

AMERICAN UNIVERSITY OF ARMENIA



REFORMING SECONDARY PUBLIC EDUCATION SYSTEM
IN ARMENIA

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LIST OF ABBREVIATIONS

ECA – Eastern and Central Asia

FSU – Former Soviet Union

GDP – Gross Domestic Product

IACER – Information Analytical Center of Economic Review

IALS – International Adult Literacy Survey

MED – Marz Education Department

MOES – Ministry of Education and Science

NGO – Non-Governmental Organization

OECD – Organization for Economic Co-operation and Development

RA – Republic of Armenia

UNDP – United Nations Development Program

UNESCO – United Nations

UNICEF – United Nations Children’s Fund

U.S.A. – United States of America

WB – World Bank

Abstract

Public schools form the primary stage of education and play an important role in the educational hierarchy of the Republic. The schools provide the individuals with fundamental knowledge and promote formation of the individual as a member of society.

The world is undergoing changes that make it much more difficult to thrive without the skills and tools that a high quality education provides. This is particularly important for the poor, who have to rely on their skills as the main, if not the only, means of escaping poverty. In this way, new challenges and opportunities arise for education. In these, Armenian secondary education system is not an exception, and new challenges can only be met by means of reformation of the secondary education system.

Generally education tries to solve the major economic and social challenges a country faces and goes hand in hand with a country's economic and social demands.

Given the importance of education this work focuses on problems of Armenian secondary education from the World Bank's perspective on quality secondary education. Analyzing the shortcomings it currently faces the work suggests reorganization of schools, maintenance of maximum enrollment, modern curricula geared to the new technological age, and the real needs of the emerging local needs, effective teacher training and school administration system as means to improve the situation.

INTRODUCTION

Education affects how well individuals, communities and nations fare. It improves living standards and enhances the quality of life, and can provide essential opportunities for all. In a rapidly changing world, education has become more important than ever before. Faced with increasing globalization, rapid spread of democracy, technological innovation, the emergence of new market economies, countries need more highly educated and skilled populations, and individuals need more skills and information to compete and thrive. There is a close relationship between access to education and improved socio-economic indicators.

The administration of education in Armenia was highly centralized during Soviet era, and was concerned with every aspect of education - control, financing, curricula, textbooks, teacher performance, salaries and etc.. At the time of break-up of the Soviet Union, Armenia enjoyed one of the highest standards of education among the Republics of FSU (Former Soviet Union). However, since independence due to the shortage of centrally generated revenues, Armenia faces an extremely difficult challenge to maintain universal access and high quality of general education. Many families cannot afford proper attire and cannot meet the informal payments for education. Besides, the education that people have access to must be of good quality in order to provide the skills needed to operate successfully in complex, democratic societies with changing global market needs. Due to its economic structure, relatively small market and the scarce raw materials and primary processing facilities, Armenia is highly dependent on its human capital. Armenia's economic growth strategy needs to include reforms and actions for building the country's human capital through upgrading skills and ensuring that the educated population participates in the mainstream economic activities.

The quality of learning outcomes is influenced by such factors as relevant teacher training, financial incentives for teachers, decent physical environment, sound teaching, learning materials, and appropriate curriculum. All these are factors that need to be improved in Armenia in order to attain high quality education.

However, well functioning education system mostly depends on effective governance of the sector. In order to ensure effective management of education sector it is needed to attain strong leadership interested in education, sound governance arrangements, clear goals and expectation for staff and students. In Armenia it is not the case and education sector governance faces a lot of shortcomings in terms of factors mentioned above and still needs some reformation.

So, in order to maintain high quality education the current secondary public education needs reformation. Reforms in education take place in different stages of economic and political development of a country. Generally education tries to solve the major economic and social challenges a country faces and goes hand in hand with a countries economic and social demands (Finn, 1992).

