

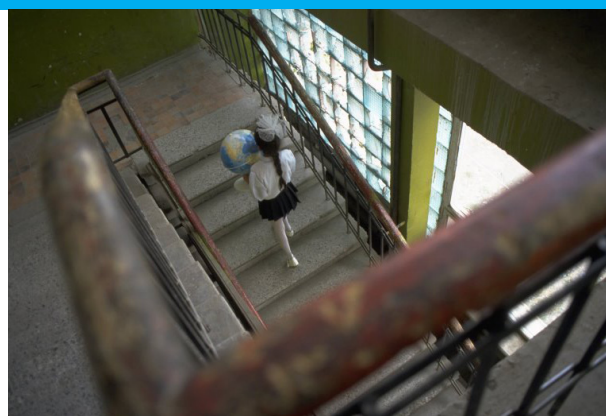
# Education in Armenia

## Context

Armenia has taken great strides in the past decade toward achieving universal primary school enrolment; however high dropout rates and low secondary school completion rates indicate that school quality remains a major challenge. Armenia is ranked second lowest on the EFA Development Index in the region of Central and Eastern Europe and the Commonwealth of Independent States (CEE/CIS), after Moldova. In order to improve its education system, significant attention is required, especially with regard to education quality and efficiency.

Armenia has the highest GNP per capita (PPP) in the Caucasus sub-region at \$4,990 USD<sup>1</sup>. The country's annual growth doubled between 2000 and 2005 from 6 to 14%, giving it one of the healthiest annual growth rates in the region<sup>2</sup>. Upward economic revitalization came as welcomed relief from the collapse of public finance that followed the post-Soviet transition and the Nagorno-Karabakh War with Azerbaijan in the early nineties. Much of the economic upturn resulted from remittances from the enormous Armenian Diaspora; the number of Armenians living outside the country – about 9 million – is about three times the population living within the country. Foreign remittances, most often from the United States and Russia, account for about 15% of the country's GDP. Armenia's borders with Azerbaijan and Turkey remain closed, which limits trade and market opportunities.

Efforts to reduce national poverty have been relatively successful, with the percentage of people living below the poverty line dropping from 56% in 1999 to 30% in 2005. Income inequality as mea-



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sured by the gini coefficient is on par with the regional average of 0.33. Yet Armenia has one of the lowest government expenditures in the region. The government only spends 2.5% of its GDP on education, which is the lowest in the CEE/CIS region.<sup>3</sup>

## Education Reform

The government has launched numerous large scale reform efforts in an attempt to improve the education system. These reform programs include the following:

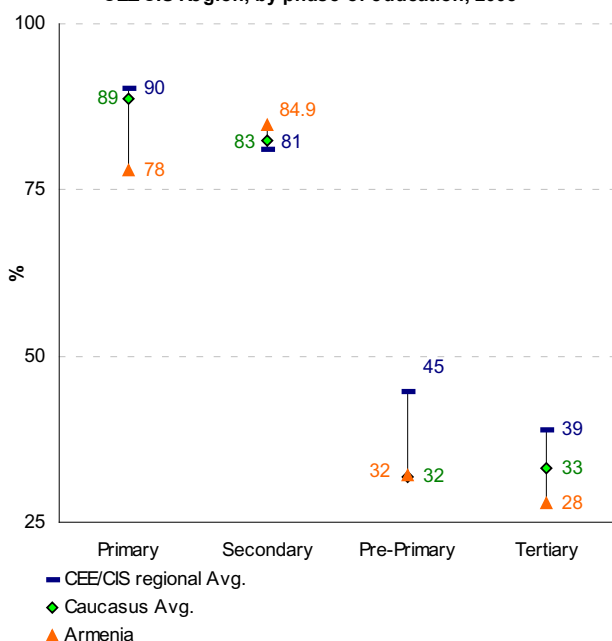
- In 2006, the government added a ninth year to compulsory schooling. According to the government's plan, the transition to the new school system will be complete by 2012.
- The MoE developed a new curriculum, which includes a mandatory life skills segment from grades 1 to 9. In 2006 State Standards for Secondary Education were developed, which laid a basis for gradual introduction of new subject standards, syllabi and textbooks.

