

The Profile of Equity in the General Education in Armenia in 2010-2016

Report of the Open Society Foundations-Armenia

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I. Executive Summary

This report aims to examine the dynamics of the profile of equity in the general school system in Armenia over the period of 2010-2016. It pursues the objective of identifying the extent to which the existing education system provides a fair and equally accessible learning environment for the general education students in Armenia. Guided by the existing evidence, the profile of equity is placed as central to understanding why different groups of students perform and achieve differently in their school education and to examining the policy measures through which the existing differences get either minimized or exacerbated. The profile of equity in the report is based on the dimensions of the equality of opportunity, outcomes and treatment (Castelli, Ragazzi and Crescentini, 2012). Through the review of the available primary and secondary data sources, these three dimensions are situated in a broader examination of growing disparities in educational access and success for the selected groups of population in the country. Two main student groups are selected for examination, based on their place of residence (i.e. urban or rural) and on their socio-economic status (i.e. poor or non-poor).

This study was guided by the following research question: **How has the situation with equity in education evolved for the following groups of students between the years of 2010-2016?**

- a. **Students living in the villages and towns in the country**
- b. **Students from socio-economically disadvantaged backgrounds**

The main argument of the report is that the existing education system in the country is not sufficiently adapted to the needs of the identified groups of students. Moreover, the recent policy changes and new measures in education are likely to have important long-term implications for the identified groups of students in fulfilling their right to education, in their access and success throughout the educational course and future life chances.

Key Findings

Despite a strong web of commitments in the main legal and policy texts of Armenia to ‘enable every citizen with an opportunity to get quality education based on their needs through lifecycles’ (Government of Armenia, 2017, pp. 5–6), noticeable policy-practice gaps have been revealed in the course of this research study. The general findings indicate that the social inequalities for the identified groups of students increase across their educational path, getting sharper at the end of the lower secondary level and skewing their chances for transition from lower to upper secondary level and beyond.

a) Opportunities and Outcomes

- Despite high gross enrollment rates for the primary and lower secondary school levels, the enrollment rates for the upper secondary level show a 10% decrease for 2010-2015.

- Strong differences in the enrollment rates get unmasked when considering the socio-economic background of the students at the upper secondary level. For the period 2010- 2015, the enrollment rates for the richest quintile of students are 1.3 times as high as those for the poorest quintile, causing higher dropouts from the main schools by the children from poorer backgrounds (UNESCO Institute of Statistics, 2017). Gender-wise, boys prevail in the primary and middle school, whereas the situation changes at the high school level, where the share of girls increases. In 2015-16, the share of boys to girls in general schools was 52.5 to 47.5 %, while at the upper secondary years the share of boys to girls turned 48.3 to 51.7%
- The share of students in high schools tends to decline. Compared to 2010, the number of high school students shows a considerable decline of 36%, compared to only 4% of decline of student numbers in comprehensive schools. At the same time, the number of students in non-state or private schools tends to rise reaching an increase of 42% over the 2010-2016.
- For 2010-2015, the completion rates for the primary school level are 100%, decreasing to 94% at middle school and dropping to 60% at upper secondary/high school level (UNESCO, 2017). At upper secondary level, over 2010-2015, the completion rate for the students from the poorest households was on average 88% for the males and 98% for the females. At the upper secondary level the completion rates for the same groups shrink to 18% for male students and 42% for female students (UNESCO, 2017).
- The completion rates vary according to the place of residence of the students. Between 2010-2015, the location parity index¹ dropped from 1 at primary school level to 0.98 at lower secondary level and down to 0.56 at upper secondary, which shows a big discrepancy in the completion rates of children in urban and rural locations (UNESCO, 2017).
- A steady decline in the proficiency of students as they progress from lower to upper secondary level is recorded. Since 2009-2010, the rate of the students at the final year of school with excellent scores has dropped down from 15.1%, reaching 4% in 2010-2011 and 4.7% in 2014-2015.
- There is a strong link between the achievement level of students and their family background. The share of students with excellent scores from the impoverished families is 34.3% compared to that of 42.8% of children from more affluent backgrounds. The trend appears to remain constant as students transition from primary to upper secondary levels, and tends to worsen.

¹ Location parity index is the ratio of completion rate of students living in rural areas to that of their urban counterparts. Location parity index less than 1 indicates disparity in favour of those living in the urban areas and more than 1 indicates disparity in favour of those in rural areas.

- Despite pretty high gross enrollment rate in higher education (51% in 2016), the participation rates based on the family financial characteristics and geographical location suggest that the transition chances into tertiary level for the economically poor population appear to be skewed (PL4SD, 2015). The relative equity gap between the poor and non-poor groups continues to exist and grows bigger. Over 2010-2015, the enrollment rate for the non-poor families was 44%, compared to 25% for the poor and 10% for the extremely poor (PL4SD, 2015).
- The chances for the transition into tertiary for the children from socio-economically vulnerable families get further skewed both in terms of their academic preparation necessary for the university exams and their financial barriers to supplementary tutoring. The findings of the study suggest a correlation between the family wealth and the intention to pursue the studies to tertiary level (84.2% of well-off families, cf. with the 51% of non-rich). The number is also higher among urban parents (64.2%), compared to rural parents (54.7%).
- The subjects in which students are tutored most are foreign language (33.6%), mathematics (20.7) and the Armenian language (16.6). These subjects have the highest number of instructional hours in schools.
- The majority of the surveyed university students were privately tutored for their entrance exams (86.1%). The number of those who were tutored in three subjects rose from 33.7 in 2013 to 44% in 2016. The majority of the students were tutored in 3 subjects, namely, the Armenian language (28%), foreign language (22.5%) and mathematics (17.1%). The share of the students who were admitted without tutoring is higher in the rural areas (15.4% in villages, 17% in regional centers and towns) as compared to Yerevan (7.9%).

b) Equality of Treatment

- There is a considerable improvement in strict attitudes towards certain behaviors: in 2010, 68% of the teachers reported being stricter towards girls in terms of how they dress, down to about 32% in 2017. Similarly, in 2010, 9% of the teachers were more demanding in terms of the girls' achievement, in 2017, this percentage declined almost thrice (to 2.9 %).
- In 2017, the teacher surveys suggest that teachers instill in female students patience, modesty, and tolerance, as opposed to instilling boldness among male students. This was a continuing trend since 2010. In 2017, 91% and 85% of the teachers, respectively, considered it obligatory to instill qualities of modesty and patience for girls, compared to just 37 and 57% for boys. On the other hand, instilling boldness in boys was considered obligatory by 81% of the teachers, compared to just 51% in case of girls.

- Teachers' perceptions show gendered differences in the choice of study fields for their students. Heavy physical work (for 93.8 % of the surveyed teachers), technical professions (for 68% of teachers), agriculture (56%), sports (30.2%) are predominantly associated with men. Humanities are perceived typical of women for 66% of teachers. 85.7% and 89.5%, respectively, of the surveyed teachers believe science and arts to be typical of both women and men. However, science was more frequently thought of as a professional field typical of men (12.5%) and arts for women (7.3%).
- The majority of the surveyed teachers pointed out national traditions (39%) and peculiarities of education (29.9%) as causes for inequality. About 20 % of the surveyed teachers mention the inequality between women and men due to their physiological or intellectual peculiarities.

Key Recommendations

For national policy makers and policy developers

1. Initiate and maintain rigorous data collection of the social and economic backgrounds of the student population, including, but not limited to their (and their family) poverty status, gender, age, residence status, disability and other. Ensure consistent and persistent monitoring of the collected data that would enable evidence-based interventions and policies.
2. Improve access to all levels and types of educational opportunities for the underrepresented groups, groups at risk (factoring in the place of residence, socio-economic status, gender).
3. Review the policies and strategies directed at the upper secondary level, targeting the high schools in particular. This will include removing the institutional barriers, restructuring the curricula and learning materials.
4. Guarantee equally accessible and quality upper secondary level schooling for the children at all comprehensive and stand-alone high schools in the country, ensuring that individual and social circumstances are not an obstacle to achieving their educational potential
5. Ensure that equal and equitable conditions for teaching and learning are available for all schools and that all groups of students have equal opportunities to master high learning standards. This will mean that policy initiatives do not target a selected number of schools developed as 'excellence centers' to the detriment of lower-resourced schools.
6. Strengthen the links between the local community and schools to assist the disadvantaged parents and their children in fulfilling their right to education
7. Increase the share of the public spending as estimated in the education sector development strategies and underpinned by the UN SDG 2030 commitments.
8. Revise the current mechanism of financing of public schools, which will ensure greater distribution of the educational funds to the disadvantaged schools based on the assessed needs

of the schools. Include the provision of a differentiated funding system so that the individual needs for education of the children are met in all schools in the country irrespective of their location and student population.

9. Maintain the principles of efficiency, transparency and accountability in the allocation of financial and institutional resources from the public budget so that they address the equally accessible and quality 12-year free schooling for all.
10. Hold regular wide public consultations with the key stakeholders to ensure the equity measures are adequately evaluated, monitored and addressed.
11. Provide gender-sensitive training for teachers and school staff ensuring the teachers and the school staff are able to teach in gender-free methods and expose both sexes to a wide range of instructional styles and careers;
12. Revise the content of the schools textbooks to enhance gender mainstreaming throughout the learning cycles.

Recommendations for the international organizations active in education policies in Armenia

1. Include principles of conditionality for the state-parties to incorporate their obligations under international conventions into the domestic legal frameworks and to acknowledge the policy-practice gaps in their implementation.
2. Ensure the regulatory framework for the public education system is grounded in the principle of equity and equality as an essential precondition for the establishment of country partnership programs and initiatives.
3. Integrate a gender perspective in the programs and initiatives relating to education so that the gender disparities are eliminated at all levels of education.
4. Ensure effective implementation of the existing mechanisms for the advancement of the principles of equity in education.
5. Foster an active engagement of civil society in protecting the right to education for all, promoting increased understanding of the inequities in education among relevant stakeholders.

II. Introduction

This study attempts to examine the challenges of equity in general school system in Armenia. It is part of the broader study commissioned by the Open Society Foundations-Armenia in 2016-2017 and collectively carried out by a number of organizations and individuals. The main sociological study was led by Dr. Yulia Ghazaryan, Yerevan State University, the baseline data on the schools were collected by the Community Finance Officers Association (CFOA) in consultation with international expert Dr. Koen Geven. The main report was drafted by the OSFA education team, namely, Ms. Lilit Nazaryan and Mr. Alen Shadunts. The final report was edited by an independent expert Ms. Anna Gevorgyan in consultation with the Foundation's education team. For the detailed methodology see the Appendix.

The report examines the dynamics of the profile of equity in the general school system in Armenia over the period of 2010-2016. The need to examine broader equity dimensions systemically for the Foundation builds on a growing body of evidence pointing at significant differences in the students' access to and success in education associated with their socio-economic situation, place of residence, as well as gender. For instance, in their analysis of the general education reforms, Khachatryan et al. (2013) contend that students from the socially disadvantaged homes, as compared to their wealthier peers, are more likely to perform worse in school. According to the authors, there is a significant gap in the outcomes of children from poor and non-poor families, as measured by the international assessments (such as TIMSS). Children from poorer households also tend drop out of school more frequently, especially after the middle school years.

Growing trends in the poverty-based school performance are observed in the study on Access to School Education. The report concludes that there is strong link between the outcomes of schoolchildren and their socio-economic status, with children from poorer households having lower performance at school (Turpanjian Center for Policy Analysis, 2012).

The concern with the regional and income-based inequalities is also raised in the review of the policies for social dimension in higher education by the Peer Learning for Social Dimension project team, a European initiative for policy makers and practitioners to develop social dimension in the countries. The report argues that income-based inequalities are becoming determinant for the educational and life chances of the vulnerable population (PL4SD, 2015). It points at the current structure of the upper-secondary level for the students as one of the determinant factors affecting their chances for the transition to the tertiary level.

Similar findings are reported by the Advanced Social Technologies think tank. In their review of policies of access to higher education in Armenia, they report large discrepancies in access for the

students from the richest and the poorest quintiles. They conclude that such disproportion is largely determined by the ‘combined effect of unequal access to the high quality upper secondary level’ and suggest that the core of the causes is the ‘absence of the pro-poor policies’ (AST, 2012).

The studies contend that the growing inequities are becoming alarming in enabling different groups of population to fulfill their right to education. They argue that despite a decade of targeted reforms in education in Armenia with the purpose to provide equally accessible and quality education for all, the lack of access to quality education for all continues to be a cause for serious concern.

