but there is some evidence that the government sometimes encourages direct donor support to ease disbursement delays. Donor funds were also channeled through the National Solidarity Program (NSP), which supported rural development projects chosen with input from localities and managed in collaboration with local entities. Since 2011, Afghanistan invested AFS1.1 billion in rural school construction projects through the NSP, with over a half of this amount spent in 2015.

Although Afghanistan's average education spending is higher than education expenditures in comparable countries, due to the lack of or inefficient use of resources, the country's current spending trajectory is not sufficient to support expected enrollment growth, particularly in lower and upper secondary education. There are significant challenges that the country must overcome to ensure that funding is maintained at an adequate level. Between 2015 and 2030, the population between the ages of 10 and 25 is expected to increase from 11 million to 14 million. At present, 5.8 million children and youth, or approximately 51 percent of this age group, are enrolled in the education system. If the enrollment ratio stays the same, the Afghan education system must make room for an additional 1.5 million students in this age group - that is a 26 percent increase in the student population just for



this age cohort. If participation increases by a meager 10 percentage points to 61 percent, student counts would increase by 2.8 million or nearly 50 percent. This means that in real terms at least, operating expenditures would have to increase by this amount. Without new resources or improvements in the efficient and effective use of available resources, the current system would not be able to support this student growth.

Unit cost analysis, on its surface, does not suggest that there is significant waste at any particular subsector. Primary and secondary levels combined, per pupil spending has equaled about 11 percent of per capita income for general education, compared to 16 percent across low-income countries. However, it is important to remember that there is a significant gap between attendance and enrollment rates. Adjusting this unit cost using attendance rates instead of enrollment rates, one would find a unit cost number that is about 25 percent of per capita gross domestic product (GDP). This is higher than most low-income countries for which data exist. Higher education unit costs are closer to the low-income country averages: 141 percent of per capita income in Afghanistan compared to 125 percent across low-income countries.

Other sources of inefficiency include low budget execution, especially in capital projects, high overhead spending and thus few resources for learning materials. High repetition and dropout rates consume resources which could be spent on schools. A quarter of capital funds are not spent; among general education programs, the unspent balance is closer to 40 percent of the approved (or revised) budget. Nearly 91 percent of the recurrent budget is spent on salaries with large differences in pupil-teacher ratio (PTR) across the provinces, showing that there is a teacher allocation problem despite considerable resources being spent on salaries. Ironically, Zabul for instance has a high PTR of 60 but low enrollment rates, and approximately 90 percent of out of school children. Finally, at schools, 12 percent of students repeat a grade at the primary level and 6 percent drop out. Resources used for these students are wasted. High repetition and drop-out rates are generally linked to poor learning environments in schools.

The benefit incidence analysis shows that public spending across all education levels, from primary school to higher education, benefits more children from higher income quintiles. Among primary school students, children from the highest income quintile constitute one fourth of all students while students from the lowest income quintile account for only 15 percent. The bottom two income quintiles combined constitute 26 percent of students at the lower secondary level (compared to the top quintile students that account for nearly a third of all students). At the upper secondary level, the bottom two quintiles can claim only a fifth of the students, and at the university level, only 12 percent. More than half the students who attend university are from the higher income quintile in the country.

The provincial level² analysis shows wide variation in both private and public per pupil spending. Private spending compensates for the low per capita public spending in better off provinces. In most provinces, per pupil

²Budget records for the MOE allocate expenditures by province (or provide sufficient information to make that allocation) for only slightly more than half the total budget. About 40 percent of the budget is allocated at the central level and another 7 percent lacks sufficient information for allocating them across regions.



recurrent spending ranges from AFS3,000 to AFS9,000, but there are outliers. Kabul has the lowest per pupil public spending well below AFS1,000. Three provinces – Zabul, Logar and Nouristan – have the highest rates at over AFS10,000. It is important to note that despite the higher rate, the share of provincial spending overall is low in these provinces (less than 1 percent, see Appendix Figure 1). Private spending per pupil, as measured in the household survey, is comparatively lower. In about half of the provinces, private per pupil spending is lower than AFS2,000, and in some provinces, Zabul and Paktya in particular, private spending is almost nil, around AFS100 per pupil. On the contrary, in Kabul, Ghazni, Bamyan and Balkh, it is above AFS5,000 per pupil.

While much information is available through the Education Management Information System (EMIS), the data is disconnected and sometimes incomplete. Data information systems lack information on contract teachers, shift taught in the case of multiple shifts, as well as budget breakdown by level of education. The current data system also does not include statistics of Community Based Education (CBE), which represents a considerable number of children that are benefiting from education but not counted in formal statistics. There is also no systematic data collected on teacher absenteeism. On the expenditure side, there is a very detailed system of accounting but data is not recorded. While programmatic expenditures are tracked well, there is no information on what level of education (primary, lower secondary, etc.) the funds are serving. The lack of disaggregated information limits analysis on the effectiveness of spending in Afghanistan's education sector.

From Diagnostics to Reforms - Conclusions and Recommendations

Looking forward, Afghanistan must take steps to improve the performance and the equity of the education sector through its sector policies and funding priorities. Based on the data and analysis presented in this report, the report makes the following recommendations:

- *Target investments towards improving quality.* Assessment data suggest that the presence of teachers and learning materials have the biggest impact on learning. Poor learning conditions are linked to repetition, attrition, and dropping out. Afghanistan must invest in improving the quality of education by increasing spending on teaching and learning materials and making sure that there are enough learning materials for students and teachers. Given low literacy and poor learning outcomes in the 6th grade national assessment, importance of reading and writing in the early grades should be a key emphasis.
- *Expand/stabilize access and attendance through community-based education, especially in rural and conflict affected areas where school attendance comes at a considerable risk.* However, given the variety in approaches and costs, designing a harmonized and cost-effective package of services should be a priority.
- *Develop a system for more equitable distribution of resources to schools and hold provincial education directorate accountable for their effective use.* There are great disparities in the distribution of school supplies, infrastructure and teachers. Per capita operating expenditures in recent years have more heavily targeted provinces with low levels of schooling, but teacher deployment and school supplies remain in severe shortages in remote areas. At the provincial level, allocation to schools do not follow a systematic procedure.



In fact, distribution to districts and schools are at the discretion of the PED with no accountability or reporting requirements. Deconcentrated structures should be required to report on the use of public resources and reporting outputs.

- *Involve communities in making education attractive.* School *Shuras* need to be further strengthened, especially in the hard to reach areas, as they can play an important role in increasing retention and encouraging parents to send their children to school, especially girls. They have also served as local negotiators in conflict affected areas to re-open schools. The Citizen's Charter is a promising platform for strengthening community engagement in education management and monitoring teacher absenteeism and learning time.
- *Develop a long-term needs projection for the education budget.* Afghanistan must focus on developing multi-year budget projections adjusted for the current and future needs of the education system. As the pressure for expanding school infrastructure at the national level slows down over time with the eventual reduction in the school age population, long term budgeting should take into account an increasing need for school repairs and maintenance as well as much needed school materials and supplies. New school construction in the short term should focus on the remote and underserved areas.
- *Make better use of the existing budget structure and the information systems for more transparency on allocation and use of public resources.* Analyses of education sector performance and its financing point to the necessity to strengthen the comprehensiveness of data provided through the multiple management information systems. Institute integrated information management systems for better monitoring and reporting on outcomes and evaluation. The systems could be strengthened, starting with better projections of student and teacher requirements and instituting biometric IDs for student and teacher tracking. Integrated data collection systems of EMIS, Human Resources Management Information System, and payroll would also allow for closer and rigorous monitoring.



Afghanistan: Promoting Education during Times of Increased Fragility

Report objectives

Within the context of increased fragility that Afghanistan has been experiencing, the current report aims to provide an up-to-date analysis of the country's education sector, including the use of public expenditures spanning over the past six years. Using available administrative and household data, the report provides more insights on key aspects of the education system performance in Afghanistan.

Chapter I starts with a detailed analysis of the country's school enrollment trends and supply indicators. It then turns to the key performance indicators, including attendance and enrollment ratios; internal efficiency indicators, including transition, repetition and drop-out rates, and provides detailed information for each of these metrics along gender, locational and various socioeconomic characteristics.

Chapter II analyzes Afghanistan's public expenditures on education, reviewing the use of various sources of education sector funding (own-resources, international donor funds, funds supporting education through other programs such as the National Solidarity Program, and private spending from households). The chapter concludes with an analysis of adequacy, efficiency, and equity of education funding in the country.

Chapter III presents the report's conclusions and recommendations.

Data sources: The report uses administrative data compiled from the Afghanistan EMIS for years 2010-2016, the National Risk and Vulnerability Assessment (NRVA) from 2012, the ALCS from 2014, and the highlights from the mid-term 2016 ALCS, budget data for the same years, population data from the country statistics office and higher education data from MHE. Funding data is compiled from sectoral ministries, household surveys, international donors, and OECD's Official Development Assistance (ODA) database. When there are gaps in primary data sources, the report relies on the UNESCO Institute of Statistics (UIS) and World Bank's education statistics. Primary data was collected through a survey of donor financing to the sector.



I. Afghanistan: Education sector performance

Although Afghanistan witnessed significant economic progress during the “reconstruction decade” of 2003-2012, averaging 9.4 percent GDP growth, the impact of this growth on poverty reduction and improved living conditions was unequal. Real GDP growth dropped to 3.7 percent in 2013 and 1.3 percent in 2014. The transition after 2012 has been challenging, with the withdrawal of international troops, a decline in foreign aid, and the negative impact on the local economy following the closure of military bases. Reform progress slowed during 2013 and 2014, and the protracted election and government formation process exacerbated the challenges by negatively affecting business confidence and investment. In 2015, the economy did not recover as expected amidst an increase in violence and political uncertainty. This slow economic recovery has long-term implications, requiring much higher growth to catch up and close the national income gap. Reducing conflict and fragility and promoting inclusive growth will be a long-term effort, requiring improved human capital and infrastructure, access to land and finance, and a favorable investment climate. According to the recent country economic report, lack of security is perceived to be the most important constraint for private investment in Afghanistan. It is also one of the biggest challenges for public service delivery and impacts growth and poverty by damaging human capital, constraining productive economic activities, increasing social unrest, promoting unequal access to basic services, and increasing political instability.

The current Government is committed to tackling issues of security, poverty reduction, governance and shared and inclusive growth. Its vision is described in the Government priorities strategy “Realizing Self Reliance: Commitments to Reforms and Renewed Partnership” (December 2014) and in the more recent National Peace and Development Framework (ANPDF, 2017-2021). The strategy states that service delivery plays a dual role in Afghanistan: promoting social cohesion and trust in public institutions, while laying the foundation for job creation and growth. Critical priorities are to maintain the gains achieved so far in terms of access, to improve quality, and to generate efficiency gains in human and financial resource management while improving accountability to citizens.

But, in many provinces, schools still remain insecure. Attacks against students and schools continue to be major threats and causes for the closing of schools or low rates of attendance. More than 900 schools are currently closed due to unsafe environments. The thirty years of conflict and political unrest destroyed the education system in terms of staffing, premises, curricula, and student attendance for both male and female students. Not only did the quality of education services suffer, governance of the sector also weakened. The unfavourable political economy has blocked policy reforms and their implementation. With each transition, from pre-Taliban era, to Taliban and now in the past decade of interim and democratically elected governments, Afghanistan's education agenda changed dramatically - leaving the sector with little to build on. Patron-client relationships between members of the ruling coalition and the local population influences the selection of school locations, the number of schools built in each province or district, and the hiring of staff.



Afghanistan's youth population is its greatest asset, but the youth bulge is a major concern for policy makers. The under-25 generation represents close to 50 percent of the population, and, if meaningfully included in the country's development dialogue, could significantly influence its development. With about 66 percent of the population falling under the age of 35, Afghanistan is the youngest country, but one facing a youth bulge that is vulnerable to idleness and dissatisfaction with public service providers due to the ungainful engagement in a mostly informal economy in the country. Even the beneficiaries of the formal education system face constraints like gainful employment because of low growth rates in the economy due to aid withdrawal since 2013. Long years of conflict and poor economic management have also had lasting effects on the country's prosperity. Poverty remains prevalent across the country, with pockets of extreme poverty spread out all over the country. Average poverty prevalence nationwide has increased over the past few years, and is now at about 39 percent (2014). This is principally due to an increase in poverty in the Northeast Region. The unemployment rate has increased to 22 percent, two-fifths of the population is unemployed or underemployed and 79 percent of the workforce is in vulnerable employment (ALCS 2013-14). Women's employment has been impacted by Afghanistan's series of violent conflicts in the past few decades. It is against this backdrop that the education sector is evolving.

Three key ministries are responsible for the education sector in Afghanistan. The Ministry of Education oversees general education (grades 1 through 12), Islamic education, teacher training, and technical and vocational education, both formal and informal. It is also responsible for literacy and non-formal education. The Ministry of Higher Education is responsible for all higher education institutions including public, private, and community colleges. The Ministry of Labor, Social Affairs, Martyrs and Disabled is responsible for pre-school education (with some exceptions); it also leads and supports the National Skills and Development Program (NSDP) and the vocational training offerings under this program that are mostly outsourced to non-governmental organizations (NGOs) and private training providers under the non-formal TVET. The MHE institutions, NGOs and private training providers also provide some vocational training at community colleges. Beyond that, other ministries involved in contributing to educational policy by providing input in their respective areas are: the Ministry of Women's Affairs, the Ministry of Aviation and Transport, the Ministry of Information and Technology, the Ministry of Power and Energy, the Ministry of Public Health, the Ministry of Hajj and Religious Affairs, and the Ministry of Rural Rehabilitation and Development.

Education in Afghanistan is a constitutional right, guaranteed and free through the undergraduate level (grade 16). Formal education in Afghanistan begins at the age of six and is compulsory through the end of 9th grade although most children begin school at age 7. After 9th grade, students can choose to continue in the general education track, or attend either vocational or technical schools (10th through 12th grade), or technical and vocational institutes (13th and 14th grade). Teacher training also begins in the 9th grade, but teacher colleges accept the bulk of their students in grade 13 (Figure 1). In addition to general education, the MOE must provide access to Islamic Education to students who wish to pursue Islamic studies. Islamic education is provided through Madrassas (grades 1 through 12), Dar-ul-Huffaz (focusing on Quranic education) and Dar-ul-Ulums (that expand beyond Quranic education) that go through grade 14th. There is generally one Islamic school in each



district and one Dar-ul Ulum and Dar-ul Huffaz in each provincial capital.

The governance of the sector is centralized largely around the MOE which oversees a large portion of education programs and policies, including policy formulation, curriculum development (including support for Islamic schools), teacher education, TVET schools and institutes, literacy courses and community-based education. The seven key administration areas at the central level are General Education, Islamic Education, Curriculum Development and Teacher Education, TVET, Literacy, and Education Administration Development. The Human Resources Development Board (originally established in 2008 as the Education Development Board, but now expanded to include the ministries of Women's Affairs, Labor and Social Affairs, and Higher Education) coordinates education programs with development partners. In addition, there are 34 provincial departments and 412 district education offices that manage sub-national programs. In the provinces, the PED is the lowest decision-making body in public financial management and human resource allocations as far as the government structure is concerned. District Education Directorates are physically closer to the schools but they barely have any decision-making power; their role is reduced to processing salary payments and supervising schools. These offices report to the central administration; they also work with the provincial and district governors respectively, contributing to some confusion in the reporting lines. Principals report to the District Education Office and school shuras. The school shuras, made up of parents and community elders, are community-based school management committees. They are engaged in local campaigns to enroll children, provide school protection, help with school construction and maintenance, and monitor education quality and delivery. Every PED has a TVET focal point in its administrative structure; the key functions of the TVET focal point are to supervise, control, monitor and evaluate the performance/affairs of all TVET schools/institutes in the specific province. In terms of efficiency, these are too many responsibilities for a grade 3 civil servant employee, given that on average the focal point has to also coordinate with seven formal TVET schools and institutes at the sub-national level (excluding Kabul province). TVET Principals directly report to TVET focal points of their respective province.

The service delivery chain beyond the PED level needs to be strengthened and reformed to be in line with the new National Education Sector Plan (NESP III 2017-2021). While in theory the chain of service delivery is extended to the school level, in reality PEDs remain the final point of contact between the central ministry and provinces. The schools are the primary platforms for delivering education services, but they are disconnected from PEDs and unable to receive the support they need in a timely manner. Schools complain about multiple layers of bureaucracy involved in accessing funding for very basic needs such as chalk or simple repairs of a door lock. The sub-national assessment study conducted in 2015³ reinforced these findings and showed that the PEDs are well-resourced in terms of human and infrastructure resources. On average, a PED has 193 employees, of which 151 are Taskhell, 25 bilmakta and 17 technical assistants. Similarly, in terms of infrastructure, most of the PEDs (30 out of 35) have sufficient resources to perform their tasks effectively. However, schools are not in charge of managing resources to deliver education services.

³ Altai (2015). Sub-national Education Assessment Report. Prepared for the Afghanistan Ministry of Education. Draft Report.



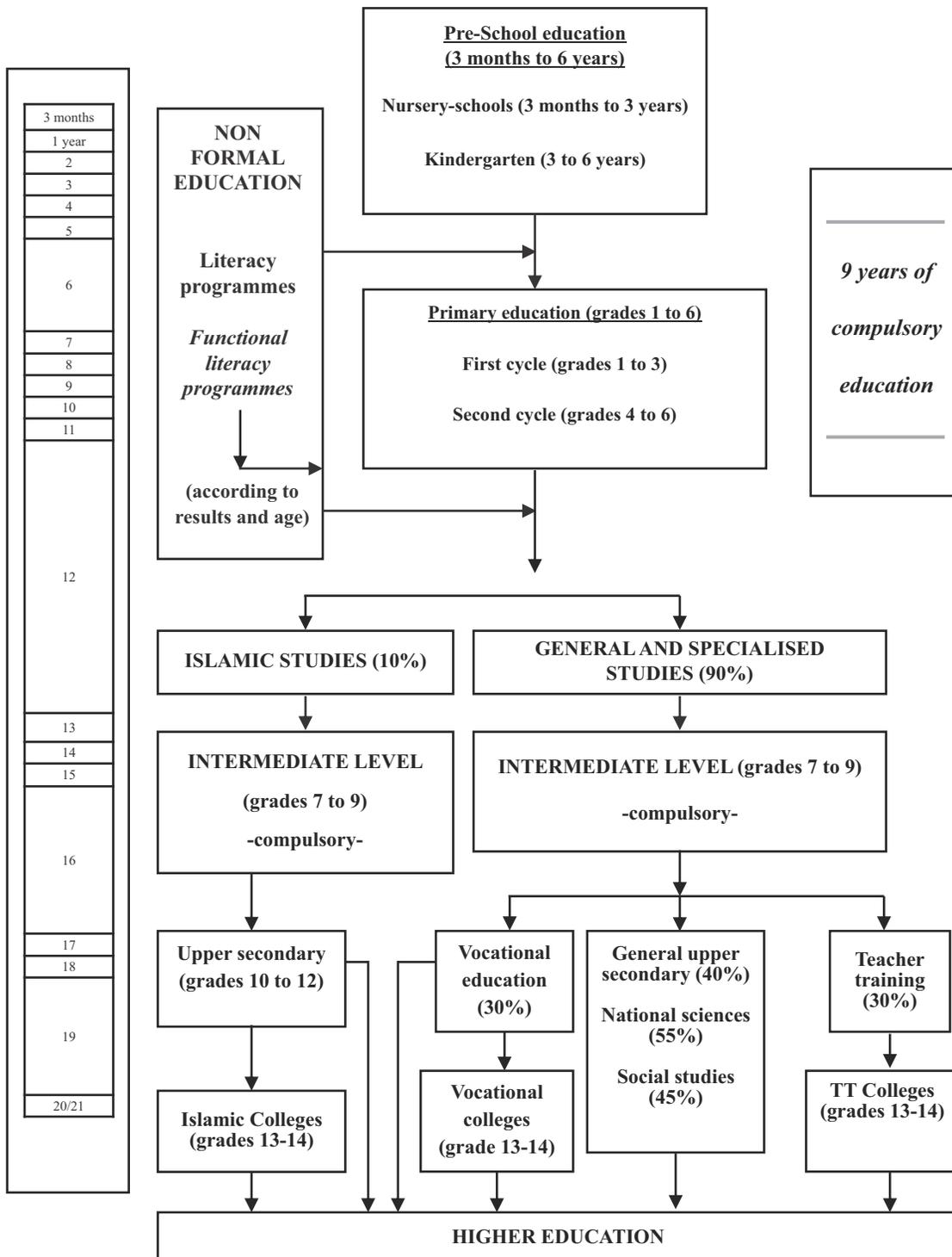
Since 2014, the TVET Department of MOE has been mandated to take informal technical and vocational education trainees with at least grade 9 certification from the labor market via open enrollment and train them in technology and applied math. After finishing the combination of both practical training and apprenticeship in the local market with a master trainer and in-class training, the trainee is now qualified to obtain grade 12 technical and vocational education diploma in his/her specific field. This recent amendment addresses the key socio-economic constraint that causes youth to drop out from school and enroll in an apprenticeship program that has no formal recognition but guaranteed economic returns and employment opportunities.

The MOE does not have the capacity for direct provision of all services. NGOs play an important role in the implementation of specific programs such as literacy classes and community-based education. Capacity at the center is heavily supplemented by technical assistance from donors. To refocus on its main mission of preparing Afghan youth for work as stipulated in the NESP III, the MOE has begun reviewing its core mandates so it can transfer some of its responsibilities to other ministries, deconcentrated entities, the private sector or to the communities.

The MOE has just completed its third National Education Sector Plan. Key concerns under this plan are focusing the MOE on its main mandates, especially in light of increasing security concerns, the decline in donor funding, underutilization of capital funds, and lack of accountability and capacity especially at sub-national levels. The plan recognizes the need to move to a more predictable financial framework implemented through the national budget. The plan also puts great emphasis on decentralization of decision-making and program implementation.⁹



Figure 1 – The Structure of the Education System in Afghanistan



Source: MOE-CTD, 2003



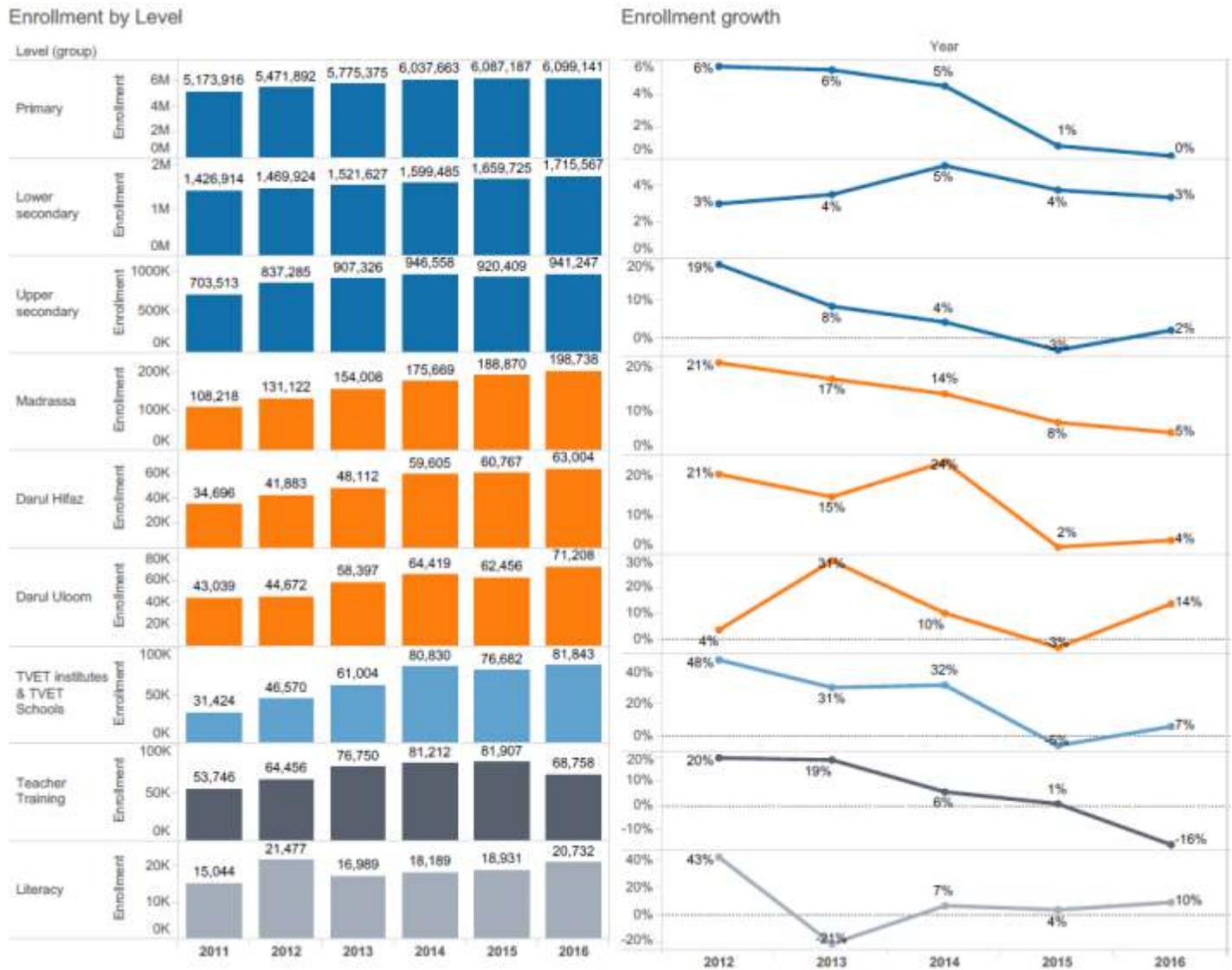
The four most salient facts underlying sector performance are presented below.

1. Enrollment trends are rising with improvements in access and enrollment in primary schools, but “permanently absent students” mask the gap between enrollment and attendance and gains beyond this level of education are limited.

The biggest achievement in Afghanistan's education sector is the rapid expansion in enrollment, especially at the primary level. The EdStats data analysis shows that in 2016, more than 9.2 million students enrolled in school (regardless of level), representing a 9-fold growth from thirteen years earlier (Figure 2). Expansion began first at the primary level, with the number of students quadrupling in a matter of three years. Since 2005, enrollment at the primary level grew every year, except for 2009, sometimes by more than 10 percent annually. Expansion at the lower secondary level gained strength beginning 2004, but has been erratic with a 50 percent growth one year followed by a 1 or 2 percent growth the next year. Since 2008, however, growth at this level has plateaued; now it hovers at the 2 to 4 percent range. Upper secondary education has not yet experienced similar levels of continuous growth, except for 2011 when enrollment at this level grew by 33 percent. Since 2002, enrollment in TVET has increased substantially. In 2015, the number of students in formal TVET was 77,000 students, of which 18 percent were female, undergoing training in 68 different trades in 294 TVET institutes and schools in 34 provinces of the country. In recent years, more emphasis is being made on improving quality of the service delivery and market relevance of the TVET courses.



Figure 2 - School enrollment and enrollment growth by level of education, MOE, 2011-2016



Source: EdStats, World Bank.

Table Notes: The following data are not available: upper secondary enrollment for 2006, tertiary enrollment between 2005 and 2008.



Gross enrollment rate estimates for Afghanistan for earlier years are not always reliable - both enrollment and population records during this time could be incomplete. Nonetheless, UIS summaries show a rapid increase in gross enrollment rates beginning early 2000s. Access improvements at the primary level came early: according to UIS summaries, primary GER now stands at 111.7 percent compared to 73 percent in 2002.⁴ Growth in participation at the lower and upper secondary levels peaked in 2010 and, according to UIS summaries, stand at 66 percent and 43 percent respectively. Tertiary GER was 12 percent in 2013, up from 3.4 percent in 2007. But, progress in enrollment rates has slowed or stopped since 2010 (Appendix Figure 2).

But, household survey data shows that gross enrollment rates could greatly overstate actual schooling. Only 43 percent of children and youth under the age of 24 actively attend schools - the gross enrollment across this group is estimated at 95 percent. This means half the children and youth who are enrolled in a school do not attend. According to the ALCS data, in 2016 the average net attendance ratio for primary education was at 57 percent (65 percent for boys and 48 percent for girls) and for secondary education at 35 percent (45 percent for boys and 24 for girls). Nimroz is the only province where girls' enrolment exceeds that of boys at the primary level.

“Permanently absent students” present a misleading picture of enrollment. Enrollment data by age shows that most children start school at age 8, and from that point on, enrollment declines rapidly by age, beginning age 12 (the official end of the primary cycle). But, enrollment among 13-year-olds is only 70 percent of enrollment among 8 year-olds—this is too much of a difference to be explained away by demographics. Grade-over-grade enrollment goes down rapidly thereafter.⁵ As attendance data shows, enrollment figures do not necessarily tell us how many children are in school. One of the reasons for the gap is the policy of keeping children on the enrollment logs for up to three years after a student stops attending school. Students tend to leave school to work, especially in rural areas (discussed later) or because of the lack of teachers and facilities, such as latrines, which work as a push-factor especially for girls.²⁰

Administrative data provides a fuller picture of enrollment for all MOE programs.⁶ This data shows that general education schools account for nearly 95 percent of all MOE enrollment, with primary enrollment accounting for two thirds of all enrollment. Between 2011 and 2015, general education schools added approximately 1.3 million students, and this growth was largely due to gains in primary school enrollment. Islamic education schools collectively enrolled approximately 312,000 students in 2015 (up from 186,000 in 2011) and the bulk of these students are at madrassas. TVET schools and institutes enrolled another 76,600 students and teacher training institutes accounted for nearly 82,000 students. Both of these subsectors grew

⁴ The data summaries also show a 50-percentage point jump between 2001 and 2002.

⁵ This analysis is based on official EMIS enrollment figures, which, overstates attendance. But the extent to which attendance differs from enrollment figures and why is not clear. Household data for 2014, for example, suggests that the total number of students attending school from primary to upper secondary level is only approximately 4 million, less than half of total official enrollment figures for this year, which is 8.8 million.

⁶ This information is available beginning the Hijri year 1390. This year runs from March 21 of 2011 to March 20 of 2012, and in our data analysis, we refer to it as 2011. (School year also starts in March and ends in December in the majority of provinces).



rapidly between 2011 and 2014. Finally, literacy schools enrolled 19,000 students (Figure 2). Not shown in this graph is pre-primary enrollment, because the MOE does not track this information. However, other data sources indicate that there are approximately 40,000 students enrolled at the pre-primary level (more than half of whom are in private institutions, and mostly in urban areas). This puts the coverage at the pre-primary level at 1.6 percent.⁹

Most children and youth attend public schools but the number of private schools at all levels and across all types of education has been increasing. Across different levels of general education institutions, private schools account for 3 percent of enrollment and 6 percent of all schools in 2015 compared to 2 percent of enrollment and 4 percent of all schools in 2012. The first private literacy and adult education program opened in 2015. Private schools are most common among the TVET and teacher training institutions. In 2015, 13 percent of all TVET and teacher training institutions were private, and they collectively enrolled 5.3 percent of students (Appendix Figure 3).

The disaggregated data for teacher training and TVET programs for 2012-2015 shows that the private sector role in delivering teacher training courses is increasing while its role in the provision of TVET programs is decreasing. On the other hand, the public sector is increasing its TVET enrollment while its share of teacher training programs is decreasing (Appendix Figure 4).

Children or those raised in conflict or rural areas can attend community-based education centers or accelerated learning programs for overage children with more condensed programs (six grades in three years), especially in rural areas (Appendix Figure 5). In most cases, these settings are the only available schooling options. CBE centers are generally run by NGOs and cover up to grade 9. They are heavily supported by donors, who provide teaching and learning materials (TLM) and pay community-based teachers' salaries. In 2015, these programs hired 11,887 teachers and enrolled 333,837 students, 219,769 (or 65 percent) of whom are female. NGOs also play a large role in monitoring and ensuring accurate reporting on the activities of CBE.

Most of TVET is provided by the public sector, predominantly in urban areas, and primarily targeted towards men. According to a recent report, both in urban and rural areas, more than 75 percent of all TVET students are men. As for the trades, girls mostly enroll into soft skills training, linguistics, commerce and management and administration related trades. Information and Communication Technology and computer sciences are the exception where about 43 percent of the student body are women (Appendix Figures 6 and 7).

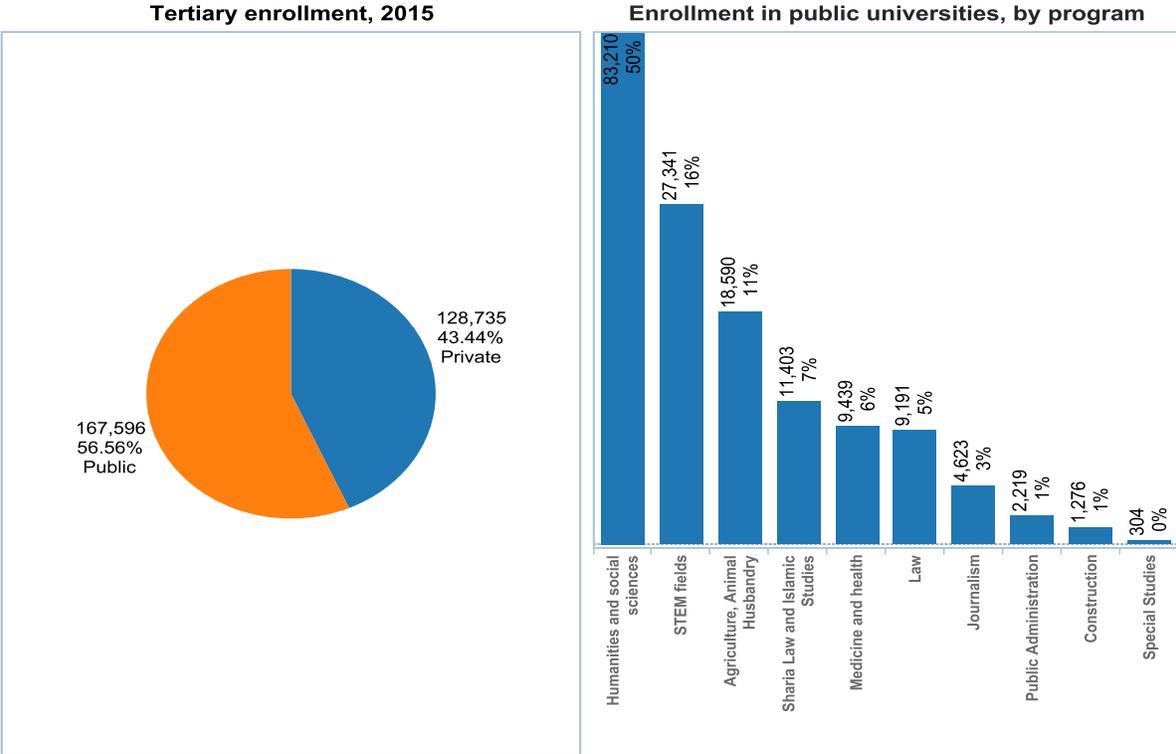
But, enrollment rates in formal TVET institutions confirm that the gap in access between male and female students is substantial: the percentage of female students in grade 12 (the year of graduation from TVET schools) is as low as 12.5 percent compared to 87.5 percent of male students at the same grade (Appendix Figure 8). In 2013, gender gaps in formal TVET also varied by region with the percentage of women going from 0 in some of the most rural provinces to 21 percent in Kabul, 26 percent in Herat, and 28 percent in Khost – famous for being a location of female-only TVET institutions along with Kunduz, Baghlan, Kabu Logar and Samangan province accounting for only 2 percent of TVET institutes. In general, there is a positive relationship between provincial population (age 15-35) size and levels of formal TVET enrollment, meaning provinces with larger



youth populations have larger formal TVET enrollment.

In higher education, Afghanistan has 34 public and 110 private universities that in 2015 collectively enrolled nearly 400,000 students. Public universities account for 168,000 students or 56 percent of enrollment. In public universities, the most popular programs are in the fields of education, arts and humanities, and social studies. Taken together, these disciplines account for nearly half the students. Science, engineering, technology and mathematics fields are next with a total of 27,000 students, or 16 percent, followed by agriculture and animal husbandry fields (including veterinary sciences), which account for another 10 percent (Figure 3).

Figure 3 - Enrollment at Higher Education Institutions, 2015



Source: Ministry of Higher Education.