## Box 1. Quick Facts about Education in Armenia and the Caucasus

	Armenia	Azerbaijan	Georgia	Caucasus
Total Population	3.01 m.	8.4 m.	4.5	15.91 m.
Youth Unemployment Rate	59%	21%	28%	36%
Percentage of GDP spent on Education	2.5	2.8	2.8	2.7 avg.
Net Pre-Primary School Enrolment, 2005 (Gender Parity Index (GPI) (Girls/Boys))	33, 1.16	21 (1.04)	43, 1.13	32 avg.
Net Enrolment in Primary School, 2005 (GPI)	79, 1.04	85% (.98)	93, .99	89 avg.
Net Enrolment in Secondary School, 2005 (GPI)	84, 1.03	78 (.97)	81, 1.0	81 avg.
Gross Enrolment in Tertiary Enrolment, 2005 (GPI)	28%, 1.22	15 (.90)	46, 1.04	33 avg.
Primary Student/Teacher Ratio, 2005	21	13	14	16 avg.
Out of School Children of Primary School Age (% girls)	18,000, (40)	91,000 (50)	26,000 (50)	135,000
Percentage of children involved in child labour boys, girls	x	7, 7	x	x
Number of refugees and internally displaced persons	219,620	684,292	500,000	1.4 m.
PISA Score (mathematics ((regional rank/15), reading (""), science (""))	x	476 (14), 353(14), 382 (14)	x	x
TIMSS Score (mathematics (regional rank/14), Science (regional rank/14))	478 (8), 461(13)	x	x	x
Transition rate to Secondary	98.8	99%	98.3	x
Percentage of Dropouts in Primary School (% girls), 2003	7.6	2	x	x

Source: UNESCO EFA Global Monitoring Report 2008; Innocenti Research Centre

**Figure 1: Comparing Education Net Enrolment Rates in Armenia, the Caucasus Sub-Region and the CEE/CIS Region, by phase of education, 2005**



Source: UNESCO EFA Global Monitoring Report 2008

- The MoE instituted a new large scale teacher training program, which was launched in parallel to the new curriculum;
- The government introduced ICTs for teaching and learning in the general education system;
- The government invested in improving management and efficiency of the education system with special focus on capacity development and an education management information system (EMIS);
- The government transitioned to a 12-year school structure, which urges a rapid increase in the enrolment of 5- and 6-year-old children at preschool institutions; in 2008 the Government of Armenia approved the '2008-2015 Strategic Programme on Preschool Education Reforms'.
- The MoE installed a new assessment system to help monitor educational quality and to encourage objective evaluation of students;
- The government passed the Law on Special Education in 2005 extending certain rights to disabled children;
- The government introduced a student-based funding scheme;<sup>4</sup> and,

- The government declared its intent to better enforce compulsory education laws and to ensure that all children, regardless of ethnicity, gender and income level are assured access to good quality education at all levels.

### Access

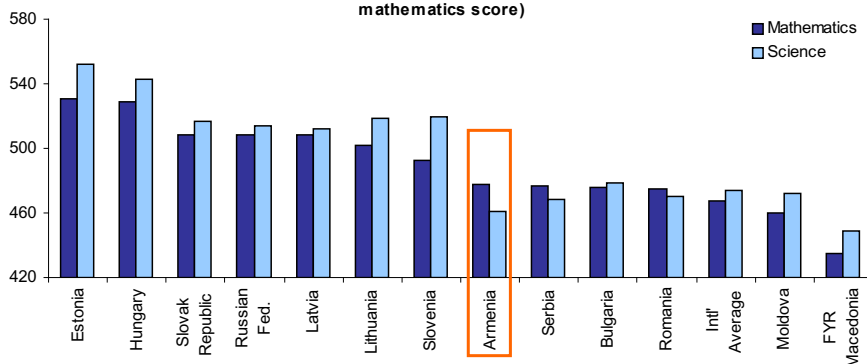
The net enrolment ratio (NER) in primary school in Armenia is 79%, which is the lowest in the region. Armenia is the only country in the region that has a secondary school NER that is higher than that of primary school. Eight-four per cent of secondary school-aged children are enrolled. However, this is the second lowest figure in the Caucasus after Georgia and in the bottom quartile for the CEE/CIS region. Like other countries in the region, Armenia maintains a low NER for early childhood education at 32%, which is about average for the sub-region.<sup>5</sup> See Figure 1.