The purpose of my work is to study the current secondary education system (policy) in Armenia, to identify the shortcomings it faces today and to suggest the ways to improve the situation. However, the situation will be evaluated from the World Bank's (WB) perspective on the issue. The system will be viewed within the World Bank's education strategy framework and the shortcomings will be identified according to the World Bank's criteria of good secondary education.

The following work consists of five chapters.

The first chapter of the essay describes secondary education structure in general. It discusses every component (organization, control, financial support, curriculum, teaching-learning process, educational opportunities) composing the overall structure secondary

education separately, and shows how they vary from country to country. Also, given the nature of those basic components in Armenian secondary education system, the chapter shows how WB approach to secondary education could apply to Armenian secondary education system.

The second chapter describes the World Bank approach to secondary education. It discusses the WB's criteria of quality secondary education for Eastern and Central Asian countries.

The third chapter examines the current situation of secondary education in Armenia in terms of main parameters composing the overall structure of secondary education from the WB's perspective on good secondary education. Analyzing the situation, the chapter also identifies the shortcomings the current secondary education system faces in Armenia.

The fourth chapter mainly deals with findings from the analysis presenting them more specifically.

The fifth chapter proposes the amendments that are necessary to improve the situation.

As it was already mentioned, current situation of the secondary education system in Armenia will be evaluated from the World Bank's (WB) perspective on the issue - the system will be viewed within the World Bank's education strategy framework and the shortcomings will be identified according to the World Bank's criteria of good secondary education.

World Bank has worked out an education sector strategy for developing countries. It treats education comprehensively and selectively across all areas of education depending on each country's priorities. The reason the World Bank approach is chosen as a study framework of this study is that its schooling strategy provides actual and practical approaches

to main parameters of schooling system of Eastern and Central Asian countries, including Armenia.

As it was already mentioned, the basic components that compose the overall structure of schooling system are – organization, control, financial support, curriculum, teaching-learning process, and educational opportunities.

Organization of school system deals with school structure: it is generally divided into various stages or levels that follow one another – elementary school, basic or compulsory school, secondary school. School systems in most countries provide more than one kind of secondary school: general/academic, which specializes in academic subjects and vocational/technical schools providing training in specific occupations or trades through work-based programs. Some programs of longer duration also offer academic courses that let students complete general secondary school equivalency along with vocational training (World Book Encyclopedia, 1994).

Control system varies country by country. Every country has passed laws governing education and has set up a system of public schools. A state school system provides facilities for every level of education. In most countries, like France, schools are controlled by central government: a national ministry of education decides all questions of educational policy and manages the local public school. In many other countries, including most European nations except Great Britain, the central government exercises a high degree of control over certain aspects of the educational system. These countries have ministries of education, which decide educational policy. But the ministries transfer some responsibilities to local authorities. In Great Britain for example, the national government shares control of the educational system with local authorities (ibid.).

Financial support in every country comes from public funds. Nations provide public funds for education in various ways. In general, two methods are used: 1) In most countries,

including almost all heavily populated ones, the national government shares the cost of education with other levels of governments, such as states, provinces, or cities. In many of these countries, such as Belgium, France, and Italy, the national government supplies most of the funds. In others, including China and India, the funds come mainly from lower levels of government. 2) In some countries, the national government pays all public education costs. These countries include Iran, New Zealand, and Thailand.

Many countries obtain additional funds for public education from tuition fees, voluntary contributions, and other private sources. Some developing nations receive foreign aid for education (ibid.).

Curriculum is that which is taught in school. It is the content of education and it embraces the goals the education strives for (Oliva, 1988). Textbooks and other learning materials have to be aligned with curriculum and learning standards for a given subject and grade. Curriculum and textbooks are also within the range of issues of control system: centralized administration systems are concerned with curriculum and textbooks (as in France), however, in decentralized systems of control states and localities have power to work out separate curriculum for schools under their jurisdiction (as in America) and select appropriate textbooks (The World Book Encyclopedia, 1994).