2. Socioeconomic, gender, and regional inequalities are prominent in Afghanistan.

Many school age children in Afghanistan are out of school. UIS summaries provide out-of-school rates for children and youth at the lower secondary school age group only. These suggest that in 2014, 51 percent of girls and 19 percent of boys in this cohort were out of school. Provincial analysis shows that in 15 provinces, the proportion of children out of school exceeds 50 percent, ranging from 51 percent in Ghor to 88 percent in Urozgan. In Urozgan, 98 percent of school aged girls are out of school (Appendix Table 1).



The projected gross enrollment rates show that the gap in access between male and female students begins to show in very early grades and widens as students move up to higher grades. At the primary level, GER for male students is 136 percent compared to 103 percent for females. The GER among males at the lower secondary level is estimated at 97 percent, compared to 62 percent among females—that is boys are 1.5 times more likely to attend middle school than girls. At the upper secondary level, boys' access is twice the rate of girls'; gross enrollment rates at this level are 66 percent and 32 percent respectively.

Regional disparities are also large with males having higher enrollment than females not only at every education level but also in every region except for the primary level in Nimroz and Nooristan.⁷ In Paktika, for example, EMIS records no girls enrolled at the upper secondary level; in Kandahar, the female GER is 55 percent at the primary level, 10 percent at the lower secondary level, and 4 percent at the upper secondary level; in the mountainous, rural Zabul province, the number of girls enrolled at the primary level, regardless of their age, is only 28 percent of all female population between the ages of 7 and 12—one third of the rate among males. The lower secondary enrollment is 6 percent and upper secondary enrollment is 2 percent of the target population for girls. In the Kabul region, which hosts the capital, gross enrollment among the girls is 13 percentage points lower than boys at the primary level and over 30 percentage points lower than boys at the secondary level (Appendix Figure 9).

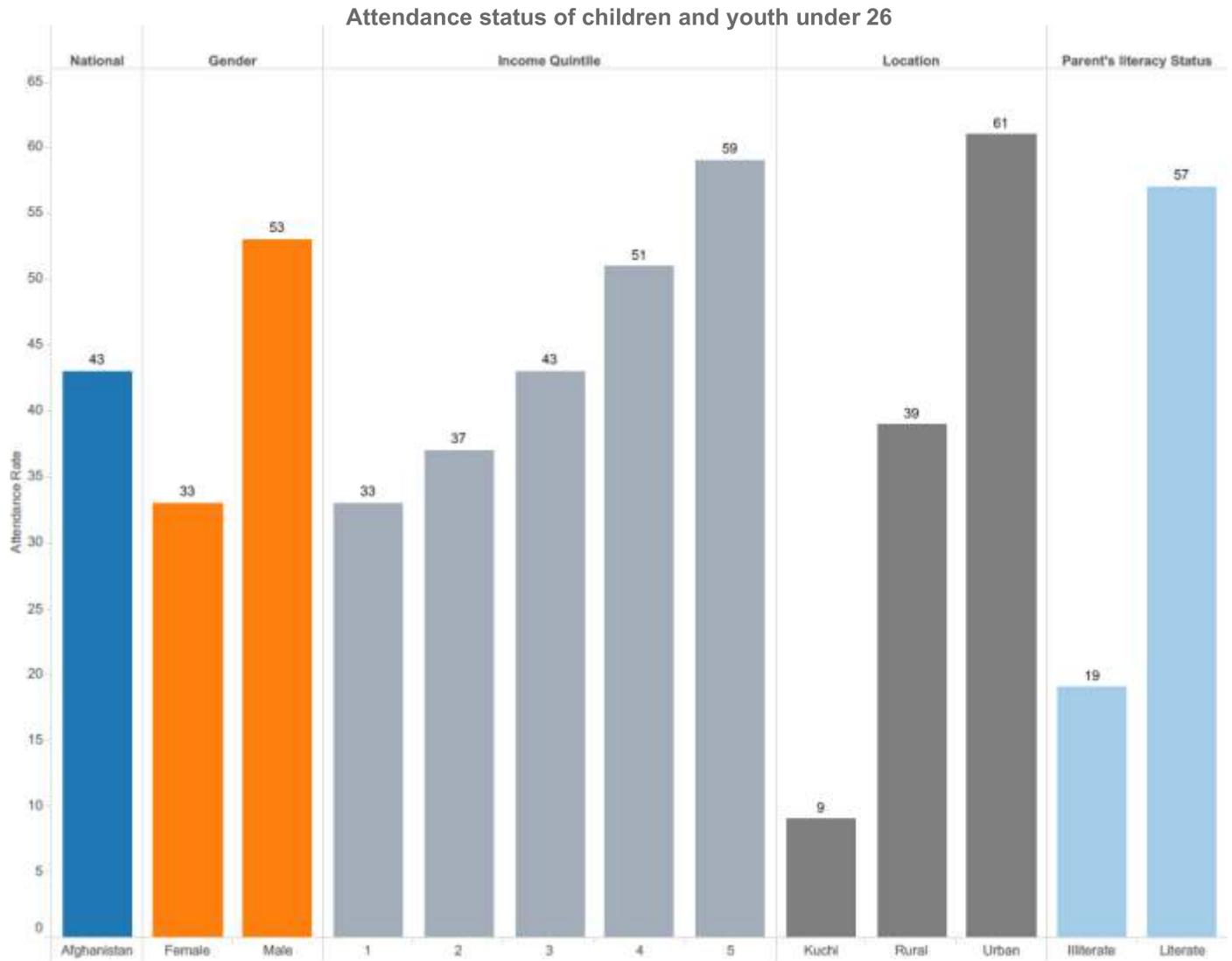
Household data also show that gender, income, parental education and location play a significant role in school attendance decisions. While more than half the males attend school, among females, only a third do. Children and youth from the lowest income quintile are nearly half as likely to attend school compared to children from the highest income quintile (33 percent v. 59 percent), and children of literate parents are three times more likely to attend than children of illiterate parents (57 percent v. 19 percent). School attendance is 61 percent in urban areas, 39 percent in rural areas and under 9 percent among the Kuchi (Figure 4). The Kuchi are a social group in Afghanistan who face limited access to education given the nomadic lifestyle and low levels of literacy in the community. Gross attendance rate at the primary level is estimated at 66.8 percent, which is only slightly higher than half the gross enrollment estimate. At the lower secondary level, gross attendance is 54 percent, compared to 81 percent GER, and at the upper secondary level, gross attendance rate, at 39 percent, is still 9 percentage points below our estimated GER. This suggests that attrition data calculated based on EMIS summaries possibly underestimates drop-out rates, and more so for earlier grades.

Attendance rates also vary greatly across the regions. In the more populous and relatively richer northeastern regions, attendance rates are almost always above 50 percent: 59 percent in the Kabul province and Panjshir, 57 percent in Kapisa and Ghazni, 56 percent in Daikundi (a province which has shown great improvements in educational attainment since 2011) and Bamyan and 50 percent in Badakhshan, which is, otherwise, one of the most destitute provinces of Afghanistan. Attendance rates decline as one moves from north to south and east to west (with some exceptions) and the lowest attendance rates are in the provinces of Urozgan (9 percent) and Zabul (9 percent), followed by the nearby Kandahar region (19 percent), and Nooristan (21 percent) (Appendix Figure 10).

⁷ The access rates are 1 percent greater for girls in Bamyan and Panjshir but given that the population is an estimate based on household surveys, it is not statistically significant.



Figure 4 - Attendance rates by socioeconomic variables, 2014



Source: Household Survey

Household data also provides some insight into why children and youth are out of school. The reasons for being out of school change by grade level and vary for male and female students. At the primary level, the number one reason why children are out of school is the perception that the child is too young for schooling. This is also the key reason why boys do not go to school, followed by the parents' contention that the child is needed for work. These two reasons account for half the boys out of school at the primary level. For girls, reasons apart from the fact that families do not allow them to go to school are security concerns and distance/lack of schools. The urban-rural breakdown of the data show that lack of schooling is mainly a rural problem. At the lower and upper secondary levels, male students tend to stay out because of their need to work, and female students tend to stay out because their families do not allow them to go to school (Appendix Figure 11).



Work is a common feature of life for the Afghan children and youth. Household data shows that 29 percent of children between the ages of 7 and 12, and nearly half the youth between the ages of 13 and 17 are engaged in work. The incidence of work is much higher among males across both cohorts, and among rural children. Work includes domestic and homebased work. Especially among the Kuchi, work is a part of life with over 70 percent of children and 85 percent of youth engaged in some kind of work activity (Appendix Figure 12). The incidence of work declines with wealth in both cohorts: the share of children from the poorest households who do not work is 27 percentage points higher in the younger cohort, and 29 percentage points higher in the older cohort. Among the younger cohort, most of those who work, juggle school and work at the same time—approximately 9 children out of 10 who work also go to school. Among the older cohort, 7 out of 10 children who work also go to school, but among young females, more are idle, neither working, nor going to school (13 percent). On the face of socioeconomic challenges that households and children face, the MOE has given an opportunity to youth who have completed grade 9 to enroll in formal TVET programs under MOE and obtain grade 12 diplomas while learning their respective trades.

Although household surveys do not inquire what type of work children and youth are engaged in, some insights can be gleaned by looking at the economic sectors of these children's households (Appendix Figure 13). Domestic and agricultural activities—either helping on the family plot or with family animals or working for someone else—is likely to be the most common type of work children do. In households where the head of the household is engaged in agriculture, 40 percent of children between the ages of 7 and 12, and 61 percent of youth between the ages of 13 and 17 work. This is followed by construction where the respective shares are 30 percent and 47 percent.

Various groups are systematically excluded from education, either because they have little access or because there is family or societal pressure to keep these groups out. Commonly excluded groups are girls, children with disabilities (who tend to remain hidden in family homes due to the stigma attached to disabilities), rural children, children affected by conflict and war, children of ethnic minorities, children from poor households, and nomadic children (the Kuchis, estimated at over 1 million). Household data show that the enrollment rate is much lower for these children (Figure 4 on page 27).

Conflict and poverty are major sources of decline in girls' access to education. A recent poverty report on Afghanistan also highlights a slower pace of improvements in the country's educational outcomes during 2012-14, the so called "transition period" leading to the 2014 election and handover of security responsibility to Afghan forces.⁸ According to the study, the annual growth rate of female literacy, years of education, and secondary attendance declined substantially from its pre-transition level. As of 2013-14, only 20.3 percent of Afghan women above the age of 15 are literate, the average years of education of an Afghan individual above the age of 18 is only 2.8, and only 37 percent of pupils attend secondary school. In particular, the poverty report highlights the following:

⁸ Rahimi, Ismail; Redaelli, Silvia. 2017. Afghanistan poverty status update: progress at risk. Washington, D.C.: World Bank Group.



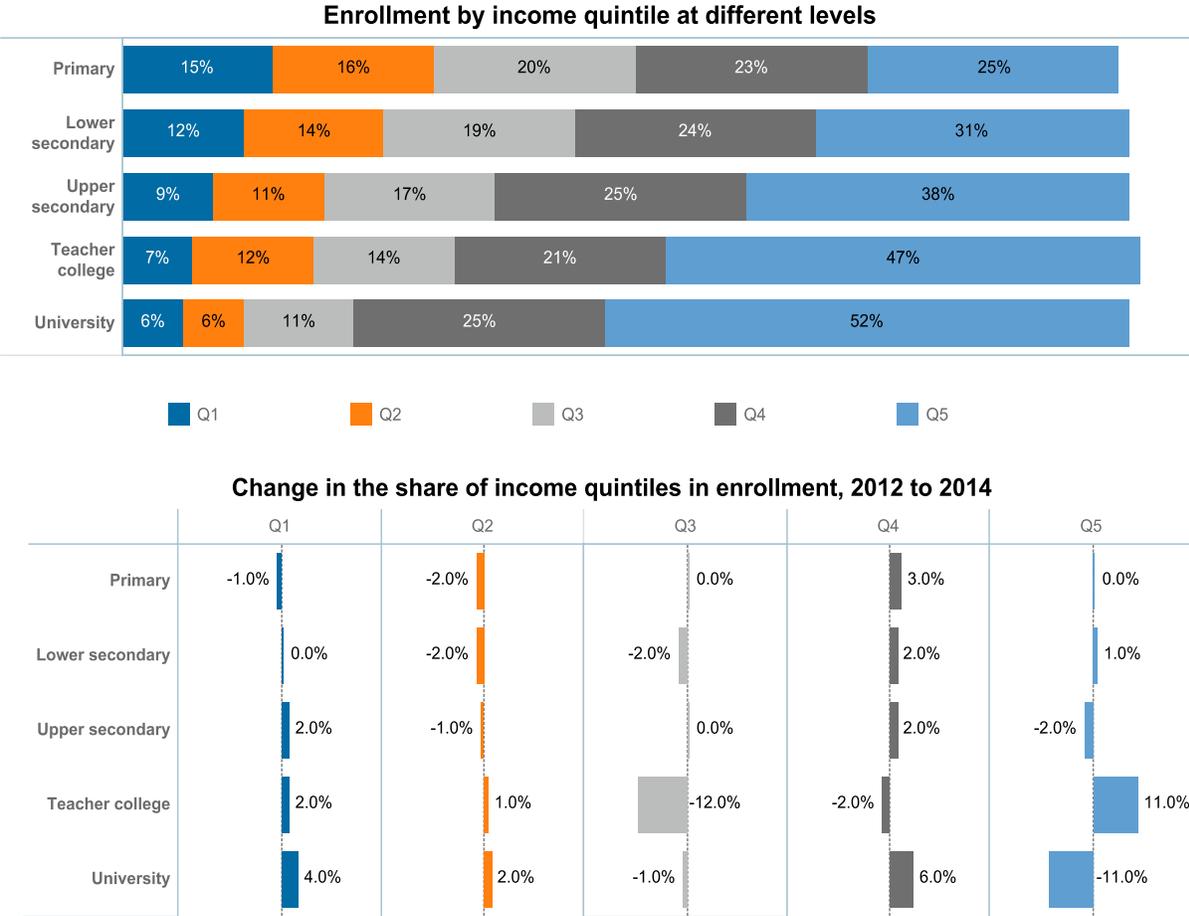
- *Girls are falling further behind in educational outcomes.* The decrease in primary school attendance rates between 2011-12 and 2013-14 was largely driven by decline of girls' outcomes. In fact, while attendance for both boys and girls fell in the transition period, primary school attendance for girls decreased by 2.2 percent annually against a smaller 0.6 percent annual decline for boys. With already much lower attendance rates for girls (45.4 percent) compared to boys (62.4 percent), girls are falling further behind as the trend in the pace of progress reversed; between 2007-08 and 2011-12, girls' primary attendance grew faster than boys', but between 2011-12 and 2013-14, boys' attendance fell at a slower pace, leading to an increase in the gender gap.
- *Deterioration in primary school attendance was particularly severe in rural areas.* The transition phase marked a decline in primary school attendance in rural areas, and an increase in the gap in primary attendance between children living in urban and rural areas. In 2013-14, about eight out of ten children attended primary school in urban areas, against five out of ten children in rural areas. Most of the decrease in attendance in rural areas stems from girls not going to school. Attendance rates for girls in rural areas decreased from 41 percent in 2011-12 to 37.3 percent in 2013-14; while rural attendance for boys decreased by a smaller extent, from 58.9 percent to 57.4 percent. Moreover, gaps in attendance between urban and rural areas are much smaller for boys than for girls.
- *Conflict keeps children out of school, particularly girls.* Worsening conflict and increasing insecurity in rural areas were responsible for the negative trends in primary school attendance observed during the transition period. Provinces where conflict-related incidents increased over the period between 2011-12 and 2013-14 saw a decrease in primary attendance rates, while the opposite trend emerged in provinces where conflict declined. Conflict affected girls' school attendance the most. In 2013-14, for every ten boys, seven girls attended primary school in low-conflict areas but only five girls attended school for every ten boys in high-conflict areas. The ratio of girls-to-boys primary school attendance tends to be lower in high-conflict provinces. Similarly, in provinces with high-conflict incidence, girls-to-boys' attendance rates for primary school declined from 2011-12 to 2013-14.
- *The increase in poverty during the transition period also contributed to the decline in primary school attendance.* According to the study, children living in poor households attend primary school at significantly lower rates than children in non-poor households. In 2013-14, 61.5 percent of children from non-poor households attended primary school, but only 48.2 percent of children from poor households attended. Alarming, the gap in primary school attendance between poor and non-poor Afghan children continued to increase from six percentage points in 2011-12 to 14 percentage points in 2013-14. Poor children especially are falling behind, and the gap in primary school attendance between poor and non-poor Afghan children widened considerably. In 2013-14, differences in attendance between the poorest and richest quintiles of the Afghan population was higher than in 2011-12. Children living in households in the bottom 40 percent of the distribution are falling further behind while attendance rates for children in the top 40 percent growing steadily. Increasing welfare gaps in education will contribute to further deepen intergenerational transmission of poverty and inequality over time.



The geographic distribution of enrollment reveals deep inequalities in enrollment especially at higher levels of education. At the primary level, outside of Zabul and Uruzgan, no province has a gross enrollment ratio lower than 95 percent (the highest gross enrollment ratios are in Nimroz and Paktika, at 215 percent and 300 percent respectively, but these are likely to reflect problems with the underlying population counts). There are marked differences in gross enrollment ratios between the northeastern and southwestern regions both at the lower secondary and upper secondary level (Appendix Figure 14).

There are also differences in the availability of resources among provinces. A comparison of the number of teachers across different types of education (excluding higher education) shows a higher availability of teachers in Parwan, Badakhshan, Baghlan and Kabul City (under 35), and extremely low availability in Daikundi (89.2), Zabul, Badghis, and Khost (all around 60) (Appendix Figure 15). There is no strong correlation between school age children and availability of teachers, suggesting that teacher deployment is affected by variables outside enrollment, such as proximity to urban areas or security.

Figure 5 - Enrollment shares by income quintile, and change in shares between 2012 and 2014



Source: Household Surveys (2012 and 2014).



Socioeconomic inequalities are revealed more clearly when enrollment data is used at different levels by the income quintile of the students' household. Children and youth from the highest income quintile constitute the largest share of students at all levels of formal education. In a perfectly egalitarian world, each income quintile would account for 20 percent of enrollment, but the data shows that enrollment is biased towards children from better-off families. Among primary school students, children from the highest income quintile constitute one fourth of all students, while students from the lowest income quintile account for only 15 percent. The bottom two income quintiles combined constitute 26 percent of students at the lower secondary level (compared to the top quintile students that account for nearly a third of all students). At the upper secondary level, the bottom two quintiles can claim only a fifth of the students, and at the university level, only 12 percent. More than half the students who attend university are from the richest families in the country (Figure 5 , top panel). Since 2012, more youth at the university level come from the bottom two income quintiles, but expansion in teacher training since 2012 has mostly benefited students from the top income quintile (Figure 5 , bottom panel).

3. Learning outcomes are low and represent a real crisis.⁹

The limited data that exists on learning outcomes show that only a small share of students achieve proficiency in math, reading, and writing. The 2013 assessment relies on a random sample of grade 6 students from 13 provinces from all the main regions of Afghanistan,¹⁰ 42 percent of whom are girls and 58 percent boys—again shares are representative of the enrollment at this level.²¹ The assessment showed that only 9 percent of the students mastered proficiency levels of 9 and above¹¹ and 37 percent of the students scored at a level corresponding to Level 6. In reading, 12 percent of the students are proficient (at level 10 or above), and girls tend to be better at reading than boys, with 17 percent scoring at these levels, compared to 9 percent among the boys. In writing, as well, girls appear to do much better with 19 percent scoring on the high-end at Levels 9 and 10 compared to only 13 percent among the boys (Appendix Figure 16).

Analysis of scores among grade 6 students along various school characteristics show that availability of textbooks and strong monitoring of teacher absenteeism make the greatest difference in learning outcomes. In schools where there are strong controls on teacher absenteeism through monitoring, students received mean scores that are 7 to 11 points higher compared to the students who attend schools where there are no controls on teacher's absenteeism. In schools where each student had a textbook, students scored 9 points

⁹ Despite these poor learning outcomes, households generally express satisfaction with schools and education services delivered by the Afghan government. For more information, see Annex B.

¹⁰ The 13 provinces are Balkh, Bamyan, Faryab, Helmand, Herat, Kabul Province, Kabul City, Kandahar, Khost, Kunduz, Nangarhar, Paktia, and Parwan.

¹¹ In math proficiency tests, level 9 are students with scores above 226 and level 6 are students with a score of 178 or below. The mean is set at 200 and the standard deviation is 20. In reading, the corresponding levels at the high end are Level 10, with a score of 222 and more and Level 6 with scores of 174 or less. In writing, comparable levels are 9 and 6. In a normal distribution, approximately 16 percent should score one standard deviation above the mean or greater, and 16 percent should score one standard deviation below the mean or less. 68 percent of the students should score within one standard deviation of the mean.



higher in math and reading, and 4 points higher in writing. The impact of urban schools is highest in writing, with students scoring 9 points higher on average compared to rural students (Appendix Figure 17).

Student learning is not always related to supply side variables; social inequalities also affect student outcomes. Data from 2014 allows comparison of school performances of 15-year-olds enrolled at lower-secondary schools across households with different levels of wealth. It is important to note that as secondary school enrollees already come from relatively better off households, our analysis probably understates the impact of household wealth on learning. In this analysis, household wealth is measured as the total value of household possessions and not income. Among this group of students, household wealth is positively correlated with learning outcomes: youth from the lowest two wealth quintiles consistently underperform in all subjects. The gap is largest in writing, where youth from the least wealthy households score nearly one standard deviation below the mean (Appendix Figure 18).

Another metric of learning outcomes are literacy levels among the youth, which appears to be worsening in Afghanistan. Many young Afghans do not know how to read and write. Less than half the population between the ages of 15 and 24 – the future parents of the next generation of students and the new entrants to the workforce— are literate (Appendix Figure 19). Literacy rates are lower among the younger Afghans (6 to 15-year-olds), and have declined since 2012. According to the ALCS, the adult literacy rate (15 years of age and over) is at 35 percent, with only 50 percent of men and 20 percent of women being able to read and write. Conflicts like the ones Afghanistan has been experiencing, are shown to disrupt children's education and health because they destroy schools, displace teachers, increase fear and insecurity, and erode household assets and income.¹² The effects of these impacts on education are transmitted from parent to child, as shown, for example, in the case of Cambodia, where children were forced out of school in the Khmer Rouge era, with the cohort estimated to be children of the Khmer Rouge survivors exhibiting decreased literacy rates.¹³ It is safe to assume that the same is happening in Afghanistan: even among the children and youth coming from richest households, literacy is extremely low. Among 15- to 24-year-olds from the top income quintile, 63 percent were literate in 2014. In contrast, among the lowest income quintile, literacy rate for this age group stands now at 36 percent. Low literacy is mostly a function of school absenteeism rather than poor learning. It also shows that literacy centers do not work as effective solutions to this problem in Afghanistan.

¹²Justino, Patricia, 26 July 2010. "How Does Violent Conflict Impact on Individual Educational Outcomes? The Evidence So Far," <http://unesdoc.unesco.org/images/0019/001907/190710e.pdf>. Background Paper Prepared for the Education for All Global Monitoring Report 2011, vol. UNESCO, 2010. August 12, 2014.

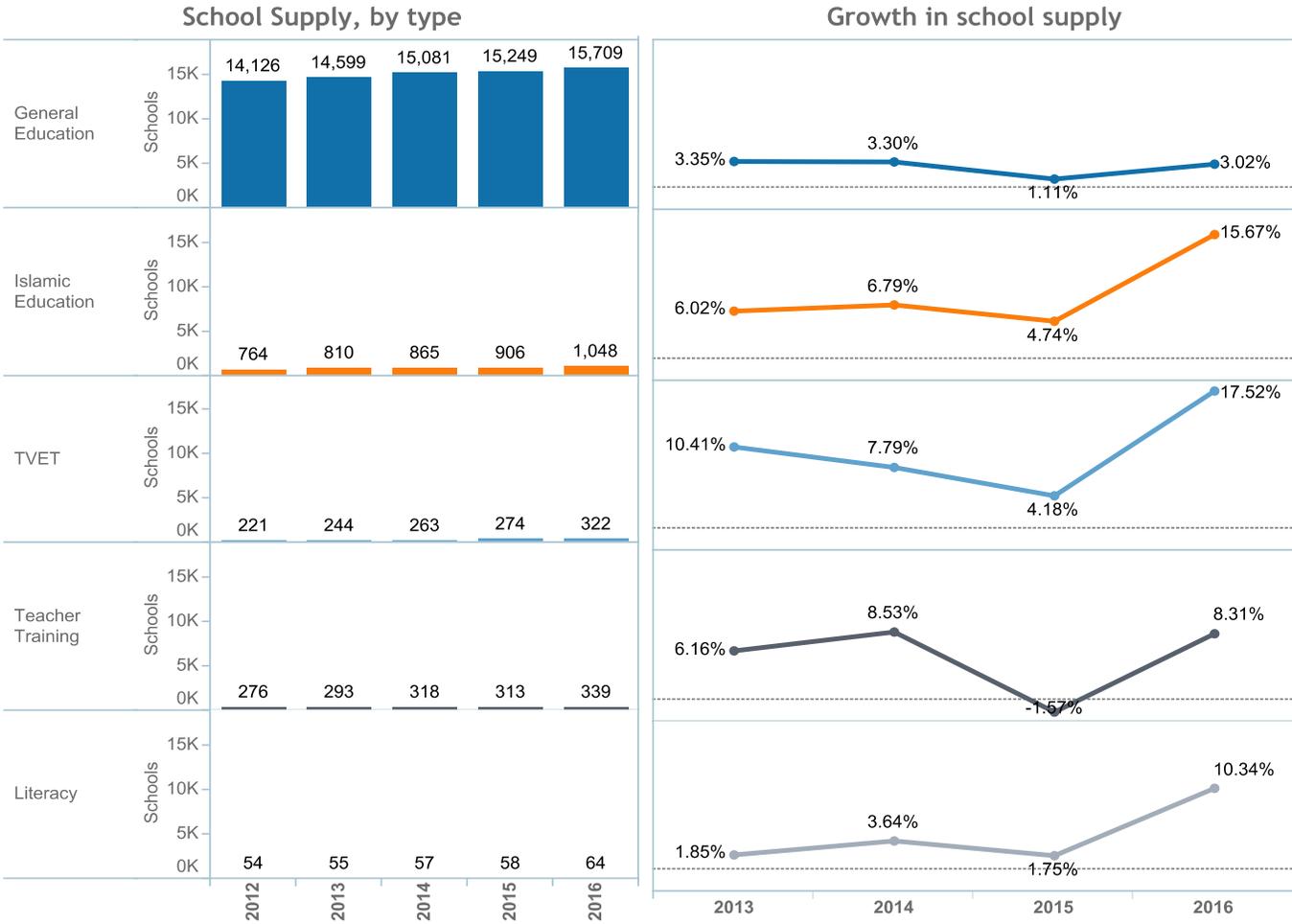
¹³Bell, Sheena and Friedrich Huebler. "The Quantitative Impact of Conflict on Education." UNESCO Institute for Statistics, September 2010. Think Piece Prepared for the Education for All Global Monitoring Report 2011, EFA Global Monitoring Report No. 2011/ED/EFA/MRT/PI/50.



4. Student learning is negatively impacted by both the uneven prevalence of school supply indicators and the general under-qualification and irregular distribution of the teacher force.

In 2015, 16,800 schools (not including higher education institutions and universities) served the students of Afghanistan, and 90 percent of these schools were general education schools. EMIS data, which is available starting 2011, shows a decline in the growth in school numbers in recent years. Afghanistan added yearly 780 net new schools between 2011 and 2012, but between 2014 and 2015, this number was only about 150.¹⁴ All other sub-sectors show trivial growth (and they are also much smaller in size) but in terms of percentages, Islamic schools and TVET have shown the most robust growth (Figure 6).

Figure 6 - Number of schools by type and growth since 2012



Source: EMIS.

¹⁴ The increase in the number of schools has been hampered by the security crisis, which has led to school closures, some of which still continue into today (Appendix Table 2).



The number of net new schools can underestimate supply growth as some of the capital investments support construction of new classrooms in existing schools. During the same period, the number of classrooms grew much faster for general education schools, showing that some of the expansion came from adding new classrooms to existing schools or by building bigger schools.¹⁵ In contrast, Islamic schools and TVET schools are growing in numbers but the total number of classrooms is declining, showing that the capacity growth is not at par with school supply growth (Appendix Figure 21).

School construction data, which shows new buildings rather than net new additions also shows a decline in the number of new general education schools added every year. Between 2011 and 2012, 559 new general education schools were built, compared to 289 new schools between 2014 and 2015. Most of these schools were built under the Education Quality Improvement Project. All other sub-sectors added a handful of newly constructed schools. Schools construction is extremely important in Afghanistan as the state of current schools is not particularly good. EMIS data shows that of the 14,252 general education schools, 44 percent did not have any buildings, instead operating out of makeshift places or rented locations. These shares are not any better among TVET and teacher training schools—56 percent and 67 percent of these schools, respectively, do not have their own buildings (Figure 7 and Appendix Figure 22). Furthermore, lack of adequate and permanent facilities for the technical and vocational trainings bears a cost on the quality of training and learning. This is evident by the lack of sufficient labs and workshops in more than half of the TVET institutes and schools. Even in schools with their own properties, the facilities could be insecure. In 2013, only 28 percent of general education schools (4,138 schools) reported having surrounding walls, the remainder were largely operating from buildings without any surrounding walls or any type of fence. The statistics for the rest of the sector are not any better—only 18 percent of Islamic schools, 30 percent of teacher training schools and 33 percent of TVET schools had surrounding walls. Among general education schools, one third of the toilets are not operational, with this share increasing to 44 percent in very rural provinces such as Badghis, Paktika and Helmand (Appendix Figure 23).

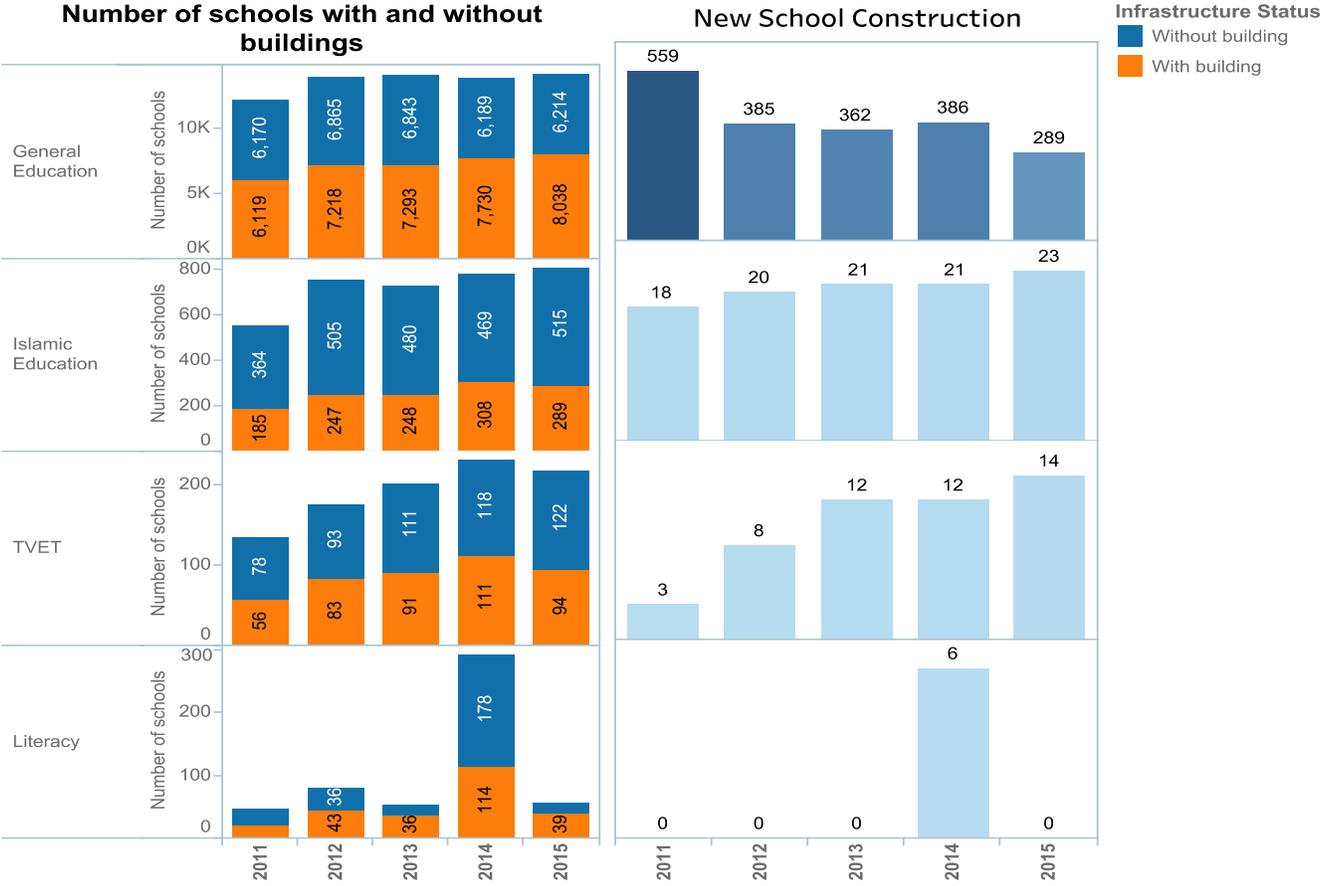
Over a third of all general education schools have two or more shifts. This share has been rather stable since 2011, hovering between 32 and 35 percent (Appendix Figure 24). EMIS data also shows great disparities across provinces in terms of number of shifts. There are six provinces, beginning with Jawzjan, and following the arc of the Hindukush mountains, where two thirds or more of the schools have double or triple shifts. In Daikundi, there are 2.26 schools per 1,000 students, and almost all of these schools have double or triple shifts. In the neighboring Ghor region, which has slightly more schools (3.1 per 1,000 students) only 3 percent of the schools have double or triple shifts. Similarly, Nooristan has almost the same school availability (2.46 schools per 1,000 students), but there are no schools with double or triple-shifts. Nonetheless, school availability and use of multiple-shifts is negatively correlated with provinces with a larger supply of school penetration, thus having fewer schools with multiple shifts (Appendix Figure 25).

¹⁵ The EMIS data shows that for general education, the number of classrooms per school increased from 3.3 to 5.2 between 2011 and 2015. Across all other types of schools, the schools size, measured by the number of classrooms, declined (Appendix Figure 20).



Information on the availability of TLM is scarce and sample based. EMIS data provides some insight into the learning environment in general education and technical and vocational education schools at the census level. In 2012 (the latest year for which data are available), only 10 percent of all general education schools had biology labs (complete or incomplete), 9 percent had chemistry and physics labs, and only 6 percent had mathematics labs. There was, once again, great variation across regions. In Kabul City, one third of schools have at least one of these learning infrastructures whereas in Ghor, Logar, Paktia, and Nooristan, no school had any laboratories designed for specialized learning (Appendix Figure 26).

Figure 7 - State of school buildings and new school construction



Source: EMIS Data



The situation is more pronounced in the formal TVET sub sector when it comes to TLM. A significant number of public TVET institutes and schools are without workshops and more than a half of public TVET schools and institutes do not have a lab for training and student practice. Improving the provision of TLM in TVET should be a priority particularly for those trades where effective teaching is especially dependent on them. The availability of TLM becomes absolutely essential when 60 percent of curriculum in formal TVET is specified for practical work as per the national education strategy for TVET. Among formal TVET institutions, in 2013 only 62 percent had computer laboratories, 45 percent had workshop labs, 43 percent had libraries, and only 17 percent had chemical labs. There were great differences across provinces (Appendix Figure 27) – with percentages varying, for example, from only 14 percent of institutes in Nooristan having libraries or laboratories for workshops to 87 percent of institutes having computer labs in Herat. Formal TVET schools and institutes also lack equipment and materials, mostly because of funds scarcity (WB Project Preparation Grant data). For instance, in 2013 only 8 percent of institutions had materials for textile and handicraft workshops and about a third of them did not have any office equipment (Appendix Figure 28). The presence of sufficient equipment and learning resources are crucial for positive educational outcomes, as students' pass rates and graduates' employment rates are significantly correlated with an index summarizing equipment availability (Appendix Figure 29). The TLM also helps mitigate impact of teacher absenteeism, large class size and teacher quality on student's learning. In case of inadequate learning material and absolute absence of textbooks in formal TVET, service delivery suffers greatly in terms of quality.