Guided by the existing evidence, the Foundation has placed the profile of equity as central to understanding why different groups of students perform and achieve differently in their school education and to examining the policy measures through which the existing differences get either minimized or exacerbated.

The **goal** of this report is to analyze the situation with equity in Armenia. Specifically, it aims to examine the dynamics of the equity situation over the period of 2010-2016 in the general school level in Armenia. It pursues the objective of identifying the extent to which the existing education system in Armenia provides a fair and equally accessible learning environment for the general education students in Armenia. For the purposes of the study, the dynamics of the equity was mainly examined for two main student groups, based on their place of residence (i.e. urban or rural) and based on their socio-economic status (i.e. poor or non-poor). The focus on these groups has been guided by the evidence for the skewed chances for access to education and performance for these groups of students, and by the argument that the existing state policies tend to exacerbate the existing differences among these groups.

Hence, this study seeks to answer the following research question: **How has the situation with equity in education evolved for the following groups of students between the years of 2010-2016?**

- a. Students living in the villages and towns in the country**
- b. Students from socio-economically disadvantaged backgrounds**

The main argument of the report is that the existing education system in the country is not sufficiently adapted to the needs of the identified groups of students. Moreover, the recent policy changes and new measures in education are likely to have important long-term implications for the identified groups of students in fulfilling their right to education, in their access and success throughout the educational course and future life chances.

The report has the following structure. Following the Executive Summary, the Introduction provides the scope and rationale for this report, sets out the goals and the main research question. It

also provides for the conceptual framework for the term of equity and its dimensions selected for this review. Section III discusses the main policies affecting the equity situation in the country. Section IV discusses the results of the study according to the selected dimensions of equity, namely, that of opportunity, outcomes and treatment. The concluding section sets forth recommendations for the national policy makers and international actors with active policies in the country. Additional information regarding data for the school system and a review of the legal frameworks is laid out in the Appendix to this report. The Appendix also includes details on the methodology and lists of tables and figures.

Defining equity

Equity is a broad term and there seems to be no single approach to its definition and ways to measure. The standard definition of equity is ‘the quality of being equal and fair’ and ‘that which is fair and right’ (Oxford English Dictionary 2007). The literature offers a number of debates about what it entails. Some authors differentiate between horizontal equity, an examination of disparities in access to education and resources for education in the country; and educational opportunity, an examination of the relationship between wealth and the provision of access and resources (Press, 2008). Others propose a classification of equity as equal opportunities for all, equal treatment and equal results. Some others construct equity as opportunity, access, treatment and results. The documents of the international organizations focus on equity as inclusion and fairness (e.g. OECD) and equity in learning opportunities and education results (e.g. UNESCO).

The Education Equity Initiative defines equity as ‘a reassessment and redistribution of resources (human, institutional, and financial) in education with the goal of reducing or eliminating systematic inequality in outcomes’ (Education Equity Research Initiative, 2016). By focusing the concept of equity at the input level, it relates to equity as a ‘path to achieving equality’, the latter being defined as ‘a disparity in educational outcomes, including school access, retention and progression, and learning’.

The debate about equality and equity in education is ongoing and appears to rest on the principle that equity is not only about providing opportunities, but also relates to the actual results of educational choices and performances of diverse groups of students in the education system. It embraces the concern that students are different along several dimensions that can impact their need for learning. It is not simply about providing equal distribution of educational resources, but also that individual need for education may vary due to individual differences among students and in learning resources obtained through family, formal and informal environments.

For the purposes of this report, the concept of equity, and its main principle of fairness is based on the following dimensions (Castelli, Ragazzi and Crescentini, 2012):

- The equality of opportunity, which refers to the idea that opportunity in education includes multiple factors, such as student background (resources, well-being, parental support, health, cultural background);
- The equality of outcomes involving the possibility of differentiated results of disadvantaged groups;
- The equality of treatment, referring to the avoidance of possible forms and mechanisms of discrimination in the education sector, either explicit or implicit.

Through these dimensions, the concept of equity adheres to the fundamental principle that education is a basic human right and therefore is not limited simply to the concept of equality. It builds on the concept of equality, but also incorporates the concepts of efficiency and quality, irrespective of the external factors of inequality (geographical origin, socio-economic origin). Therefore, the fair distribution of educational assets must be safeguarded, meaning that the lack of equity in the education system could lead to deprivation of opportunities for choice (Castelli, Ragazzi and Crescentini, 2012).

III. Country policies affecting equity

In what follows, policies affecting the profile of equity in the Armenian education system will be discussed, which are argued to have long-term implications for the inequities in the education system in the country. Two of these policies are discussed in relation to the projects supported by the two major transnational corporations active in educational reforms in Armenia, namely, the World Bank and the Asian Development Bank. The third policy initiative is a state-supported National Program for Excellence in Education.

The primary concern with the mechanisms affecting the profile of equity in education in the country came to be associated with the large donor-supported educational reforms, supported by the **World Bank Group**. Since 1998, the country assistance from the World Bank (IDA and IBRD) has been implemented upon the request of the government of the country. The first project, Education Financing and Management Reform Project (1998-2002, 15 million USD credit) focused on restructures in governance, financing and administration in the schools in Armenia. The next two projects, the Education Quality and Relevance Project (2004-2009, 19 million USD credit), the Second Education Quality and Relevance Project (2009-2015, 25 million USD credit) focused on the content developments, in addition to structural measures, such as the development of the national curriculum, development of knowledge and assessment procedures, teacher training. The fourth project, Education Improvement Project (2014-2019, 30 million USD credit) included objectives, such as improvement to

quality in all levels of education, support to tertiary education, improvement of the physical conditions of upper secondary level schools .

Pertinent to this study, the priorities set in the active Education Improvement Project (2015-2019) have been viewed by the Foundation as rather concerning. According to the Project Appraisal Document, the component of the ‘improvement of the physical conditions of upper secondary level schools’ targeted only the rehabilitation and renovation of approximately 17 high schools across the country , with the estimated cost of 22 million of USD (The World Bank Armenia, 2014). According to the PAD, this took up 80% of the total credit worth of 30 million USD. While the enhancement of the schools in the country was indeed a necessary initiative, the mechanism of its operationalisation appeared to raise serious concerns. Firstly, the objective of the PAD component on ‘enhancement of upper secondary schools’ was reduced to the selection of only stand-alone high schools, whereas upper secondary level could also include the final grades of the 12-year comprehensive schools. Secondly, the selection of the high schools meant that only schools in urban areas would be enhanced, which meant disadvantaging the students in the rural areas, both in terms of human and physical resources. Thirdly, according to the official data, the selection of the 17 schools in reality meant targeting only 16% of all public high schools of Armenia, whereas the estimated number of schools that needed renovation in Armenia in 2015 was estimated to be 675. According to the EIP Implementation and Status Report, the allocation of the funding has been successful for the selected 5 high schools, while the finalization of the remaining 12 schools is underway upon the government approval in 2018 (The World Bank Armenia, 2017a). The selection of these schools, however, does not seem to be a straightforward process and some media investigations have been done, according to which serious violations were documented in the ways the tenders have been done for the 5 high schools and the EIP component been suspended (Madatyan, 2017). While acknowledging the importance of the donor-funded resources in the rehabilitation process of the schools in Armenia, the review of the strategies under EIP suggests that targeting 5, and at best 17, high schools has been a fairly reductionist approach towards public funding to schools.

In fact, in the 2017 Country Portfolio document the selected priorities for this component are ‘packaged’ as ‘addressing the challenge of sustaining and extending the accomplishments in general secondary education, meantime, addressing equity and quality concerns in both preschool, general, and higher education’ (The World Bank Armenia, 2017b). According to the document, the current project of EIP builds upon the continued investment in education that ‘has been aimed at the reduction of poverty by increasing access to and improving the quality of general secondary education’. The proclaimed approach to increasing equity correlates with the justification for the investment in the enhancement of the high schools. According to the PAD, the enhancement of the high schools will

have ‘an important impact on equity’ which, according to the Bank’s logic, will result in better graduation rates and transitions into tertiary level at the end of the high schools, repetition and dropout rates will decline. These predictions, as will be discussed later in the analysis of findings of this study, appear to go against the growing evidence that the enrollment in high schools is declining, causing higher dropouts of students, particularly for the vulnerable population. Moreover, the logic of investment in infrastructure *only*, without addressing other dimensions of quality and equity at system level, seems to go against a body of research arguing that the provision of resources per se does not guarantee the quality of schooling and does not necessarily lead to the improvement of student outcomes and performance (e.g.Hanushek and Woessmann, 2010).

The concept of the quality in education comes up in the strategic country documents of the **Asian Development Bank** as well. An overview of the country partnership strategy of the Asian Development Bank for 2018-2020 shows that the key assistance of the ADB is directed at the secondary education development. Targeting at the outcome framed as ‘increased efficiency and quality of the education system’, the resources of the Bank, worth of 30 million USD, are allocated to support the improvement and renovation of the seismic-resilient schools in Armenia. Some 46 schools are to be selected for the resource allocation, out of 1000 estimated as needing strengthening and renovation (ADB, 2017). A couple of issues may be highlighted at the initial stage of this program. One refers to the narrow conceptualization of quality of the education system and the way it is reduced to one dimension of quality, which is the improvement of the learning environment in the schools around Armenia, while the key outcome component states a rather ambitious plan to improve quality of the education system. The second issue may be the selection of the 46 schools against the 1000 that have been estimated as risky. At the moment of compiling this report, there is no information as to how the program will ensure the selection of these schools and to what extent it will build upon the previous/current project of the World Bank’s Education Improvement Plan 2014-2019.

The third policy initiative that may have repercussions for the social inequalities in the country relates to the operationalisation of **the National Program of Excellence in Education 2015-2023** (NPEE), a nationwide educational program initiated by the Ayb Educational Foundation and implemented with the Ministry of Education and Science (MOES). The NPEE is a two-tier national certification programme for teachers and is conducted with the UK partners from UCL and University of Cambridge (Ayb Foundation, 2014). In its original conceptualisation, the NPEE was designed to build upon the selected schools in the EIP project of the WB and set up excellence centers in 12 high schools. This was a debatable solution to the educational setting in the country that was predicted to enhance the education of the urban-resided high school students, further disadvantaging the rural student population, which was estimated to be one third of the school population. While after a series

of discussions and critiques of the NPEE, its model has been extended to high schools in all marzes in Armenia, the policy decisions of the government are still debatable in terms of public funding, replication of the model in all marzes and its systemic impact on the equity and quality.

In sum, the review of these initiatives points at trends that are debated to have serious implications for the advancement of the right to education for the disadvantaged children, their right to quality education and better life chances. While the social inequalities in education are an important issue for policy makers and international actors, recognized in the main policy texts, the agreement that these inequalities in education should be minimal is not always a shared concept.

IV. Study Findings and Discussion

The discussion that comes next examines the profile of equity in Armenia according to the dimensions discussed in the earlier section. The forthcoming 2 sections discuss the results retrieved from the primary and secondary sources and situate their analysis against the purposes of this report, that is, by examining the dynamics of the profile of equity in the country between 2010 and 2016. Each section concludes with an analysis and reflections.

A. Equality of Opportunities and Outcomes

This section discusses the profile of equity in terms of participation, completion and dropout rates at different levels of the general education system, as evidenced in the secondary sources. It also discusses the learning outcomes and achievements of the students at schools and their chances for transition to higher levels of education.

a) Participation² rates

According to the official statistical data, the country does not record serious problems with the enrolment into general education. The gross enrollment rate in the general education is fairly high, with 89% of average rate over the years 2010-2015 (UNESCO Institute of Statistics, 2017). The enrollment in the primary and middle school (grades 1-9) is more or less homogeneous territorially, in terms of gender distribution, poverty groups, with no major disparities.

Major differences in participation rates appear at the upper secondary grade transition rates. The analysis of the secondary data by the research team shows that the enrollment at the upper secondary level (grades 10-12) gets significantly lower- around 80%, showing a decrease of some 10% between the years 2010-2012.

² Participation rate is the ratio of the enrolment for the age group corresponding to the official school age in the primary/secondary level to the population of the same age group in a given year

As examined by the research team, the decrease in the enrollment numbers is more evident in case of high schools. In the 2015-2016 academic year the share of students in high schools was only 8.3% compared to 49% in main schools and 42.8% in comprehensive schools. Relative to the 2010-2011 academic year, the number of high school students showed a considerable decline of 36%, compared to only 4% of decline of student numbers in comprehensive schools. At the same time, the number of students in non-state or private schools tends to rise reaching an increase of 42% over the 2010-2016 (from 5406 to 7681).