Teaching strategies are highly influential for education outcome. Teachers use a variety of methods to achieve the desired learning goals. Today, in all societies, young people still learn through apprenticeship, imitation, and ritual. But as society grows increasingly complicated, teachers and schools take on more responsibility for educating young. However the kind and amount of responsibility they assume vary from society to society. In some society teachers guide students in seeking important knowledge and analyzing possible solutions to meaningful problems (ibid.). In other countries (e.g. FSU Republics), the teacher is an expert and the students are passive receivers of knowledge (Berryman, 2000).

Educational opportunities to schooling vary from country to country. Some nations, including most of those in Europe and North America provide compulsory primary education. Almost all children in these developed countries receive at least an elementary education, and most also receive a secondary education. As a result, the developed nations have high literacy rates (percentages of citizens who can read and write). Most developing countries, on the other hand, have low literacy rates. Many children do not even receive an elementary education, as they can't afford the costs of education. A number of developing countries, such as India and Venezuela, make widespread use of radio to broadcast educational programs to people in remote areas (The World Book Encyclopedia, 1994).

So, after discussing the main parameters of the overall schooling structure, we can see that there are different education sector strategies (e.g. American approach, etc.). However, American approach will be an inappropriate framework for this study. Schooling in U.S. takes place in different organization, style, and function, and the use of American primary and secondary education strategy, as a study framework will be inadequate and unpractical in terms of the main parameters of education system.

Organization of secondary education in America provides several different kinds of junior and senior high schools – comprehensive, academic, vocational and technical – with somewhat different missions. Vocational/technical education aims primarily at preparing individuals for a job (Berryman, 2000). However, given the present unfavorable conditions of vocational/technical schools in Armenia and the fact that there is no completely formed labor market with specific labor demand, the reorganization of vocational/technical schools in Armenia becomes inappropriate and unrealistic in terms of educational resource deficit (Hayatsk Tntesoutian, # 5).

Unlike the Armenian Constitution, the American Constitution makes no mention of education. Because the Constitution of U.S. does not give the federal government control

over education, the states automatically have the power, which have in turn passed on the responsibility for the daily administration of schools to special local school districts. In spite of this, there has been no lack of federal counsel and assistance. Almost every state has an elected or appointed board of education or commissioner of education. The board of education sets state educational policies. The state superintendent, who heads the department of education, sees that the board's policies are carried out. Each local school district has its own board of education and superintendent of schools. State and local boards of education have power to set up their own curricula and work out teaching methods, and decide the organization of school (The World Book Encyclopedia, 1994).

Certain private foundations have some indirect control and influence over education. They grant money for such purposes as student scholarships and research programs. School textbook publishers influence what and how children are taught (ibid.).

Financial support for U.S. public education comes almost entirely from local, state, and federal taxes. Almost all the money needed to support the public schools comes from local property taxes and state government. The federal government pays about 6% of expenses. It aids and encourages education in two main ways: 1) it tries to ensure that all children are granted equal educational opportunities, 2) it provides funds for certain type of education when such aid is considered beneficial to the U.S. as a whole (ibid.).

This kind of decentralized control and financial support to primary school system in Armenia cannot apply fully. Although some elements of decentralized control is possible and desirable to implement in Armenia, the core of complete decentralization of schooling is decentralized financing. Armenian education system now relies predominantly on centrally generated revenues. Revenue generation for education is decentralized only if subnational (local) levels of government define the tax bases and determine the rates of the taxes that raise funds for education sector. Central governments can raise larger amounts of money than

local governments can: local governments in Armenia do not yet have much to tax (Berryman, 2000). So, centrally funded scarce resources for education limit the local schools abilities to work out separate curricula, teaching methods and select textbooks.

Coming to the issue of equity, the federal government of the U.S.A. insists that every state provide equal educational opportunities for all its citizens (see box 1).