In 2014, the education sector (excluding higher education) comprised 203,491 teachers across five different types of education institutions in its public sector (Appendix figure 30 , left panel). Approximately two-thirds of these teachers are male, but the share of female teachers, at under 10 percent is particularly low in Islamic education (Appendix figure 31). Given enrollment figures, this amounted to 45.6 students per teacher in the general education sector and 44.5 teachers across all sectors (which is greater than the national goal of 35 teachers). Similar to other supply indicators, the number and availability of teachers varied greatly across regions. Only three regions (Parwan, Badakhshan, and Baghlan) had pupil-teacher ratios in the general education sector that was at or below the national average of 35. In Daikundi, the pupil-teacher ratio was nearly three times the national goal at 92.7 and in Zabul, Badghis, and Khost, it was over 60 (Appendix figure 30 , right panel). Zabul in particular has one of the highest proportion of out of school children, however its high PTR shows the teacher allocation or deployment challenges in the sector. Availability of teachers was greater on average in Islamic Education (41.1 pupils per teacher) with similar regional variations, with observed pupil-teacher ratios as low as 13 in Nimroz and as high as 67.4 in Balkh (Appendix figure 32).¹⁶ In formal TVET, the PTR at the national level is 21 students per teacher, much lower than the national target of 25 PTR, whereas the range is 15 students per teacher in Kandahar and 38 students per teacher in Uruzgan province. TVET PTR could potentially speak to the lack of interest among the population in TVET which is often perceived as a second-class education.

¹⁶ Excluded from this calculation is Panjshir, for which EMIS reports 3,861 students and only 4 teachers in 2014, resulting in a pupil-teacher ratio of over 900. 2013 EMIS data suggests 25 teachers in Islamic Education for this province. If that were the case also in 2014, pupil-teacher ratio in this province would be still as high as 156. It is worth noting that across all types of schools, Panjshir's outcome is not bad. In 2014, the estimated number of school-aged children in this province was 41,714 and the total number of teachers was 1,172 resulting in an availability of 1 teacher per 35.6 potential students.



In addition, the private sector comprised 12,800 teachers in 2014 (55 percent female teachers) showing a stark difference with the public sector.¹⁷ There is no information on what types of schools hire these teachers, but their distribution was once again very uneven across the country. 54 percent of these teachers worked in Kabul City, and 21 percent worked in Herat. Private sector teachers in Balkh, Khost and Nangarhar combined, account for another 13.8 percent, and the remainder—11 percent of the private sector teachers—are scattered in 21 other provinces (9 provinces had no private sector teachers in 2014). Even with these teachers included, teacher availability remains low. Comparing all teachers across all types of education (excluding higher education) to the school age population through the end of upper-secondary education provides a ratio of 41.2 school-aged children or youth per teacher. The regional differences in this metric of availability are also wide, with higher availability in Parwan, Badakhshan, Baghlan and Kabul City (under 35), and extremely low availability in Daykundi (89.2), Zabul, Badghis, and Khost (all around 60).

The MOE estimates that in 2011 (the latest year for which teacher qualification data is available), 68 percent of general education teachers did not meet the minimum standard of qualifications for trained professional teachers.¹⁰ Only around one quarter of teachers have completed Grade 14 (level equivalent of an associate's degree), less than 10 percent hold an undergraduate degree and 19 percent have not even completed high school (Appendix Figure 33). Almost half have completed high school (grade 12), while the remainder have completed less than grade 12.¹⁸ The same year, approximately 16,500 students graduated from pre-service training programs and another 2,000 graduated from higher education institutions.⁹ This is a sufficient number of candidates to replenish the teacher pool with qualified teachers, but anecdotal evidence suggests that positions do not always go to the more qualified candidates.¹⁹ And because of insufficient incentives or cultural factors, many qualified teachers do not want to go to remote and underserved areas. While teacher training programs have been expanded (there were 81,900 students enrolled in teacher training programs in 2015, compared to 53,750 in 2011), there is little standardized training at the pre-service level, there is no common national test for the Diploma in Teacher Education, and in-service training does not lead to better learning outcomes.¹⁰ Teaching is not professionalized, hiring and deployment practices lack accountability and transparency with widespread instances of nepotism and payments to obtain teaching positions, and teaching is not seen as an attractive occupation. The public also finds teacher quality extremely problematic. According to one survey, 29 percent of the households identified poor teacher quality as their primary concern in education—larger than any other problem.²⁰

Teachers in Afghanistan are not always paid on time. Teacher attrition is extremely high, especially at the secondary level, and teachers report that a combination of reasons from low or late salary payments to ineffective deployment process (school distance), heavy workload and unequal work distribution, administrative corruption, lack of professional development and a poor career path contribute to their decisions to leave. Some

¹⁷ This number went up to 15,600 in 2015.

¹⁸ The proportion of unqualified teachers is higher in the relatively poorer central and western provinces.

¹⁹ MEC. 2017. *Ministry-wide Vulnerability to Corruption Assessment of the Ministry of Education*. Draft Report.

²⁰ Based on the Survey of Afghan People, reported in a World Bank position paper,²⁸ Figure 16.



teachers have to pay their superiors so that the paperwork necessary for their deployment or wages can be completed, other teachers collect a salary without showing up at work. There are also teachers who use proxies to collect their salaries but continue to charge the school for extensive travel fees. This means in some instances, low pupil-teacher ratios estimated based on EMIS reported teacher and student counts needs to be taken with a grain of salt. Dolan et. al.²¹ identify a functioning banking system, a sound public financial management program, strong auditing, payroll systems and a reliable EMIS or a Teacher Management System as the five levers of an efficient teacher public financial management program. Afghanistan is behind in almost all of these areas, though there have been some efforts to combat corruption, including switching to mobile pay (M-Paisa).

The teaching profession is not considered especially attractive in Afghanistan. At present, salaries vary between AFS7,000 and AFS13,000 or about US\$125 to US\$225 per month. Teacher salaries remained unchanged through the conflict years, and to compensate, the government arranged a complex system of allowances, including allowances for food, travel, hazard pay and special pay. These add-ons increased salaries from the Taliban period rate of US\$25 per month to US\$75 per month. In 2008, the government adopted a new, simplified pay scale, developed with support from multilateral and bilateral donors including the World Bank, USAID, DFID and others. This new scale ranges from US\$100 to US\$650 per month, but when MOE administrative staff are excluded, the highest pay offered is US\$428 (Appendix Figure 34).

Provincial insecurity is another complication in recruiting and retaining qualified teachers. Insurgents and criminals attack schools leading to closures, or kill students and/or teachers. Because of insecurity which makes travel dangerous, teachers cannot always collect salaries in person. Insecurity also limits data collection of teachers both on payroll and head counts. There is also no functioning digital database because of weak infrastructure. Mustofiats, which are local collector/payment offices, either lack the infrastructure or the IT skills to use the Afghanistan Financial Management Information System database that should be used to track payments.

In 2015, a total of 2,778 TVET tashkeel and 857 contracted teachers served 77,248 TVET students in the public formal TVET. TVET teachers lack the technical skills and practical knowledge of their respective trade. Market relevance of trades taught in formal TVET is subject to discussion among policy makers and partners. According to the 2015 Teacher Management Information System data, 72 percent of teachers have higher education degrees and the remaining 28 percent have completed either grade 14 or 12, so they are mostly in teacher assistant positions. There has been some improvement in formal TVET institutions, as data from 2013 suggested that only 44 percent of the teachers passed the minimum standard for qualification, i.e. Bachelor level (Appendix Figure 35). The formal TVET sub sector has an inadequate number of female teachers. The majority of female teachers are teaching in urban areas, and there are 15 provinces without any female teachers in TVET institutes and schools. An assessment of a sample of 300 TVET schools shows that only about 20 percent of the sample passed the minimum qualification required for teaching TVET grades 10–12. This speaks to a very low

²¹ Dolan, J., Golden, A., Ndaruhutse, S. & Winthrop, R. Building effective teacher salary systems in fragile and conflict-affected states. brookings.edu (2016).



competency level of teachers despite their education attainment and years of experience teaching in formal TVET.

In 2015, about 21 percent of existing positions in TVET institutes and schools were vacant. The teaching profession in TVET is static and not complemented by career progression and development based on merit or work that is professionally stimulating for the teachers. Professional development of TVET teachers involve mostly academic research, translation of academic material from foreign to local languages and innovation in the area of teaching or pedagogy. Improvement of teacher's practical experience and updating his or her knowledge in the trade and new technology, experience in relevant industries or labor market are not considered as qualifications for career progression, promotion and better pay and grade in the formal TVET. Thus, there is no incentive for TVET teachers to improve and align their competencies to labor market needs in their respective areas. A significant number of teachers are teaching subjects other than their education background, which further exacerbates the teacher quality issue in formal TVET. Salaries range from AFS8,000 per month for teachers who finished grade 14 to AFS16,000 for teachers with a PhD (Table 1).

Table 1 - Salary scale of the TVET teachers

Salary Scale of the TVET Teachers			
NO	Levels	Qualification	Salary in Afs
1	Level One	PhD or Equivalent	16,000
2	Level Two	Masters Degree or Equivalent	10,500
3	Level Three	Bachelor Degree or Equivalent	9,000
4	Level Four	14th Grade Graduate or Equivalent	8,000
5	Level Five	High School Graduate (NA)	NA

Source: Ministry of Education, TVET human resources report.

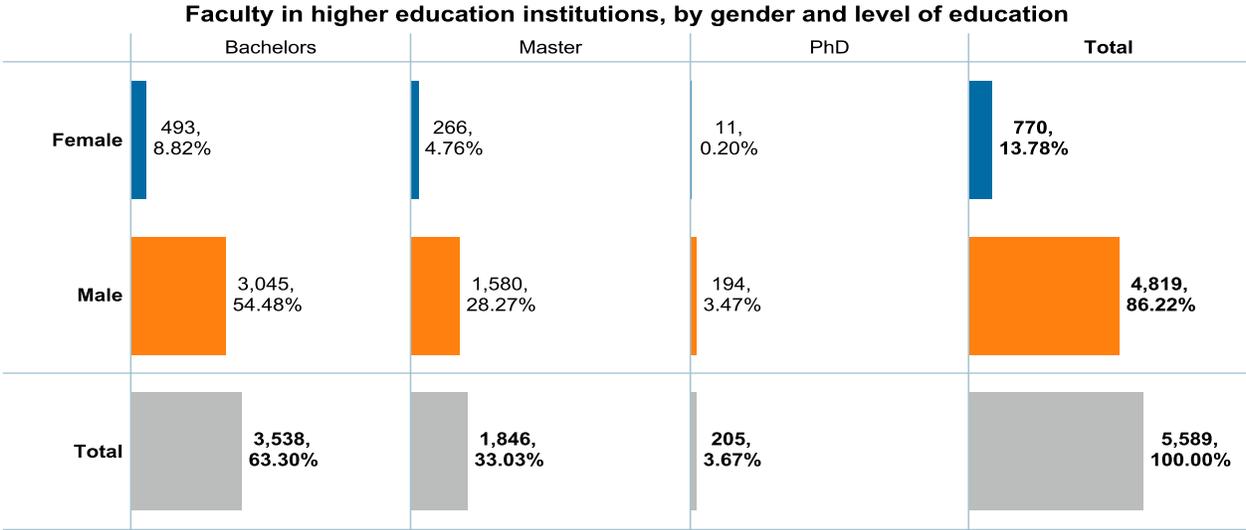
In 2015, Afghanistan's public higher education institutions comprised 5,589 teaching faculty (including a small number of contract faculty) to serve 131,000 enrolled students. This puts the student-faculty ratio across the public higher education sector at slightly under 24. The bulk of these faculty worked in Kabul City and in major provincial universities such as Herat, Balkh, Nangarhar and Kandahar—840 at the University of Kabul, and another 870 in three other universities in the province. Male faculty accounted for 86 percent of all teaching staff. Similarly, most faculty members had only completed bachelor's degree (63 percent); only 11 females (0.2 percent) and 194 males (3.4 percent) teaching across Afghan universities had PhDs (Figure 8). While these numbers are low, according to the MHE, the number of faculty with a Master's degree has increased rapidly from 792 in 2008 to 1,846 in 2015.²² There are also more than 100 registered private higher education institutions, serving 128,000 students. The latest information available on private higher education faculty is from 2013 and it

²² The 2008 figure comes from the Draft National Higher Education Strategic Plan for 2016-2020 period.¹⁵



shows a total faculty count of 3,262. However, according to the MHE, perhaps half of these faculty members are also faculty at public institutions and many teach at private universities without proper permission, at the expense of their duties in their primary posts.

Figure 8 - University faculty, by gender and education level, 2015



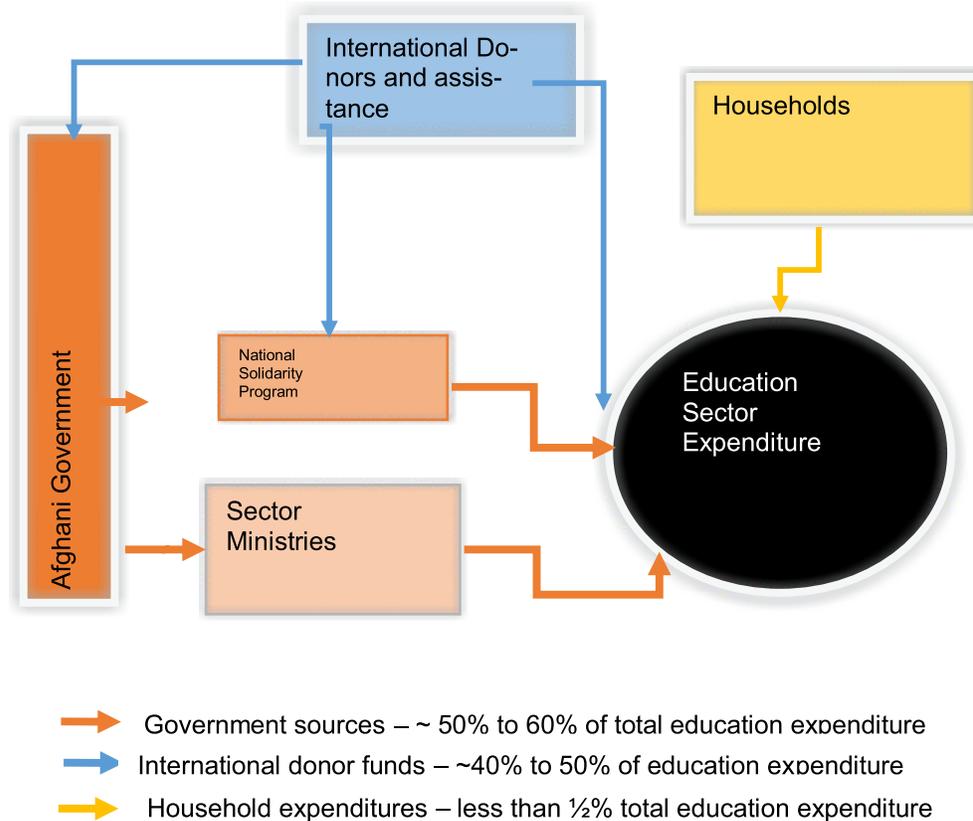
Source: Ministry of Higher Education.



II. Analysis of Education Spending in Afghanistan

Between 2010 and 2015, Afghanistan's education sector received approximately AFS312 billion. International donors have bolstered Afghanistan's education sector financing, but the share of international funds has been declining recently. Regardless of its source, education spending is primarily consolidated under the national budget and channeled through the sector ministries (MOE and MHE) (Figure 9). The remaining funds are direct investments by international donors and development partners in projects of their choice. Finally, private household expenditures account for less than half a percent of all education spending.²³

Figure 9 - Sources of education funding in Afghanistan



Source: Afghanistan Government, Household Surveys, NSP data and ODA statistics.

For example, in 2014, 80 percent of total education spending was channeled through the budgets of MOE and MHE, and another 1 percent was spent on school construction as a part of the National Solidarity Program, which falls under the oversight of the Ministry of Rural Development (Figure 9).²⁴ International donors contributed the remainder through direct financing of projects which accounted for AFS13.1 billion that year or about 18 percent

²³ This is low compared to other fragile countries. For instance, in Myanmar, household spending corresponds to 70 percent of all education spending.

²⁴ There is not information on how much of the amounts spent as a part of the National Solidarity Program are funded by local resources. It is assumed that some of these funds are from development partners.



of total education expenditures (Table 2). This section also shows public expenditure channeled through sector ministries, international donor funding, expenditures through the National Solidarity Program, and household spending.

Table 2 - Total funds spent on education, 2014

Total education expenditures, 2014		
	2014 (Billions of AFS)	Share
Budgeted at MOE or MHE (Domestic and international funds)	57.6	80.42%
National Solidarity Program	0.6	0.88%
Households	0.3	0.41%
Off-budget donor funds	13.1	18.28%
Total	71.6	
Share in GDP		5.5%

Source: Afghanistan Government, Household Surveys, ODA statistics, and Survey of International Donors.

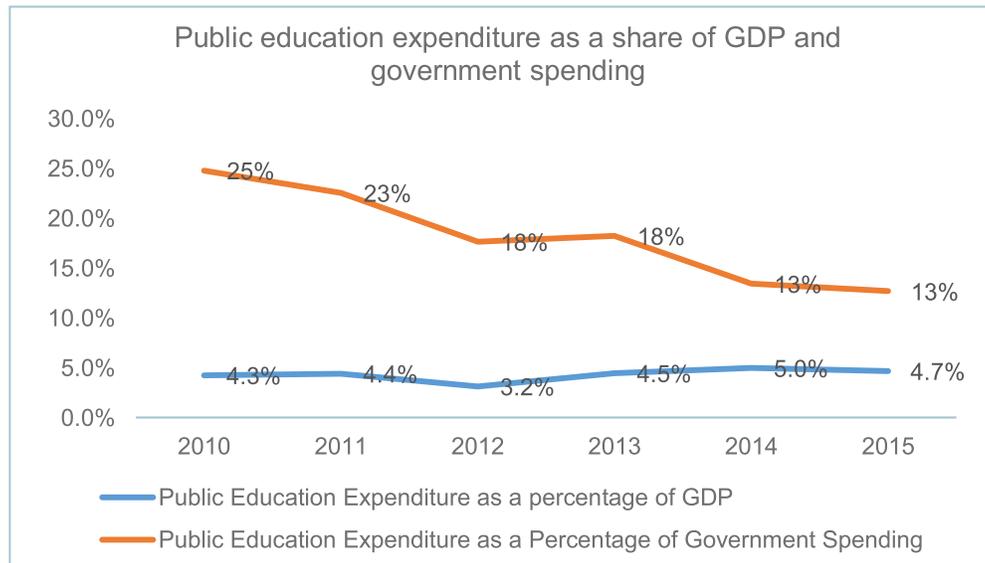
The four most salient facts underlying sector spending are presented below.

1. Education spending has not kept up with enrollment growth given the multiple demands on the government budget.

Government records show that between 2011 and 2015, Afghanistan spent in total approximately AFS251.9 billion on its education sector through the MOE and MHE. This spending on education accounts for, on average, 4.4 percent of its GDP, and 16 percent of all public sources spent during those years. Data compiled from the Ministry of Finance on the overall budget and from the MOE and MHE on sector budgets show that the share of education in the budget has been declining (Figure 10). In 2010, education spending, at AFS31.2 billion, was 25 percent of the total government spending, which was AFS125 billion for that year. In 2015, public education spending, at AFS 55 billion, was only 13 percent of total government spending, which stood at AFS 436 billion.



Figure 10 - Education expenditure as a share of GDP and government expenditures



Source: GDP data from World Development Indicators. Budget data from Afghanistan Government (http://mof.gov.af/Content/Media/Documents/1394NationalBudget_EnglishVersion66201515657772553325325.pdf), except for 2010, which comes from IMF. Education spending from various sources, compiled by authors.

A large portion of education expenditures budgeted at sector ministries is financed by developing partners. Between 2011 and 2014, external financing accounted for 62 percent of Afghanistan's total sources of revenue, roughly split between operating and capital investment grants. Education funding possibly follows the same path with a significant proportion of capital expenditures financed by development partners between 2011 and 2015 (Table 3). Even though donor funds also support operating expenditures, government budget reports do not allow us to determine the share of this support.

Table 3 - Total spending by the central government through sector ministries, type of spending and source of spending, 2010 through 2015

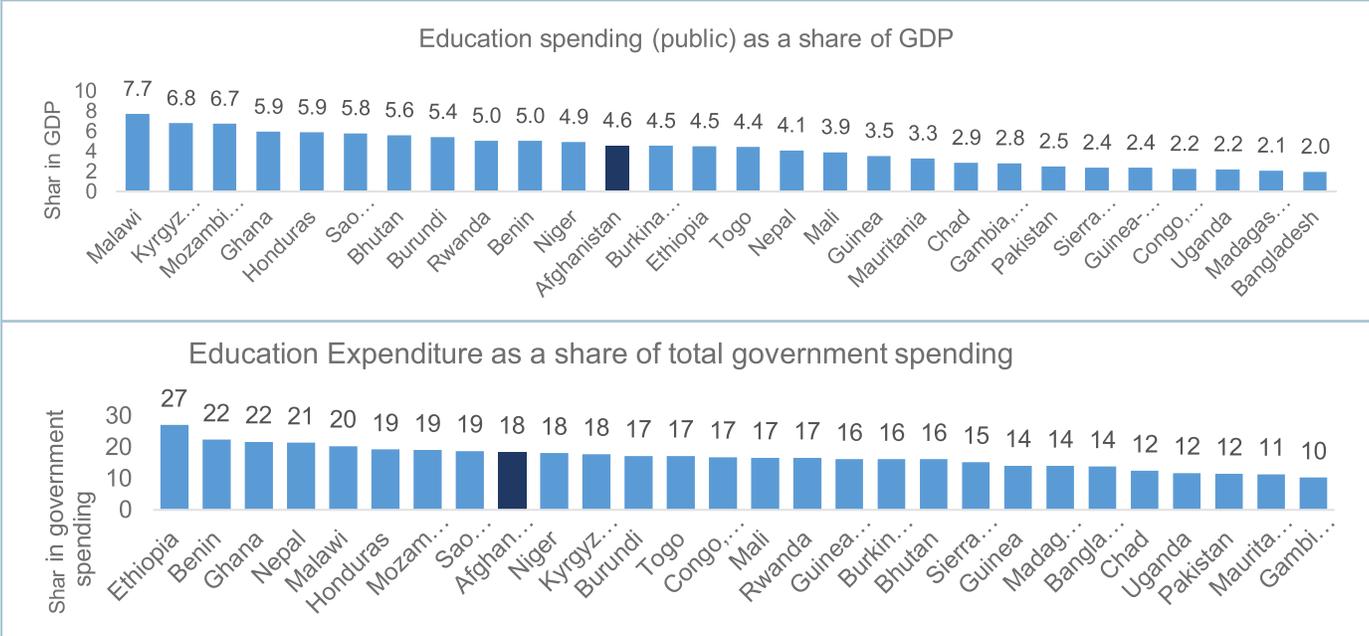
Sources of public spending			
Spending			% of Total Current
Type	Fund (group)	Budget	Budget along Pa...
Capita	Domestic Resources	22,544,766,331	23.19%
	International donors	74,135,378,523	76.25%
	Operating Fund	548,043,612	0.56%
Operating	Operating Fund	172,978,381,961	100.00%

Source: Ministry of Education and Ministry of Higher Education.



At an average of 16 percent of total government spending (budgeted funds only) and 4.4 percent of the GDP, education spending in Afghanistan exceeds many low-income and fragile countries. Afghanistan is placed at the middle of most low-income and fragile countries in terms of public education spending (Figure 11), but when one includes off-budget contributions by international donors and financing partners, the country's standing improves significantly, pushing it ahead of many other conflict-affected countries. However, there are significant challenges that the country must overcome to ensure that funding is maintained at an adequate level. These include heavy reliance on foreign assistance, low coverage at the secondary level that is creating a bottleneck and the demographic challenge, which would likely put additional strain on the funding needs of the government.

Figure 11 - Public education expenditure as a share of government expenditures and GDP, various low-income, highly indebted, fragile and conflict affected countries, and countries of South of South Asia, 2013 for comparison purposes



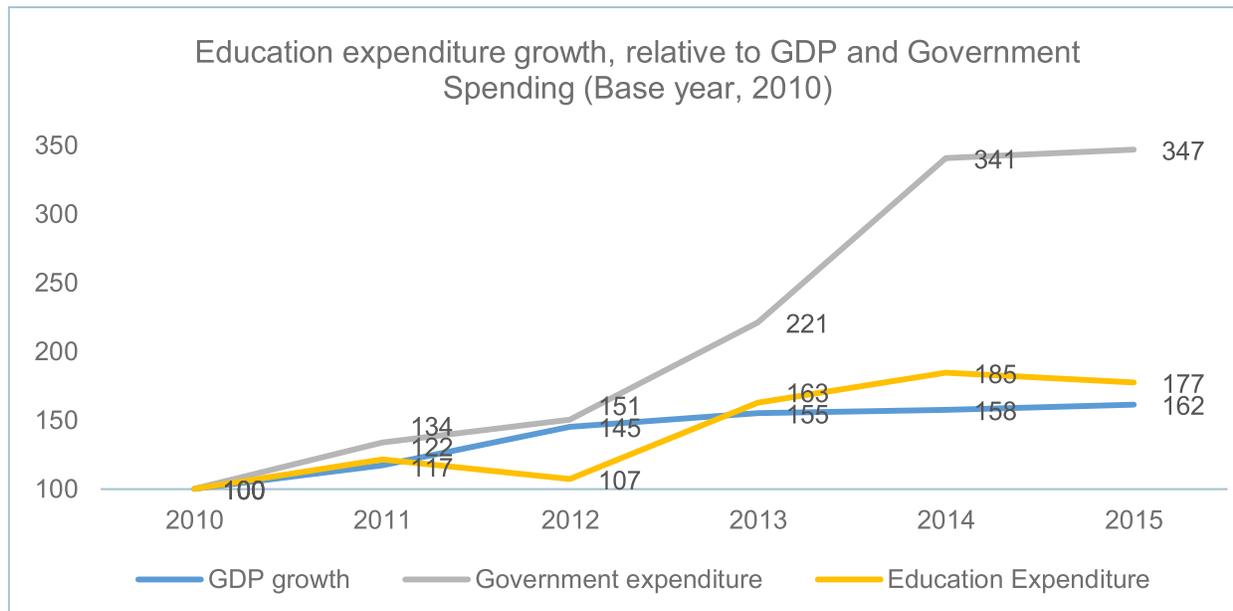
Source: World Bank Education Statistics.

In recent years, public education expenditure in Afghanistan (in nominal terms) grew faster than the GDP, but not as fast as the rest of public spending. In 2015, Afghanistan's GDP was 1.6 times the 2010 GDP. During the same period, education expenditure grew by 77 percent, but overall government spending more than tripled (Figure 12). This contributed to a decline in the education budget share within the overall government budget since 2010. **The MOE receives 84 percent of all public funding for education, while the MHE receives 15 percent of them.**²⁵ In 2015, the MOE received about AFS46 billion from the central government. The same year, the MHE received AFS8.6 billion, a decrease of 9 percent from the previous year's budget (Appendix Figure 36).

²⁵ The remaining 1 percent goes to entities such as the National Academy of Sciences, as well as the City government of Kabul.



Figure 12 - Education expenditure growth, relative to GDP and Government spending



Source: Government of Afghanistan for multiple years, IMF for GDP.

Afghanistan is among the countries with the lowest out-of-pockets expenditures in the world. In low-income countries of Africa, for example, out-of-pocket expenditures on education can account for up to 3 percent of GDP. In Afghanistan, household expenditures account for less than half a percent of total education resources, which, combined, account for only 0.5 percent of GDP. Household data does not allow us to calculate how much each student receives in financial support from their households, so it is not possible for us to estimate how much of the burden falls on households in the education of a certain type of student.

Analysis of average spending per household show that out-of-pocket expenditures correlate with family wealth, parental education levels and location of the household, but there is not much of a difference on how much households spend on boys v. girls (Appendix Figure 37). Households with female students and households with male students spend similar amounts (although it is not clear what happens when there are multiple students). Households with parents who are educated and literate spend much more than household heads that are illiterate or not very educated. When the head of household has attended tertiary education, that household is likely to spend AFS13,000, or nearly four times the national average. When the head of household is literate, the household is likely to spend twice the national average and nearly six times more than households where the head of household is illiterate. There are similarly large differences between urban and rural areas (urban households spend nearly three times the rural households, and ten times the Kuchi families) and across wealth quintiles. Obviously, these variables are related; urban households are more likely to be educated and wealthier, and therefore more likely to spend on the children's education. However, the analysis is constrained by the lack of per student expenditures.

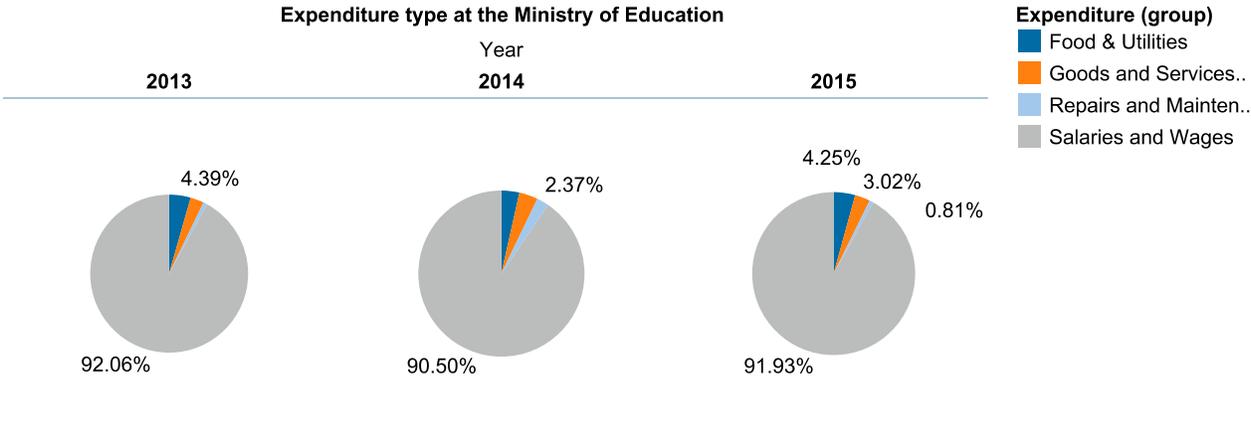


The difference in urban and rural household-level spending on education is driven by the richer quintiles. In the bottom expenditure quintile, except for quintile 2, per capita household expenditure on education is similar across rural and urban areas. This gap widens in higher income quintiles (Appendix Figure 38).

The share of funding allocated to operating expenditures—the costs of running programs, paying the personnel, and meeting the day-to-day needs of the schools, including minor repairs and maintenance work—now accounts for 57 percent of all expenditures (down from 73 percent in 2011). The relative decline in the share of operating expenditures is due to the increasing capital budget. In 2013, as previously noted, the MOE has seen a significant boost in its budget. The operating budget increased by approximately AFS7.6 billion, from AFS17.7 billion to AFS25.3 billion. That same year, capital spending increased by about the same, but it had started from a much lower base of AFS9 billion (Appendix Figure 39).

Salary and wage expenditures account for 90 percent of all operating funds at the MOE (Figure 13). This is an extremely high number. Budget summaries suggest that goods and services account for 2 to 3 percent of expenditures and repairs and maintenance take in only about 1 percent. This might be a feature of the way the budget is organized; it could also show that most services are produced through technical assistance, which is not noted in the budget, or paid for through donor funded projects, which could be either off-budget or under the “development budget.”

Figure 13 - Distribution of operating expenditures in MOE, 2013 through 2015



Source: Ministry of Education.

Between 2010 and 2015, general education expenditures at the MOE (both capital and operating) have accounted for 67 percent of the total budget. The second largest share of spending has been dedicated to curriculum development and teacher training at a historic average of 12 percent of the MOE budget, followed by TVET, which has historically received 7 percent. Spending on Literacy and Islamic Education is generally low, at 2 to 4 percent of the budget. This leaves about 8 percent, which is spent on overheads not allocated to any



particular type of education (Appendix Figure 40 , top panel). General education dominates operating spending at a historic average of 83 percent, but capital expenditures are distributed in a very different way, with Teacher Training and TVET together accounting for a third of spending, general education accounting for another third, and the remainder allocated to literacy programs, Islamic education and central activities (Appendix Figure 40, bottom panel). This suggests that general education capital investments are disproportionately low on a per student basis (an issue discussed later).

Formal TVET institutions need to diversify their revenues sources from tuition fees while reducing their reliance on the government. In 2013, formal TVET institutions received 68 percent of their budget from the government and only 20 percent from generating revenue – mostly gained through charging of tuition fees in private formal TVET. Public formal TVET institutions rely on government funds for 75 percent, while private formal TVET obtain 85 percent of their budget from revenue generated in the institutes (Appendix Figure 41).

Compared to the MOE, MHE spends a smaller share of its budget on wages and salaries (averaging at 62 percent between 2010 and 2015), leaving more room for goods and services (Appendix Figure 42). There is no data on the regional distribution of the operating budget. 43 percent of the capital budget is not allocated across regions, but of the remainder, 14 percent went to support projects in Kabul between 2010 and 2015, 6 percent to Nangarhar, and another 5 percent to Herat (Appendix Figure 43). Three provinces in Afghanistan have no higher education establishments, and therefore received no funding.

Meanwhile, the Ministry of Rural Rehabilitation and Development (MRRD) created the National Solidarity Program (NSP) in 2003 with financial support from international donors, specifically the World Bank's International Development Association (IDA), the Afghanistan Reconstruction Trust Fund (ARTF), the Japanese Social Development Fund (JSDF) and bilateral donors.²⁶ MRRD works with rural communities; these communities establish Community Development Councils to determine where they need investment. These councils then receive block grants from the NSP and oversee project implementation.