Further analysis shows that the enrolment rates for the upper secondary level unmask some differences when considering the socio-economic background of the students. Unlike the main school, disparities arise among the poor and non-poor population of the schoolchildren at upper secondary level. The statistical data for the period 2010-2015 by the UNESCO Institute of Statistics show that the enrollment rates for the richest quintile is 1.3 times as high as that for the poorest quintile, causing higher dropouts from the main schools by the children from poorer backgrounds (UNESCO Institute of Statistics, 2017).

Gender-wise, the enrolment rates from primary to tertiary education show mostly insignificant differences, however, differences get sharper at the transition from lower to upper secondary levels. The analysis of the dynamics of enrollment over 2010-2016 shows a consistent prevalence of boys over girls in the primary and middle school, whereas the situation changes at the high school level, where the share of girls increases. In 2015-16, the share of boys to girls in general schools was 52.5 to 47.5 %, while at the upper secondary years the share of boys to girls turned 48.3 to 51.7%.

Table 1. *Distribution of students by gender and year of study in 2015-2016 in state educational institutions (Taken from [www. stat.armedu.am](http://www.stat.armedu.am))*

Year of study	Percentage of students		
	Girls	Boys	Total
1	46.7	53.3	100.0
2	46.5	53.5	100.0
3	47.1	52.9	100.0
4	47.0	53.0	100.0
5	47.3	52.7	100.0
6	46.5	53.5	100.0
7	46.7	53.3	100.0
8	47.0	53.0	100.0
9	47.3	52.7	100.0
10	48.7	51.3	100.0
11	51.6	48.4	100.0
12	51.7	48.3	100.0
Total	47.5	52.5	100.0

This flip may be explained by the tendency of girls to stay education for longer period, while boys tend to proceed through the vocational track. According to the Global Monitoring Report 2017, the participation rates in technical and vocational institutions show a slight prevalence of boys (12%) over girls (9%) (UNESCO, 2017). No reference, however, is given as to the socio-economic background of the boys and girls and their place of residence.

b) Completion³ rates

According to the available statistical data, the completion rates for the primary school level for 2010-2015 are 100%, decreasing to 94% at middle school and dropping to 60% at upper secondary/high school level (UNESCO, 2017).

According to the Global Monitoring Report 2017, the completion rates among the students by location and wealth are more or less homogeneous at primary and lower secondary levels, whereas at the upper secondary level these disparities in completion rates grow sharply. Over 2010-2015, the completion rate for the students from the poorest households has been on average 88% for the males and 98% for the females. However, at the upper secondary level the completion rates for the same groups shrink to 18% for male students and 42% for female students (UNESCO, 2017).

The completion rates also vary according to the place of residence of the students. Between the years of 2010-2015, the location parity index⁴ dropped from 1 at primary school to 0.98 at lower secondary level and down to 0.56 at upper secondary, which shows a big discrepancy in the completion rates of children in urban and rural locations (UNESCO, 2017).

Among the students from the affluent backgrounds, only 2.8% does not progress into further education, whereas this number is 16% among the students from poorer families. Among the very poor population, the dropout rate⁵ of students reaches as high as 35% (UNESCO Institute of Statistics, 2017). At primary level, however, for the period of 2010-2014, the cumulative dropout rates among girls and boys improved, dropping from 4% to 1.42 for the girls and from 4% to 0.09% for the boys.

³ Completion rate is the total number of students completing (or graduating from) the final year of primary or secondary education in accordance with the required number of years of study

⁴ Location parity index is the ratio of completion rate of students living in rural areas to that of their urban counterparts. Location parity index less than 1 indicates disparity in favour of those living in the urban areas and more than 1 indicates disparity in favour of those in rural areas.

⁵ Drop-out is defined here as having left the education system without having completed upper secondary education.

c) Achievement⁶

According to the Global Monitoring Report 2017, there is a fairly high level of achievement among students in primary and lower secondary levels in the country. For the period of 2010-2015, the percentage of the students at the end of lower secondary achieving at least a minimum proficiency level in mathematics is 76%, compared to 72% in primary level (UNESCO, 2017).

Similar findings are reported by the research team. Among the surveyed parents, the percentage reporting excellent (9 and 10 points/on a 10-scale grading) scores of their children is 34.5%; in Yerevan this number is 24% of parents.

The average again masks some differences in the progress of children according to their transition levels, family background and gender.

The research findings show a steady decline in the proficiency of students as they progress from lower to upper secondary level. Thus, the proficiency of students declines from 45.3% in primary school level to 31.8% in lower secondary and then drops to 31% in upper secondary level. The rate of the students at the final year of school with excellent scores has dropped from 15.1% in 2009-2010, reaching 4% in 2010-2011 and 4.7% in 2014-2015

The achievement scores also tend to decline throughout the 3 years of the upper secondary level, with 33.5% high achievers among the 10th graders, 31.4% among the 11th graders and 27.6% among the final year graduates.

Further analysis of the findings shows that there are substantial variations in the achievement level among the students depending on their family background. The share of students with excellent scores from the impoverished families is 34.3% compared to that of 42.8% of children from more affluent backgrounds. Poorer children also tend to underachieve, with 8.7% compared to 0% underachievers from the non-poor families. The trends appears to remain constant as the students transition from primary to upper secondary levels, and tends to worsen.

The achievement level also varies among girls and boys in urban and rural areas. The percentage of boys who score excellently varies, with 16% in Yerevan, compared to 27.4% of boys residing in the regional centers, 29.4% in other regional towns and 22.1% in villages. Similarly, for girls, the numbers are 31.9% in Yerevan, 51.2% in the regional centers, 57.8% in the regional towns, and 38.5% in villages. The share of girls scoring excellently outperforms that of boys in all mentioned locations.

⁶ Achievement is defined here as the progress of the students towards meeting the standards set at the starting point of their learning.

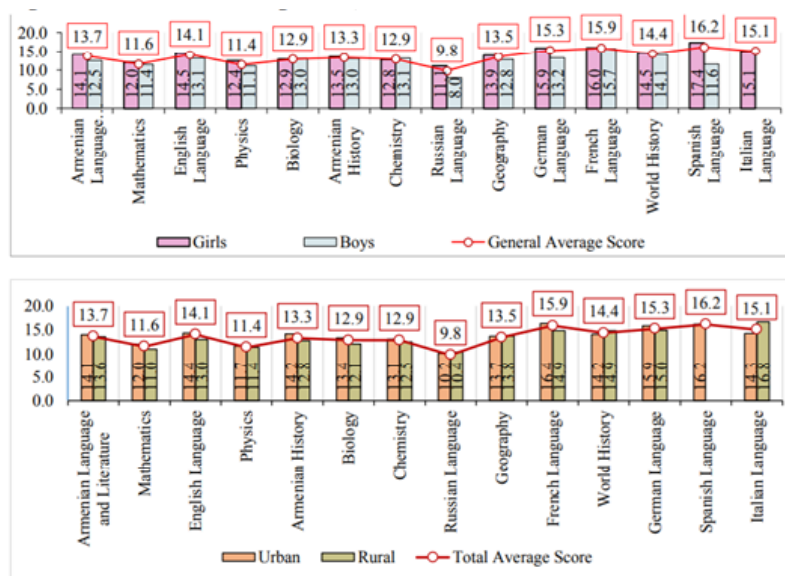
Table 2. The number of the 9th form graduates from state institutions who scored ‘excellent’ over 2009-2015, according to regions (Taken from stat.amedu.am)

Year of study	Number of students scoring ‘excellent’											
	2009-2010		2010-2011		2011-2012		2012-2013		2013-2014		2014-2015	
	Female (F)	Male (M)	F	M	F	M	F	M	F	M	F	M
Yerevan	911	845	319	165	363	232	322	182	250	154	126	72
Aragatsotn	122	118	37	37	10	6	19	20	23	25	6	4
Ararat	338	249	65	39	101	43	109	83	46	27	29	15
Armavir	254	291	64	25	76	34	72	27	67	45	54	30
Gegharkunik	471	451	117	73	121	61	125	57	121	71	43	22
Lori	210	174	54	19	114	79	85	34	33	22	19	16
Kotayk	419	378	71	31	73	33	59	40	65	29	31	20
Shirak	307	230	94	40	140	77	124	72	125	43	37	29
Syunik	107	86	41	25	72	44	72	48	83	55	35	21
Vayots Dzor	63	57	16	11	32	28	21	17	20	12	12	6
Tavush	74	50	73	65	52	12	63	36	30	13	21	13
Total	3276	2929	951	530	1154	649	1071	616	863	496	413	248
	52.8%	47.2%	64.2%	35.8%	64.0%	36.0%	63.5%	36.5%	63.5%	36.5%	62.5%	37.5%
The share of excellent achievers among the 9 th form students (in %)	15.1		4.0		4.8		4.8		4.6		4.7	

Underachievement is reported insignificantly, with only 3.4% of the parents reporting scores of 5 or below. At the same time, though, the official data show an increase in the number of the grade repeaters. Cumulatively for all grades at the lower-secondary level, the number of repeaters rose from 370 in 2009 to 536 in 2015. The boys tend to repeat the grade more than girls, with the ratio of 207 boys to 163 girls in 2009 and 281 boys to 255 girls in 2015 (UNESCO Institute of Statistics, 2017).

The analysis of the student achievement in the national and international tests also shows a decline. The report of the World Bank on *Reducing Poverty and Improving Shared Prosperity through Better Jobs, Skills, and Education* notes that the student achievement at national exams tends to worsen, pointing at issues with quality in general education (The World Bank, 2017). The average national score for the unified entrance exam (UEE), a mandatory exam both for the graduation from the general education and for the university admissions, varies between 49 to 81% for the students who receive the passing score of 8 or above (on a 20-point scale). The national average scores of the students are the lowest in the Russian language, physics, mathematics, chemistry and biology. In terms of gender proportion, females outperform males in every subject except for chemistry. The outcomes of students from urban areas are higher than those of the rural students in 10 out of 14 subjects, especially in Armenian history and biology, with 1.4 and 1.3 point difference (The World Bank, 2017).

Figure 1. National UEE average scores 2015-2016 (Taken from the World Bank 2017)



In terms of the international tests, Armenia showed participation in the Trends in International Mathematics and Science (TIMSS)⁷ in 2003, 2007, 2011 and 2015⁸. Overall, however, the mean score for the 2003 and 2011 shows a decline from 478 to 467 in math in grade 8, which are both below the OECD average of 500. Gender-wise, girls outperform boys in both grade 4 and 8 in both mathematics and science (The World Bank, 2017).

d) Transition to tertiary level

The gross enrollment rate in tertiary education for the country is pretty high (51% in 2016). However, despite overall expansion in the enrollment in higher education, the participation rates based on the family financial characteristics and geographical location suggest that the transition chances into tertiary level for the economically poor population appears to be disadvantageous (PL4SD, 2015). Over 2010-2015, the enrollment rate for the non-poor families was 44%, compared to 25% for the poor and 10% for the extremely poor (PL4SD, 2015). As mentioned in the report, among the biggest factors affecting participation in tertiary level are the lack of adequate support at secondary school level and additional financial barriers for the families, such as the costs for the private tutoring and tuition fees.

⁷ TIMSS is designed to help countries throughout the world improve student learning in mathematics and science. It collects educational achievement data at the 4th and 8th grades provide information about trends in performance over time together with extensive background information to address concerns about the quantity, quality, and content of instruction.

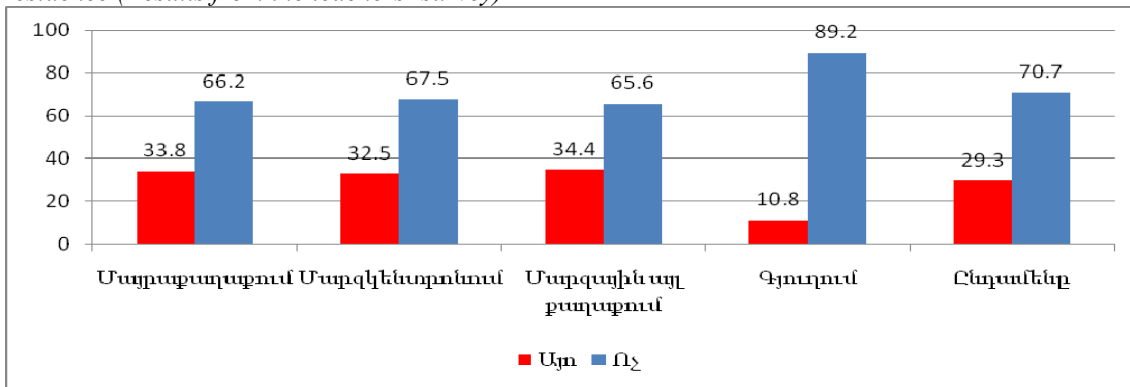
⁸ As the results for 2007 were considered invalid, and the 2015 publication of results excluded Armenia's data altogether, the comments on the data will exclude these two years.