However, in U.S. the definitions of equal opportunity refer increasingly to wealth, region, physical disability, race, sex, or ethnic origin rather than simply to access (The New Encyclopedia Britanica, 1998). Being rather homogenous country in terms of race and religion, Armenia has equal opportunity problem mostly in enrollment and attendance rates, as well as in acquiring quality secondary education. So, the American style of measures of providing equal opportunity to schooling also cannot apply to Armenia's equal opportunity to schooling problems.

As it was shown, American approach to secondary education cannot apply fully to secondary education system of Armenia, But, as it was already mentioned the WB approach provides adequate secondary education strategy that fully could be applied to the same parameters in Armenian secondary education system. For Armenia the Bank has identified the issues of the sector financing, decentralizing management and the appropriate quality of education meeting labor market needs. The Bank's general secondary education strategy includes:

- 1) Fair and equal educational opportunities for all, ensuring maximum enrollment. In terms of rising costs of education there are many children in Armenia deprived the opportunity to attend school and have access to quality education.
- 2) Maintenance of appropriate quality of secondary education meeting labor market needs and needs of global economy – mainly through relevant curriculum, teacher service reform, and adequate organization of upper secondary education. In

Armenian schools "factology" based curriculum and traditional teaching methods still dominate. Besides, the facts show that upper secondary education neither prepares for entrance exams for universities nor for the job market.

- 3) Decentralized management of the education sector. This decentralization aims at defining the roles and responsibilities at all levels of school administration, ensuring accountability and so enhancing the quality of education. School administration system in Armenia provides weak accountability and roles and responsibilities at different level of school administration are not clearly defined and specified.
- 4) Sustainable and efficient financing of schooling system based on "money follows student" formula. According to this formula each student assigned a certain amount of money funded by the center. Current financing system of schools is not efficient in terms of centrally generated scarce revenues (Berryman, 2000).

So, given the unfavorable condition of secondary education system in Armenia – unequal educational opportunities, inadequate curriculum and teaching methods, weak system of school administration (poor accountability and not clearly defined roles and responsibilities of different levels of school administration), and inefficient way of school financing in terms of centrally funded scarce resources – the WB's secondary education sector strategy could fully be applicable to Armenia's secondary education system, as WB's secondary education approach contains necessary remedial steps for those aspects mentioned above that meet reformation in Armenia, and also it is practically quite possible to implement the strategic steps suggested by the WB.

Methodology

Method of this study is reviewing whether current policy on secondary public education of RA conforms to the objectives and standards promulgated by WB. For this purpose extensive review of secondary sources and an interview with an expert was conducted. The data and information contained in the study have been collected from three main sources:

- 1) Review and analysis of background documents, studies, research, policy papers, and mission reports of World Bank, UNDP, UNICEF, UNESCO, Ministry of Education, and also "Hayatsk Tntesoutian" Government's newsletter.
- 2) Statistics from the National Service of Statistics, Ministry of Education, World Bank, UNDP.
- 3) Interview with an expert of department of secondary education of Ministry of Education and Science.

Description of the World Bank Approach as a Study Framework

Education is a cornerstone of the WB Group's overall mission of helping countries fight poverty with passion and professionalism to achieve lasting result. It assists its client countries to identify and implement their next strategic steps in order to provide access for all to quality education. WB approach to secondary education will serve as a framework to study secondary education system in Armenia. The reason it is chosen as a study framework is that it deals with the actual problematic issues in education system characteristic to developing countries. The Bank does a lot of cross-country research in education which has had an improving impact on priorities and strategies in education. It treats education comprehensively and selectively across all areas of education depending on each country's priorities. WB's comparative advantage lies in its ability to bring together a wide range of stakeholders, offer access to finance, provide objective advice, employ a multi-sectoral approach, sustain a long-term commitment, and share knowledge drawn from around the world. They bring their global knowledge to bear on the particular issues each of their clients face: what kinds of interventions have worked well, and in what setting, and how best to use and adopt this experience to fit local needs and circumstances. In overall, the Bank's education strategy aims to overcome the economic difficulties the transition countries face and also to raise living-standards of people in those countries (Education Sector Strategy, 1999). So, WB approach to education is an appropriate study framework for education system in Armenia as Armenia is also a developing country with huge economic difficulties.