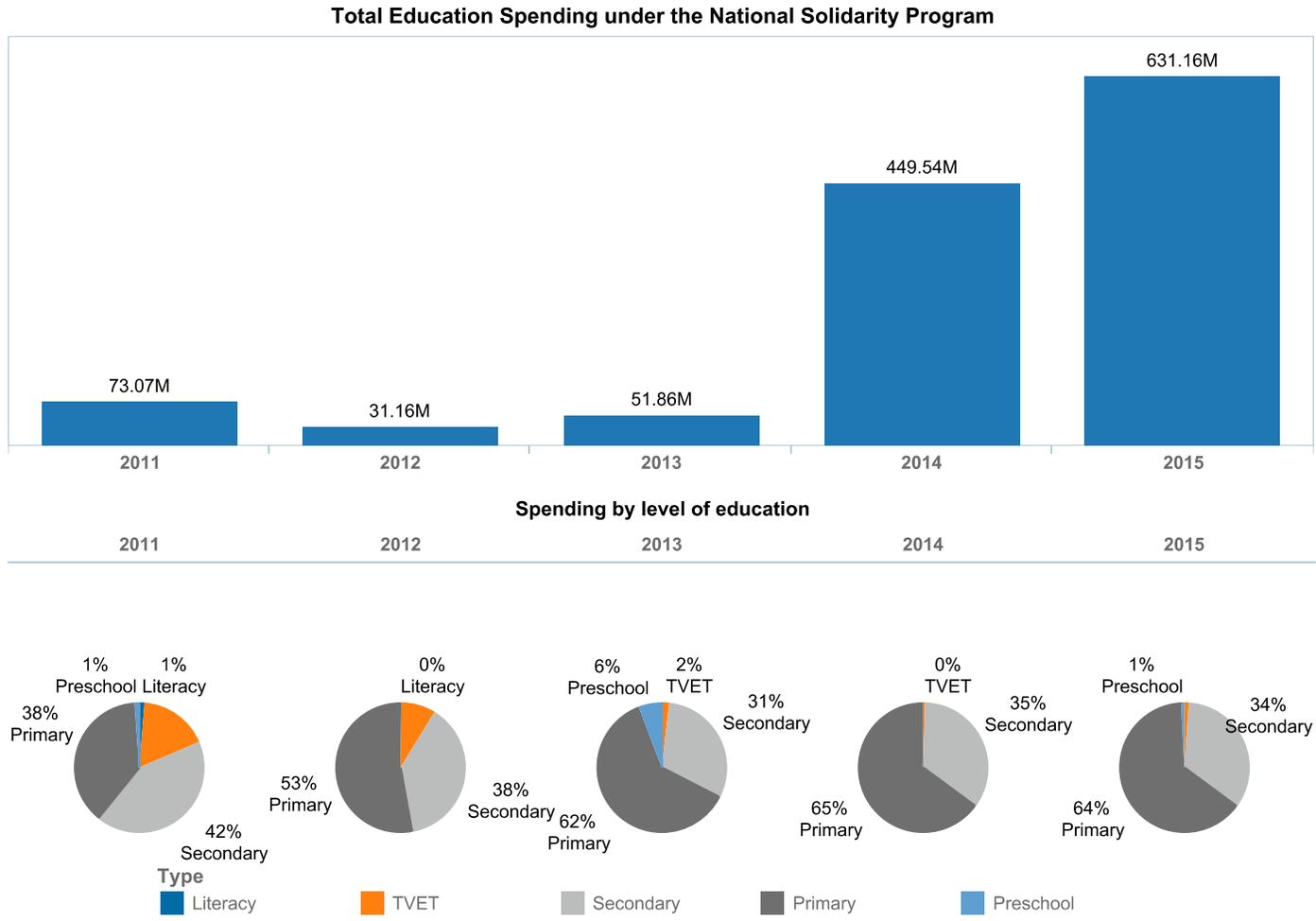
Data from the MRRD show that while they remain a small share of total education expenditures, the use of NSP grants to rehabilitate schools has increased over time (Figure 14). In 2015, NSP disbursed AFS631 million, which is nearly ten times the amount it disbursed annually between 2011 and 2013. The projects are largely capital investments, mostly involving the rehabilitation of primary and secondary schools. Between 2011 and 2015, 62 percent of the funds disbursed went to support primary school construction and rehabilitation, involving projects such as new construction, rehabilitation, extension, construction of boundary walls or provision of furniture. Secondary education received approximately 35 percent of the funds over the same

²⁶ Contributors to the NSP via the ARTF include Australia, Canada, Czech Republic, Denmark, EC/EU, Finland, Germany, Norway, Sweden, UK/ DFID, and the United States. Bilateral donors include the Governments/ Embassies/ International Aid Agencies from Cyprus, Denmark, Netherlands, New Zealand, Norway and Switzerland. According to the NSP website, to this date, the IDA has contributed \$ 437 million (19 percent), ARTF \$1.7 billion (73 percent), JSDF \$ 42 Million (1.8 percent), and bilateral donors have contributed \$142 million (6 percent).



period. NSP also got involved in small scale investments in pre-schools, constructing four kindergarten classes and building 160 meters of boundary walls (1 percent of total expenditures); it also supported the construction of vocational training centers and helped pay for the training students at these centers (2 percent of total spending). Literacy programs received just a small amount.

Figure 14 - Contributions of the NSP to education infrastructure and services, 2011 to 2015



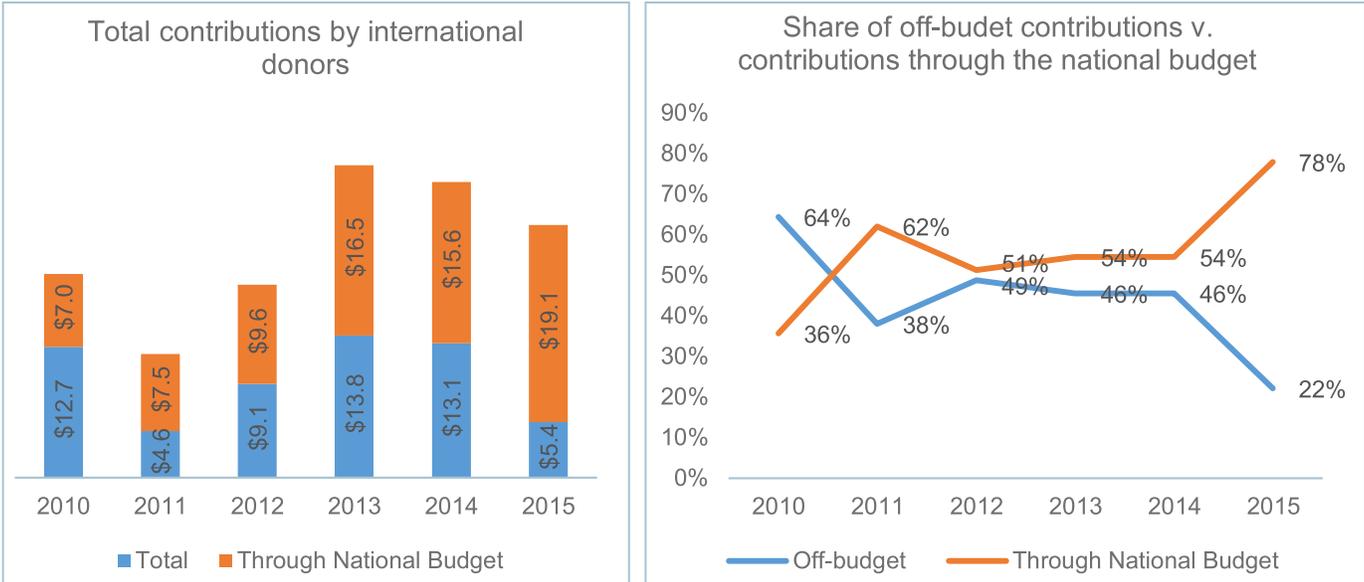
Source: Ministry of Rural Rehabilitation and Development.



2. International donors have financed almost half of all education expenditures over the years, but over time, their contributions have declined.

International development partners have contributed nearly 43 percent of all education expenditures (including off-budget) between 2010 and 2015, but their contribution has declined over time (AFS134 billion out of AFS312 billion over this period, Figure 15, left panel). Over time the amount of total international donor funds has declined and donors are now more likely to channel funds through the national budget as opposed to direct financing of projects. Total international funding peaked in 2013 with contributions over AFS30 billion, but since then declined to about AFS24 billion. In 2013, nearly half the total contributions were directly given to projects, but in 2015, this share fell to 22 percent (Figure 15 , right panel).

Figure 15 - Contributions by international donors through the national budget and directly to projects, 2011 to 2015 (in AFSS and in billions)



Source: Ministry of Education, Ministry of Higher Education, ODA statistics and survey of donors.

In their off-budget funding, donors have largely favored primary and secondary education projects; at AFS25 billion, these projects have accounted for 42 percent of all off-budget support Afghanistan's education sector received between 2010 and 2015. Higher education projects received nearly AFS10 billion or about 17 percent of all expenditures. In recent years there has been a shift from literacy, TVET and teacher training programs towards community-based education programs reflecting a change in donor interest and comprising roughly 30 percent of all off-budget support. Finally, technical assistance in the form of contributions to capacity development and education management projects have accounted for approximately 7 percent of all off-budget support (Appendix Figure 44). Some donors choose to directly support projects instead of on-budget because there is some evidence that the government at times encourages direct donor support to ease disbursement delays.



The United States is the largest source of off-budget funding for the education sector, contributing AFS20.7 billion or 35 percent of all direct funding between 2010 and 2015. The United States, like most bilateral donors, prefers to directly work through USAID rather than working through the national authorities (though USAID does also contribute through the ARTF). It is followed by Germany and Japan, with each contributing about 15 percent of the off-budget funding. Sweden, Canada, and UN combined account for another 18 percent (Appendix Figure 45). 13 other countries, each with a relatively small share account for the remaining 17 percent of off-budget support to education. Of the nearly AFS59 billion of the off-budget funding, data does not allow a provincial disaggregation for nearly AFS43 billion, highlighting limitations in data. Kabul receives AFS 5.6 billion, followed by provincial projects in the northern states and central highlands, which have received about the same, combined.

Most programs supported by off-budget contributions have a nation-wide coverage or support activities in a large number of provinces. 73 percent of all off-budget support went to nation-wide programs whereas 9 percent of the funds supported projects in Kabul (Appendix Figure 46). The south, south eastern and southwestern provinces of the country received the lowest off-budget funding in the sector. Donors have noted that security concerns have limited their actions in these areas leading to low expenditures in these provinces.

Interviews with donors reveal that they have some shared concerns and face similar challenges. The most commonly cited concern is security, which limits their ability to find partners to implement projects and limit project staff's ability to travel. Insecurity also hampers the success of existing projects. For example, USAID notes that 12 CBE classes had to close in Achin District of Nangarhar province because of security concerns. Germany, which has been investing in adult literacy programs, reported that in Kunduz, Nooristan, Ghor, Ghazni, Kandahar, Badghis, Uruzgan, Kapisa, Faryab, Sare Pul, Badakhshan, Zabul, and Logar, literacy courses were cancelled because facilitators, monitoring officers, and provincial advisors (supervisors) were no longer able to attend. Finland-supported projects could not find international consultants willing to work in various regions.

The most common concern motivating off-budget provision of aid is related to governance. Governance weaknesses, including corruption, lack of capacity and bureaucratic failures, constitute another common concern, which also motivates off-budget provision of aid. USAID reports that its USAID's Resources, Skills, and Capacities in Early Grade Reading Project was delayed because the MOE could not establish the steering committee. DFID had put in GBP56 million—one sixth of its global portfolio—into the Girls' Education Challenge, but the government has not yet been able to meet its commitment to take over these students. Lack of infrastructure—both physical infrastructure and technology—also limit donors' willingness to give. New programs cannot take off because existing schools do not have the capacity (especially at the tertiary level and teacher training programs). A Master Teacher Training program funded by Australia had only limited effect because the lack of classrooms and large class sizes made group work and interactive activities difficult. Enrollment verification remains a challenge. Lack of female teachers limits the effectiveness of programs that target girls. Finally, donors worry about the sustainability of the programs they start knowing that the government does not have the resources to continue with many of the projects initiated by donors. Teacher



training programs funded by Australia and Malaysia had to be scaled back because of lack of funding, resources and staff available from the MOE. CBE courses supported initially by Finland ran into similar resource constraints. In some cases, Afghanistan's high staff turnover has emerged as an inhibitor, and lack of ground management and oversight have become a general barrier; most notably in DFID funded girls' education projects.

3. While there is no significant waste at any particular subsector, each subsector does have its own share of inefficiencies.

Unit cost analysis, based on official enrollment data, does not suggest that there is significant waste in any particular subsector, but when adjusted for the low attendance compared to enrollment, unit costs could get quite high. Additionally, spending analysis from Part III shows that Afghanistan can increase the efficiency in the use of its education resources by shifting funds within the MOE from staffing to other uses, and from central management to school-based expenditures. High attrition and repetition rates signal that poor learning, lack of resources, and demand side constraints operate as significant push factors for high costs. Reallocating education resources to address these problems could also increase the efficiency of education spending. Budget data also suggest that execution rates are especially low for capital expenditures and in general education. Finally, a lack of transparency in spending, limits our understanding of how resources are being used. While Afghanistan's chart of accounts provides an extremely detailed budget matrix, the country does not take advantage of this structure. It is not possible to break down education spending across different educational levels. This is also due to the fact teachers teach across different levels of education but they are not accounted by level or spending by shifts, thus making their management quite difficult.

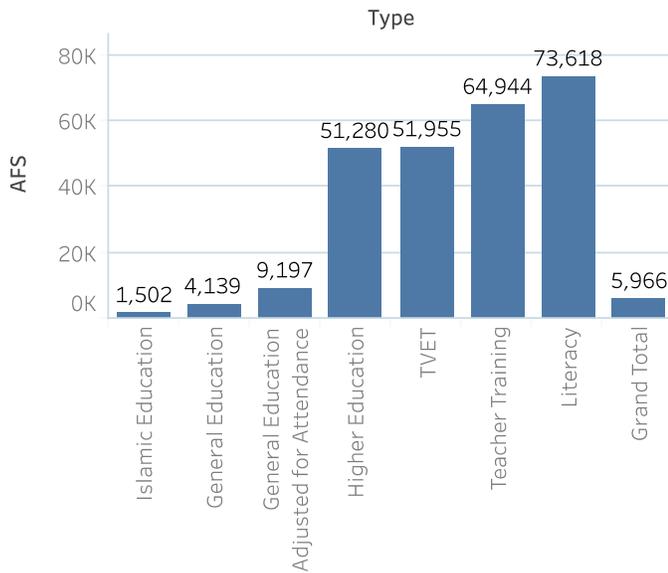
Per pupil spending, based on EMIS enrollments, has averaged approximately at AFS5,966 per student across all levels and types of education. This is equivalent to approximately 16 percent of per capita income (Figure 16). At the primary and secondary levels combined, per pupil spending has equaled about 11 percent of per capita income. However, this figure does not adjust for the large discrepancies between official enrollment reports and attendance rates derived from the household survey. The combined GER for primary through upper secondary grades is an estimated 95 percent, and the gross attendance rate for this group is only 43 percent. This suggests that enrollment data differs significantly from actual student count by nearly 2.2. This could be used to provide an alternative unit cost for General Education, of AFS6,271, which is equivalent to 25 percent of GDP per capita.²⁷ For Islamic education, using EMIS data, unit costs are extremely low, at 4 percent. Per pupil spending tends to be low in countries where education spending is not adequate to deliver quality learning. Unit costs derived using EMIS data suggest that Afghanistan is one such case—it lags behind many low-income countries (Appendix Figure 1, left panel). Across low-income countries, per capita spending at the primary and secondary levels combined has averaged at 16 percent. But when the adjusted unit cost calculation is used, Afghanistan's spending is on the very high end of low-income country average.

²⁷ The remaining 1 percent goes to entities such as the National Academy of Sciences, as well as the City government of Kabul.

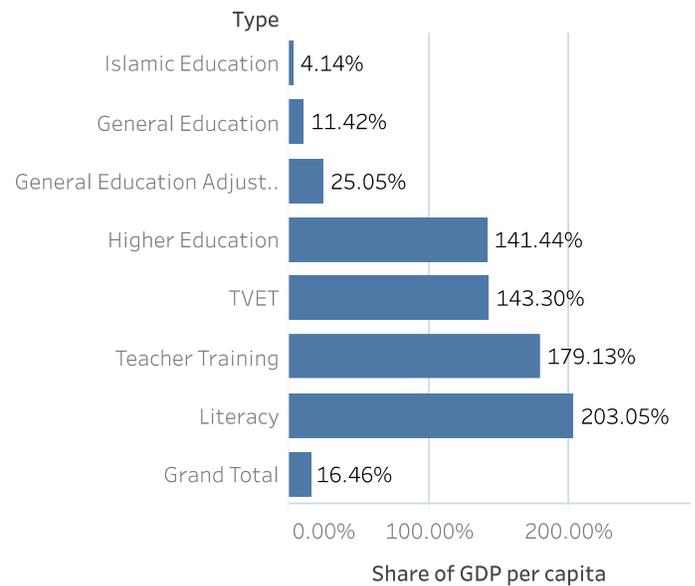


Figure 16 - Unit cost across different types of education, and as a share of per capita GDP, averaged between 2010 and 2015

Unit Costs



Unit costs as a share of GDP per capita



Source: Ministry of Education and Ministry of Higher Education.

Per pupil spending is closer to the low-income country averages for higher education (Appendix Figure 1, right panel). Between 2010 and 2015, Afghanistan has spent approximately AFS51,000 per student, which is 141 percent of per capita income. Across low-income countries, the average is 125 percent. There is however, room for improvement as most of the students in Afghanistan matriculate in low-demand low-productivity majors such as law and humanities. TVET students receive about the same amount as tertiary students, but teacher training programs receive even higher amounts at nearly AFS65,000 per year or 179 percent of per capita income. Finally, literacy programs appear to be inadequately managed, as the amount spent on each student is more than 200 percent the per capita income. These programs do not have the need for diverse teachers or teaching equipment and materials.

Staff costs at the MOE appear to be too high, and cannot be justified by teacher counts or the size of the budget allocated to education management. As shown in Figure 12, over 90 percent of all operating expenditures go to support staffing costs. In addition, costs dedicated to central management is not greater than 8 percent in any year, and has averaged at 6 percent since 2013. This allocation of resources leaves little for expenditures for teaching materials and equipment, and other needs at schools. Because of data limitations, one cannot tell how much of the staffing costs actually goes to support teachers or staff administration, but this is one area worth exploring more.



Budget execution analysis show that significant sums remain undisbursed at the end of the year, especially in general education, which illustrates that MOE needs to reassess capital and O&M allocations.²⁸ Between 2010 and 2015, the MOE has been able to spend only 74 percent of its capital budget allocations, and MHE has been able to spend only 80 percent, signaling problems with disbursements (Appendix Figure 47). At the MOE, the lowest capital expenditure execution rate is for general education at 61 percent, and the highest for curriculum development and education management, both programs generally led from the central ministry offices. There is no information on MHE's execution of its operating budget. However, MOE performs well on the spending of its operating budget. Budget execution has been given a lot of attention through various studies and reports (see Annex C, section II).

Finally, high dropout and repetition rates in Afghanistan, especially beginning in third grade, suggest that investments in quality and resources can improve spending efficiency. 12 percent of students repeat a grade at the primary level and 6 percent drop out. While some repetition rate is expected, the 12 percent rate suggests that students are not sufficiently prepared for the more advanced coursework. This could be due to lack of effective teachers and sufficient number of textbooks—as previously seen, effective teacher monitoring and availability of textbooks are the two most important factors in explaining proficiency in math, reading and writing in Afghanistan. There could also be other constraints. Families cite lack of facilities and teachers, especially for girls, security concerns, and the need to put their children to work as the major reasons why children leave school. Afghanistan is also stymied by the rigid nature of the education sector which inhibits shifting funding to interventions that result in the improvement of the learning environment such as separate latrines or boundary walls for schools. If it were able to do so, the positive effects on student enrollment and attendance would be evident as they are in the projects chosen by the Community Development Councils funded by the NSP, which tend to focus on security related improvements.

4. Afghanistan's education funding policy has not led to equity in access, attainment or outcomes.

The ongoing high youth population growth requires more resource allocations for the education sector in the years to come. The country will see a more rapid growth among those between the ages of 25 and 60, suggesting that the dependency rates will go down (Appendix Figure 48). This is an opportunity to increase resources available for education, and the productive population will increase faster than youth and children. However, limited economic opportunities act as a barrier to benefiting from the demographic dividend. More importantly, spending needs will increase for those at the lower and upper secondary school age. Between 2015 and 2030, the number of children between the ages of 10 and 25 is expected to increase from 11 million to 14 million (Appendix Figure 49). At present, the number of youth and children between the ages of 10 and 25 currently enrolled in any level of schooling is 5.8 million, which is approximately 51 percent of all youth and children at this age group. If the enrollment ratio stays the same, the Afghan education system must make room for an additional 1.5 million students in this age group - that is a 26 percent increase in the student population just for this age group. If participation increases by a meager 10 percent to 61 percent, student counts would increase

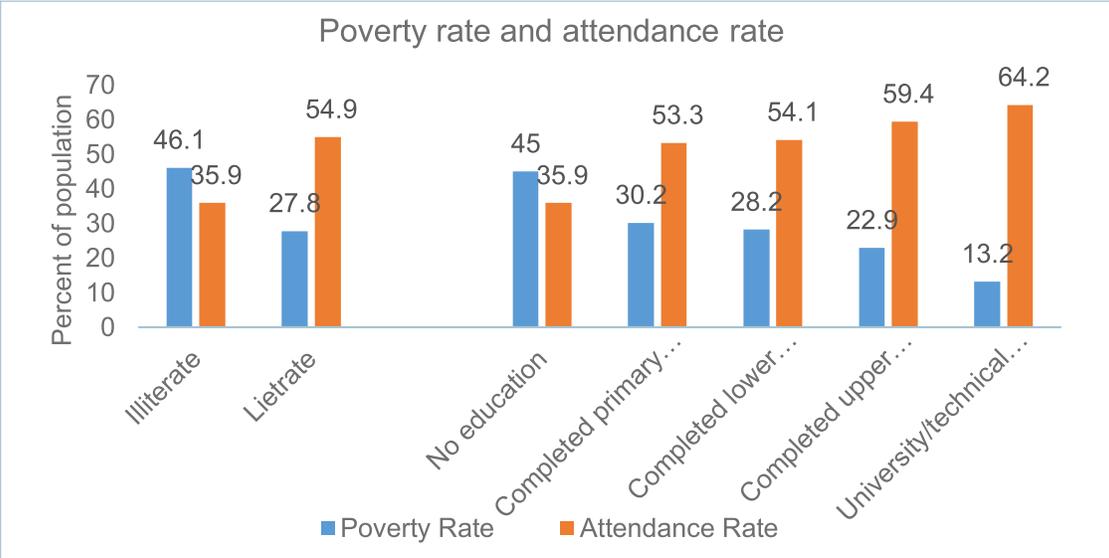
²⁸ See Annex C – Section I



by 2.8 million or nearly 50 percent (Appendix Figure 50). This means that in real terms, at least, operating expenditures would have to increase by this amount accordingly.

In general education, the gender parity is only 67 percent at the primary level, and it declines further at higher levels of education (57 percent at lower secondary and 52 percent at upper-secondary, see (Appendix Figure 51). Only in literacy programs, are girls equally likely to be enrolled as boys. In formal TVET, gender parity is 17 percent and 1 percent at the rural sub-national. Poverty also plays a significant role in parents' decisions to send their kids to school (Figure 17).

Figure 17 - Poverty rate and attendance, 2014



Source: Household data.

There are also significant differences in provincial spending patterns. Budget records for the MOE attribute expenditures by province (or provide sufficient information to make that allocation) for only slightly more than half the total budget. About 40 percent of the budget is allocated at the central level and another 7 percent lacks sufficient information for allocating them across regions. Just looking at levels of spending shows that operating spending is more even across provinces compared to capital spending (Appendix Figure 52). For example, Herat and Nangarhar get the largest share of operating expenditures (at 8 percentage, each), in line with their share of enrolled students, which also stand at 8 percent. But even though the range of operating budget shares is small, overall, the correlation between the share of budget and share of enrollment across provinces is only 69 percent. In formal TVET, on average, 90 percent of allocated government budget is spent, with 33 percent of the allocation in Kabul where 30 percent of formal TVET students are undergoing technical and vocational education.

Capital expenditures across the provinces appear to be far more uneven. In 2014, according to the budget records, Nimroz, Wardak, Kandahar, and Kunarha did not receive any capital budget. In contrast, nearly one third of the capital budget was allocated to Kabul (including Kabul City) (Appendix Figure 53 , top panel).



The distributions of funds are more in line with the distribution of enrollment: the correlation between the share of enrollment and share of capital budget is 0.91 (Appendix Figure 53, bottom panel). But this might not necessarily be the right trend: capital budgets should be directed to either provinces with high enrollment if this level of enrollment is placing a strain on existing infrastructure, or provinces with low enrollment which need schools/classrooms to increase enrollment. Again, the reader should note that this analysis only reflects the allocation of half the budget. It is possible that, if the information on the full budget were available, this could reveal a very different picture.

Benefit incidence analysis at the province level shows wide variation in both private and public spending by pupil (Appendix Figure 54, left panel). Per pupil public operating spending ranges from about AFS3,000 to AFS9,000 in most provinces, but some provinces stand out. The lowest rate is found in Kabul, well below AFS1,000, and the rate exceeds AFS 10,000 in three provinces: Zabul, Logar and Nooristan. Private spending per pupil, as measured in the household survey, are comparatively lower. In about half of the provinces, it is lower than AFS2,000. In some of them, Zabul, Paktya, private spending is almost nil, around AFS100 per pupil. On the contrary, in Kabul, Ghazni, Bamyán and Balkh, they are above AFS5,000 per pupil.

The spending pattern by provinces illustrates that the highest public spending per pupil rates are found where schooling rates are the lowest. In Zabul, Logar and Nooristan, less than one third of children between 6 and 18 are going to school. In some other provinces, low public spending goes with high private spending and relatively high schooling rate, around 60 percent (Appendix Figure 54, middle and right panel). The bulk of private education spending is education fees, and the higher the private spending, the more likely children are going to private schools. Private education has a larger importance in these provinces. Another group of provinces, such as Paktya and Kunduz, show low private and public spending, associated with low schooling rates. Public spending in such provinces seems to be inadequate. These patterns show that public per capita operating expenditures in recent years have more heavily targeted provinces with low levels of schooling, denoting Government's attempts to target provinces with low enrollment; however, teacher deployment and school supplies remain in severe shortages especially in remote areas.

III. Conclusions and recommendations

Afghanistan has made great strides in primary school access and enrollment, but progression to higher levels of education have been limited, both in terms of available spots and in terms of the diversity of programs. Despite enrollment growth, access to education is not equitable and does not reflect the best use of resources. First, there is a big gap between the enrollment rate and attendance rate: nearly half of the enrolled students do not show up. Second, there are systematic gaps in access among various groups. Boys are twice more likely to attend school as girls, and among those with illiterate parents, attendance is only 20 percent. Girls, children with disabilities, rural children, children affected by conflict and war, ethnic minorities, nomadic children and poor children are systematically excluded from education, either because they have little access, or



because there is family and societal pressure to keep these groups out. Gender parity at the primary level is 67 percent. Islamic schools have a gender parity of about 30 percent, and TVET schools and institutes are at 17 percent, with only 1 percent in rural areas. Female students outnumber males only in teacher training schools by 2 to 1. Income advantages begin at the primary level (25 percent of students come from top income quintile) and become stronger at the higher levels of education. Half the students attending university are from the highest income quintile.

Using EMIS enrollment data and UN population estimates, the gross enrollment ratio - enrollment unadjusted for age, relative to school age population - at the primary level is estimated at 121 percent. Beyond that, enrollment ratios decline rapidly, producing a GER of 81 percent at lower secondary and 48 percent at upper secondary. However, a large gap exists between enrollment ratios and school attendance rates. Only 43 percent of children and youth under the age of 22 actively attend schools—the gross enrollment across this group is estimated at 95 percent. Attendance also varies across regions. In the more populous northeastern regions, attendance rates are almost always above 50 percent. Attendance rates decline as one moves from north to south and east to west (with some exceptions) and the lowest attendance rates are in the provinces of Uruzgan (9 percent) and Zabul (9 percent), followed by the nearby Kandahar (19 percent), and Nooristan (21 percent), one of the poorest and most remote provinces of Afghanistan.

Exclusion and dropping out are significant problems in Afghanistan. The number of students enrolled in the last year of general education (12th grade) can be anywhere from 14 to 29 percent of the incoming cohort. Rural children and youth are 10 percent more likely to be out of school compared to the national average; the Kuchi children are 6 times more likely to be out of school. Work is one of the key reasons for leaving school (or never attending), especially among boys. There are also a lot of young children juggling work and school at the same time: approximately 9 children out of 10 who work also go to school. Household data show that girls are more likely to drop out because of family pressure, and boys because of work.

Many young Afghans do not know how to read and write. Over half the population between the ages of 15 and 24 – the parents of the next generation of students and the new entrants to the workforce—are illiterate. Literacy rates are lower among the younger Afghans. Even among the children and youth coming from richest households, literacy is extremely low. Among 15 to 24 year-olds from the top income quintile, 63 percent were literate in 2014. In contrast, among the lowest income quintile, literacy rate for this age group is now at 36 percent.

Learning outcomes, on the other hand, appear to be most responsive to supply side variables. A 2013 assessment of 6th graders from 13 provinces of Afghanistan show that learning outcomes are not favorable: in mathematics, only 9 percent of students appear to be proficient (scoring approximately one standard deviation above the mean); 37 percent of the students scored one standard deviation below the mean. In reading, 12 percent of the students could be characterized as proficient. Likewise, in writing, nearly half the students cannot



demonstrate grade-level proficiency. Students tend to do better in all subjects if the school has a system of monitoring teacher absenteeism or if the school can provide at least one textbook per student. These variables increased scores, on average by half a standard deviation.

Reductions in funding have hampered new school construction and enrollment growth has slowed down at all levels in 2015. Many schools lack buildings; others do not have boundary walls—important for security reasons. Over a third of schools have two or more shifts. Only 10 percent have science labs, but with great variations around the country. The teacher force is underqualified, with more than 50 percent not meeting the minimum standards.

Education funding in Afghanistan is channeled through two Ministries with heavy donor presence. Between 2010 and 2015, Afghanistan's education sector received approximately AFS312 billion. Government records show that between 2011 and 2015, Afghanistan spent approximately AFS251.9 billion on the education sector through the MOE and MHE. The remainder was directly spent by donors through various projects. There is some private spending on education, but this amount is exceedingly small at about half a percent of total education spending in the country. This spending on education accounts for, on average, 4.4 percent of Afghanistan's GDP, and 16 percent of its public resources.

Between 2010 and 2015, the contribution of international donors and development partners has varied between 40 and 50 percent of the education budget. Some of these funds are managed by the Government, allocated and spent through the budget, and some are directly given to the projects. Total international funding peaked in 2013 with contributions over AFS30 billion, but since then declined to about AFS24 billion. Donors are now more likely to channel funds through the national budget, and put less funds directly into projects. Off-budget support has largely favored primary and secondary education projects (42 percent of all off-budget support). Higher education projects received nearly 17 percent. In recent years there has been a shift from literacy, TVET and teacher training programs into CBE programs reflecting a change in donor interest. Donor interviews reveal that increased security concerns, corruption, weak governance, poor infrastructure, and lack of ownership by the government for donor-initiated projects are the key challenges to their work. They also find that girls' education program could be hampered by a lack of female teachers. Donor funds can also be channeled through the NSP, which supports rural development projects chosen by input from localities and managed in collaboration with local entities. Since 2011, Afghanistan invested AFS1.1 billion in rural school construction projects through the NSP. Over half this amount was spent in 2015.

Afghanistan's education expenditures are higher than expenditures reported for comparable countries, but the country's current spending trajectory is not sufficient to support the enrollment growth. There are significant challenges that the country must overcome to ensure that funding is maintained at an adequate level: heavy reliance on foreign assistance, low coverage at the secondary level that is creating a bottleneck and the demographic challenge, which would likely put additional strain on the funding needs of the government.



Population will grow at 3 percent among those between the age of 10 to 24 and at 2 percent among children younger than 10 through 2020. Given these growth rates, the projected number of students between the age of 10 and 24 can grow by up to 25 percent assuming a 10 percent increase in participation. Without new resources or improvements in resource use, the current system cannot handle such a growth rate.

Unit cost analysis, on its surface, does not suggest that there is significant waste at any particular subsector: Primary and secondary levels combined, per pupil spending has equaled about 11 percent of per capita income for general education, compared to 16 percent across low-income countries. However, it is important to remember that there is a significant gap between attendance and enrollment rates. Given that nearly half of students enrolled do not attend school, actual unit costs are probably much higher. If this unit cost is adjusted by the attendance to enrollment ratio (43 percent to 95 percent) for students between the ages of 7 and 24, the unit cost number would be about 25 percent of per capita GDP. This is higher than most low-income countries for which the data is available.

Other sources of inefficiency include low budget execution, especially in capital projects, high overhead spending and thus fewer resources for learning materials. High repetition and dropout rates consume resources which could be spent on schools. A large share of funding is not spent. A quarter of capital funds are not spent; among general education programs, the unspent balance is closer to 40 percent of the approved (or revised) budget. As noted, nearly 91 percent of the recurrent budget is spent on salaries with large differences in PTR across the provinces, showing that there is a teacher allocation problem despite considerable resources spent on salaries. Finally, at schools, 12 percent of students repeat a grade at the primary level and 6 percent drop out. Resources used for these students are wasted. High repetition and drop-out rates are generally linked to poor learning environments in schools.

As the analysis shows, education policies, including its funding, have not yet produced equitable access in Afghanistan. Outcomes vary greatly by gender, location and socioeconomic variables. Furthermore, school coverage just like teacher allocation does not follow school-age population, leading to great regional differences. There is however, one silver lining: it appears Afghanistan is putting more resources in regions where attendance levels are low. Private spending, though very low, is making up the difference in relatively rich provinces such as Kabul.

Afghanistan has a demographic opportunity. Population among the younger people is growing at a rate slower than working age adults, and this trend is expected to continue over the foreseeable future. Slower population growth among the children and the youth will ease the pressures on the government to expand services quickly. The pressures from the family to leave school or to work are big constraints in expanding education. However, under current population trends, dependency rates are going to decline. This may be an opportunity as parents might not need to depend on their children's labor. However, for this to happen, the country needs to increase the productivity of its workforce and those that are just entering the labor market.



Afghanistan must take steps to improve the performance and the equity of the education sector through its sector and funding policies. Based on the data and analysis presented, the report makes the following recommendations:

- *Target investments towards improving quality.* Assessment data suggest that the presence of teachers and learning materials have the biggest impact on learning. Poor learning conditions are linked to repetition, attrition, and dropping out. Afghanistan must invest in improving the quality of education by increasing spending on teaching and learning materials and making sure that there are enough learning materials for students and teachers. Given low literacy and poor learning outcomes in the 6th grade national assessment, importance of reading and writing in the early grades should be a key emphasis.
- *Expand/stabilize access and attendance through community-based education, especially in rural and conflict affected areas where school attendance comes at a considerable risk.* However, given the variety in approaches and costs, designing a harmonized and cost-effective package of services should be a priority.
- *Develop a system for more equitable distribution of resources to schools and hold provincial education directorate accountable for their effective use.* There are great disparities in the distribution of school supplies, infrastructure and teachers. Per capita operating expenditures in recent years have more heavily targeted provinces with low levels of schooling, but teacher deployment and school supplies remain in severe shortages in remote areas. At the provincial level, allocation to schools do not follow a systematic procedure. In fact, distribution to districts and schools are at the discretion of the PED with no accountability or reporting requirements. Deconcentrated structures should be required to report on the use of public resources and reporting outputs.
- *Involve communities in making education attractive.* School Shuras need to be further strengthened, especially in the hard to reach areas, as they can play an important role in increasing retention and encouraging parents to send their children to school, especially girls. They have also served as local negotiators in conflict affected areas to re-open schools. The Citizen's Charter is a promising platform for strengthening community engagement in education management and monitoring teacher absenteeism and learning time
- *Develop a long-term needs projection for the education budget.* Afghanistan must focus on developing multi-year budget projections adjusted for the current and future needs of the education system. As the pressure for expanding school infrastructure at the national level slows down over time with the eventual reduction in the school age population, long term budgeting should take into account an increasing need for school repairs and maintenance as well as much needed school materials and supplies. New school construction in the short term should focus on the remote and underserved areas.



- *Make better use of the existing budget structure and the information systems for more transparency on allocation and use of public resources.* Analyses of education sector performance and its financing point to the necessity to strengthen the comprehensiveness of data provided through the multiple management information systems. Institute integrated information management systems for better monitoring and reporting on outcomes and evaluation. The systems could be strengthened, starting with better projections of student and teacher requirements and instituting biometric IDs for student and teacher tracking. Integrated data collection systems of EMIS, Human Resources Management Information System, and payroll would also allow for closer and rigorous monitoring.

Annex A: Tables and Figures

Appendix Table 1 - Schools closed and re-opened because of security concerns, 2011

PROV- INCE	TOTAL NUMBER OF SCHOOLS	NO. OF RE-OPENED SCHOOLS, 1389-1390	NO. OF CLOSED SCHOOLS
Helmand	332	54	112
Kandahar	424	83	152
Uruzgan	265	33	58
Zabul	213	41	128
Farah	330	9	15
Nimroz	125	2	2
Badghis	408	11	3
Ghazni	584	22	7
Khost	283	2	8
Paktika	337	22	15
Total	3301	279	500

Source: Afghanistan EFA review²² Table 3.