The research team reviewed the level of support that students receive in preparation for their transition to tertiary level. In fact, the higher enrollment rates in tertiary education are supported by the intention of the school leavers to continue with further studies. The survey among the 7-12th graders shows that 77.7% of them plan to continue their education in a university. The percentage of those planning to study in university is much higher among the high school students (93.4%) than among the comprehensive school students (76.6 %). At the same time, the responses about the occupational orientation provided at upper secondary level are not quite homogeneous among the surveyed teachers and parents. Only 50.9% of the surveyed school teachers believe that the schools provide occupational orientation for the children. This is a relatively low number considering that occupational orientation is one of the main functions of the high schools (Government of Armenia, 2008, p. 54).

The lack of the adequate academic preparation at schools and high-stake university exams appear to have essential effects on the take-up of private tutoring⁹ in Armenia. The findings of the study show that on average 63% of students take private classes in the general school. When unpacked, this average shows differences in tutoring opportunities for the children depending on their location and family background, as well as the level in the general school.

The survey of school teachers shows that 29.3% of them tutored their students for private. Among the teachers in rural areas this number is lower and reaches 10.8%.

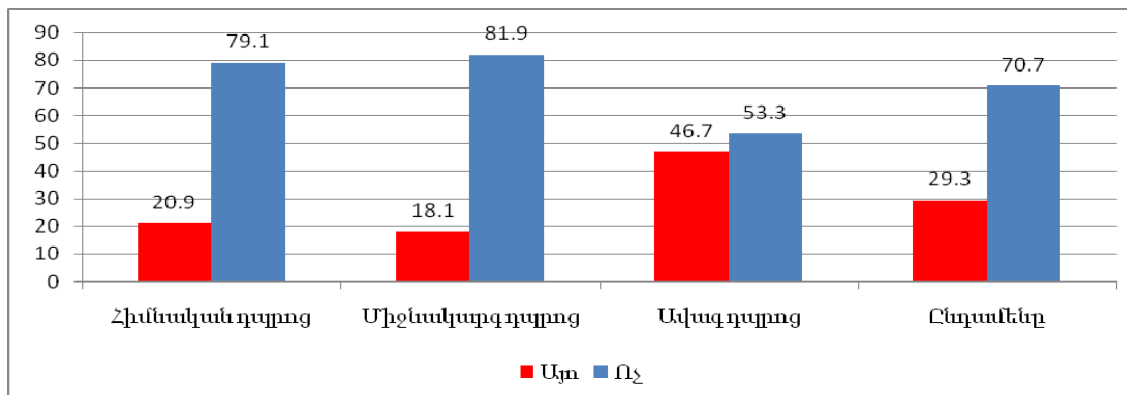
Figure 2. *Do you tutor the students for supplementary classes? Dispersion of responses by the place of residence (Results from the teachers' survey)*



The highest number is among the teachers of high schools (46.7%), as compared to the teachers of the secondary schools (18.1%).

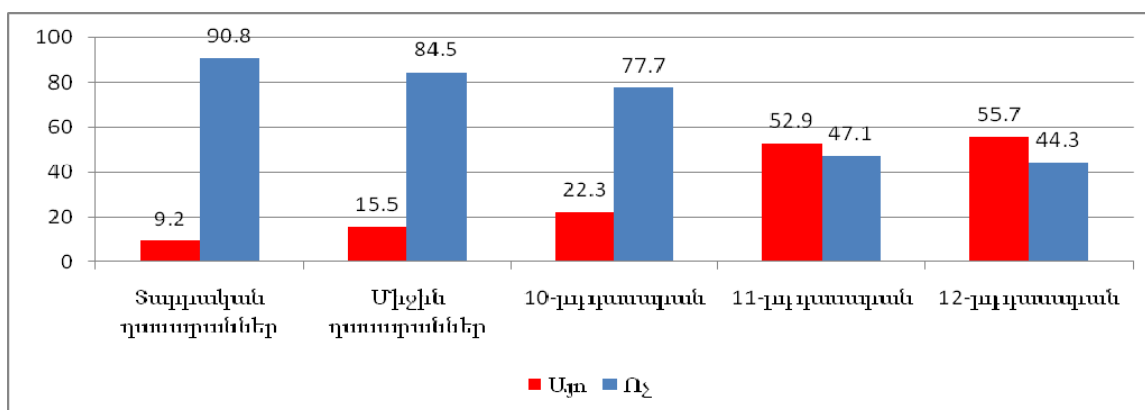
⁹ Private tutoring is defined here as ‘tutoring in academic subjects and is provided by the tutors for financial gain and is additional to the provision by mainstream schooling’ (Bray, 2003, p. 13)

Figure 3. Do you tutor the students for supplementary classes? Dispersion of responses by the school type (Results from the teachers' survey)



The survey among the parents confirms this trend and shows that 21.6% of them had tutoring for their children. The number is the highest for the students in upper secondary level (40.4%), and reaches 52.9% in the 11th grade and 55.7% in the 12th grade.

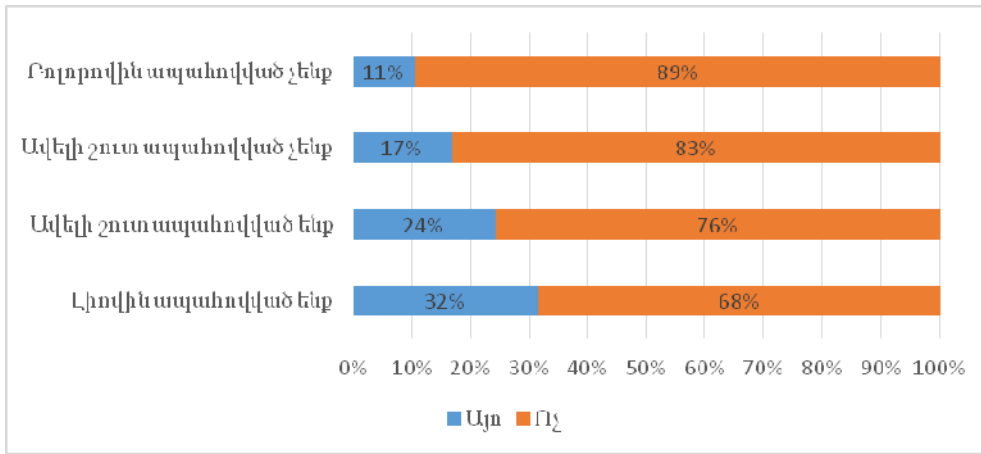
Figure 4. Does your child take private supplementary classes? Dispersion of responses by the year of schooling (Results from the parents' survey)



The subjects in which students are tutored most are foreign language (33.6%), mathematics (20.7%) and the Armenian language (16.6%). Notably, the workload and instruction time for these subjects is the highest in the general schools.

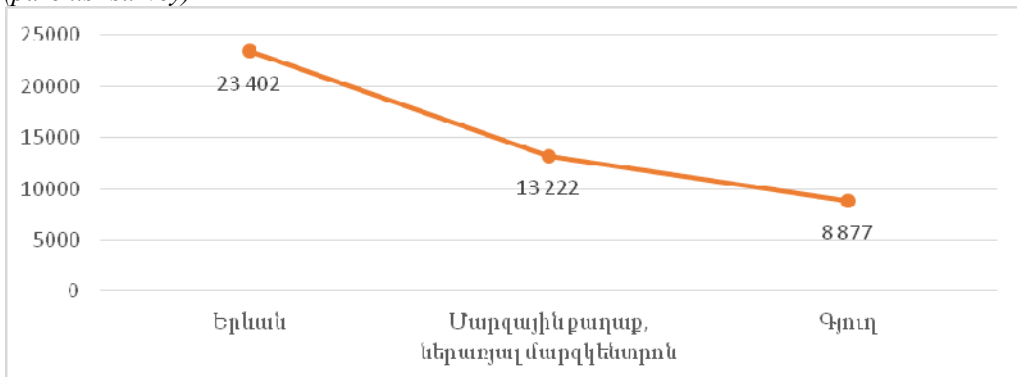
The review of the family's socio-economic status has a significant bearing on the take-up of tutoring, as the families that consider themselves 'completely well-off' or 'mostly well-off' take up tutoring services more than the others. Parents considering themselves 'not well-off at all' took up tutoring about 3 times as little as parents considering themselves 'completely well-off'.

Figure 5. Does your child receive tutoring in any subject? Dispersion of responses by the socio-economic status of the family (parents' survey)



The differences for the families in the rural and urban areas vary as well. The spending is much higher in Yerevan (23,402 drams) than in other regional towns and especially the villages (8,877 drams).

Figure 6. What is the average monthly tutoring fee (in drams)? Dispersion of responses by place of living (parents' survey)



The results of the surveys among the school teachers and students relate with those from the survey among the university students. The survey of the university students shows that the majority of them had private tutoring for their entrance exams (86.1%). The number of those who were tutored in three subjects rose from 33.7% in 2013 to 44% in 2016. The majority of the students were tutored in 3 subjects, namely, the Armenian language (28%), foreign language (22.5%) and mathematics (17.1%), which supports the earlier finding on the majority of high schools taking private classes and their choice of the subjects. The share of the students who were admitted without tutoring is higher in the rural areas (15.4% in villages, 17% in regional centers and towns) as compared to Yerevan (7.9%).

Among the surveyed university students the highest number of non-tutored ones is in the regional universities (Gavar State University - 30%, Goris State University - 28.9%, Shirak State University - 25%, Vanadzor State University - 22%). In Yerevan the only university with the biggest share of non-tutored students is Yerevan State Pedagogical University (17%). In the main universities

of Yerevan the overwhelming majority of the students have been tutored (AUA -100%, YSU-96.4%, YSLU-96%).

Among the reasons for private tutoring, the majority of the parents (66.1%) mention the gap in the requirements of the university admission exams and what is actually provided by the school curricula. Among other reported reasons are also the overcrowded classrooms and limited classtime. The teachers' pedagogical and professional skills, nevertheless, are among the least mentioned reasons for the parents to get private classes for their children.

B. Analysis and Reflections of the Opportunities and Outcomes Section

This section on the profile of the equity in the Armenian general education sector looked at the dimensions within the concept of equity that related to equality of opportunity and equality of outcomes or results for the indentified group of students. Despite strong and rather ambitious pronunciations towards enhancing equitable opportunities for all, the analysis of the findings in this report seems to demonstrate significant differences among socio-economic groups of students and groups from different geographical locations.

Three clusters of causes that create such differences may be singled out for reflection.

Firstly, the causes for the differences among the selected group of students may be related to **institutional barriers**, that is the structural differences of the general education system. Here, significant differences were evident in the transition from lower secondary level to upper secondary, which is the main 'branching point' where social inequalities among these groups of students manifest sharply.