The Bank has worked out an education strategy for Europe and Central Asian countries (ECA). According to WB approach to secondary education in ECA, it must respond to the new economic and civic imperatives of emerging markets and open societies, because

the changes in these areas will dramatically affect the knowledge, skills, and the values that citizens need (Berryman, 2000). ECA countries are moving at different rates from centrally planned economies to market economies. The implications of a market economy for education are radically different from those of planned economy. Price based economies generate relationships between wages and human capital; in planned economies there is little relationship between the two. When market forces, not planning, define the skills and knowledge that workers need, the profiles of human capital required to compete in labor markets must change to let individuals adapt to rapid changes in skill demand. Consequently, the shift will increasingly require workers with better information-processing, problem-solving, and knowing-how-to-learn skills (ibid.). Berryman (2000) also mentions about the necessity of a strong body of civic institutions that provide transparency and accountability needed to attract investors. It is also needed a shared commitment, across social divisions, to the rules of social participation, thereby increasing trust and social cohesion. Trust reduces transaction costs; social cohesion promotes economic development by reducing the risk of political instability. If the broader society supports these civic objectives, schools can encourage both of them.

So, fundamental changes in ECA education sectors will be required to achieve these objectives. In order to achieve the desired results mentioned above in ECA the Bank suggests the following strategy:

1. *Fair and equal educational opportunities for all ensuring affordability and maximum enrollment.*

Since the transition, inequities in learning opportunities have increased in ECA. As ECA economies increasingly approximate market economies, human capital will increasingly affect the prospects of individuals. Education help create human capital. Fairness of

educational opportunity is therefore important in combating poverty (Education Sector Strategy, 1999).

The research done by Filmar and Pritchett (1998) showed that increasing costs to families are affecting enrollments among the poor as a new tendency to shift education costs to families coincides with growing income gaps between families created by the transition to market economies. Increased private costs for education are driving down the participation of children from poor families. Studies done by the WB document a clear relationship between families' demand for education and their incomes (World Bank, 2000).

However, great income inequality translates into more unequal abilities to pay the costs of education. For example, families make "voluntary" payments for teachers who have not been paid. In some cases they pay for "private lessons" to their child's teacher to ensure that the child gets a good grade. Although some governments officially charge for textbooks, others purport to provide them free. Sometimes textbooks often turn out to be scarce, forcing parents to buy them on the private market or have their children do without (Berryman, 2000).

One indicator of a decline in enrollment rates especially can be seen at the upper secondary level. Failure to complete upper secondary education handicaps the individual in a market economy. Education builds human capital, which increases worker productivity. Greater worker productivity increases output (economic growth) and individual incomes (ibid.). The turmoil at the upper secondary level, especially declining enrollments in vocational/technical programs, are explained by the WB as reflection of demand and supply factors. These tracks were closely aligned with the planned economies of the region and are therefore poorly aligned with transforming economies. Students have understandably found them less attractive. They have entered the general education track at the upper secondary level, or, since secondary education is not compulsory, simply left school after completing

basic education. Supply has also diminished. State owned enterprises, which ran many of these programs, either went out of business or closed their training programs (Berryman, 2000). IALS (International Adult Literacy Survey) (OECD, 2000) which shows that failure to complete upper secondary education, whether academically or occupationally oriented, will increasingly place the individual at a disadvantage in ECA labor market. Based on this, the Bank states that ECA countries should reverse the enrollment declines in upper secondary education by increasing the market value and attractiveness of upper secondary programs. Education helps create human capital and it affects poverty through wages. Market economy provides entirely different implications for education. It generates relationship between the wages and human capital. Therefore fairness of educational opportunity is important in combating poverty. There is evidence that the level of poverty differs according to education people have (Berryman, 2000).