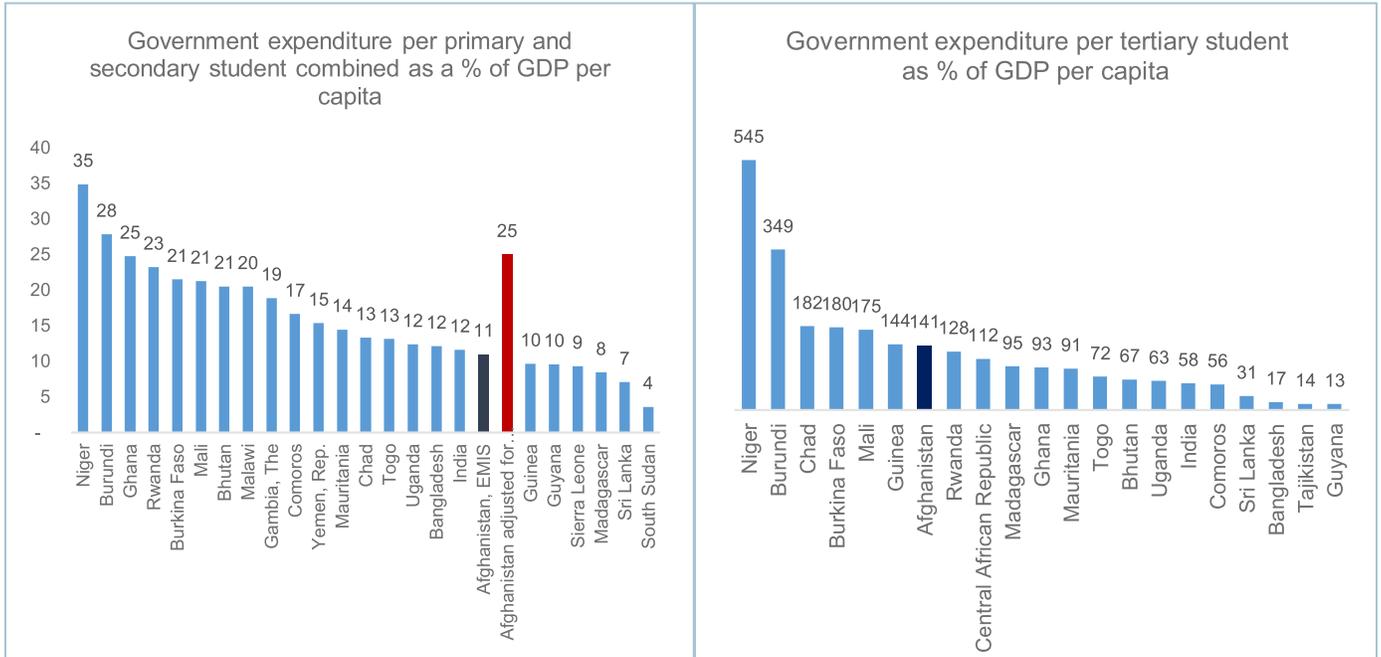
Appendix Table 2 - Provinces with the highest proportion of out-of-school children and girls

Province	% Female OOSC	% Male OOSC	Total % of OOSC
Urozgan	98%	78%	88%
Zabul	95%	84%	89%
Paktika	93%	26%	53%
Kandahar	89%	63%	76%
Wardak	89%	40%	64%
Helmand	86%	47%	63%
Logar	85%	41%	62%
Nooristan	76%	69%	72%
Paktya	75%	38%	54%
Khost	75%	26%	47%
Farah	72%	56%	64%
Badghis	69%	51%	58%
Laghman	68%	34%	51%
Ghor	62%	42%	51%
Sar-e-Pul	61%	55%	58%

Source: ALCS (2014).

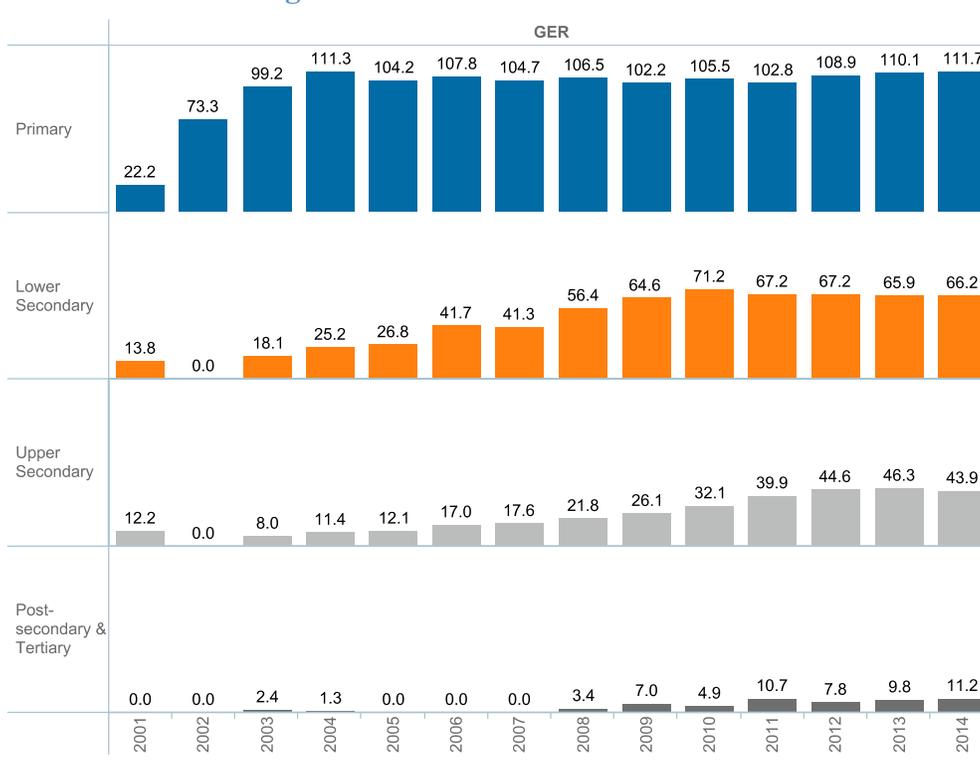


Appendix Figure 1 - Comparison of unit costs across low-income countries



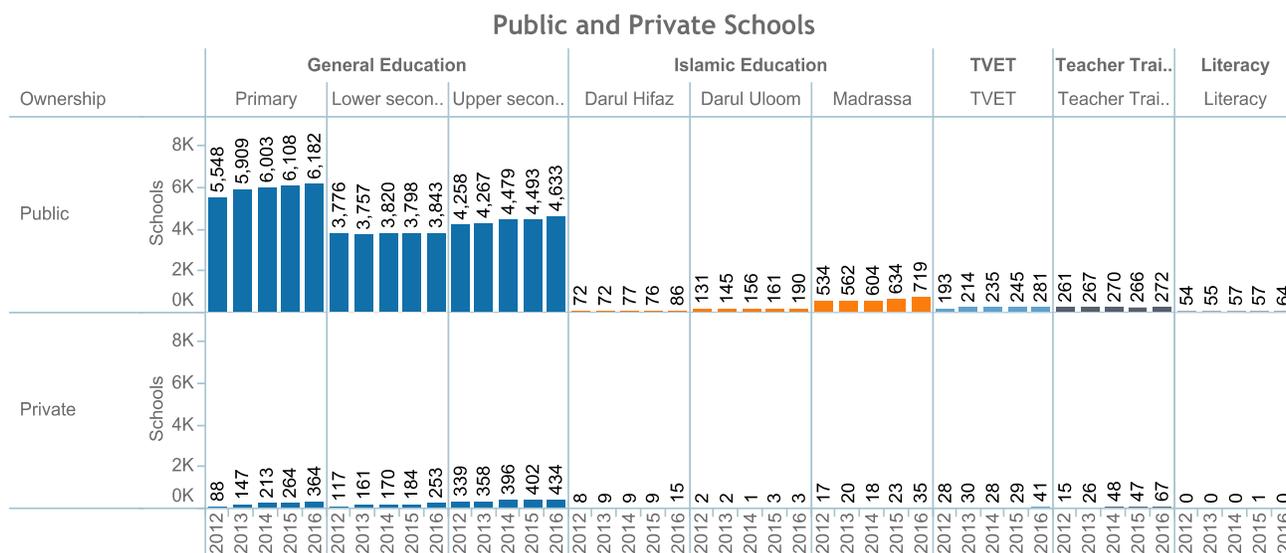
Source: World Bank Education Statistics (2011). Table Notes: The figure for Afghanistan is the average between 2010 and 2015. The unit costs for primary and secondary levels are averaged for each country for the left hand side graph.

Appendix Figure 2 - GER according to UNESCO



Source: UIS (2016).

Appendix Figure 3 - Number of schools by ownership and enrollment by ownership, 2012-2016



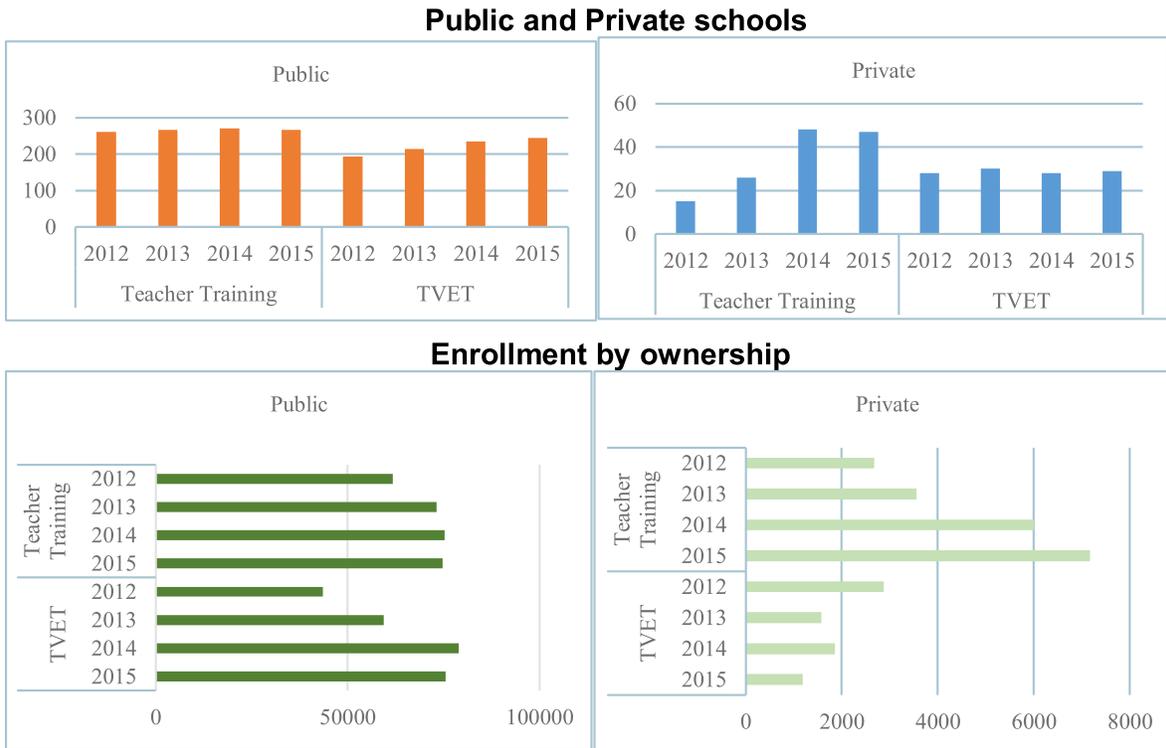
Enrollment by ownership

Type	Year	Public	Private
General Education	2012	7,600,741	174,770
	2013	7,983,478	220,246
	2014	8,380,919	202,787
	2015	8,393,093	274,228
	2016	8,418,777	337,178
Islamic Education	2012	213,324	4,224
	2013	255,041	5,476
	2014	295,203	4,490
	2015	305,928	6,165
	2016	321,858	11,092
Teacher Training	2012	61,710	2,672
	2013	73,191	3,559
	2014	75,207	6,005
	2015	74,731	7,176
	2016	60,537	8,221
TVET	2012	43,591	2,880
	2013	59,429	1,575
	2014	78,976	1,854
	2015	75,496	1,186
	2016	76,275	5,568
Literacy	2012	21,477	0
	2013	16,989	0
	2014	18,189	0
	2015	18,610	321
	2016	20,732	0

Source: EMIS.



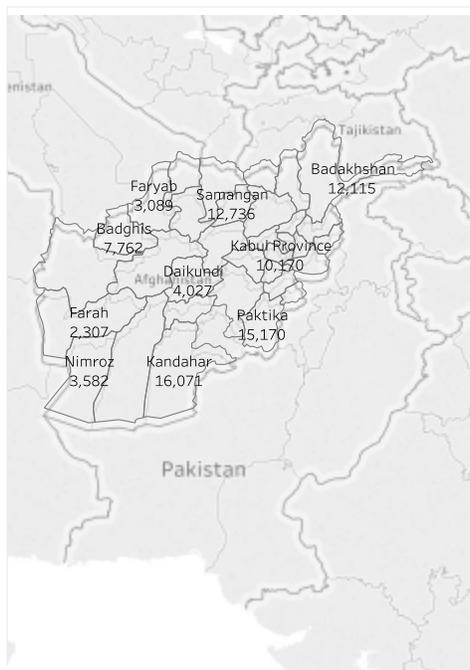
Appendix Figure 4 - Number of Teacher Training and TVET Institutes by Ownership and Enrollment



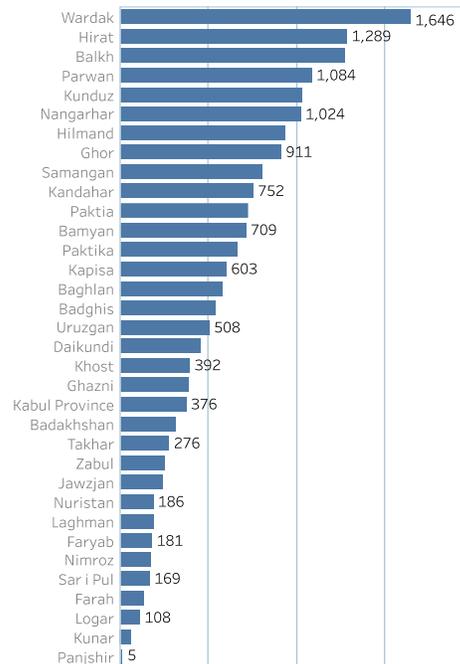
Source: EMIS.

Appendix Figure 5 - CBE enrollment and classrooms by region

CBE Enrollment by Region



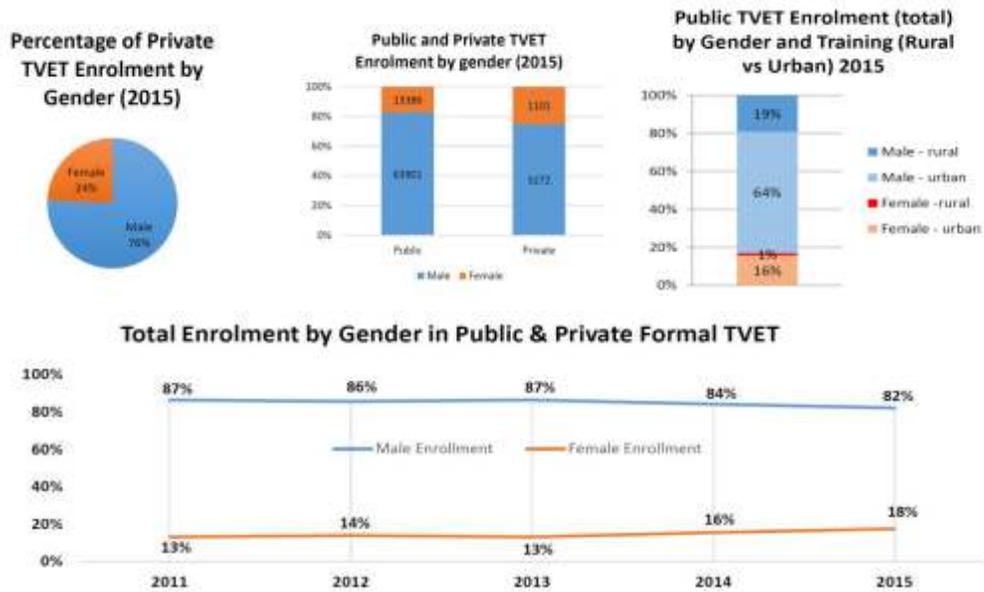
CBE Classrooms by Region



Source: EMIS.

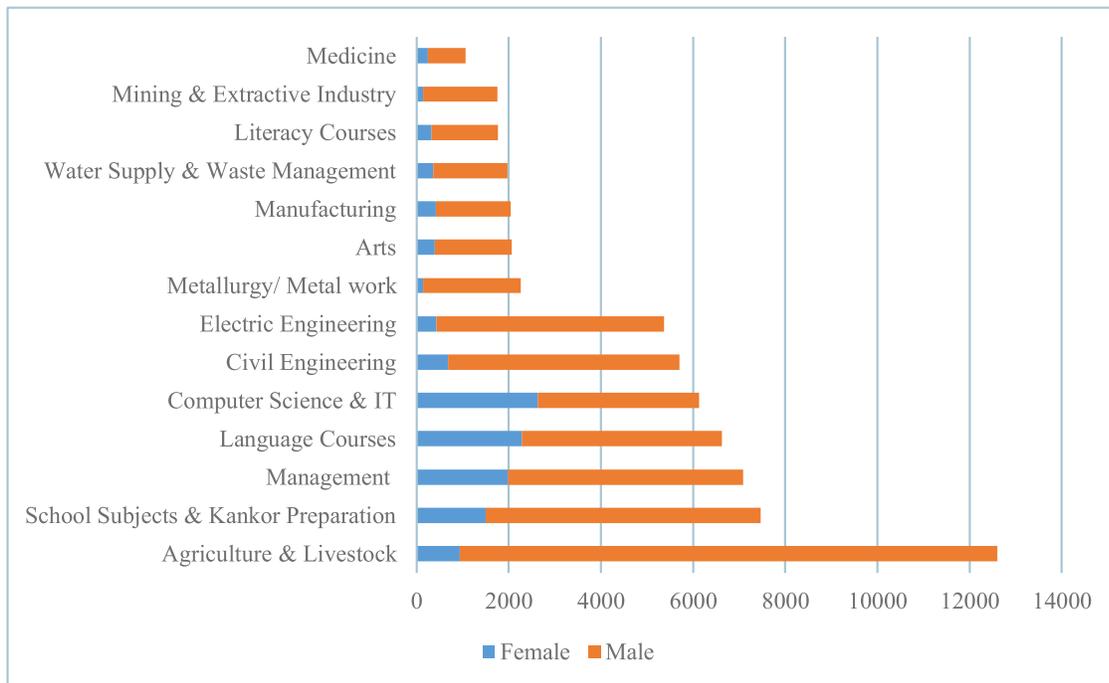


Appendix Figure 6 - TVET Enrollment, public and private, by gender



Source: UNESCO. National Statistical report on formal TVET Afghanistan (2015).

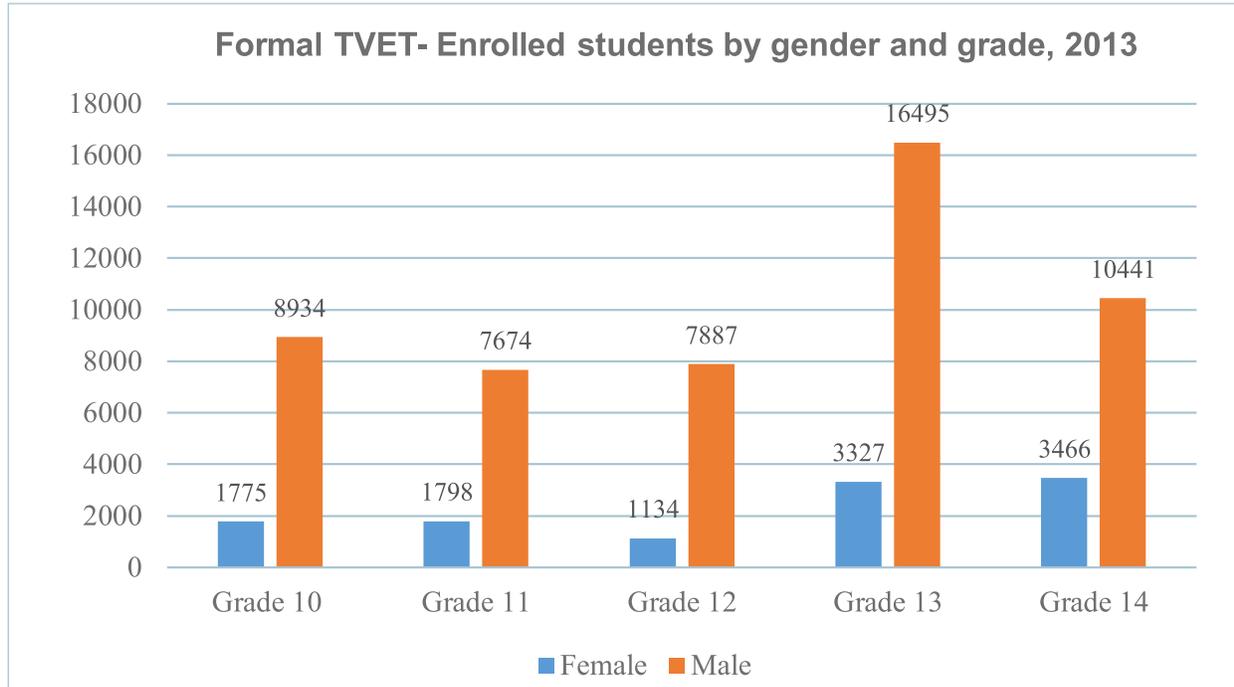
Appendix Figure 7 - Formal TVET Enrolled Students by Gender and Trade, 2013



Source: The World Bank. Project Preparation Grant's Data on Formal TVET and Enterprises (2013).

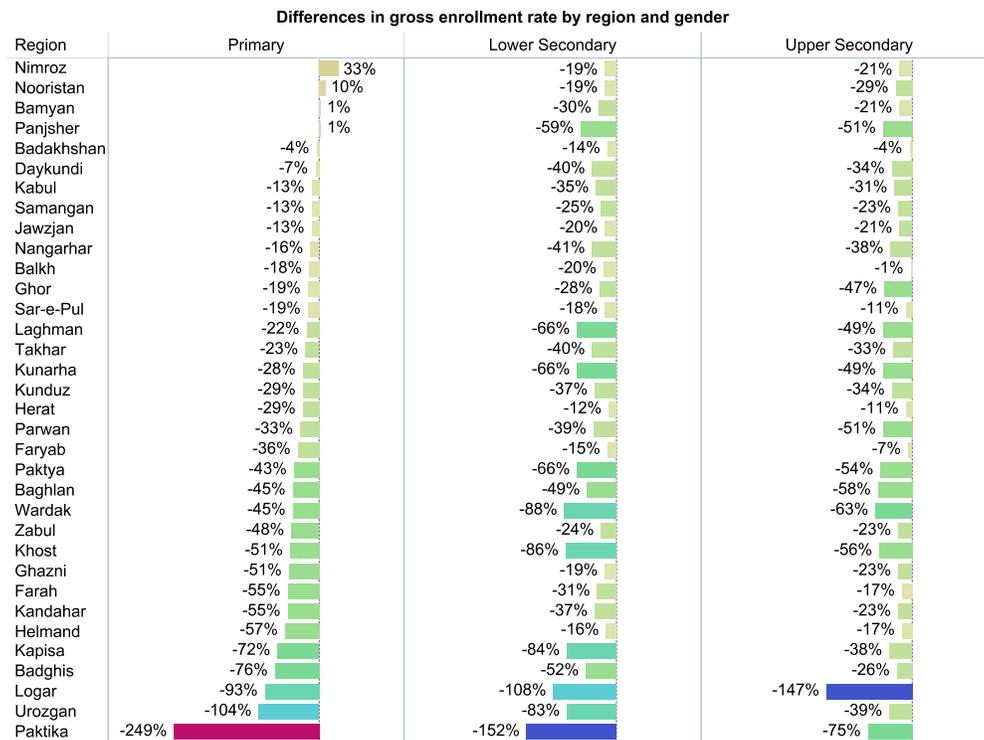


Appendix Figure 8 - Students enrolled in formal TVET by gender and grade



Source: The World Bank. Project Preparation Grant's Data on Formal TVET and Enterprises (2013).

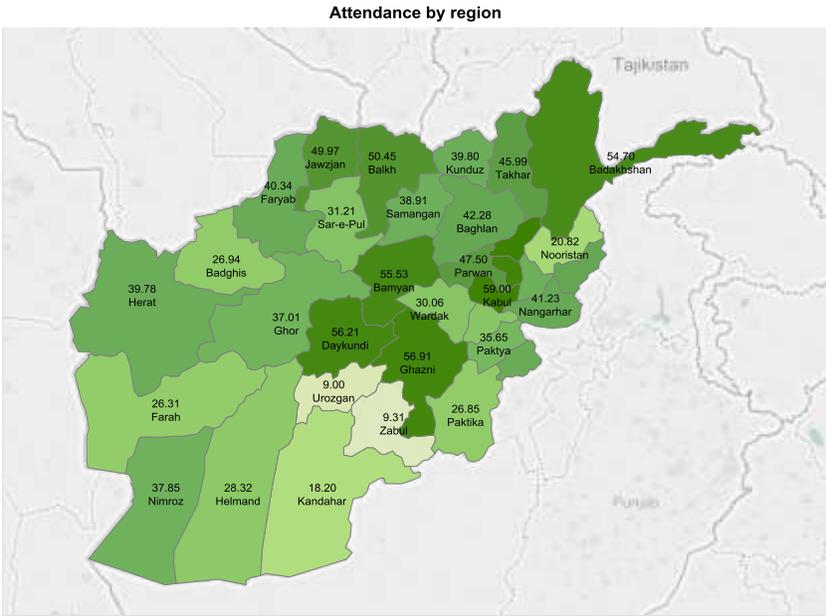
Appendix Figure 9 - Female and male gross enrollment rates by province by level, 2014



Source: EMIS and Household Survey (2014).



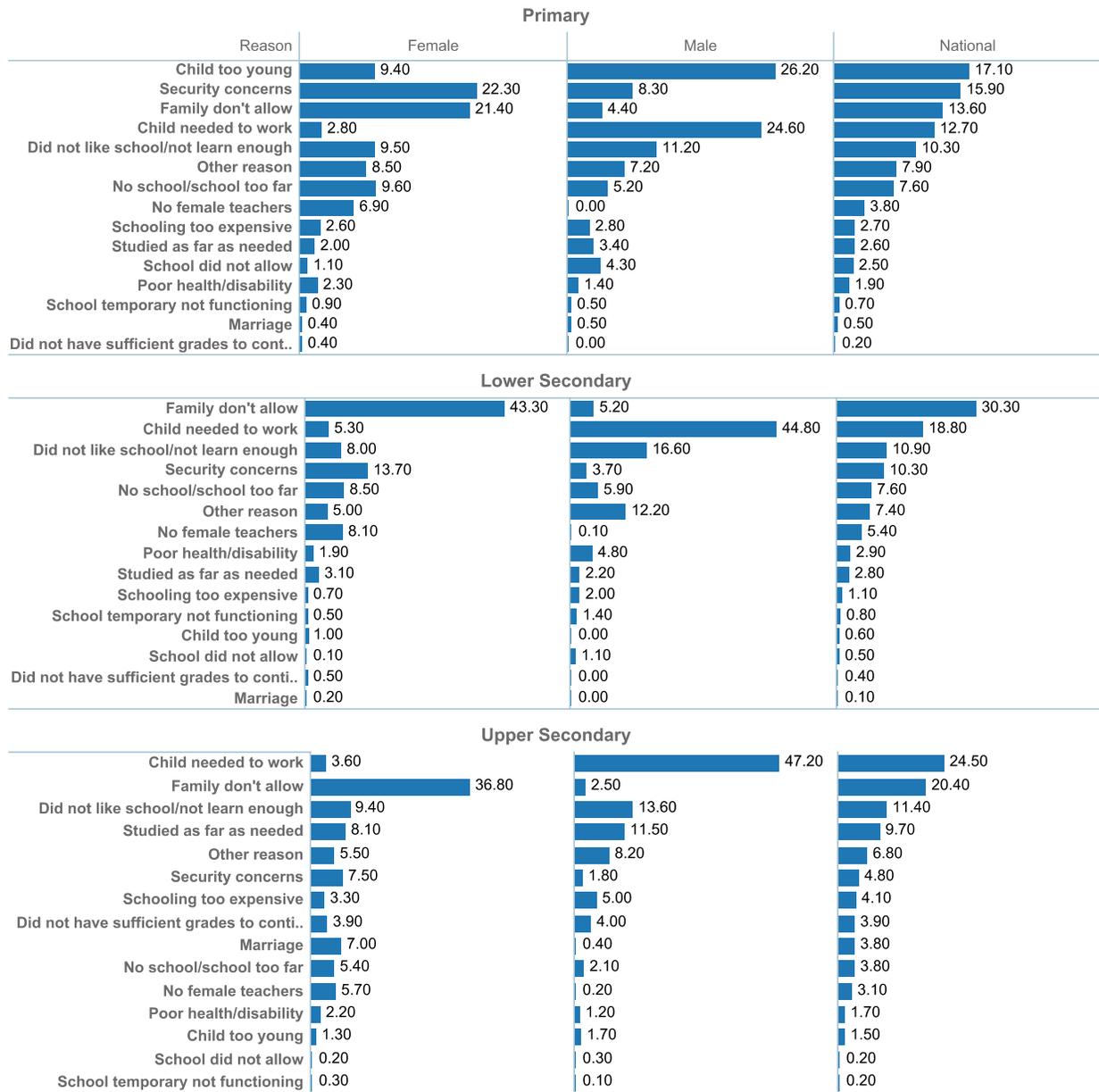
Appendix Figure 10 - Attendance rates by region, 2014



Source: Household Survey (2014).



Appendix Figure 11 - Reasons for staying out of school, by level and gender 2014

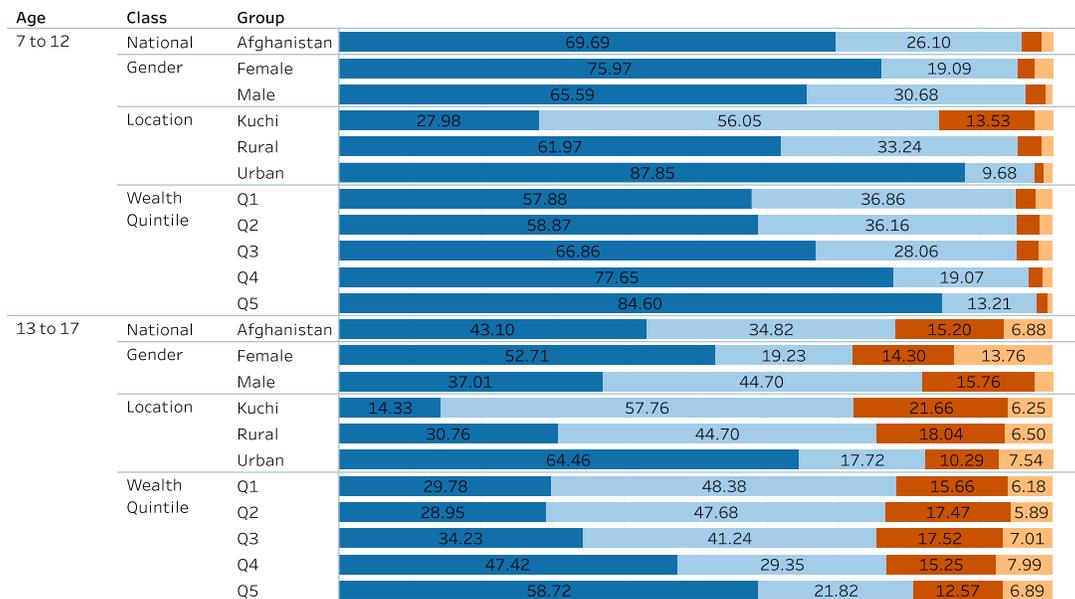


Source: Authors' calculations based on household data.



Appendix Figure 12 - Economic activity of children and youth, 2014

Work and school choices among the Afghan children and youth

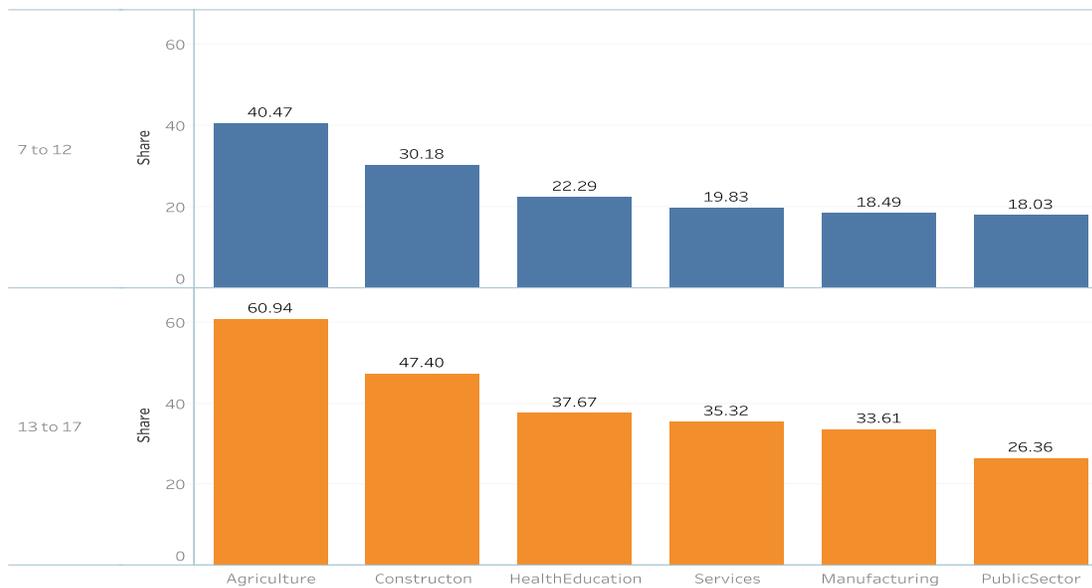


Status
■ Only School ■ Only Work
■ Work and School ■ Idle

Source: Household Survey. Note: categories are estimates and do not add up to 100 percent.

Appendix Figure 13 - Economic activity of children and youth, 2014

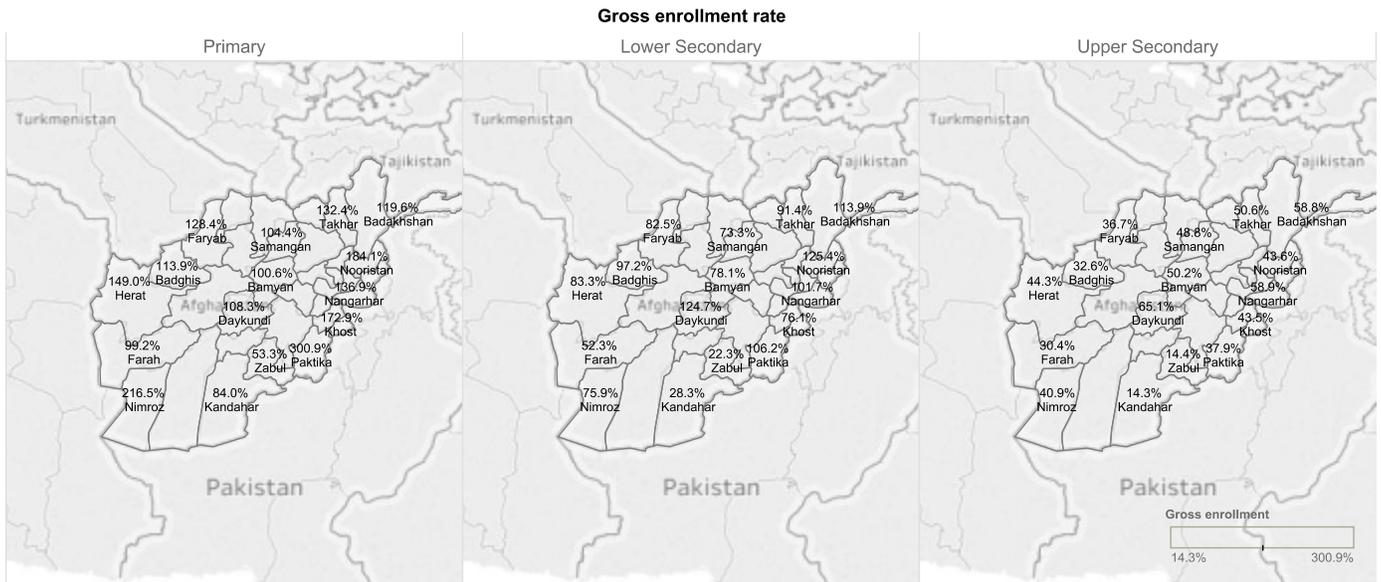
Share of children who work, by household sector



Source: Household Survey (2014).