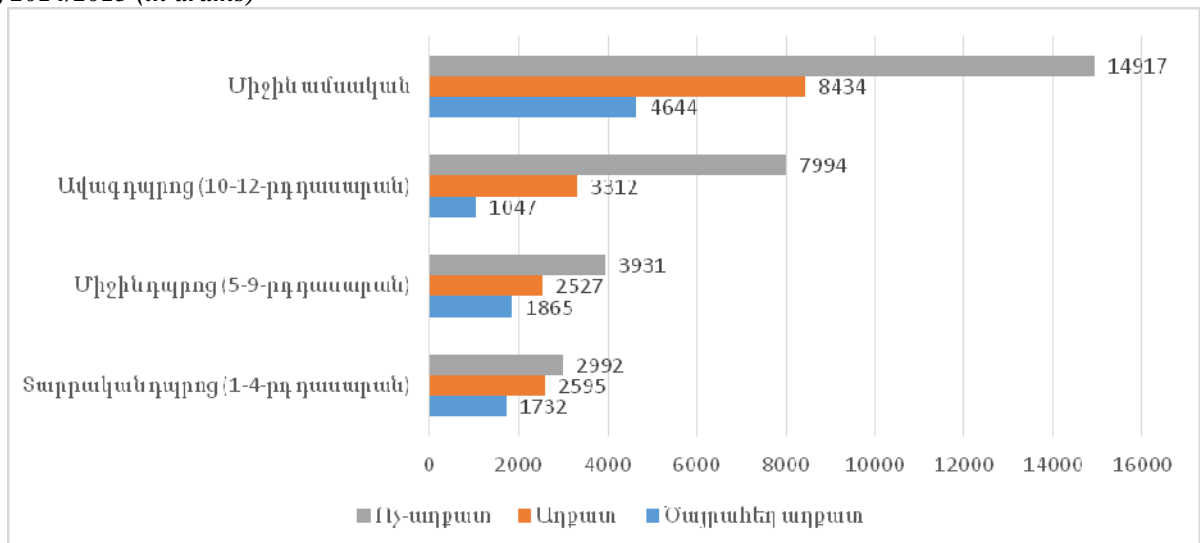
The initiative to establish high schools as the third tier for the academic preparation of students potentially leading to the tertiary level can be seen as an essential element. However, in practice, the high schools in Armenia are unequally spread across the country, and are more the privilege of the urban dwellers, as only 7% of them are in the rural areas. The equivalents to the high schools, the 12-year comprehensive schools, located in their majority in rural areas (91% of the total schools) are certainly an alternative for the students to progress their education through the 12-year cycle. However, a number of particular trends have become evident, as suggested by the findings of this study. One is the declining number of schools in the country, and the decreasing number of students in schools, which is felt more sharply in the upper-secondary level. Another trend is the increasing flow of students into non-state schools, reaching as high as 42% over 2010-2016. It is hard to tell whether the outflow of students into non-state schools is the perceived higher quality, or discontent with the quality in the high schools, however, it should be noted that as an alternative route non-state schools are primarily located in Yerevan (81.3%), thus being a privilege of the capital city dwellers.

The second cluster of causes for the differences among the defined groups of students relate to the **economic barriers**. While compulsory education is free and has no direct cost, there are indirect costs that appear to have large effects on the chances of students from lower socio-economic backgrounds and those from rural areas. The findings of the study suggest a link between the family wealth and the transition of students from lower to upper secondary and beyond. As seen, rates in participation, completion and dropouts show higher differences for the students based on their economic status and location.

Essentially, the prevalence of supplementary private tutoring appears to have serious implications for the dimensions of equity in the education in the country. One of the adverse effects of supplementary tutoring in Armenia is that it seems to exacerbate social inequalities, as children in more affluent socio-economic groups have better access to supplementary tutoring, as compared to the children from less so groups (Bray, 2003). As seen in the findings of this study, tutoring has been prevalent in urban areas and among more affluent parents.

The more detailed analysis of the official statistics shows significant differences in the average monthly spending on education between the poor and non-poor households and their places of residence. The analysis shows that in poor and extremely poor households having school children, the average monthly spending on education is two-three-fold less than spending in non-poor households. The spending gap gets greater by the levels of general education. In the upper secondary level, spending by the poor households is about twice as low as that by the non-poor households, and spending by extremely poor households is over 7.5-fold greater than spending by non-poor households.

Figure 7. Average monthly education spending in households with children studying in general schools, per student, 2014/2015 (in drams)



Finally, the third group of clusters for causes may relate to the **socio-cultural barriers**, which, for the purposes of this report, have been considered in terms of gender differences. In relation to the opportunities and outcomes, the analysis of the factors shows a persistent trend for the girls staying longer in education, while the boys drop out at the end of the basic school. Various reasons have been discussed, such as boys opting for vocational tracks, dropping out due to societal or economic pressures. A more focused analysis on the gender differences is given in Section C of this report.

In summary, the review of the opportunities and outcomes dimensions of equity in the general education system in Armenia shows particular blockages for the students transitioning from lower to upper secondary level. For the two groups of students identified in this report based on their socio-economic status and their place of residence, the opportunities to participate in secondary education level and successfully pursue their studies appear to be particularly skewed.

C. Equality of Treatment

This section focuses on the inequalities in treatment throughout the education of the children. The discussion is organized into two subsections, namely gender and unequal treatment, followed by the analysis.

a) Gender

This subsection addresses questions related to the attitudes in the education environment, namely gender attitudes and stereotypes, differentiated and unfair treatment of students by both teachers and other actors in the education system¹⁰.

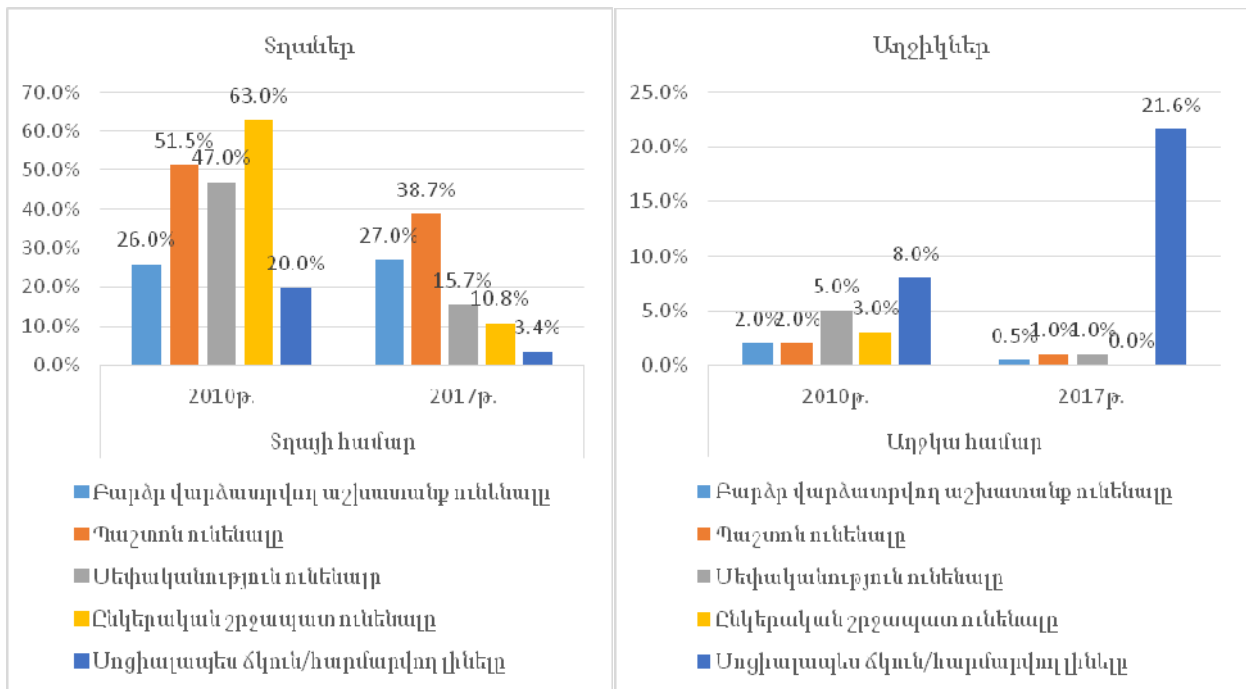
(a) Differentiated attitudes towards qualities of boys and girls and their behavioral traits

The findings of the survey among the teachers indicate that teachers demonstrate fairly equal attitudes towards the gender distribution of various social resources, deeming them important in the lives of both girls and boys. Discrepancies are noticed only in areas that relate mostly to material goods and economic and social status in society, income-earning and high-paying employment, positions, property, friendship circles, and leadership, which teachers deem particularly important for boys. The perception of various qualities of girls' and boys' groups, however, has somewhat flipped: for example, the thinking of teachers regarding social flexibility of adaptability somewhat worsened in 2017 relative to 2010. The number of the surveyed teachers who considered that flexibility and adaptability as more important for boys decreased from 20% in 2010 to only 3.4% in 2017. For girls, the figure went up from 8 to 21.6% during the same period.

¹⁰ To assess the trends in gender attitudes of teachers, the methodology developed by the “Vstahutyun” NGO and used in the 2010 survey was applied. The findings of this survey were compared also with the 2010 survey data.¹⁰ This survey has addressed the gender positions and stereotypes of teachers, as well as parents and students.

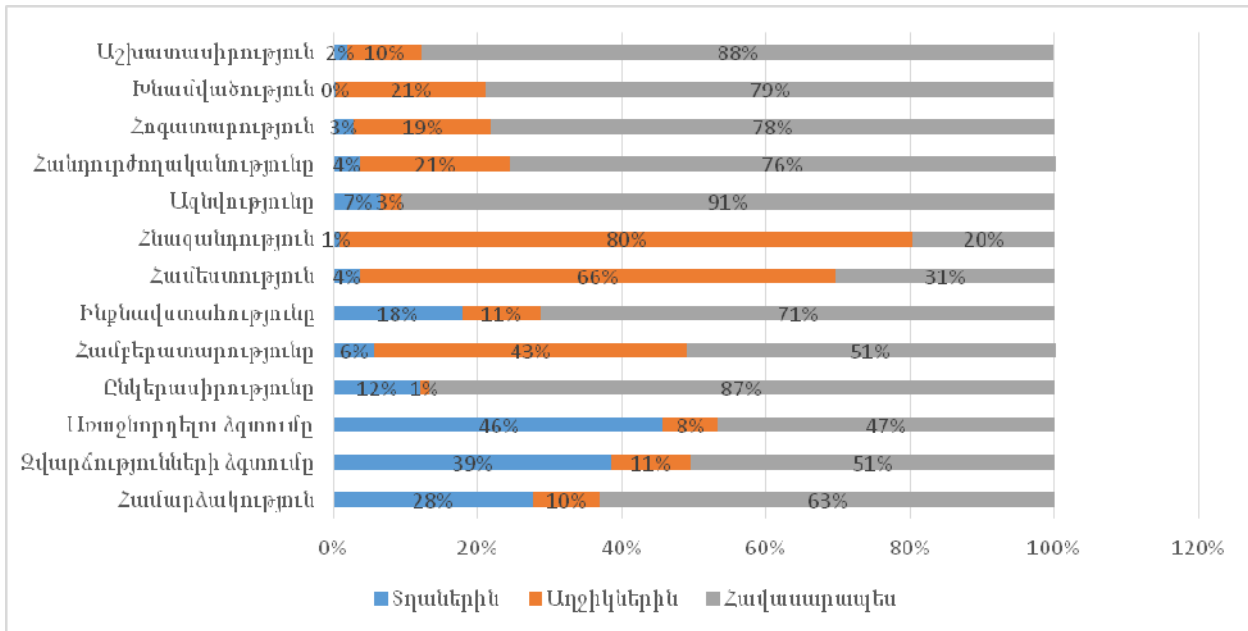
Furthermore, the number of teachers who thought that having a friendship circle was more important for boys went down from 63% in 2010 to 10.8% in 2017. For girls, the same figure declined from just 3% in 2010 to 0% in 2017. The teachers' opinion of the gender importance of having property, too, has changed considerably over the years. In 2010, 47% of the teachers considered that having property was more important for boys, down to just 15.7% in 2017. For girls, the figure declined from 5% in 2010 to just 1% in 2017. For the 2017 data, overall, more than half (57.3%) of the surveyed teachers believed that boys are more apt than girls, and only 11.3% said that girls are more apt.

Figure 8. Who do you find the following more important for? 2010 vs. 2017. Responses breakdown by boys and girls (teachers' responses)



As to different personal qualities, the results for 2017 suggest that teachers believe that boys are more characterized by the aspiration to lead, the interest in having fun, boldness, self-confidence, and love for friends; while girls are more characterized by obedience, modesty, patience, and being groomed, tolerant, caring, and hard-working.

Figure 9. What qualities do you consider typical of girls and boys? (teachers' survey, 2017)



Compared to 2010, teachers tend to express gendered positions based on equality, except for the “aspiration to have fun” and the “aspiration to lead”: the teachers surveyed in 2017 attributed these qualities to boys more than in 2010. Moreover, the survey results reaffirm that teachers continue to instill in female students patience, modesty, and tolerance, as opposed to boldness among male students. For example, in 2017, 91% and 85% of the teachers, respectively, considered it obligatory to instill qualities of modesty and patience for girls, compared to just 37 and 57% for boys. On the other hand, instilling boldness in boys was considered obligatory by 81% of the teachers, compared to just 51% in case of girls. At the same time, there is improvement in strict attitudes towards certain behaviors: in 2010, 68% of the teachers reported being stricter towards girls in terms of how they dress, down to about 32% in 2017. Similarly, in 2010, 9% of the teachers were more demanding in terms of the girls’ achievement; in 2017, this percentage declined almost thrice (to 2.9 %).