2. To provide appropriate quality of education meeting labor market needs and needs of global economy.

The more rapidly the world changes and the more complex it becomes, the more important are the skills that a quality education can provide. All countries need educated and skilled citizens who can operate in a democratic society, workers who can meet changing labor market needs and compete in global markets, learners capable of benefiting from the technology revolution, and polices capable of harnessing the evolving public/private interface (Education Sector Strategy, 1999).

According to WB approach countries' education strategies must include ways to improve the quality of education, as well as the child's physical and mental readiness to learn. Improving quality means achieving detectable gains in the knowledge, skills, and values acquired by the students, through upgrading the environment in which those students learn.

The learning environment includes the students, teachers administrators, managers and other service providers operate (ibid.).

Based on the economic and civic imperatives confronting ECA, the Bank suggests that individuals have to acquire the following:

- 1) knowledge that is broadly based, allowing a flexible response to change,
- 2) Social foundation skills that support future learning,
- 3) Adequate metacognitive skills (knowing-how-to-learn, or executive thinking skills), and higher order cognitive thinking skills,
- 4) Substantial experience in applying knowledge and skills to unfamiliar problems,
- 5) Respect for differences and for shared rules of citizenship that establish the ground for trust and cooperation (Berryman, 2000).

Globalizing market economies are much less tolerant of workers with low skills. Variations in years of education and skill acquisition result in serious differences in employability and wage returns. To prevent the emergence of a group of youths who are virtually unemployable, ECA education system will have to ensure that all students leave school competent in the foundation skills and in higher order cognitive thinking results (Education Sector Strategy, 1999).

For the improving education quality Bank necessitates the changes in what should be taught (curricular content) and how it will be taught (their pedagogy) (Berryman, 2000). Adopting curricula compatible with equipping students broadly and flexibly for the world of work is vital. Everything else flows from decisions about the curricular framework. That framework reflects assumptions and agreements about content, about how content should be thought and about how students learn. Within curriculum framework teachers can help their students meet those expectations. In overall, according to WB the curriculum should reflect countries' education goals (ibid.).

As it was already mentioned, the Bank pays special attention to the process of teaching. Teachers are the crucial determinant of what is being learned in the classroom, and teachers commitment to improvement is essential if change is to have a real impact to learning. So, the Bank emphasizes professionalizing the teaching force - through reorganizing incentives (salaries) and training - in ways that take account of local circumstances. The Bank's education policy highlights the importance of quality teaching - where teachers have the opportunity for regularly upgrading their skills in order to maintain mastery of their subject area - is likely to bear fruit. The Bank notes that since active learning is generally superior to learning by rote, countries that move strongly toward more participatory and individualized modes of learning will be at an advantage to those where students are passive receivers of knowledge. However, the teachers must have the opportunity not only in implementing reform, but also in developing a new program (Education Sector Strategy, 1999).

3. To decentralize school management to local levels and finance for sustainability, quality, and fairness.

Progress in above issues (fair and equal enrollment opportunities and quality education meeting labor market needs) requires strong, productive partnerships. The job of strengthening education is too big for any single institution. Therefore, the Bank supports partnerships amongst central government, local government and communities, within a more decentralized form of management to improve service delivery. Governments and local stakeholders will have to work closely together in a prolonged effort to ensure change. According to Bank, the more rich array of partners can work together effectively, the better the results will be - and the faster education will improve (Education Sector Strategy, 1999).

Governments in ECA remain the largest funders and providers of education. Although governments have a major role to play in education (defining curricula, setting standards) they cannot do everything. Fiscal considerations make it difficult for most governments to be the sole provider of "free" education to all who seek it at every level. There are many areas of education service provision (such as text books and vocational training) where actors other than the government tend to be more active and efficient (Berryman, 2000).