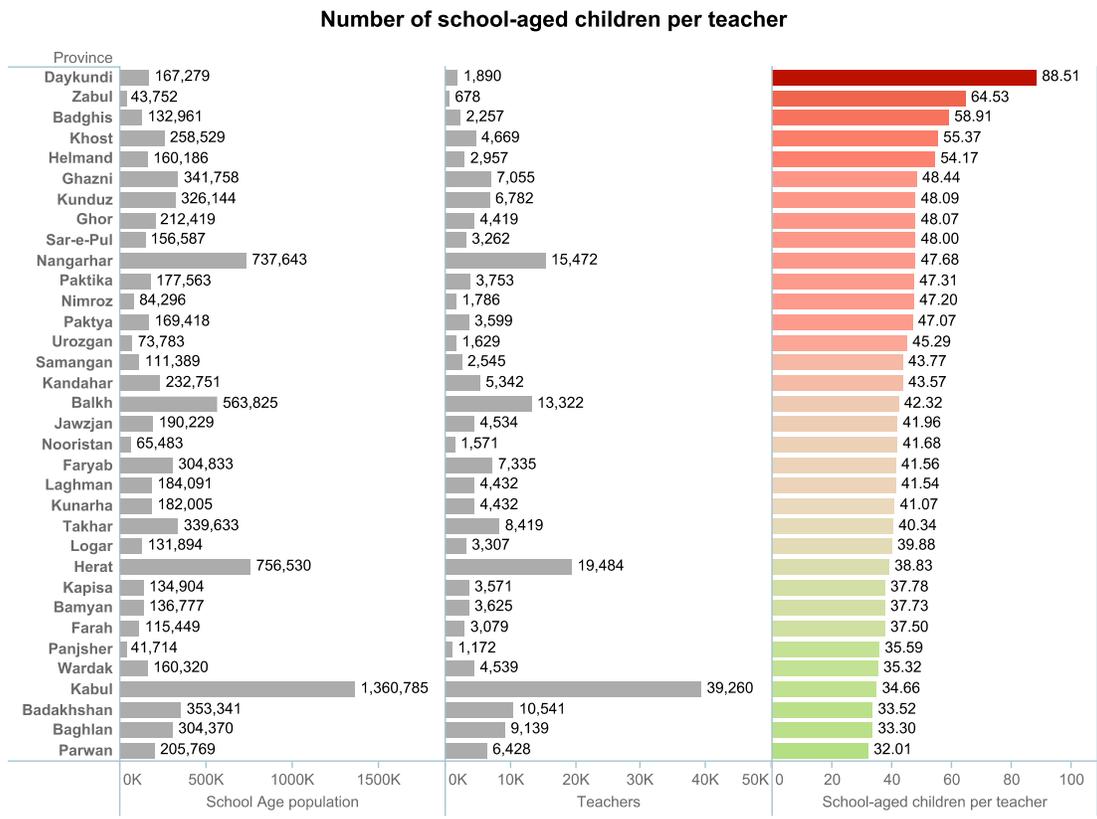


Appendix Figure 14 - GER by province and level, 2016



Source: EMIS and Household Data.

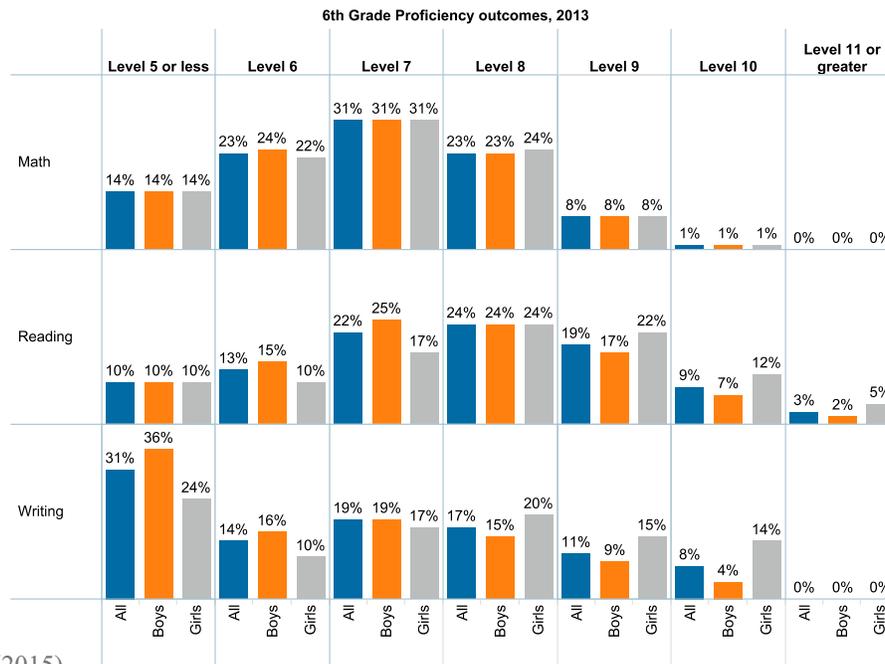
Appendix Figure 15 - Number of school aged children, teachers and students PTR, by region, 2014



Source: EMIS and Household Surveys.

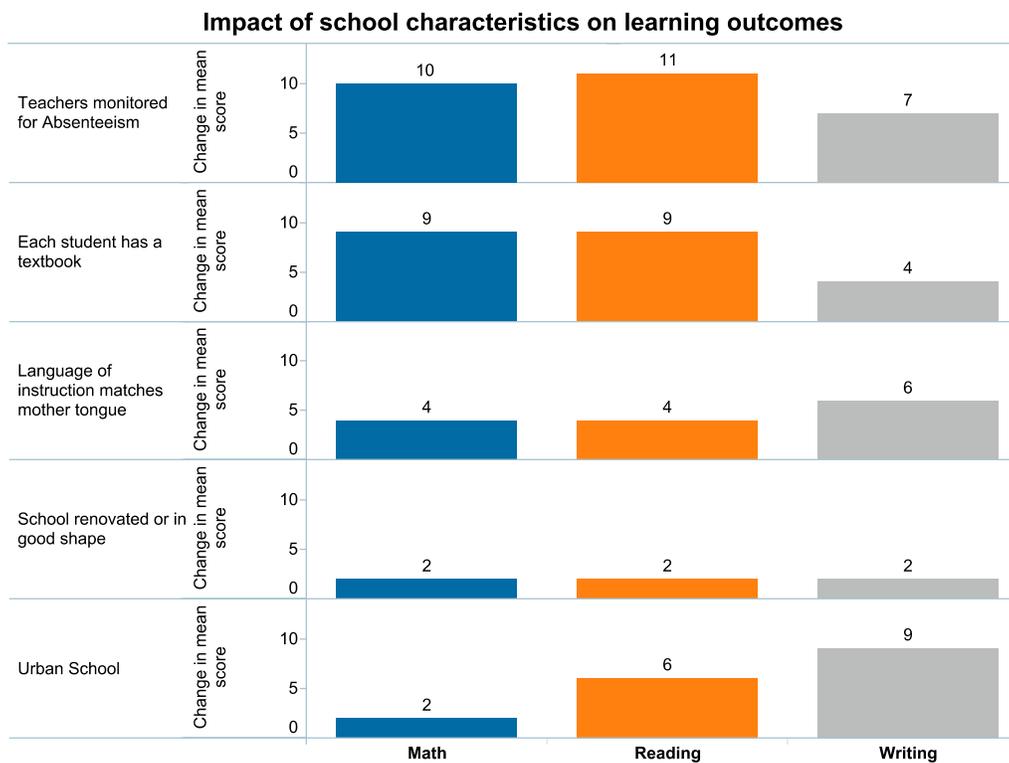


Appendix Figure 16 - Grade 6 proficiency levels in math, reading and writing, for all students, and by gender



Source: ACER (2015).

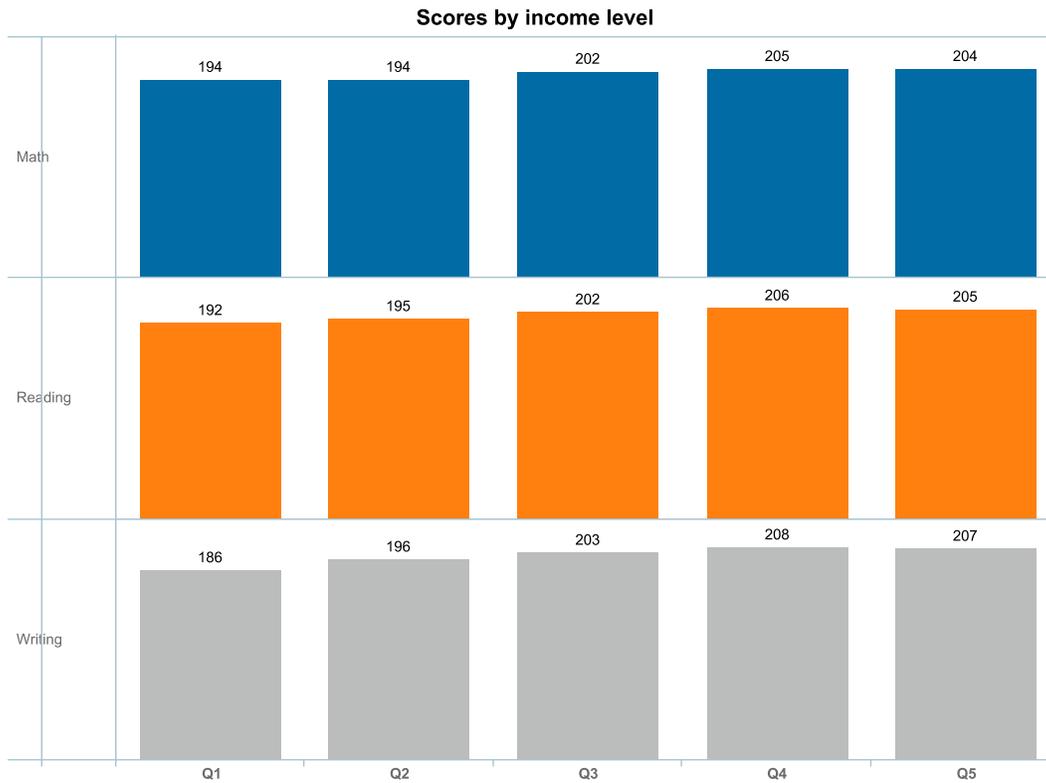
Appendix Figure 17 - Impact of various school characteristics on mean scores, by subject



Source: Ministry of Education, National Assessment (2014). Average score is 200, standard deviation is 20.

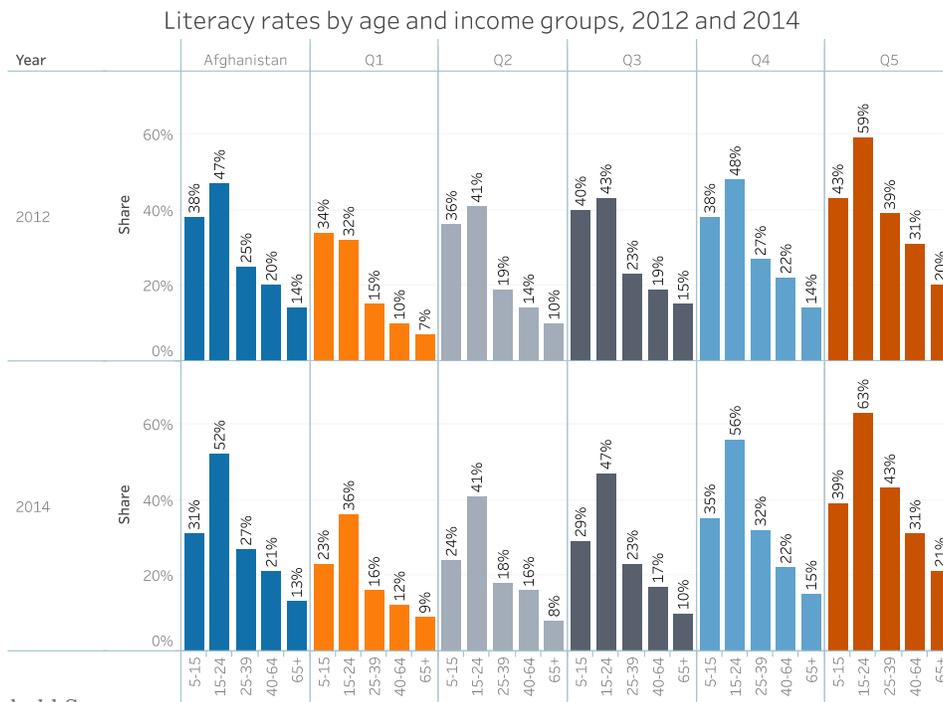


Appendix Figure 18 - Learning outcomes by wealth, 2014



Source: Ministry of Education, Learning Assessment (2014). Average score is 200, standard deviation is 20.

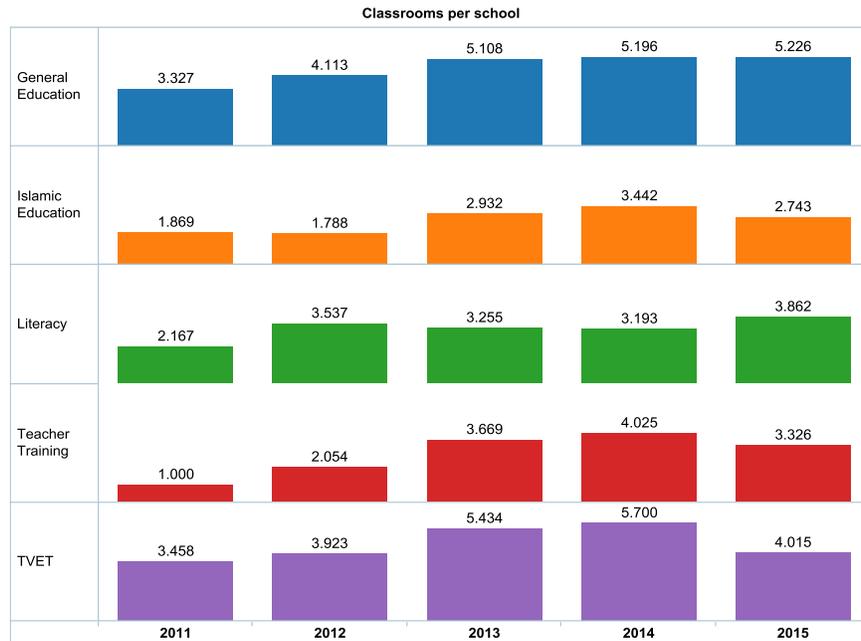
Appendix Figure 19 - Literacy rates by age and income groups, 2012 and 2014



Source: Household Surveys

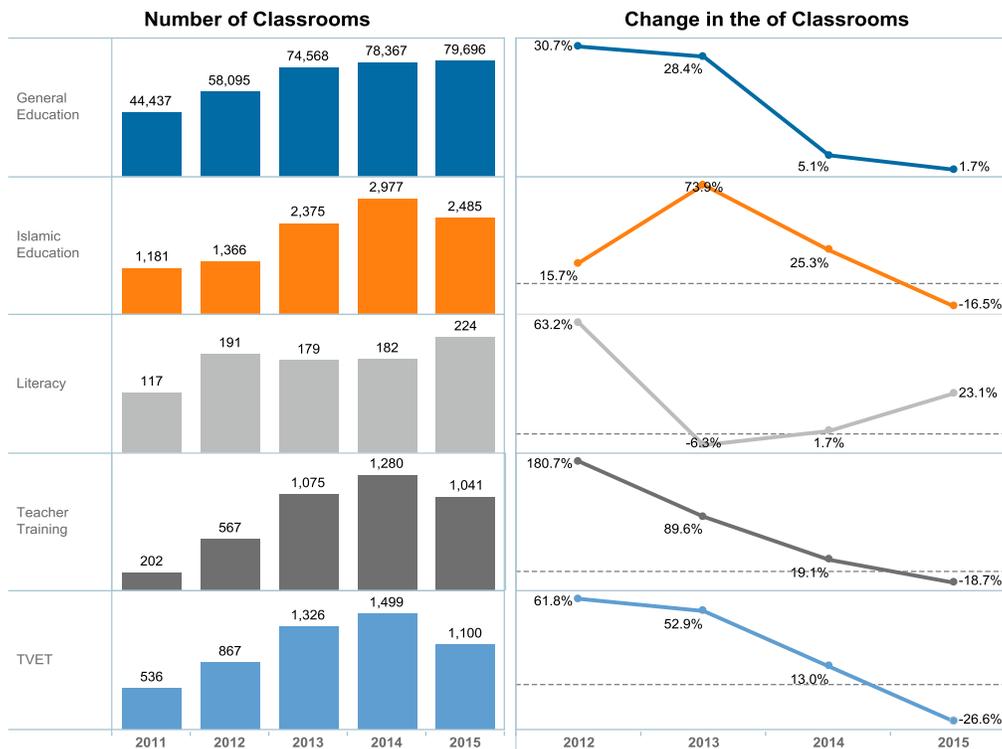


Appendix Figure 20 - Number of classrooms per school, by sector, 2011 – 2015



Source: EMIS.

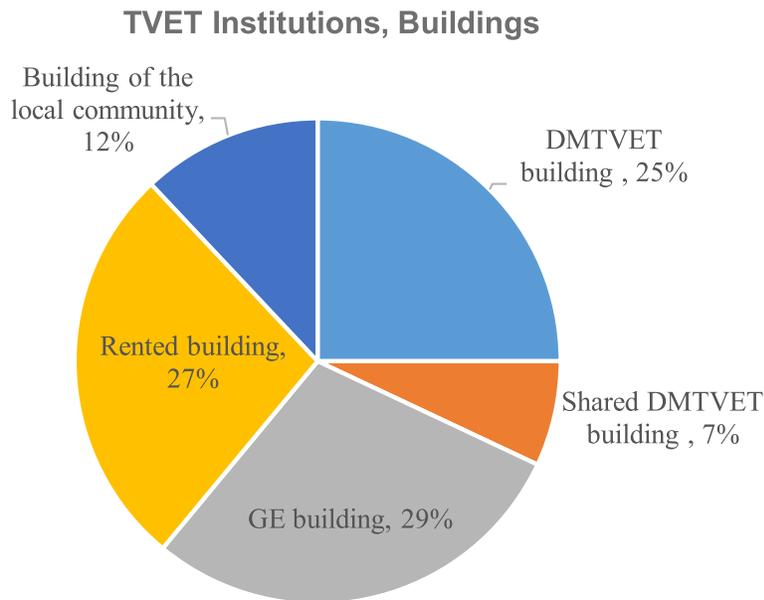
Appendix Figure 21 – Growth in the number of classrooms, by sector, 2011-2015



Source: EMIS.

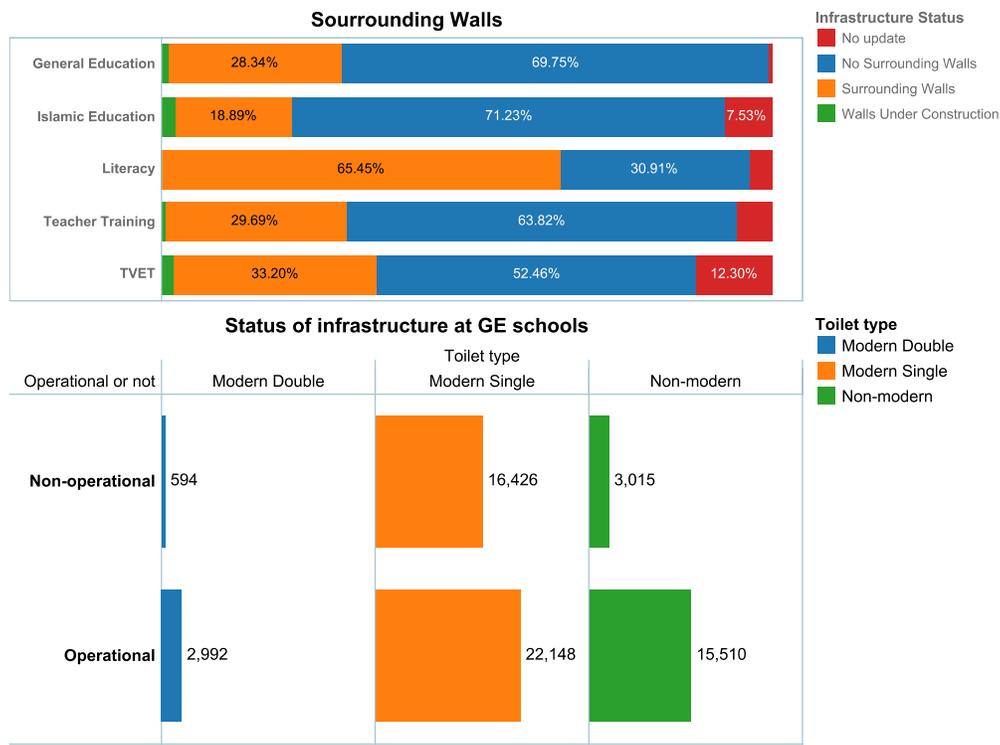


Appendix Figure 22 - Status of Public TVET Institutions' buildings (excluding formal TVET schools)



Source: UNESCO. National Statistical report on formal TVET Afghanistan (2015).

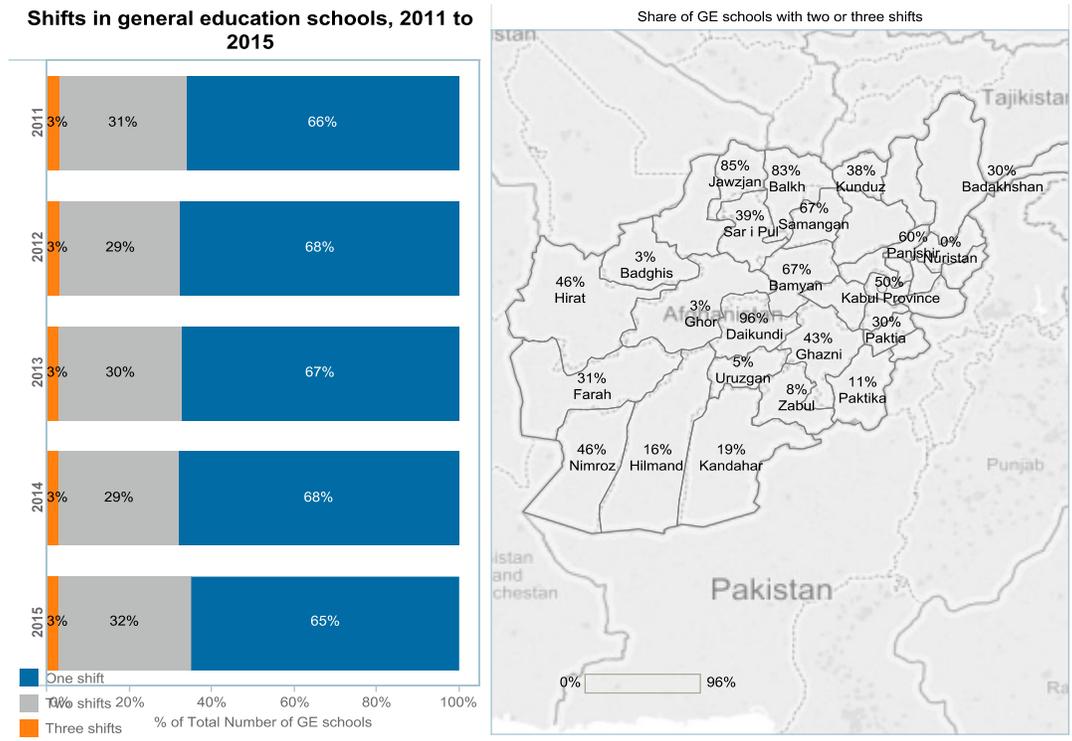
Appendix Figure 23 - School infrastructure indicators, 2013



Source: EMIS.

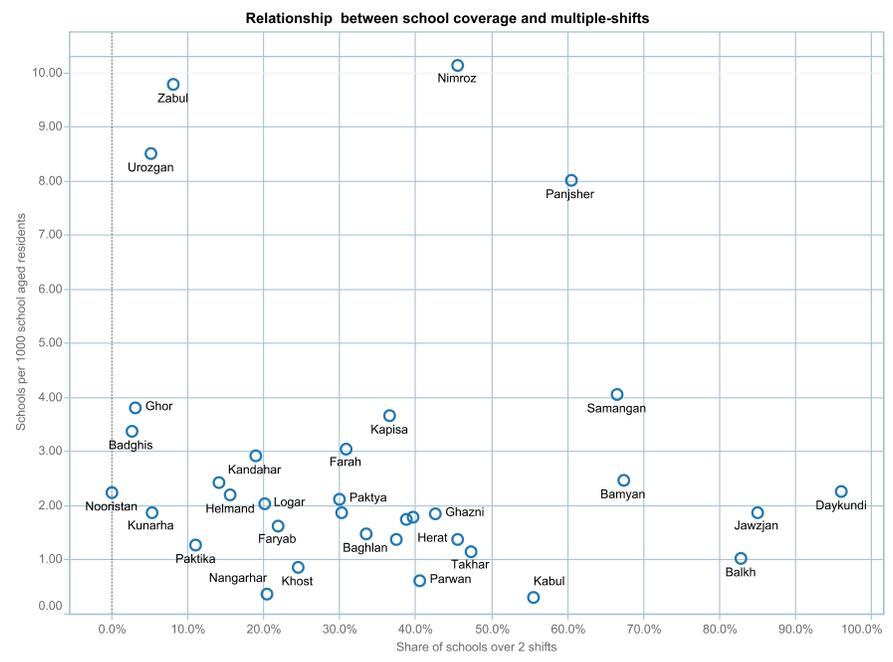


Appendix Figure 24 - Use of multiple shifts, share of schools with two or three shifts by year and region



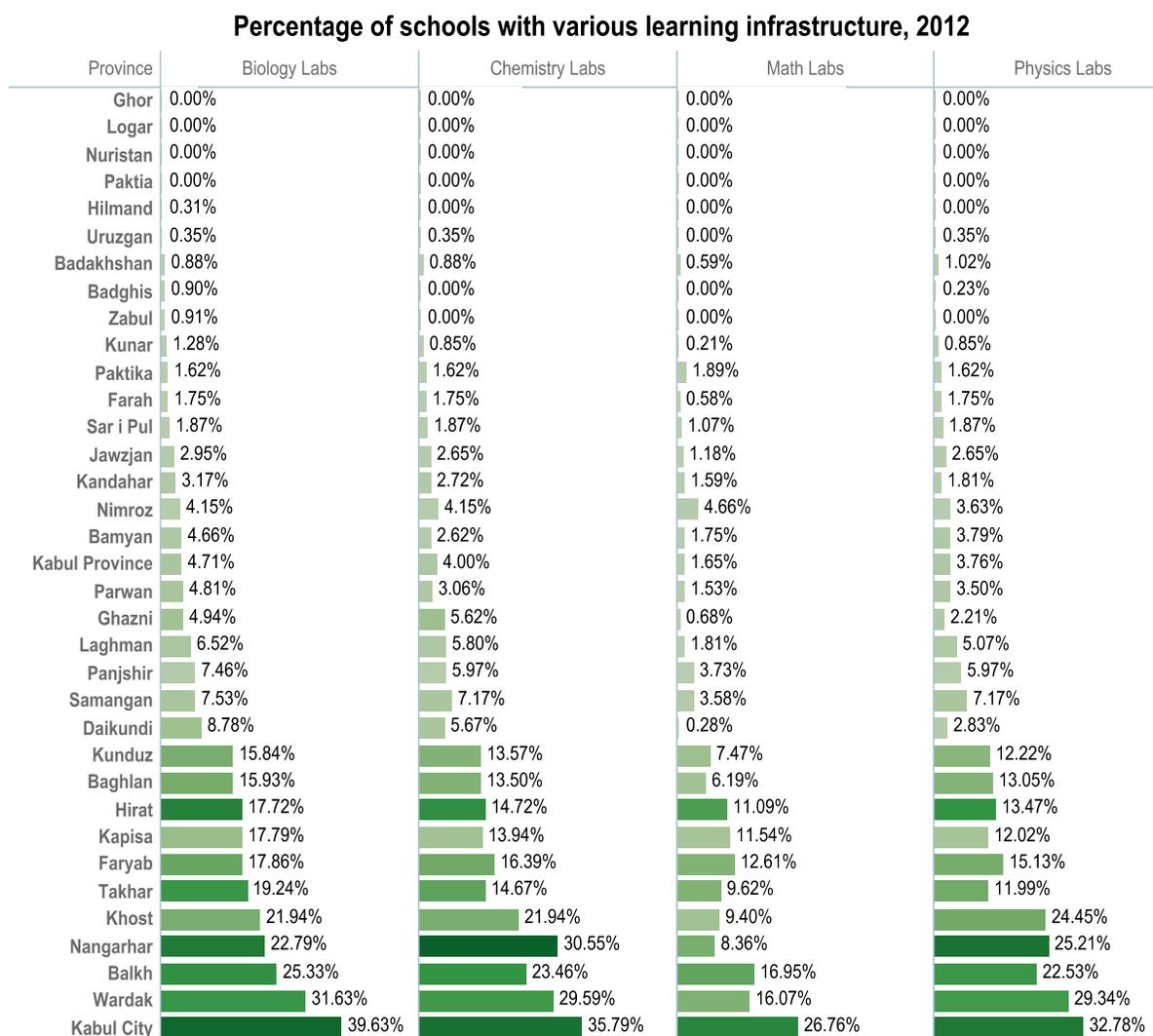
Source: EMIS and Household Surveys (for school age population).

Appendix Figure 25 - School infrastructure indicators, 2013



Source: EMIS and Household Surveys.

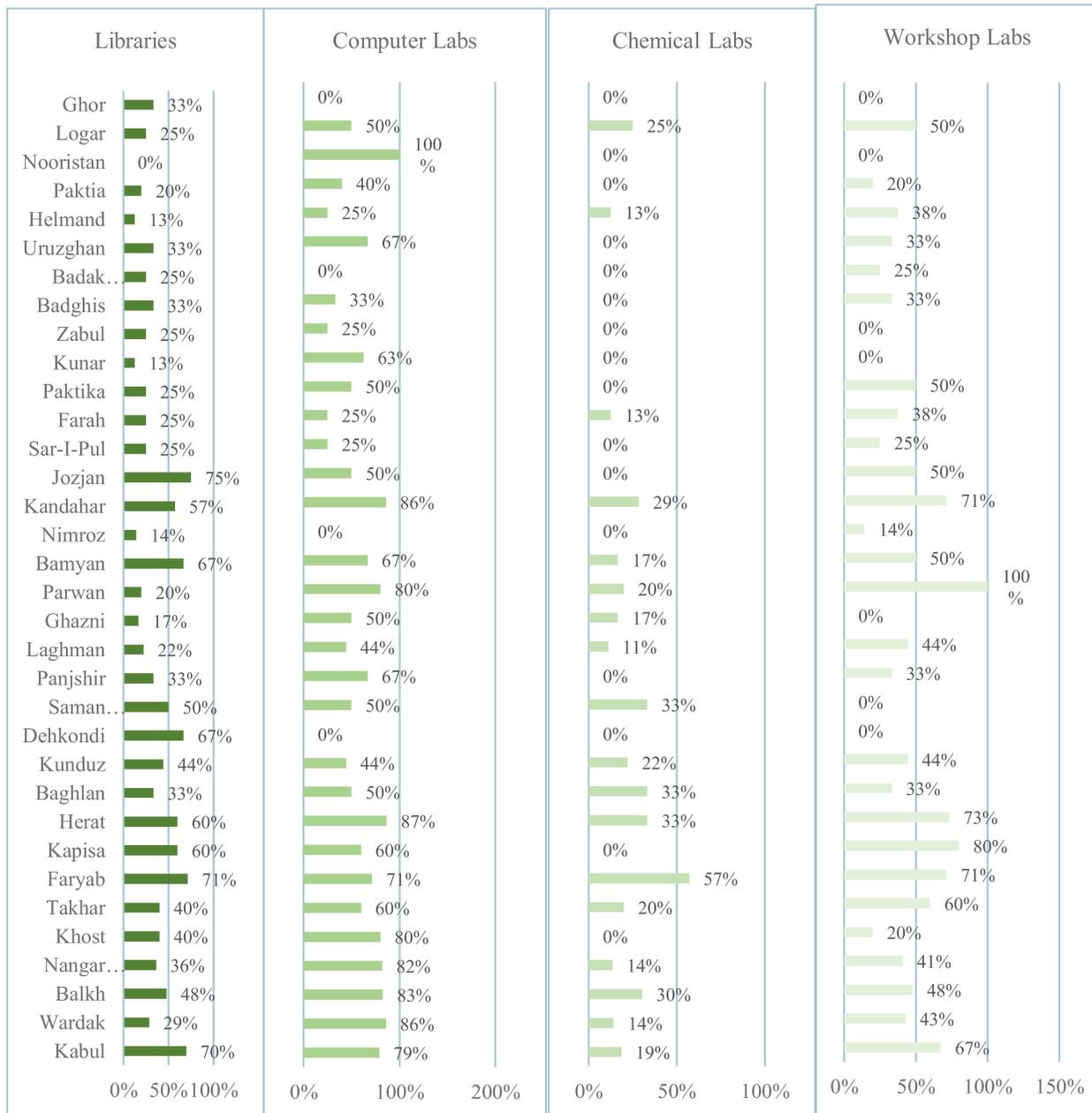
Appendix Figure 26 - Percentage of schools with science and math labs, 2012



Source: EMIS.



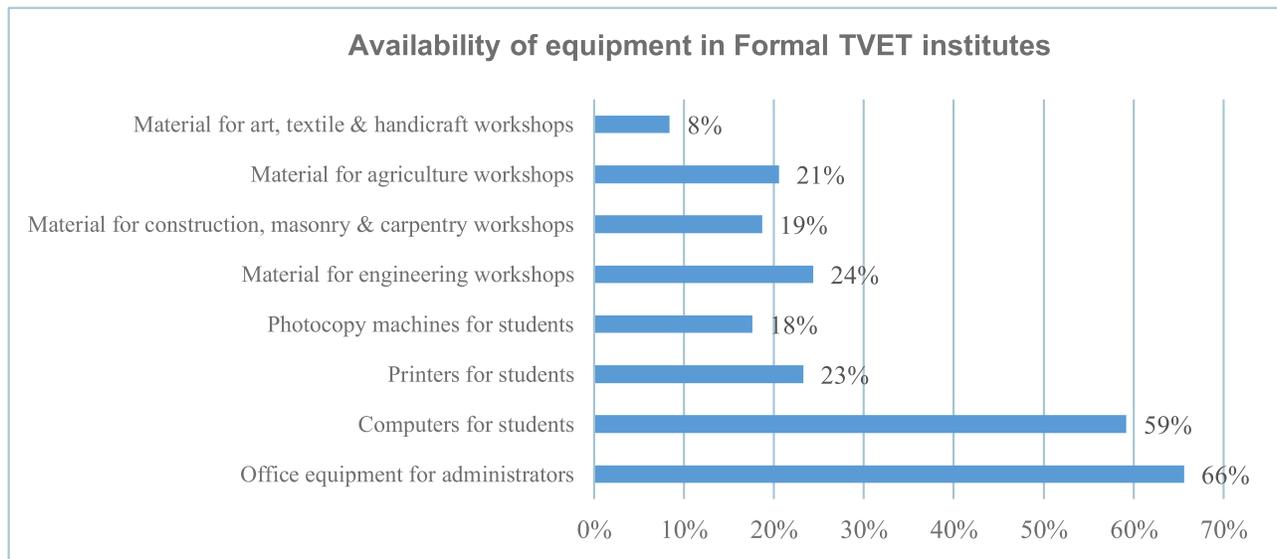
Appendix Figure 27 - Percentage of formal TVETs with various learning infrastructure, 2013



Source: The World Bank. Project Preparation Grant's Data on Formal TVET and Enterprises (2013).