### Equity

Severe disparities remain in both primary and secondary education in Armenia between genders, regions and income quintiles. Armenia's gender parity index is 1.04, which indicates a gender disparity in favor of girls. While gender measures are traditionally geared toward monitoring girls' access to education, in the case of Armenia the GPI shows that in fact, boys are less likely to enroll and participate in primary school at all levels; in pre-primary education there is a five percentage point difference between girls' and boys' NER (35-30%), in school four percentage points (81-77%) and in secondary school three percentage points (86-83%). Additionally, boys tend to attend school less regularly than girls achieve lower on school assessments and are more likely to drop out.

18,000 children of primary school age remain out of school in Armenia, with 60% of them being boys. One teacher reports that one reason for boys being less involved in school is because their money-making prospects are better than girls'; employment opportunities, largely in construction, for boys are immediately more appealing than the prospects that school offers. An Armenian teacher gave an example: 'one of my male students works on a minibus during the day and as a door handler during the night. He makes more money than me - a schoolteacher.'

**Figure 2: Trends in International Mathematics and Science Study (TIMSS) 2003 Results in Science and Mathematics in Armenia and the CEE/CIS Region, Grade 8 (ordered by mathematics score)**



Armenia's rural regions, especially the remote and mountainous districts, are lagging behind their urban peers in school attendance by a small margin. In primary school, rural students have a net attendance ratio of 97% while urban students have a rate of 95%. In secondary school, 91% of secondary age students in urban areas are in attendance at secondary school and only 89% of rural students. Urban children are more likely to be enrolled in pre-school.<sup>6</sup>

Another significant equity gap in educational access lies between the richest and poorest income quintiles. As a result of privatization and poor public education financing, the inequity lies in access to extra educational services meant to bolster academic achievement, e.g. tutoring, private schools and private financing. Given the poor quality of public schools, communities and parents often invest in their schools in the form of informal fees or service purchasing. The poorest children cannot afford these extras and so have access to fewer quality learning opportunities, which explains why children from the richest income quintiles are under-represented in public school enrolment figures.<sup>7</sup>

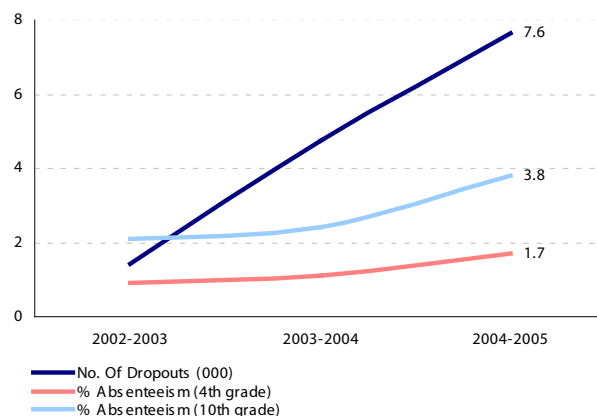
Children with disabilities, learning difficulties and disadvantages (DDD) are systematically excluded from mainstream schools. Only about 1,000 of the estimated 8,000 DDDs in Armenia are enrolled in mainstream schools. The rest are either excluded entirely or enrolled in special schools that are known to be of low quality. In 2005, the government passed a law on Special Education extending rights to DDDs however enforcement is still a challenge.

#### Educational Quality and Learning Outcomes

Learning outcomes in Armenia are as of yet not systematically monitored nationally, although the 2009 examination system is set to provide more insight on this issue. Armenia participated in TIMSS 2003. The results showed that Armenia scored just slightly above the international average in mathematics and ranked 8<sup>th</sup> out of 13 participating countries in the region. In science, Armenia scored second to last in the region just ahead of FYR Macedonia and well below the international average. Girls scored higher on TIMSS in both mathematics and science.<sup>8</sup> See Figure 2.