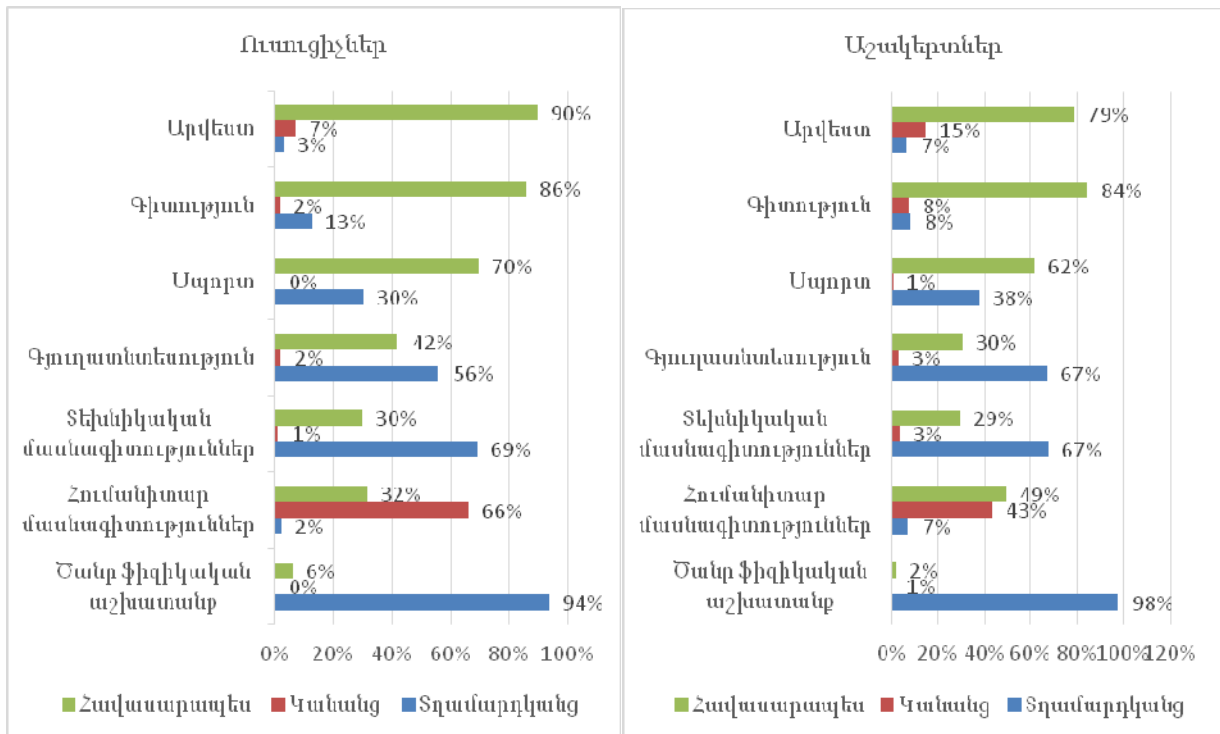
(b) Gender differences in the choice of study fields

The analysis of the results from the focus groups among the teachers shows that there are perceptions about the gender differences in the choice of study fields for their students. In the opinion of teachers, heavy physical work, technical professions, science, agriculture and sports are associated with men, whereas humanities and arts are associated more with women.

The results of the high school students’ survey confirm the reproduction of sex-based stereotyped attitudes in matters of professional orientation: humanities streams were selected by 35% of the girls and only 23.1% of the boys. Girls choose the physics and mathematics stream thrice as rarely as boys. However, overall, fewer students choose the physics and mathematics stream than those

of economics, humanities, natural sciences, and even general subjects. It is perhaps the reason for the year-on-year increase in the number of vacant positions in the physics department not filled through the university admissions¹¹. Boys rarely choose the linguistic stream.

Figure 10. Which occupations are more typical of females and males? Breakdown of responses by the teachers and students



(c) Perceptions of inequality between men and women and gender roles

The majority of the surveyed teachers think that there is inequality between women and men in the society, especially in the workplace and in the choice of profession. In 2010, 59.1% of the teachers believed there was inequality between women and men in decision making in the workplace; the figure rose to 80.9% in 2017. The figure rose by 13.6 % regarding the choice of profession, by 9.6% regarding property inheritance, and 9.1% with respect to family affairs. When discussing the causes of inequality, the majority of the surveyed teachers pointed out national traditions (39%) and peculiarities of education (29.9%). However, many more attributed the differences to physiological and intellectual peculiarities and to the education (20 % of the surveyed teachers).

55.8 %of the surveyed teachers considered that the man must be the head of the household (more respondents had this position in the villages—62.2%, as well as in the Gegharkunik and Ararat regions—82.5 and 74.4%, respectively). 43.5% were in favor of equality and believed that women and

¹¹ According to the 2017/2018 academic year, the admission results for Yerevan State University show that 47 out of the 50 places for physics, 12 out of 15 places for nuclear reactor physics, 15 of the 40 places for radiophysics, and 10 out of the 15 places of semiconductor physics and microelectronics remained vacant http://www.atc.am/files/2017%20dimord/lavash_tapor.pdf

men equally must be the heads of the household. This trend is reproduced by the students, but with much more of a patriarchal focus: 82% of the boys consider that the man must be the head of the household, compared to 70.7% of the girls. In 2017, relative to 2010, teachers less frequently chose the “equally” response, expressing more of a patriarchal position.

In comparison to the previous set of questions, it can be concluded that the gender positions of teachers in professional and education matters strive towards equality, but in the context of family matters, the opposite is true.

b) Unfair Treatment of Students

According to the findings, 34.2% of the surveyed 7th-12th-grade students stated having been in situations when they were treated unfairly. Girls said it more frequently (37.5%) than boys (29.9%). A relatively smaller percentage of secondary school students reported unfair situations than those in basic or high schools. 24.6 % of the secondary school students responded affirmatively, compared to 36.8 and 37.3% of basic and high school students, respectively. According to the surveys, unfair treatment is more frequently demonstrated by teachers than by family members or classmates. The most frequent forms of unfair treatment in school are assessment unfairness (27.4 %), being angry with one student because of another (10.6 %), and the teacher neglecting a child by means of not responding to a question (2.9 %). The survey reviewed the attitudes of teachers and classmates towards children with special features, namely: children with disabilities; children wearing glasses; obese children; Armenian immigrant children from Syria; children of other ethnicities or religions; and children from poor families. The results did not indicate significant differences or discriminatory treatment towards these groups of children in the responses of either teachers or students.

D. Analysis and Reflections of the Equality of Treatment Section

The focus of this section has been on the final dimension of equity, as set in this report, that is, the equality of treatment, referring to the avoidance of possible forms and mechanisms of discrimination in the education sector, either explicit or implicit.

The review of the dimension of equality of treatment, explored in this study among school teachers and students, has pointed at gender differences manifested in differentiated attitudes towards qualities of boys and girls, variations in perceived inequalities towards both genders, gendered differences in school performance, as well as other forms of unfair treatment.

The discussion of the differences manifesting throughout the school structure goes beyond the education system and certainly involved the social and cultural fabric of the society leading to a gendered upbringing. It can be assumed that the gender differences in school are constructed on the assumption that girls and boys are brought up differently and this has an implications and impact on

the learning, motivation and behavior. While girls may be expected to be more obedient and dutiful, boys are motivated to be more self-confident and bold. It may also appear that the mechanisms used to ‘impose’ these qualities in lower secondary years are more so oriented towards actions that favor the obedient girls.

Situation with the gender equality and equity has been the central point of a number of policies and studies. On the part of the government, there is a strong commitment to promote education for all free of discrimination. Gender equity is central in these commitments. A number of international policy documents emphasize the commitment to policies and practices that aim at elimination of gender disparities in education. The UN Sustainable Development Goals (SDGs) necessitate ‘achievement of gender equality and empowerment of all women and girls’ (Goal 5); , the global movement of Education for All (EFA) calls for ‘elimination of gender disparities in primary and secondary education’ and ‘focus on ensuring girls’ full and equal access to and achievement in basic education of good quality’ (Goal 5).

The situation with gender equity has also become central in a number of gender-related assessments by the transnational corporations. For instance, the ADB Armenia Gender Assessment Report (ADB, 2015) reviews gender situation in the country with regard to various components, such as employment, energy, political participation and education. Relative to the educational issues, the Report notes that despite positive perspectives in the enrolment rates and existing gender parity at levels from primary to tertiary, the situation changes at the vocational track, with boys outnumbering girls at vocational colleges, while girls stay longer years in education. It also concludes that the longer years of attainment for the girls does not show a positive return at the labour market. The Report argues that while the integration of the gender equity has been on the priority list for the government of the country, there has been little progress in the implementation of the relevant actions (ADB, 2015).

An assessment of the situation with the gender dimension in the educational sector, *Gender Analysis of Armenian School Curriculum and Textbooks*, was done by the World Bank Armenia (Silova, 2016). As Silova argues, gender inequalities appeared to be implicitly or explicitly interwoven into the pedagogy, hidden curricula, stereotypical manifestations of gender roles in the textbooks and learning materials (Silova, 2016). The conclusions of the Report pronounce that there seems to be policy-to-practice gaps in the implementation of the government’s commitments to gender equality. Particularly, the principles of gender equality have not been translated into the education standards and textbooks in the general education level. Further, school textbooks included an imbalanced gendered representation. Implicitly, gender stereotypes become normalized through wider social culture that affects the career choices of the school students.

It should be acknowledged that despite some positive trends in differentiated perceptions between both genders, as evidenced in this report, there is still large prevalence of differences among these groups both at school and in the society that have implications for the equality of treatment in the general education system in Armenia.

V. Conclusions and Recommendations

This report pursued the goal of examining the situation with the equity in the Armenian general education setting, with particular focus of examining how the dynamics of the equity profile has changed over time for the identified groups of students, those being students from socio-economic disadvantaged groups and those residing in rural and urban areas in the country. Gendered differences have also been examined. The study aimed to examine this dynamics of shrinking or increasing social inequalities by focusing on three major dimensions of equity, such as opportunities and outcomes, and treatment. By doing so, these dimensions were placed in broader concept equity as a safeguard for the fair distribution of educational resources and as embedded in the concepts of efficiency and quality, irrespective of the external factors of inequality.

The general conclusions regarding the review of the key policy and legal texts indicate a strong commitment from the government to ensure equity and equality. However, noticeable policy-practice gaps have been revealed in the course of research. The general findings indicate that the social inequalities for the identified groups of students increase across their educational path. Inequalities may develop across primary level, however, they get sharper at the end of the lower secondary level and the transition from lower to upper secondary level of education appears to be a key moment. The reflections over the results of this study suggest serious variations in access to and progress throughout the general education ladder and while some degree of educational inequality may be acceptable, its systematic manifestation should be more of a concern for policy makers. Hence, the recommendations below are directed at national policy developers and policy makers, as well as at international organizations active in the education reforms in Armenia.

Recommendations

For national policy makers and policy developers

It is recommended that the national policy makers take the following measures into account:

1. Initiate and maintain rigorous data collection of the social and economic backgrounds of the student population, including, but not limited to their (and their family) poverty status, gender, age, residence status, disability and other. Ensure consistent and persistent monitoring of the collected data that would enable evidence-based interventions and policies.

2. Improve access to all levels and types of educational opportunities for the underrepresented groups, groups at risk (factoring in the place of residence, socio-economic status, gender).
3. Review the policies and strategies directed at the upper secondary level, targeting the high schools in particular. This will include removing the institutional barriers, restructuring the curricula and learning materials.
4. Guarantee equally accessible and quality upper secondary level schooling for the children at all comprehensive and stand-alone high schools in the country, ensuring that individual and social circumstances are not an obstacle to achieving their educational potential
5. Ensure that equal and equitable conditions for teaching and learning are available for all schools and that all groups of students have equal opportunities to master high learning standards. This will mean that policy initiatives do not target a selected number of schools developed as ‘excellence centers’ to the detriment of lower-resourced schools.
6. Strengthen the links between the local community and schools to assist the disadvantaged parents and their children in fulfilling their right to education

Regarding the equity of resources

7. Increase the share of the public spending as estimated in the education sector development strategies and underpinned by the UN SDG 2030 commitments.
8. Revise the current mechanism of financing of public schools, which will ensure greater distribution of the educational funds to the disadvantaged schools based on the assessed needs of the schools. Include the provision of a differentiated funding system so that the individual needs for education of the children are met in all schools in the country irrespective of their location and student population.
9. Maintain the principles of efficiency, transparency and accountability in the allocation of financial and institutional resources from the public budget so that they address the equally accessible and quality 12-year free schooling for all.
10. Hold regular wide public consultations with the key stakeholders to ensure the equity measures are adequately evaluated, monitored and addressed.