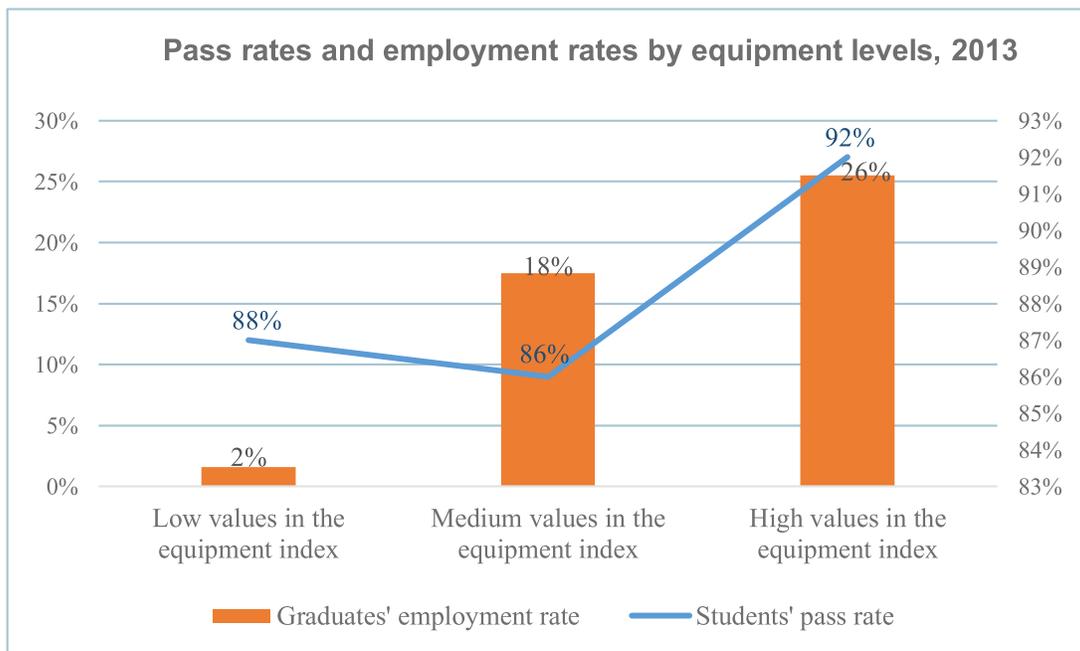


Appendix Figure 28 - Percentage of formal TVETs with various learning infrastructure, 2013



Source: The World Bank. Project Preparation Grant's Data on Formal TVET and Enterprises. (2013)

Appendix Figure 29 - Correlation between availability of equipment and education outcomes in formal TVET

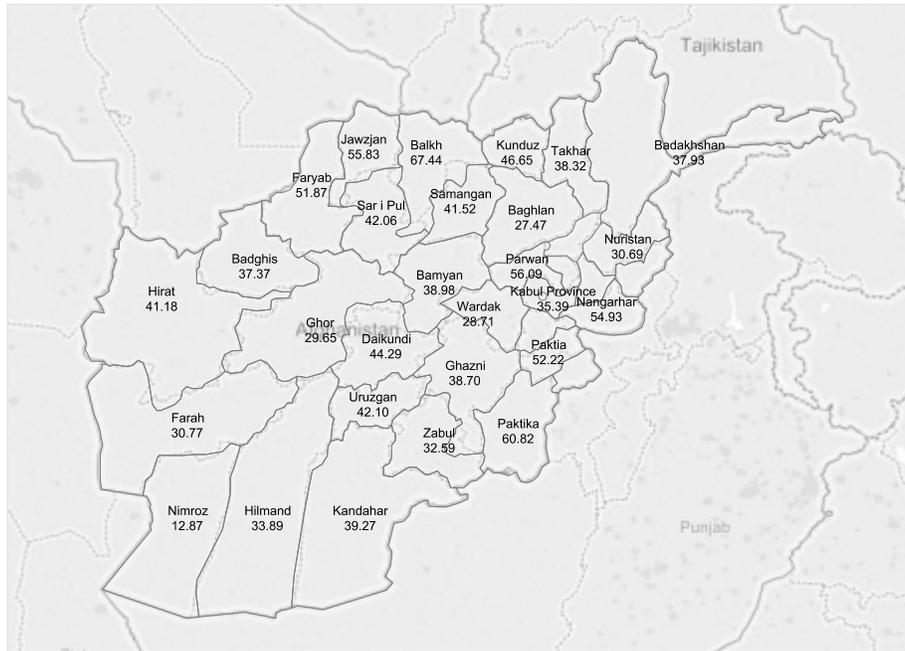


Source: The World Bank. Project Preparation Grant's Data on Formal TVET and Enterprises (2013).



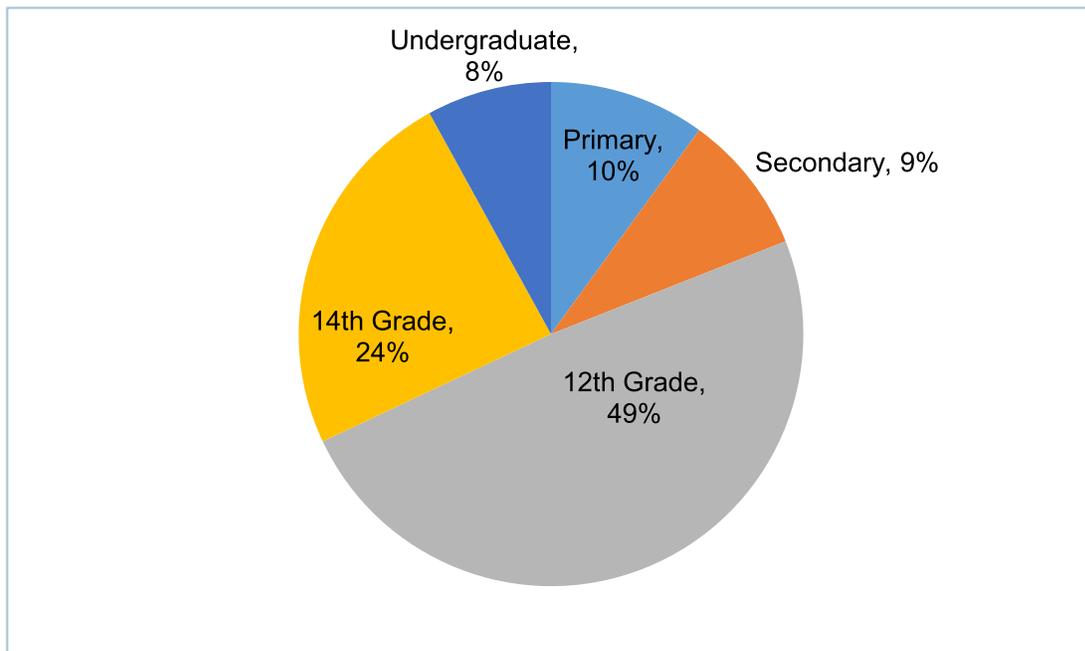
Appendix Figure 32 - Pupil-teacher ratio in Islamic Education, 2014

Pupil-teacher ratio in Islamic Education, by region, 2014



Source: EMIS.

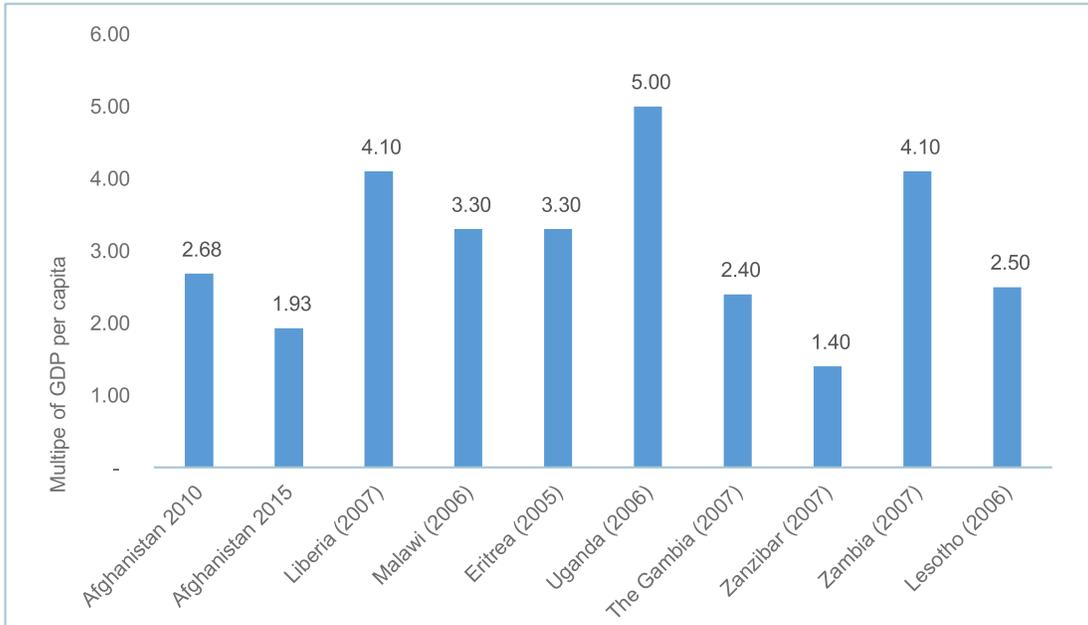
Appendix Figure 33 - Highest degree obtained by teachers, 2011



Source: Ministry of Education, reported in the latest Education and Skills Position paper.²⁸

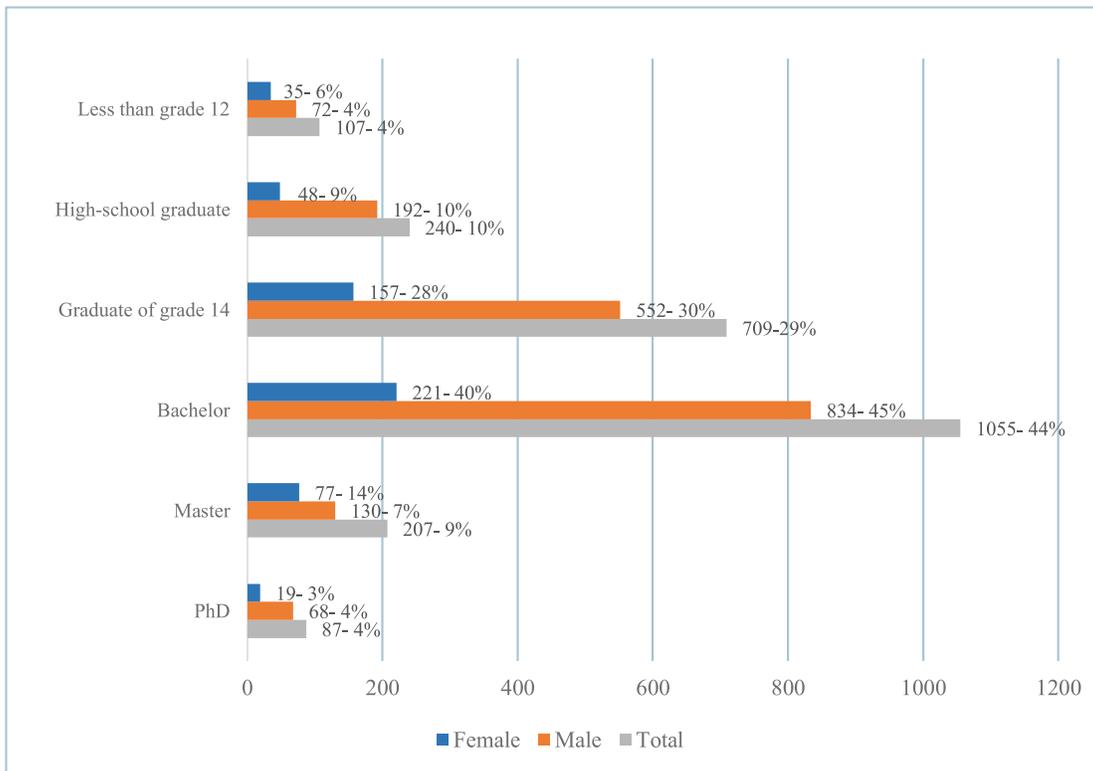


Appendix Figure 34 - Teacher salaries as a multiple of GDP per capita



Source: Per capita income figures for Afghanistan from WDI; information for comparative countries is from Mulkeen.¹⁷

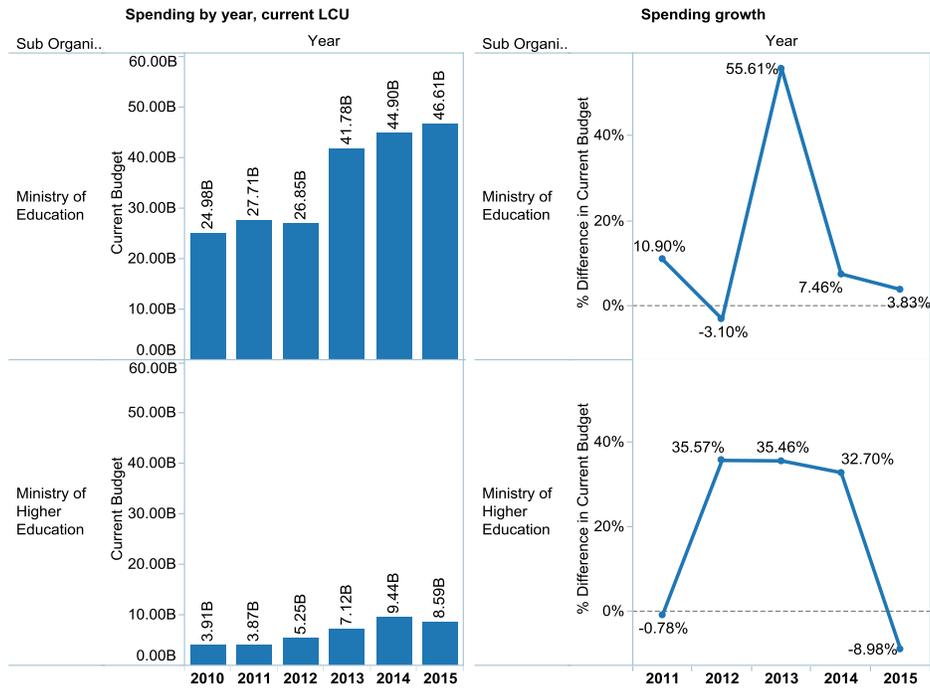
Appendix Figure 35 - Faculty in formal TVET institutions, 2013



Source: The World Bank. Project Preparation Grant's Data on Formal TVET and Enterprises (2013).

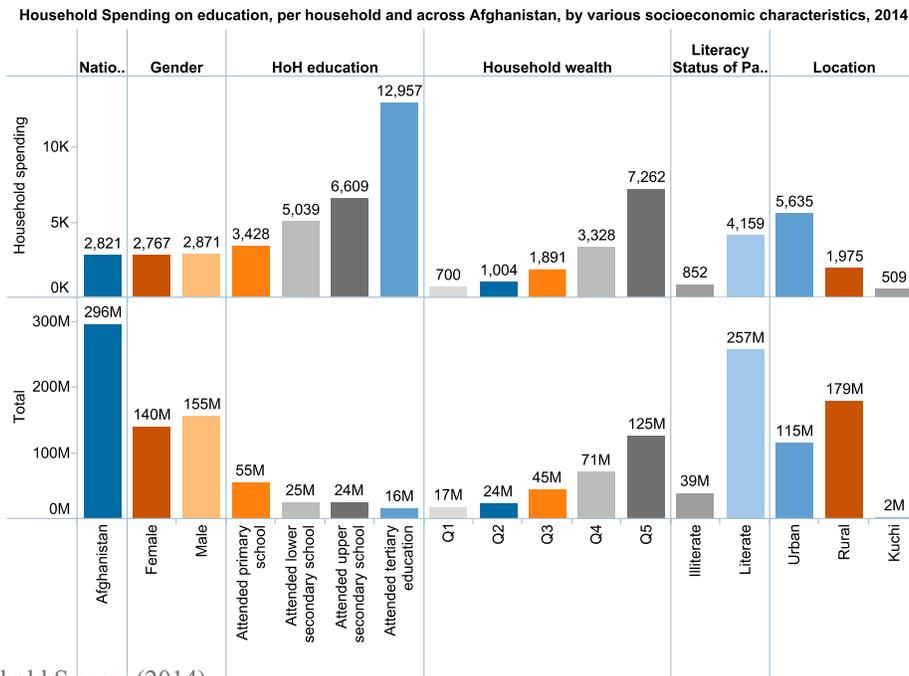


Appendix Figure 36 - Funding at the Ministry of Education and Ministry of Higher Education



Source: Ministry of Education and Ministry of Higher Education.

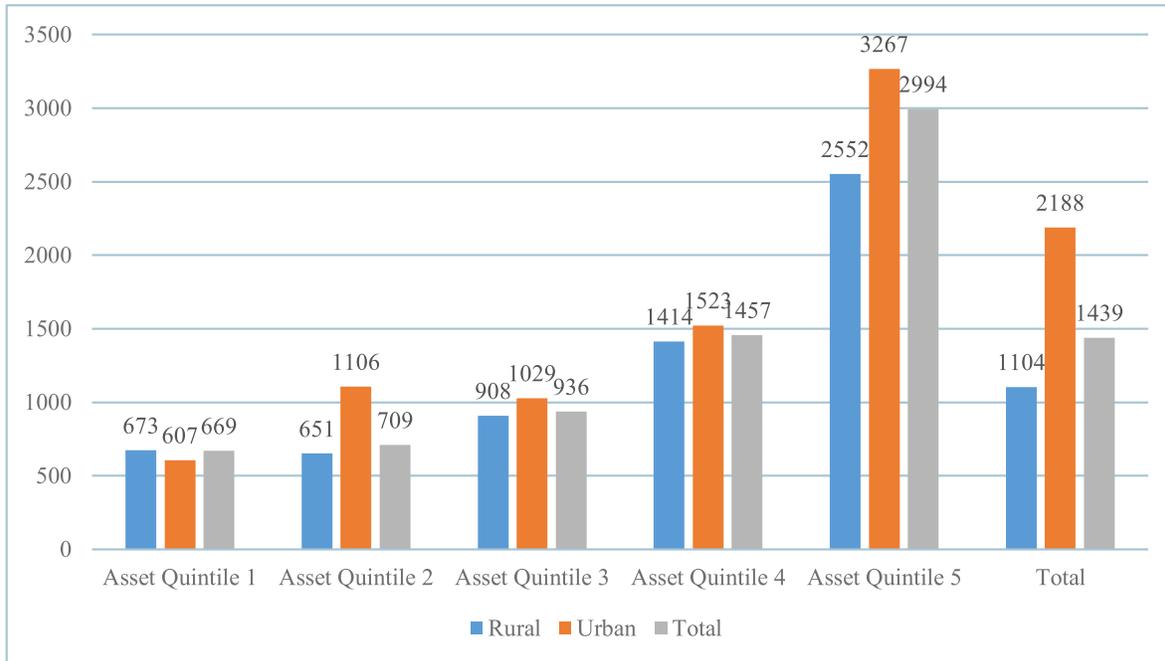
Appendix Figure 37 - Total and average out-of-pocket household expenditures per child in school going age, household average and national total, 2014



Source: Household Survey (2014).

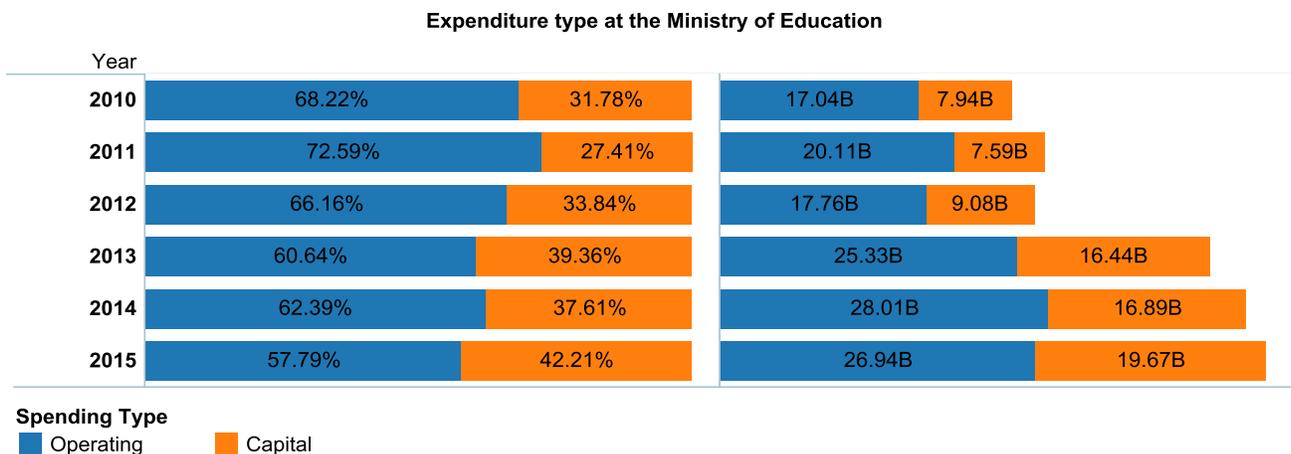


Appendix Figure 38 - Total annual household expenditure on education per member aged 6-24 year olds currently attending school



Source: NRVA (2011/12).

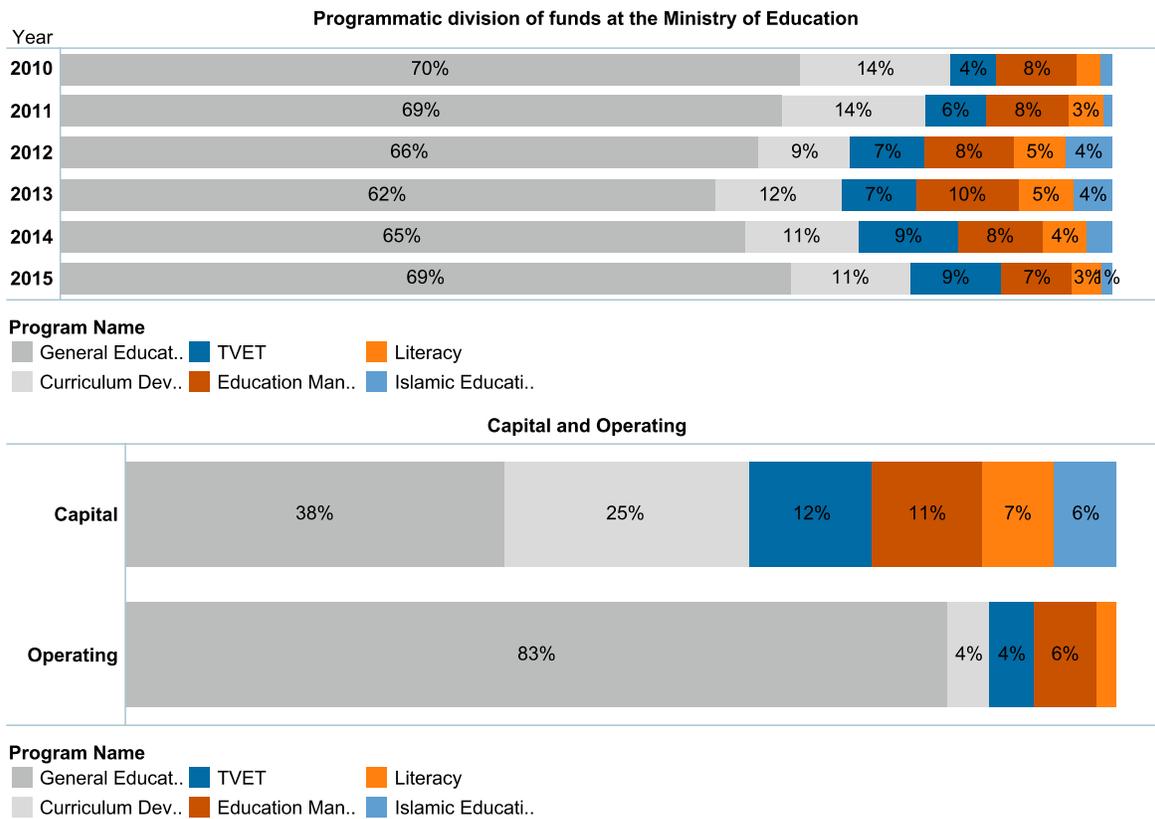
Appendix Figure 39 - Level of share of operating and capital budget at MOE, 2010 through 2015



Source: Ministry of Education.

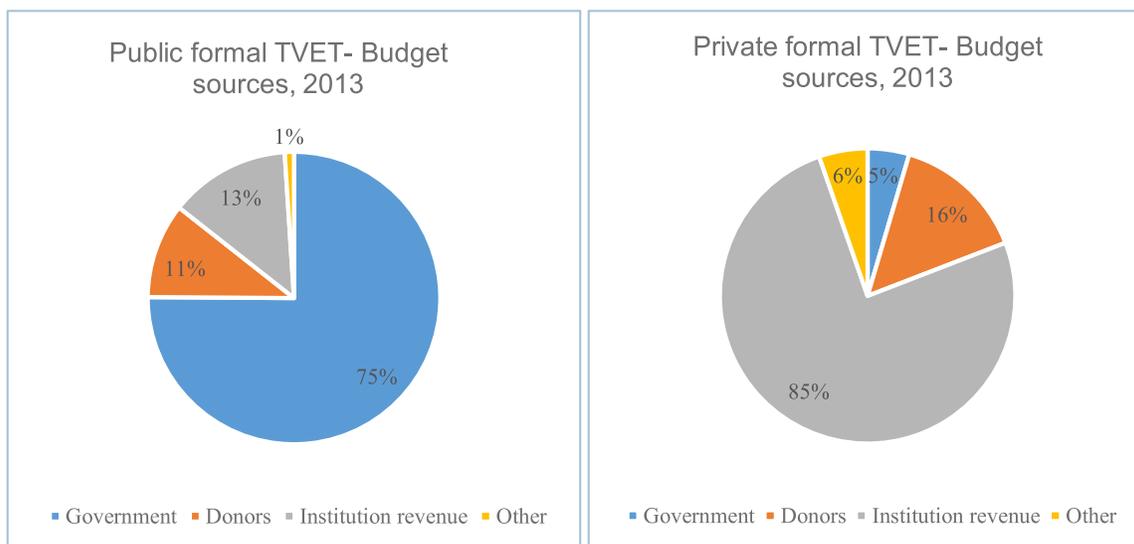


Appendix Figure 40 - Distribution of operating expenditures in MOE, 2013 through 2015



Source: Ministry of Education.

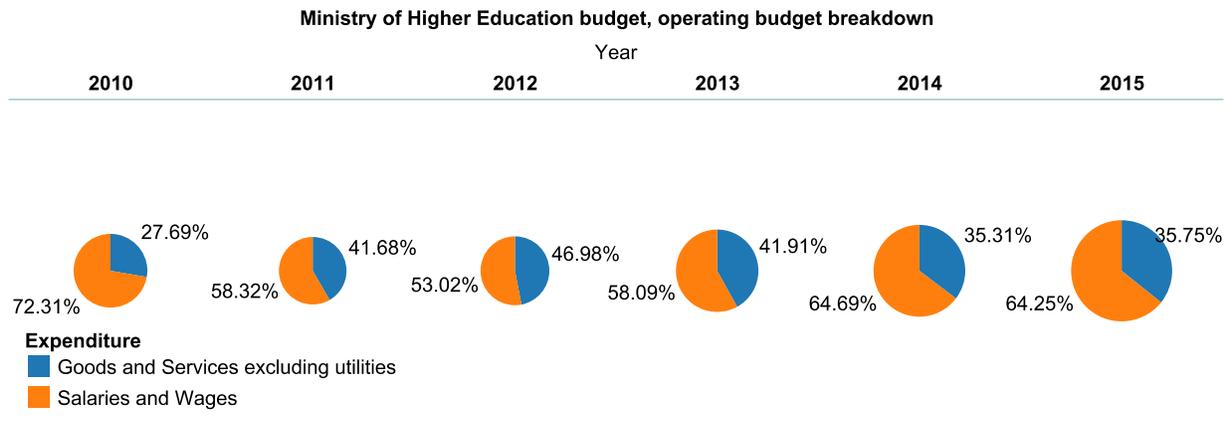
Appendix Figure 41 - Private and Public formal TVET funding sources, 2013



Source: Ministry of Education.

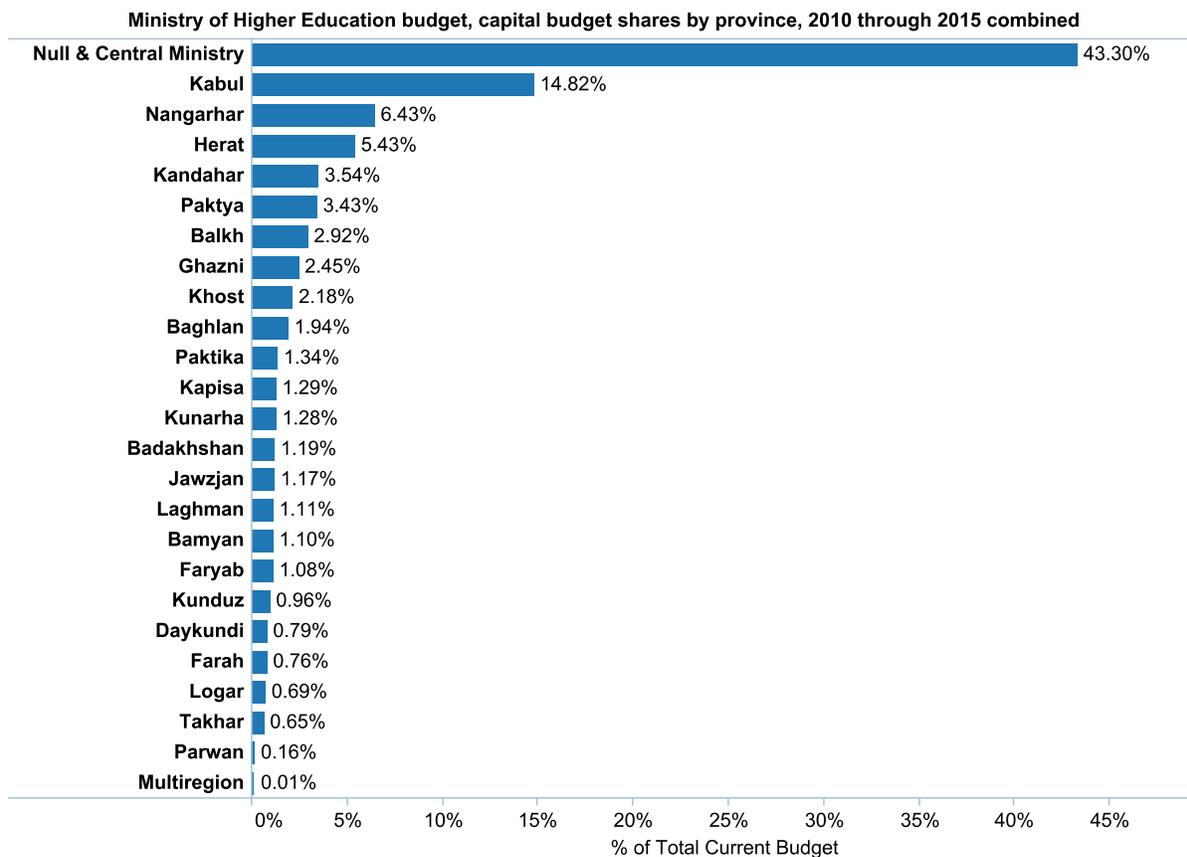


Appendix Figure 42 - MHE budget, breakdown of the operating budget, 2010 through 2015



Source: Ministry of Higher Education.

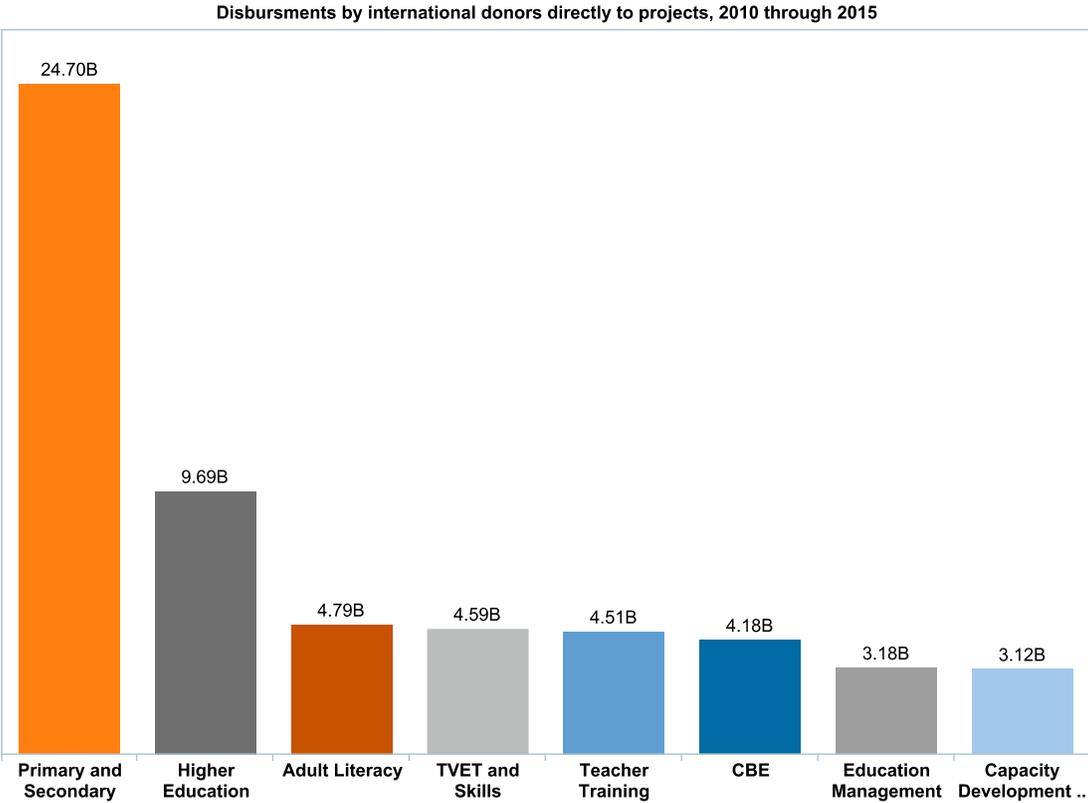
Appendix Figure 43 - Share of capital expenditures assigned to regions, averaged over 2011-2015



Source: Ministry of Education Budget Data for 2011-2015.

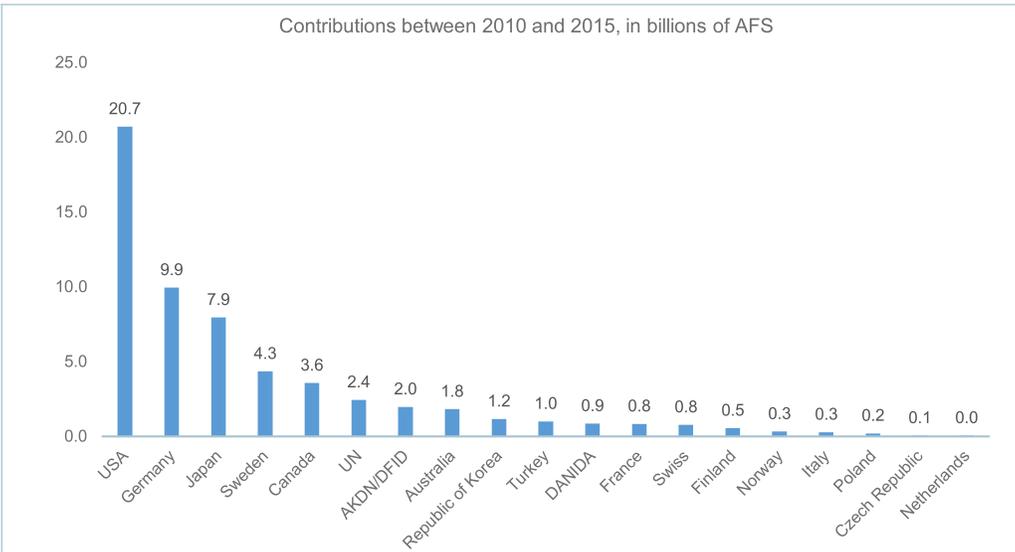


Appendix Figure 44 - Off-budget support to education projects, by subsector, 2011-2015, billions AFS



Source: Ministry of Education, Ministry of Higher Education, ODA statistics and survey of donors.