Armenia's major challenge with regard to learning outcomes is to improve school quality and efficiency. In a 2008 report on school wastage, data shows that Armenia's school dropout rates, which previously were considerably low for the region, are steeply on the rise, increasing by more than 250% a year over

Dropouts and Absenteeism in Armenia, 2002-2005



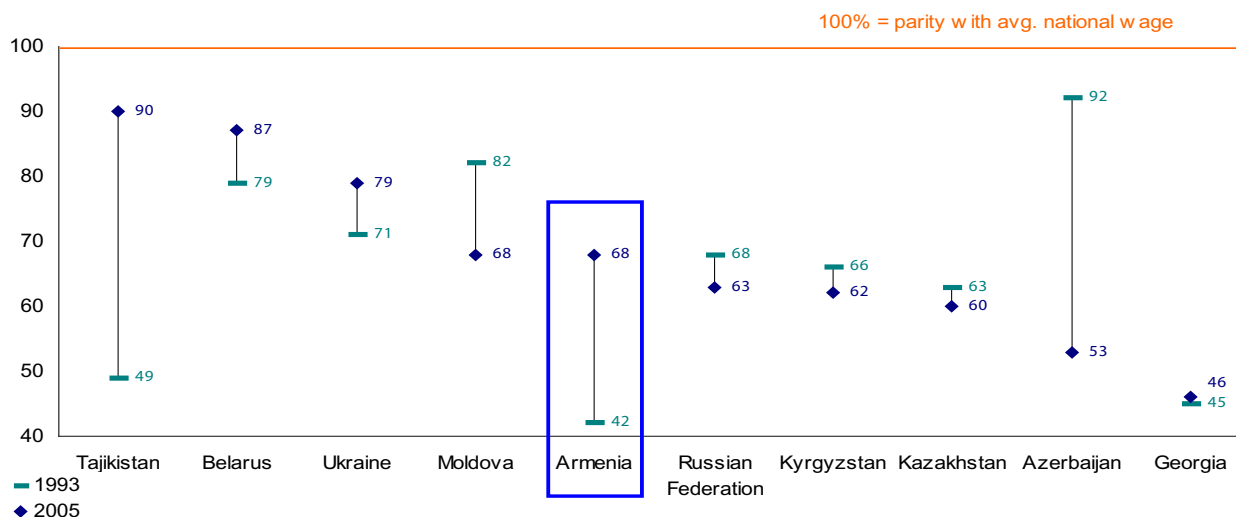
the past three years. Furthermore, rates of absenteeism, which range from around one to five per cent of school time, are also on the rise in all grades, although worsening in later grades.<sup>9</sup> See Box 1.

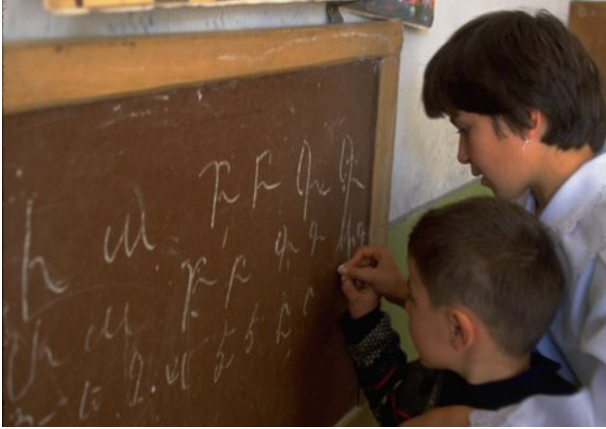
Only 77% of primary school teachers are trained professionally, which is among the lowest rates in the region. Primary schools have an average pupil/teacher ratio of 21. Repetition rates are extremely low, with only 0.1% total repeaters. However this may be the result of little to no minimum standards for moving to the next grade.

Since 2003 the government adopted the policy of gradual increase of teachers' salaries. This policy is considered as an important step for enhancing quality of education. The average monthly wages of teachers were increased by 20 percent in 2003, by 65.3 percent in 2005 and by 27 percent in 2007.

Yet the salaries remain below the average national wage. With such low wages, it is difficult for teachers to support themselves without supplemental income. This is one contributor to the rise in private tutoring, which teachers offer to make extra money. Furthermore, low salaries make it difficult for the state to retain experienced teachers and to attract new, highly-qualified staff to the teaching profession.