Gender-equity related

11. Provide gender-sensitive training for teachers and school staff ensuring the teachers and the school staff are able to teach in gender-free methods and expose both sexes to a wide range of instructional styles and careers;
12. Revise the content of the schools textbooks to enhance gender mainstreaming throughout the learning cycles.

Recommendations for the international organizations active in education policies in Armenia

13. Include principles of conditionality for the state-parties to incorporate their obligations under international conventions into the domestic legal frameworks and to acknowledge the policy-practice gaps in their implementation.
14. Ensure the regulatory framework for the public education system is grounded in the principle of equity and equality as an essential precondition for the establishment of country partnership programs and initiatives.
15. Integrate a gender perspective in the programs and initiatives relating to education so that the gender disparities are eliminated at all levels of education.
16. Ensure effective implementation of the existing mechanisms for the advancement of the principles of equity in education.
17. Foster an active engagement of civil society in protecting the right to education for all, promoting increased understanding of the inequities in education among relevant stakeholders.

VI. Appendices

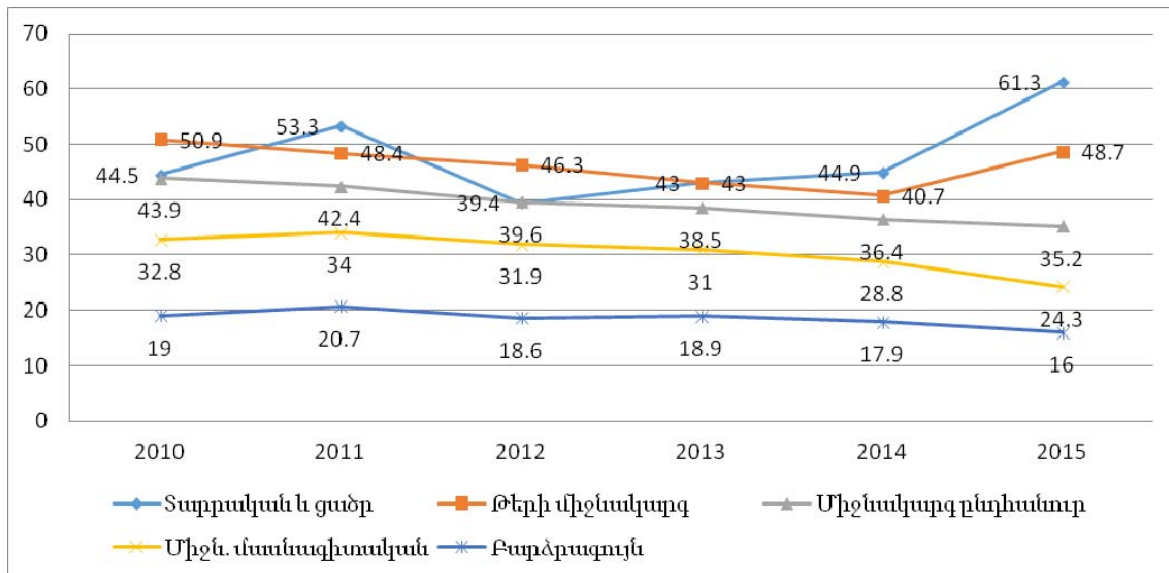
A. Overview of the School System in the Country Context

According to the latest available official data, the population of Armenia is 2,932,771 people. 63.6% of the population is urban. One third of the total population lives in the capital Yerevan (NSS, 2015). The official data show that significant demographic changes took place over the past decade that had serious implications for the labor market development and growth (IMF, 2017; The World Bank, 2017). Despite excess birth rates, the population decreased by 4.4% over the past decade, with emigration being the main factor behind such decrease of the economically active population. According the available data, the emigration rates remain high and intensified during 2013-2015 reaching an annual average of 35.000 people.

According to the official data, nearly 30% of the population lives below the national poverty threshold (NSS, 2015). Essential differences of poverty level are observed across regions of the country, where the level of poverty between the rural and urban settlements tend to grow deeper. In general, poverty is higher in urban areas as compared to the rural ones. However, detailed analysis reveals that the capital is doing much better compared to the most rural places. Moreover, extreme poverty, which is defined by the food poverty line, is mostly concentrated in rural clusters. According to the official data, over 2008-2015, the poverty rate in urban and rural communities increased by 1.8 and 2.9%. In 2015, the poverty rates were as high as 34.4% in the regional towns, 30.4% in the villages; the lowest rate was in capital Yerevan, 25%. The poverty rate among children under 17 is 34%. The share of the very poor in 2015 is 10.4% as compared to 12.6% observed in 2008. The share of the extremely poor in 2015 was 2.0% as compared to 1.6% observed in 2008 (NSS, 2015)

Poverty rates vary depending on the level of education among the population, the lowest rates being among those with tertiary education, around 1.8 times lower than the national average for population over 16. In 2015, some 16% of the university graduates were poor in Armenia, compared to 61% of those having primary education.

Figure 11 . Poverty (including extreme poverty), by levels of education, 2010-2015 (%)



Relative to 2010, poverty among university graduates declined by three percentage points, while it grew by 16.8 percentage points among those having elementary and low education. The largest group among the poor was the share of people with general secondary education- 51%.

Gender analysis of poverty shows that insignificant differences between 2008 and 2015, the poverty risk, however, is higher for the households headed by women.

Public education has been a priority for the development of the country since the reforms in the 1990s. An overview of the national policies and initiatives clearly pronounced, among other things, the improvement of the quality of education, equal access of quality education for all, development of education governance and management measures. Since the beginning of the 1990s the education system of Armenia has undergone several major reforms. The reforms have affected both the structure and the content of all parts of the education system. In the first decade of the reform process major activities have been directed at the structural changes at governance and financing mechanisms of the education system. Since 2006, the emphasis was placed on the content and its development and improvement.

In 2006, an amendment to the Law on Education extended education to 12 years and in 2015 the amendment to the same Law defined the 12-year education cycle as compulsory. As Bethnell and Harutyunyan (2008) explain, to achieve this, the cohort starting primary school in the school year 2006/7 was divided into two groups. Those aged 5^{1/2}–6 followed a new 12-year cycle before graduating in 2018. Those aged 6–6^{1/2} completed the old 11-year curriculum in 2017.

The current school system includes the following levels:

- Pre-school for children aged 3-6

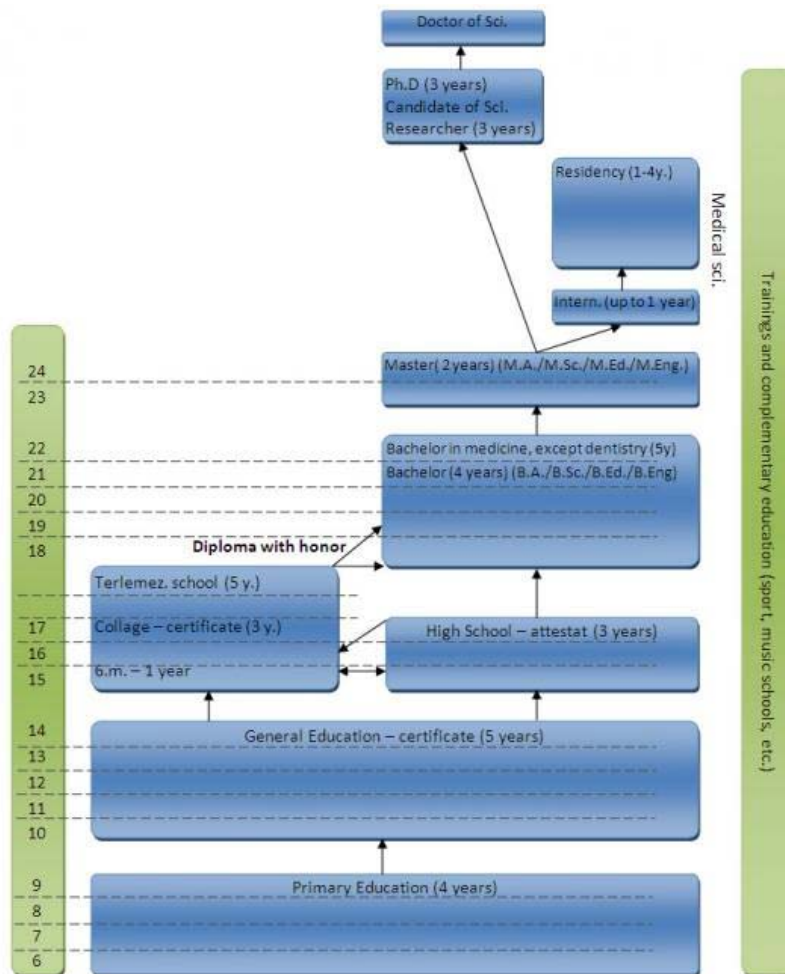
The 12-year education cycle includes a three-tier scheme including primary, middle and high schools.

- elementary school (grades 1-4)/ տարրական դպրոց/
- middle school (grades 5-9)/ միջին դպրոց/
- high school (grades 10-12) /ավագ դպրոց /

The general education pursued through the 12-year cycle offers two track options for the schoolchildren:

- either through the main school (հիմնական) school level from grades 1-9, followed by the upper secondary years at separate high schools (10-12); or,
- through comprehensive (միջնակարգ) schools where children can complete their 12-year cycle uninterruptedly (grades 1-12)

Figure 12: The Armenian Education System (Taken from http://www.armenic.am/akademiakan_janachum.php?nyut=48)



According to the statistical data for the 2015-2016 academic year, in Armenia, there are 1,361 state schools, including 482 main, 100 high, and 779 comprehensive schools. Of these, 30% of the

main schools and 7% of the high schools are located in rural communities, while the rural ones account for 91% of the total number of comprehensive schools. The majority (57.2%) of the state general schools in the country are comprehensive. High and main schools account for 7.3 and 35.4 %, respectively. The schools in Yerevan are mostly main and high schools (72.9 and 17.1%, respectively). Only 10% of the schools in Yerevan are comprehensive. The situation is considerably different in the regions, where comprehensive schools account for 65.9%; the share of comprehensive schools is particularly high in the Ararat, Armavir, and Gegharkunik regions (79.5, 75.8, and 74 %, respectively).

The comparison of data for six academic years starting from the 2010-2011 academic year shows that the number of state high, main, and comprehensive schools in Armenia tends to decline. In the last six years, as a result of the transition to a three-tier system of general education, many comprehensive schools were reorganized to main and high schools. In the 2015-2016 academic year, relative to the 2010-2011 academic year, the total number of schools shrunk by 15 (nine of which were rural schools).

The expenditure on education as a share of the GDP shows a steady decline over 2010-2015. The highest share was recorded in 2009, with 3.8% and declining since then. In 2015, the share of public spending on education in Armenia was reported at 2.8 %, according to the World Bank collection of development indicators.

Table 3: The dynamics of the actual budget expenditures allocated to the education sector, 2011-2015. Taken from: World Bank staff calculation based on NSS data. (The World Bank, 2017)

	2011	2012	2013	2014	2015
Budget expenditures on education, bln. AMD	106.1	102.8	103.1	115.8	122.2
Budget expenditures on education to total budget expenditures, %	10.8	10.2	9.0	9.4	8.7
Budget expenditures on education to GDP, %	2.8	2.4	2.2	2.3	2.4

According to the 2018-2022 Government Midterm Expenditure Program, the share of the public spending on education is projected to decrease to 2.18% in 2018, 1.99% in 2019 and 1.85% in 2020. This appears to be a contradictory trend to the commitment of consistency in the share of the public spending in education and earlier commitment in the 2011-2015 State Education Program to increase share to 4% (MOES, 2014).

B. Legal provisions for the right to education

At the national level

The concept of equal opportunity for everyone is embedded in the constitution of the country and the main legal laws and texts. The overview of the legal framework pertinent to this study demonstrates strong commitment from the state to ensuring the right to education for all citizens in the country. As per the Constitution of Armenia, every person has the right to education in the Republic of Armenia. Basic education is compulsory, with 12-year duration, and is free in all state educational institutions.

The Law on Education (1999, 2016 amended) ensures the right to education for all citizens, irrespective of the national origin, race, gender, language, religion, political or other views, social origin, property status or other circumstances. The principles underlying this legal text specify that the development of the general education is an important warrant for ‘the safety and sustainable development of an individual and society, as well as maintaining the Armenian identity’ (Article 4). For such a warrant, the Law further specifies ‘equal opportunities for the general education, accessibility, continuous and successive nature, as well as compliance with the development level, characteristics and level of proficiency of learners (Article 5).