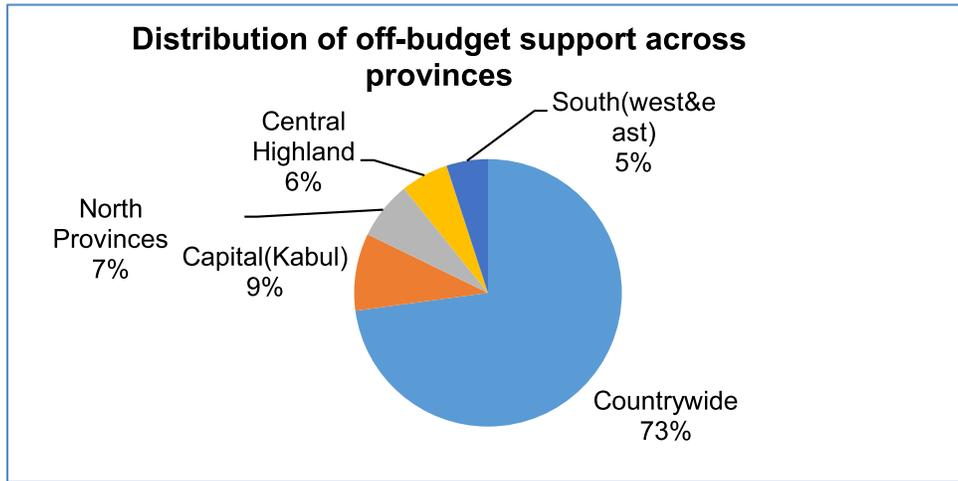
Appendix Figure 45 - Off-budget support by donors, 2011 to 2015, in billions of AFS



Source: World Bank Survey of donors (2016), Ministry of Education, Ministry of Higher Education, and ODA statistics.

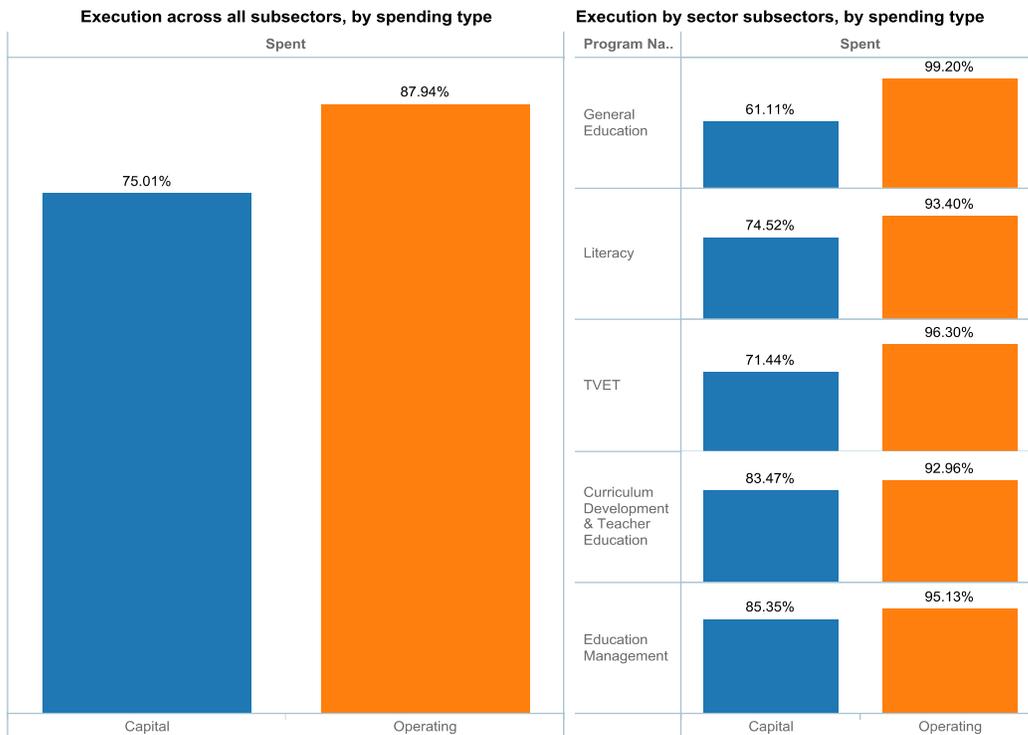


Appendix Figure 46 - Off-budget support by donors, by regional distribution



Source: OECD and donor interviews. Figure notes: central highlands include Bamyan, Daikundi in addition to Parwan and Kapisa provinces. North provinces include Faryab, Sar-e Pul, Samaangan, Baghlan, Kunduz, Takhar, Jawzjan, Balkh, Badakhshan. South (west and east) Provinces include Helmand, Kandahar, Ghazni, Logar, Wardak, Paktiya, Paktika, Laghman and Nangarhar.

Appendix Figure 47 - Budget execution, 2010 through 2015

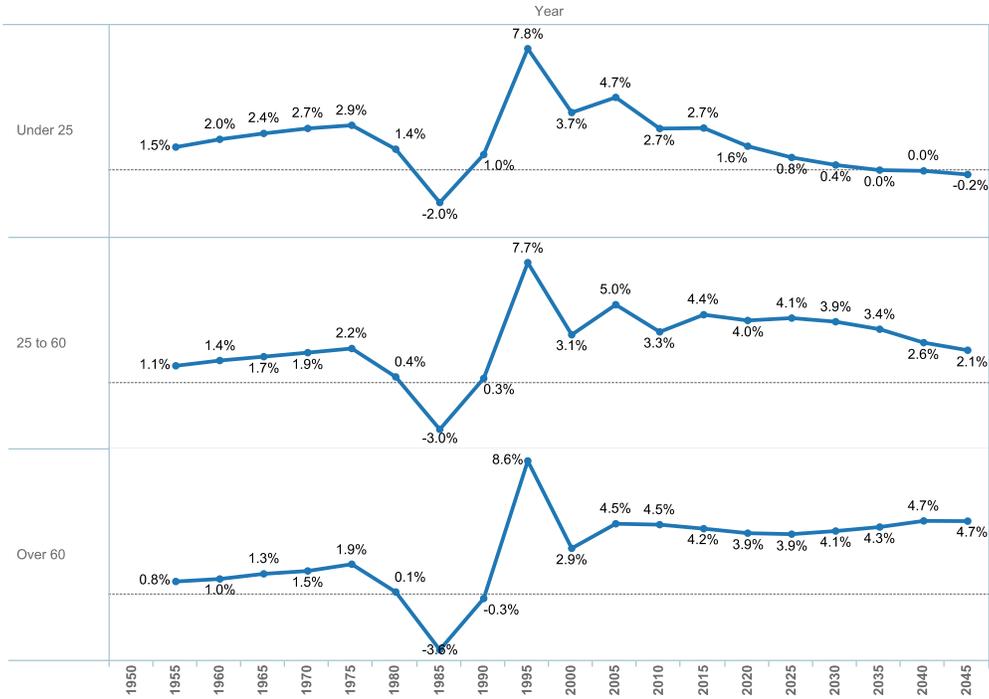


Source: Ministry of Education and Ministry of Higher Education.



Appendix Figure 48 - Estimated population growth across various age groups

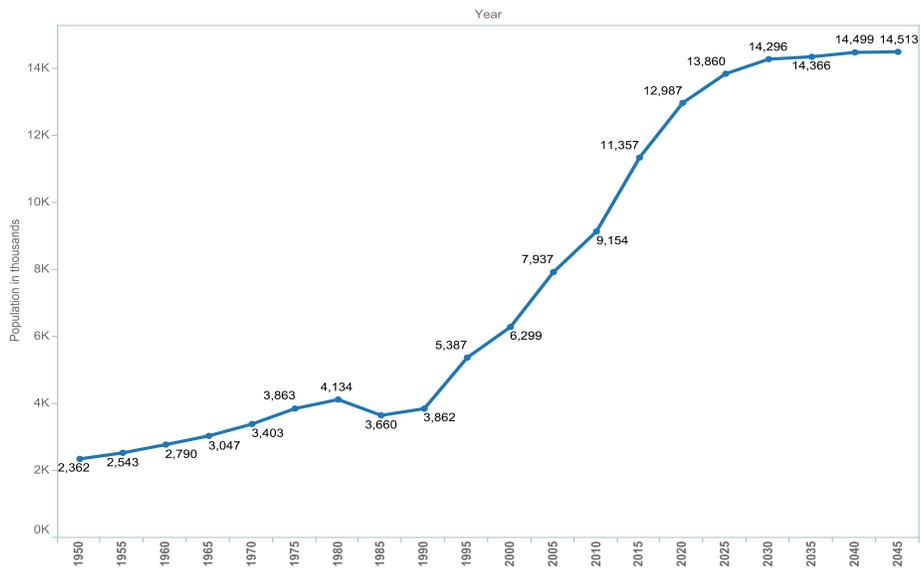
Population growth, and projections through 2045



Source: UN.

Appendix Figure 49 - Estimated population growth among 10 to 24-year-olds

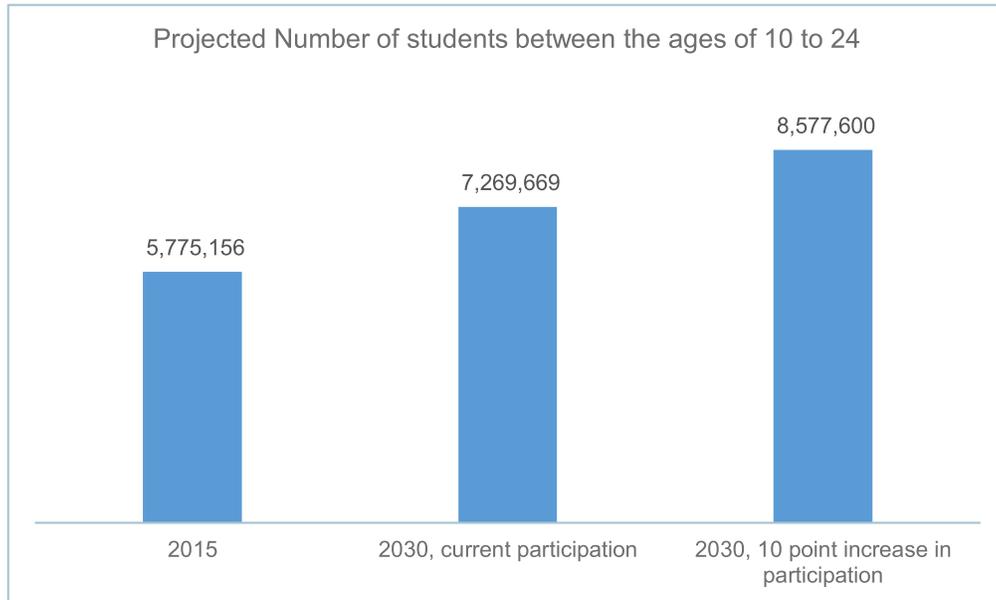
Youth population between the ages of 10 and 24



Source: UN.

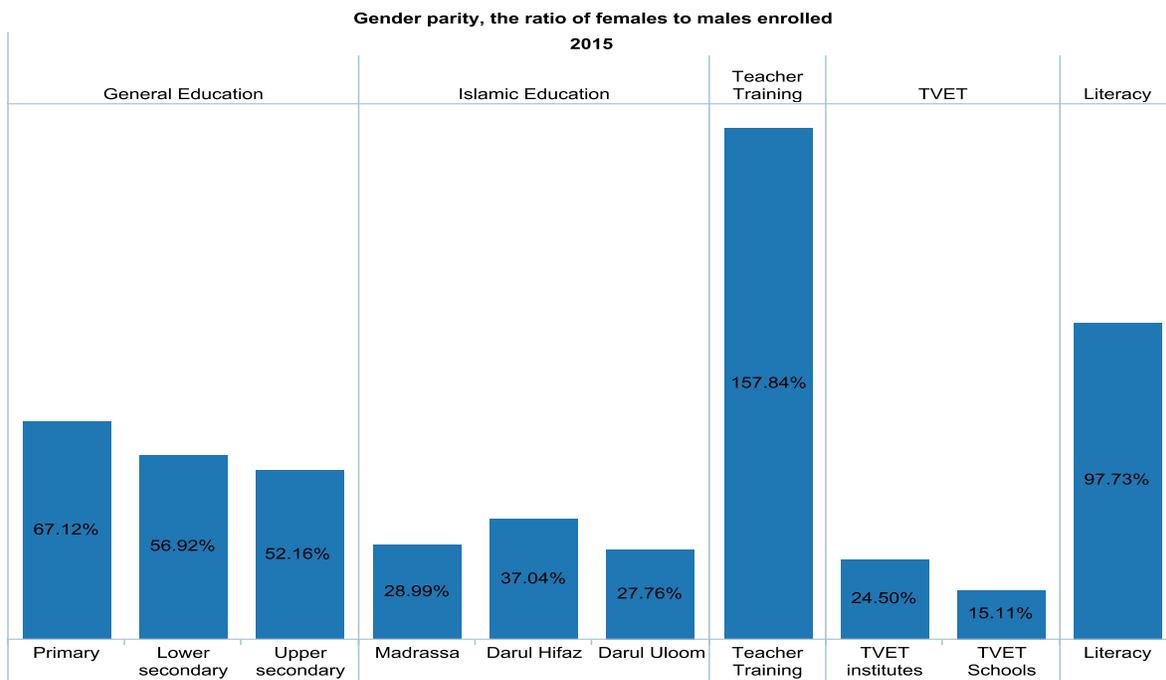


Appendix Figure 50 - Projected number of students enrolled in school, 2015 v. 2030



Source: UN population estimates and enrollment statistics.

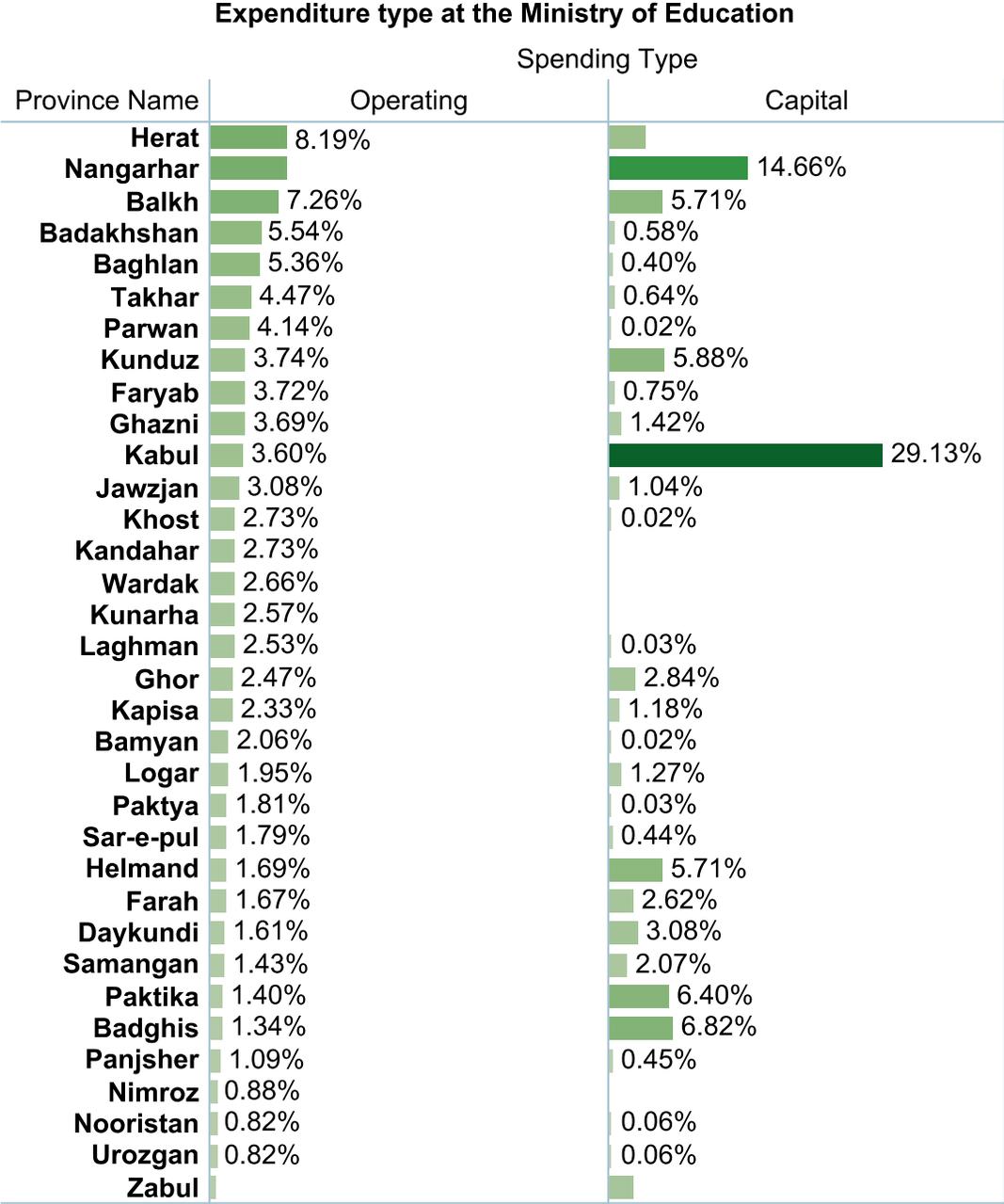
Appendix Figure 51 - Gender parity (number of female students as a share of number of male students)



Source: EMIS.



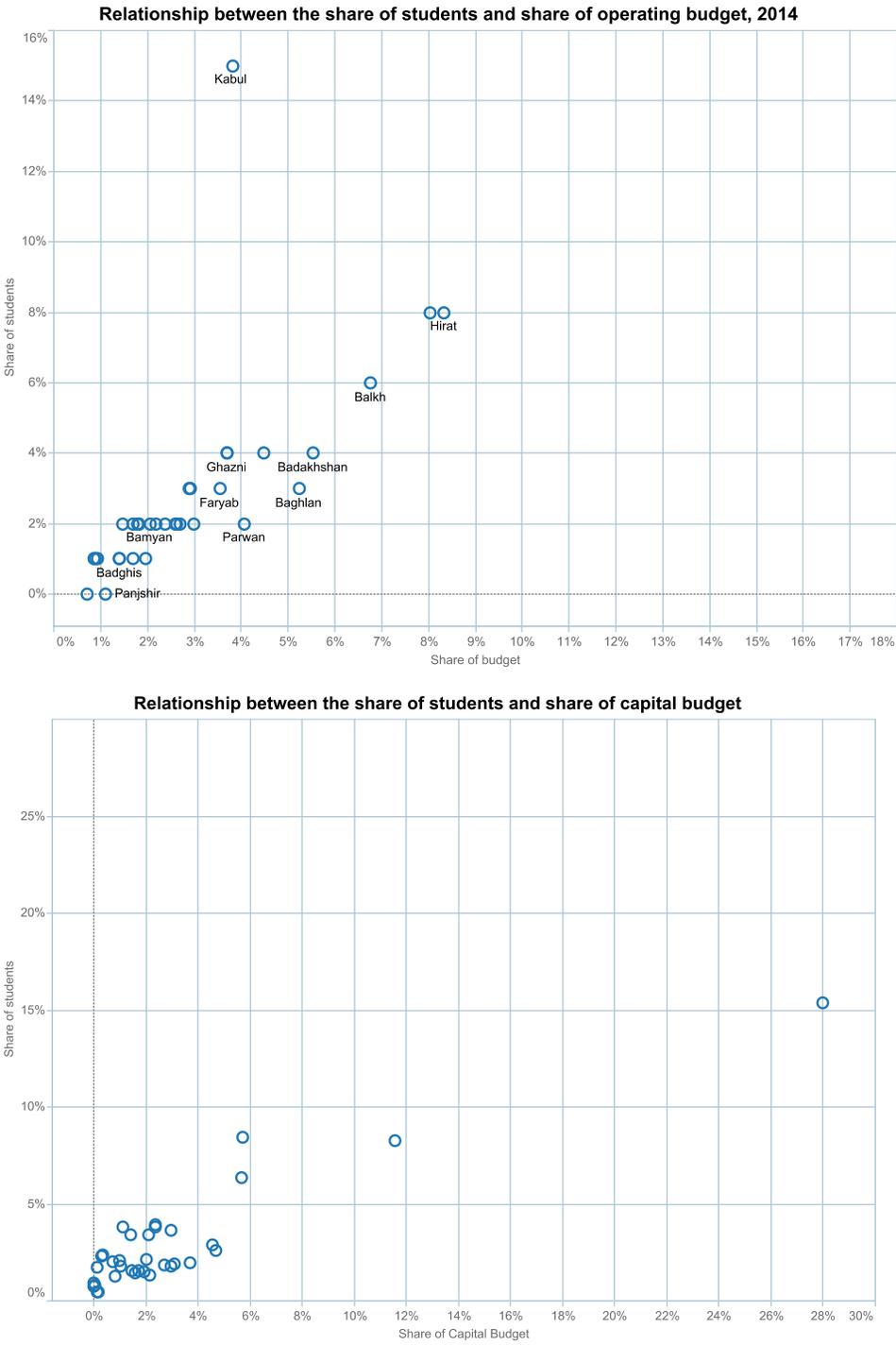
Appendix Figure 52 - Spending in a province as a share of total budget allocated to regions, by spending type, 2011-2015 average



Source: Ministry of Education.



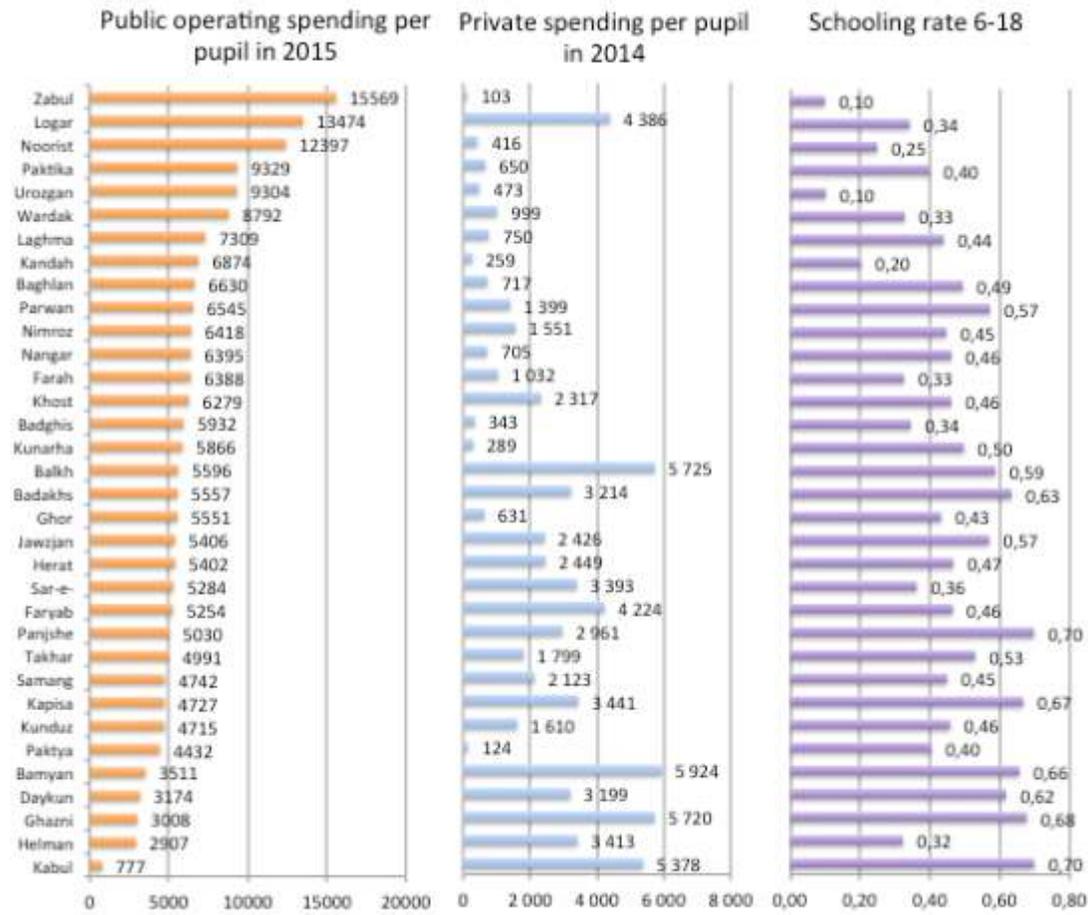
Appendix Figure 53 - Relationship between the share of enrollment and share of expenditures (operating and capital) in each province, 2014



Source: Ministry of Education and population data from the Afghanistan statistics office.



Appendix Figure 54 - Spending per pupil by province (in AFS), General Education



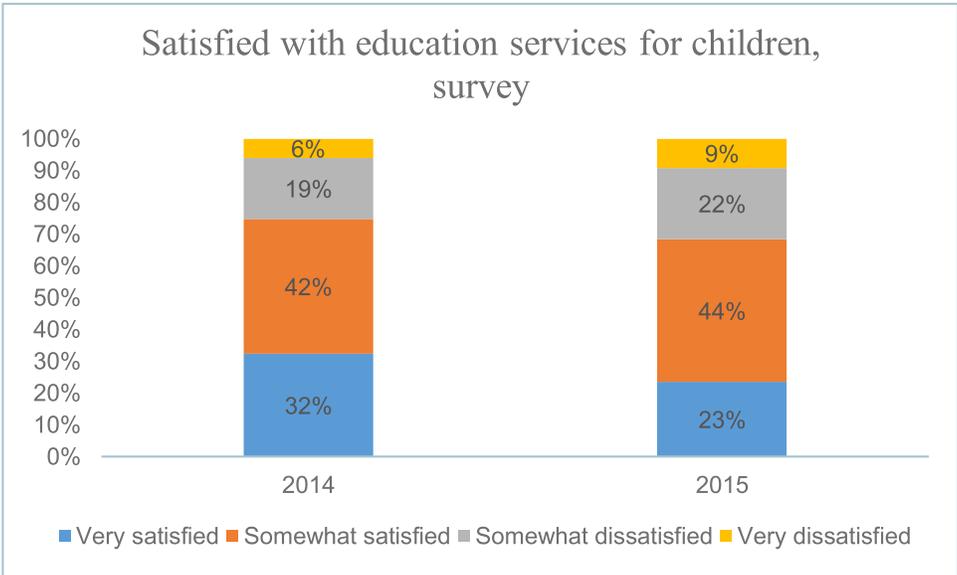
Source: Ministry of Education and Household Survey (2014).



Annex B: Satisfaction with Schools

Despite poor learning outcomes, households generally express satisfaction with schools and education services delivered by the Afghan government. An annual survey conducted by the Asia Foundation that tracks public mood and satisfaction with services shows that in 2015, 77 percent of the Afghans were either very satisfied or somewhat satisfied with the education services provided by the government, up from 74 percent in 2014 (Appendix Figure 55). A smaller share of Afghans expressed some level of dissatisfaction with education services, but among them those who were “very dissatisfied” increased from 6 percent to 9 percent from 2014 to 2015.²⁹

Appendix Figure 55 - Satisfaction with education services, 2014 and 2015



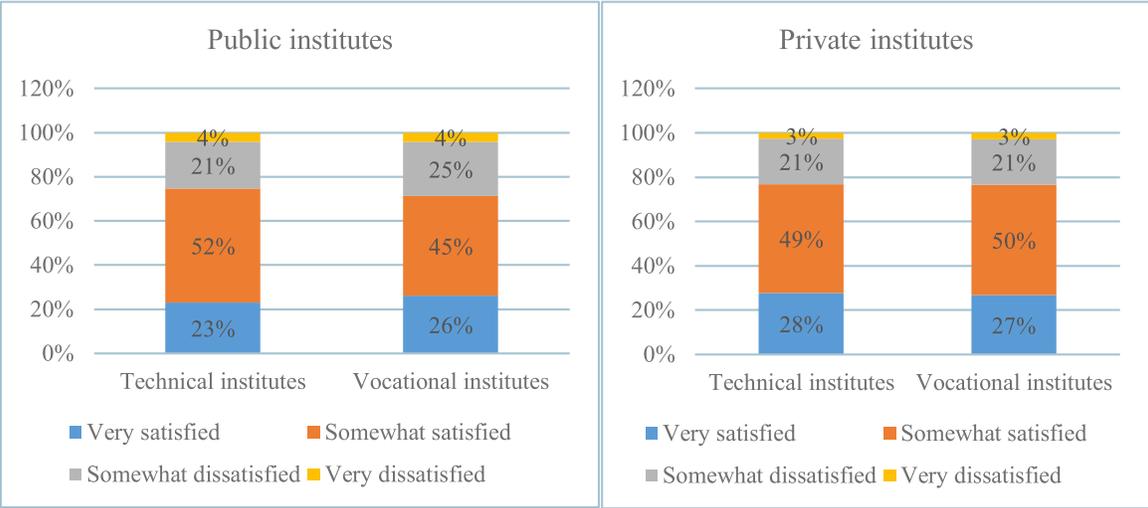
Source: Asia Foundation.

Despite satisfaction of employers with formal TVET, most employees require further on-job training. A survey conducted in 2013 among managers of local enterprises showed that the majority of them were satisfied with TVET services (Appendix Figure 56), while the share of those “very dissatisfied” was lower than 4 percent. Satisfaction with the quality of private institutes was generally higher than satisfaction with the quality of public institutes. About 73 percent of employers support their new employees with on the job training for better productivity and job relevant knowledge.

²⁹ Because of the changes in the questionnaire, it is not possible to compare the outcomes in earlier years. It is also not possible to disaggregate the satisfaction levels by parents' literacy levels.



Appendix Figure 56 - Satisfaction with Technical and Vocational Education Institutes, 2013



Source: The World Bank. Project Preparation Grant's Data on Formal TVET and Enterprises (2013).



Annex C: Budget Execution

Section I: Public Financial Management (PFM) report (2015), Improving Budget Execution Processes for Better Service Delivery.

Recommendations included short and long term one such as: Increase the efficiency of the budget execution processes through delinking payments from allotments, basing allotments on financial plans. Mandate documentation of decisions and communication between Ministry of Finance and line ministries through email or other written means. Enhance information-sharing practices by simple IT tools to share Treasury and Budget information systems data in user-friendly templates within Ministry of Finance and with line ministries. Strengthen procurement processes by providing timely notice and clarification to bidders on evaluation results, using program office staff on evaluation committee to improve technical inputs, making available alternative types of bid securities, expanding the use of media for bid advertising, and payment of interest for delays in payment to contractors. Increase transparency of the PFM process through development of a budget execution manual defining procedures for line ministries, mandating documentation of decisions and their communication, improving access to bidding documents; and increasing use of pre-bid meetings. Medium-term: Build a database for unit cost of key inputs based on historical contracts estimates and actual costs. Include a statement of expected outcomes as part of the budget documents and develop a clear accountability and responsibility framework for achieving budget objectives. Modernize the FMIS for implementation of e-Treasury and e-Budget, developing and using a functioning system to track rejections of allotments and payment requests and using online forms and approval. Establish a mechanism of grievance and redress for beneficiaries to use in case of payment delays.

Section II: WB report (2005) Managing Public Finances for Development. Report 34582. Gray cover.

Among the key priorities - both to increase the effectiveness of public spending and to reduce vulnerabilities to corruption - are a further increase in transparency (transparent allotments to service delivery units; release of annual financial statements and external audit opinions; publication of bid requests and contract awards), strengthening of the audit function (both internal and external), and drafting of procurement regulations. The PFM Law and the Procurement Law provides the legal foundation for pursuing these priorities. On this basis, capacity of line ministries (and of the private sector to participate in public procurement) will need to be enhanced (Chapter 9) and PFM responsibilities gradually devolved to line ministries; the role of the Parliament as a promoter of accountability can be developed; and, over time, more ambitious PFM reforms can be introduced.



References

1. Altai. Education Sub-National Assessment, Draft Report for Afghanistan Ministry of Education. (2015).
2. Afghanistan Research and Evaluation Unit & World Bank. The Politics of Education and Health Delivery in Afghanistan. Final Report. (2015).
3. Aslami, H. Teacher Attrition: Why Secondary School Teachers leave their profession in Afghanistan. Available at: scholarworks.umass.edu (2013). (Accessed: 5 September 2016).
4. Barber, R. No Child Left Behind: Education in Crisis in the Asia-Pacific Region. Protectingeducation.org (2014).
5. Dolan, J., Golden, A., Ndaruhutse, S, & Winthrop, R. Building effective teacher salary systems in fragile and conflict-affected states. Brookings.edu (2016). Available at: https://www.brookings.edu/wp-content/uploads/2016/06/09_CfBT_BrookingsReport.pdf. (Accessed: June 2016).
6. Glad, M. Knowledge on Fire: Attacks on Education in Afghanistan. Care.org (2009).
7. Golden, A. The Teacher salary system in Afghanistan. Educationdevelopmenttrust.com (2015). Available at: <https://www.educationdevelopmenttrust.com/~media/EDT/Reports/Research/2012/r-building-effective-teacher-salary-systems-afghan-2012.pdf>. (Accessed: 5 September 2016).
8. Hall, M. Corruption & Afghanistan's Education Sector. Reliefweb.int (2011). Available at: http://reliefweb.int/sites/reliefweb.int/files/resources/CFC_Afghanistan_Corruption_and_Education_Nov11.pdf. (Accessed: 5 September 2016).
9. Isaqzadeh, M.R. & Kabuli, S.A. National Corruption Survey 2014. Iwaweb.org (2014). Available at: http://iwaweb.org/wp-content/uploads/2016/02/national_corruption_survey_2014_english.pdf. (Accessed: 11 June 2016).
10. Kirk, J. & Winthrop, R. Meeting EFA: Afghanistan Home-Based Schools. Healingclassrooms.org (2007). Available at: http://healingclassrooms.org/downloads/IRC_Case_Study_EQUIP2.pdf. (Accessed: 29 July 2016).
11. Kirk, J. Teacher Management Issues in Fragile States: Illustrative examples from Afghanistan and Southern Sudan. Datatopics.worldbank.org (2008). Available at: <https://www.datatopics.worldbank.org/hnp/files/edstats/AFGgmrpap08.pdf>. (Accessed: 5 September 2016).
12. Lumley, T., Mendelovits, J., Stanyon, R., Turner, R. & Walker, M. Class 6 proficiency in Afghanistan 2013: Outcomes of a learning assessment of mathematical, reading and writing literacy. Research.acer.edu.au (2015). Available at: <http://research.acer.edu.au/cgi/viewcontent.cgi?article=1000&context=mtcg>. (Accessed: 30 August 2016).
13. Majeed, R. Building Trust in Government: Afghanistan's National Solidarity Program 2002-2013. Successfulsocieties.princeton.edu (2014). Available at: https://successfulsocieties.princeton.edu/sites/successfulsocieties/files/Policy_Note_ID240.pdf. (Accessed: 11 June 2016).
14. Ministry of Education. Afghanistan National EFA Review Report, 2015. 1-105 (2015).



15. Ministry of Higher Education. National Higher Education Strategic Plan, 2016 – 2020. (2016).
16. Mulkeen, A. Teachers in Anglophone Africa: Issues in Teacher Supply, Training and Management, 1-224 (2010).
17. PFM. Improving Budget Execution Processes for Better Service Delivery. (2015).
18. Rahimi, I & Redaelli, S. Afghanistan poverty status update: progress at risk. (2017). Washington, DC: The World Bank.
19. Reyes, J. & Kelcey, J. Critical Case Insights from Mali: Strengths and Opportunities for Education Reform in the Midst of Crisis (2014).
20. Samady, S. Changing Profile of Education in Afghanistan. (2013). Available at: <http://eslus.com/articles/Ed-Afghanistan.pdf>. (Accessed: June 2016).
21. Sigsgaard, M. Education and fragility in Afghanistan: A situational analysis. Unesdoc.unesco.org (2009). Available at: <http://unesdoc.unesco.org/images/0018/001840/184038e.pdf>. (Accessed: 13 September 2016).
22. UNESCO. Afghanistan Education for All 2015 National Review, unesdoc.unesco.org (2015).
23. UNICEF. Children and Women in Afghanistan: A Situation Analysis 2014. (2014).
24. Venner, M. Working Paper 5 for Afghanistan Public Expenditure Review 2010 Second Generation of Public Expenditure Reforms. Siteresources.worldbank.org (2010). Available at: <http://siteresources.worldbank.org/AFGHANISTANEXTN/Resources/305984-1264608805475/6739619-1276813833351/Paper5.pdf>. (Accessed: 8 September 2016).
25. Warren, Z. et. Al. Afghanistan in 2015: A survey of the Afghan People. Asiafoundation.org (2015). Available at: <http://asiafoundation.org/resources/pdfs/AfghanSurvey2015Infographic-Sheet.pdf>. (Accessed: 30 August 2016).
26. The World Bank. Managing Public Finances for Development. Report 34582. (2005).
27. -----. Afghanistan Systematic Country Diagnostic. 1-74 (2016).
28. -----. Education and Skills in Afghanistan. (2016).