Figure 4: Average monthly wage in the education sector as per cent of national average wage, selected CIS countries, 1993 and 2005





### Education Financing

Armenia spends about 3% of its GNP on education, which is the third lowest in the region after Georgia and Tajikistan.<sup>10</sup> Its government allocates the national education budget directly to individual schools based on the number of students enrolled. This funding scheme began in 1999 and was reworked in 2006. Over the past decade, the government of Armenia has increasingly relied on private financing for education. By 2001, the private contributions to education equaled that of public allocations. Most schools now levy some kind of informal fee, although it is illegal to make such fees compulsory. In addition to informal fees, parents are asked to make payments for textbook rental schemes and for school supplies. Private tutoring is common – often by the child’s own teacher – and in some cases necessary to pass the exams, which drives up the price of education for all and limits access for the poorest children.

Currently teachers make about 70% of the average national wage, which is about average for the region. This rate is an improvement from 1993 when education sector staff and teachers were earning less than 50% of the national wage.

### Priority challenges in Armenian education

Armenia’s priority challenges in the eyes of UNICEF are to:

- Improve learning outcomes for all children, especially boys;
- Close the gap in educational enrolment and completion rates between boys and girls;
- Reduce student absenteeism and overall school wastage;
- Increase the national primary school net enrolment ratio and reduce the number of out of school children;
- Increase budgetary allocations to education;
- Minimize the achievement gap created by private tutoring; and,
- Support national capacity to improve children’s developmental readiness to start primary school in time, especially for marginalized children; and
- Expand inclusive education initiatives.

1 UNESCO. EFA Global Monitoring Report 2008. *Will We Make it?*  
 2 World Bank Statistics Online 2005.  
 3 UNESCO. EFA Global Monitoring Report 2008. *Will We Make it?*  
 4 UNICEF Armenia Annual Report 2007.  
 5 UNESCO EFA Global Monitoring Report 2008.  
 6 UNICEF. Childinfo.org.  
 7 UNICEF Annual Report Armenia 2007.  
 8 TIMSS 2003 Report.

### Box 1. School wastage in Armenia

A 2008 report on school wastage makes some important findings about school efficiency in Armenia. The report defines school wastage as ‘a notion of student participation in school education, student flow inefficiency and student performance within school systems where measures of student dropout, repetition, completion, attendance and academic performance are used and analyzed’. ‘In the past few years, school wastage in Armenia has become an increasingly worrisome problem, urgently inviting policy attention. Although there had been attempts made in recent years to stop the worsening situation by the government, recent data has indicated that no significant improvement has been made. In fact, the reality is getting worse. This issue remains a major challenge. The following are the major summary findings:

- **Dropouts**’ By official statistics in Armenia, dropout rates have been relatively low compared to many other developing and developed countries, but have grown at an alarming rate annually. During the years of 2002-2003, 2003-2004, and 2004-2005, total dropouts were 1,531, 4,823, and 7,630 respectively and at annual growth rate of 250% on average. There is no doubt that the current status and trend with regard to dropouts from Armenian schools are worsening.
- **Absenteeism**. ‘Based on a comprehensive analysis of a large national dataset on student absenteeism, absenteeism in Armenia is much worse than many have thought. Students in higher grades are more likely to be absent than students in lower grades and students in 2006 were more likely to be absent than students in 2004, who then were more likely to be absent than students in 2002. The worsening trends are in two ways, 1) total number of students who are absent in a given semester or year, and 2) total number of subject learning hours absentees missed in a given semester or year.
- **Academic performance**. ‘Student absenteeism in Armenia is negatively correlated with student academic performance considering other things are equal. The more absent hours students have, the worse their academic performance is. This relationship is evident at all grade levels and in all subject matters.
- **Gender Gap**. ‘Female students are less likely to be absent from schools than their male counterparts. Furthermore, female students perform better than male students. The difference is statistically significant, evident at all grade levels and in all years and all subject matters.’

Source: Hua, H. (2008). *School Wastage Study Focusing on Student Absenteeism in Armenia (Draft)*.

9 Hua, H. (2008). *School Wastage Study Focusing on Student Absenteeism in Armenia (Draft)*.  
 10 UNESCO EFA Global Monitoring Report