A significant amendment to the Law in 2016 was the addition of the concept of ‘quality of the education’ which is defined as ‘a measurable outcome of the organization of education aimed at achieving the goals and objectives set by the education policy, which is assessed taking into account the learner’s individual needs, the education organization environment, the programmatic content of education, the education organization process, and the learning outcomes assessed as per the established criteria’ (Article 37). This addition was justified as a basic principle through which a comprehensive approach to quality dimensions were adopted based on the criteria set by UNICEF (UNICEF, 2000). Despite the provisions in the Law that about setting the criteria for the development of the dimensions of quality by relevant stakeholders, no further activities seem to be recorded to date.

The right to education and its principles of accessibility are further reinforced in the education state development programs. Education as a ‘fundamental human right’ that should be ‘universally accessible, inclusive’ and ensuring ‘quality for all’ is a priority vision for the development of education in the Education State Development Program 2030 (Draft, as to the date of this study). It pursues a goal that ‘rests on the national interests, reflects education relevance to the future needs of economy and society, and enables every citizen with an opportunity to get quality education based on their needs through lifecycles’ (Government of Armenia, 2017, pp. 5–6).

In pursuit of this goal, the state envisions two main principles of development, which are inclusivity, defined as a development of education policy and practice as in to ‘integrate all groups of

the society, including the vulnerable groups' (p.4); and the territorially proportionate development, as a 'pre-requisite of the sustainable development' (p.5).

The principle of universal inclusivity is prevalent in the legal commitments of the country that prescribe the implementation of the system of universal inclusion by 2025 (MOES 2014). The Law on General Education draws on the principle of inclusivity and builds on the idea that the universal inclusive education should be a safeguard of the realization of every child's right to education and ensuring for every child the accessibility of education, equal participation opportunities and its quality (Article 4). Thus, the principle of inclusivity goes beyond the person's disability and embraces broader dimensions for the provision of education for all.

However, there appears to be a conflicting conceptualization for the principle of inclusivity in the national legislation. The Law on General Education ensures additional funding directed at the special conditions of the education of children with five types of disorders. At the same time, the need for the special condition for education in this legal text is confined to the disorders and does not include any other obstacles, such as poverty, malnutrition, geographical location, gender, the family social status and alike. In such case, the needs arising from the above circumstances may be potentially neglected or ill-addressed, which in turn may impede the fulfillment of the right for education for all children.

International commitments

Equality of opportunity as a safeguard of realization of the right to education is enshrined in a number of international conventions, declarations, and other documents signed and/or ratified by Armenia. As a signatory state to the treaties, Armenia bears international obligations towards providing and protecting the right to education without discrimination or exclusion.

The principle of the right to education is prescribed for the countries ratifying the Convention on the Rights of the Child, including Armenia, whereby the right to education shall be recognized 'on the basis of equal opportunity' (United Nations Human Rights, 1989). Among other principles of the Convention are the absence of discrimination and the consideration of the education as of 'best interests of the child'. For instance, Article 28 of the UN Convention on the Rights of the Child provides that States Parties recognize the right of the child to education, and with a view to achieving this right progressively and on the basis of equal opportunity, they shall, among other things, make education available and accessible to every child, and take appropriate measures such as the introduction of free education and offering financial assistance in case of need. The interpretation of the principles of the Convention may certainly go beyond the provision of buildings and teachers for

all and include dimensions of discrimination such as family income and place of residence, in addition to gender, ethnicity and disability (Micklewright, 2000).

In 1993, Armenia ratified the UNESCO Convention against Discrimination in Education, thereby assuming the liability to ensure an education environment free from any discrimination and based on equality. Article 4 of the Convention specifies that equality of opportunity and equality of treatment in the matter of education shall be developed and applied and that ‘the standards of education are equivalent in all public educational institutions’ and that the ‘conditions relating to the quality’ are also equivalent (UNESCO, 1960).

Article 13 of the UN International Covenant on Economic, Social and Cultural Rights calls for making ‘secondary education in its different forms, including technical and vocational secondary education, available and accessible to all by every appropriate means, and in particular by the progressive introduction of free education’(United Nations, 1976).

Education as a human right is also reaffirmed by the international community, in their collective commitment towards the United Nations Sustainable Development Goals. SDG 4 on Education calls for inclusive and equitable quality education and lifelong learning opportunities for all by 2030. It advocates for equal access for all to affordable and quality education at all levels, and calls for building and upgrading education facilities that are child-, disability-, and gender-sensitive and for providing safe, non-violent, inclusive and effective learning environments for all (United Nations General Assembly, 2015). As such, the commitments of the government of Armenia must be seen as international obligations for the right of education. The draft Education State Development Program 2030 sets a specific targets within its actions plans that follow the SDG 4 and specify that ‘by 2030 ensure equal access to education at all levels for all vulnerable groups, including those in need of special education, for all boys and girls, men and women in vulnerable situations. The policies and principles in the field of education shall target differentiated groups of learners and needs of the individuals and approximate the approaches to their specific needs’ (Target 5).

Education as a human right was also reaffirmed on Education for All agenda (EFA). The EFA goals correspond to the provisions for the right of education and specify the commitments of the country towards universalizing primary/secondary education and ensuring gender parity and equality in education. The political commitment of the governments to Education for All to provide quality basic education for all children and adults, with particular focus on the ‘most vulnerable and disadvantaged children’ and ‘ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning’ (UNESCO, 2000).

The commitment to universal inclusive education is driven by the state obligations taken under the UN Convention on the Rights of Persons with Disabilities (). According to Article 24, the ‘state parties recognize the right of persons with disabilities to education’. According to the general comment No 4 by the UN Committee on the Rights of Persons with Disabilities regarding Article 24 of the Convention, inclusive education is to be understood as a fundamental human right of all learners, irrespective of sex, race, age, religion, nationality, disability, or other status.

Overall, the legal framework of Armenia through its main legal and regulatory texts appears to follow the principles for ensuring the right of education, and its main recent policy initiatives seem to include equality of opportunity as a principle for provision and promotion of the right of education. These documents reflect the promotion of quality education as a human right, through a ‘web of commitments’, where education reflects a broader learning context for the individual (Saito and Capelle, 2010)..

C. Methodology

This study is of exploratory nature carried out to reveal the most challenging aspects of equity in general schools in Armenia over 2010-2015.

This study was conducted using a mixed method approach by combining the following methods:

1. Primary data collection

- Surveys of teachers, 7th-12th-grade students, and parents of 57 general schools, as well as university students
- In-depth interviews with 600 teachers, 600 students, 1,002¹² parents,¹³ and 1,400 students of 24 departments of 12 universities
- Focus groups discussions with teachers, students, parents, and university faculty. 10 focus groups with teachers, 10 focus groups with students, and 11 focus groups with parents were organized.
- Observation of schools. Photographs were taken gain a full understanding of the physical conditions in the general schools included in the sample of the sociological survey. In each school, photos were taken of the principal’s room, the teachers’ room, the water closets, the

¹² Only 7.2 percent of the surveyed parents were male.

¹³ The parents’ questionnaire contained annexes equal to the number of children attending the school, which enabled collecting data and opinions on 1,655 children.

heating system, the windows, the canteen, the computer rooms, the gym, the lobbies, the general façade of the school, and the worst and the best classrooms.¹⁴

- To assess the trends in gender attitudes of teachers, the survey developed by the “Vstahutyun” NGO in 2010 survey was replicated for 2017. Comparisons between the results in 2010 and 2017 we done¹⁵.
2. Secondary data collection. Review of existing statistical data (through the websites of National Statistical Service, National Center of Education Technologies, UNESCO Institute for Statistics and others), previous studies, legal texts and regulatory documents, reports of international organizations and other documents were consulted to support the findings.

Sampling of schools

The sociological survey sample includes all the regions of Armenia. Given the objectives of the survey, the sample of general schools, teachers, students, and parents was developed using multistage cluster stratified sampling strategy, which allowed comparing:

- Schools in Yerevan, the regional centers, the regional towns, and villages;
- High schools, basic schools, and secondary schools; and
- Opinions of teachers, students, and parents.

Five state general schools were selected in each region and in the city of Yerevan:

- One basic school in the regional center;
- One high school in the regional center;
- One basic school in another town (or village) of the region;
- One high school in another town (or village) of the region; and
- One secondary school in a town/village.

As a result, 57 state general basic, high, and secondary schools were selected.

Sampling of teachers, parents, school students

Through random probable sampling in each school of each region, 14 parents were selected (keeping the sample’s random step from all the class registers of the school), as well as eight students (keeping the sample’s random step from the 7th-12th-grade registers of the schools), and eight teachers (keeping the sample’s random step from the staff list). If the selected school was too small for a full

¹⁴ The photos were taken for visualization of the physical conditions in general schools, rather than data measurement.

¹⁵ The comparison of the 2010 and 2017 survey results has been done for the area of Yerevan only for validity purposes, as the original 2010 survey covered only the area of Yerevan

sample to be formed, the region's sample was supplemented through other similar schools. The random sample step was determined on the basis of the total number of teachers/students in each school. In six schools of the City of Yerevan, 200 teachers, 200 students, and 300 parents were selected through random probable sample and surveyed.

Sampling of university students

The survey of university students was carried out using cluster sampling strategy. Universities operating in Yerevan and other towns of Armenia were selected, and their departments were classified by profession and number of students. In each selected department, 100 students (including 50 first-year and 50 fourth-year students) were surveyed. This logic of the sample allowed comparing the number of applicants using and not using the services of tutors for admission to various universities and departments, as well as the three-year trend in the take-up of tutoring.

Ethical considerations:

To maintain the anonymity of the surveys, the questionnaires did not contain the names of the respondents. The school teachers gave oral consent to the focus group with students, and the in-person questionnaire survey with the child was carried out in the child's house, with the parent's oral consent. The faces of persons photographed for this report are covered up for reasons of anonymity¹⁶.

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¹⁶ The survey team sought the consent of the school administration before taking photos.

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Figure 12: The Armenian Education System

F. Additional Information

Equity in access

This section of the report discusses the dimension of equity as a fair allocation and an equal distribution of resources (such as institutional, financial, human), as one of the cornerstones in ensuring the equal opportunity to obtain a quality education. For the purposes of this report, the available data on the physical and material access will be provided and reflected upon.

The review of the official data points at a number of problematic areas. The major area is the inadequate conditions of the school buildings, particularly those located in the rural areas. Despite some positive dynamics regarding the renovations and repairs done in the Armenia's schools since 2011 (59.6% in 2011 cf. 48.6% in 2015), the number of schools that lack adequate conditions is still fairly high across the country. Thus, in Yerevan, a total of 111 schools (about 50% of all the Yerevan schools) need capital renovation or current repairs, of which 25 schools need current repairs, and 86 schools need capital renovation. In the regions, there are a total of 564 schools (about 48% of all the regional schools) that need capital renovation or current repairs, of which 187 schools (33%) need current repairs, and 377 schools (67%) need capital renovation.

The review of the in-school conditions, such as the water supply, heating, furniture has also shown a number of inadequately resourced schools, mostly in the rural areas.

The official statistics show that in 2015-16 water supply is missing in 6.5% of Armenia's schools (88 schools). The percentage of such schools is relatively higher in the Gegharkunik (12.7%) and Syunik (11.6%) regions. As of 2015, sewerage was missing in 153 general schools (12.1%), which is a decrease from the 15.8% in 2010. Heating is lacking in 8 schools of the country, of which 4 are in the Shirak region, 2 in Ararat, 1 in Syunik, and 1 in Lori. 481 schools performed individual heating using heaters or electrical stoves, of which only 2 schools are in Yerevan. The six-year trends in data indicated some improvements in gas supply of the schools: the number of the schools that did not have gas supply decreased from 45.5% in the 2010-2011 to 33.4 % in 2015-2016.

Further review of the school resources shows certain incompliance with the Sanitation Norms and Standards regarding the aspects of sanitation and maintenance of the institutions. The UNESCO Education for All Report mentions certain violations regarding the sanitary-hygiene and urban construction norms and criteria in the educational institutions. Most notably the irregularities are mentioned for the unequal conditions for the urban and rural schools (UNESCO, 2015).

The discussion of the allocation of the public funding to schools to ensure they are adequately resources to ensure accessibility for different groups of students leads to the possible economic barriers. The shortage of public funds for the renovation is often mentioned as primary reason for such barriers, however, it should be acknowledged that the financial investments have already been made for partial and capital renovations through credit support of the transnational organizations.

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