Virtually all ECA countries generate revenue for education at the central level, and many of them distribute it to localities using various sharing arrangements. According to WB centrally generated funds should be distributed to units of local government that are large enough to manage a school system. Bank views the major financing goals for the region's education systems should be sustainability and use of public finance to ensure educational quality, fairness and governance and accountability. Reducing inefficiencies in the region's education systems will clearly help achieve fiscal sustainability. Even countries in the region with expanding economies have to manage scarce public resources efficiently. Efficiency in the education sector is defined by the Bank as getting better student outcomes (such as more learning) for the same resources, the same outcomes with fewer resources, or better outcomes with a different input mix that costs less or the same. The Bank has estimated that in general ECA education systems consume more resources than are required to reach their goals (ibid.). For ECA countries Bank suggests "money follows student" (demand-side-financing) formula alternative. " Money follows student" simply means that funding for education is function primarily of the numbers of students. Such system are sometimes said to be based on capitation, or unit cost, or average cost (ibid.).

However, in the efficient delivery of educational services most ECA countries have just started to confront the demanding requirements of governance, management, and

accountability. *Governance* refers to the steering function for the education system - setting goals and monitoring the sector's progress in achieving them. *Management* refers to the effective implementation of goals. *Accountability* refers to the mechanisms that stakeholders can use to assess the sector's performance and pressure the state to represent their interests. These three dimensions are interrelated. The vigor of the accountability mechanisms in a country affects the transparency and inclusiveness of goal setting. The nature of the goals determines whether managers of the system have clear signals or directives - an issue of some importance, since too many or confusing goals undermine the efficiency of management and the basis of accountability. The management of the sector determines the quality of the statistical and policy analysis capacities needed to increase the realism of reform goals and to report on progress in achieving them. Distortions in the governance, management, and accountability functions make the achievements of other objectives problematic (Berryman, 2000).

Given this reality, the Bank views that in ECA education systems tend to fail on these three dimensions. Since processes of setting goals are undeveloped in so many ECA countries, the basic tasks of sector managers are ill defined, and, in general, the sector's management falls far short of good public management standards. As for the accountability, in ECA, pretransition accountability systems are no longer valid (*ibid.*).

The Bank states that restructuring the sector's governance, management, and accountability has to be the highest priority for governments. Goals set for the sector should be limited in number, measurable, and accepted by stakeholders. Management of the sector can be improved in the context of comprehensive public administrative reform. Governments can strengthen the sectors accountability through better checks and balances among rules and standard setting, competition (stakeholders "choice") and participation (stakeholders' "voice") (Berryman, 2000).

Current Situation and Analysis of Secondary Public Education in Armenia

Accomplishments of education were one of the triumphs of Communist rule. At the time of the collapse of Soviet Union, in 1989 in Armenia adult literacy was generally universal: participation and completion rates for children and youths of both genders were high at all levels of education, teachers came to work; students had textbooks, students from Armenia that participated in international assessments of mathematics and science performed well; and repetition and dropout rates were low (UNICEF, 1998).

However, the factors that resulted in good educational outcomes under the requirements of Communist rule have changed. The rules of market economy and open political system differ from those for command economy and authoritarian political system. After the collapse of communism, during transition, schooling reformation in Armenia should be discussed in the context of rapid economic and social changes that greatly influenced the reforming process.

This chapter gives an overview of secondary public education in Armenia that highlights a number of major changes that have taken place in the 1990s. Some changes have brought improvements, while others can be assessed as a step backwards and significant loss.

Since this study is based on WB's secondary education sector strategy, and Armenian secondary education system will be evaluated from WB's perspective on quality education, the secondary education system in Armenia will be viewed according to the dimensions within WB's priority on the issue. So, the chapter looks at:

- 1) access in education, focusing in particular on changes in enrollments at different levels and educational opportunities,
- 2) structure and content of education, focusing on their links to the requirements of the labor market, and teacher service,

2) financing and governance of educational systems, focusing on the effects of control decentralization and "money follows student" financing formula.

ACCESS IN EDUCATION. In accordance with the Constitution of RA secondary public education is general and compulsory.

The secondary full education comprises three stages: elementary school - from 1st to 3rd grades,

middle school - from 4th to 8th grades, high school from 9th to 10th grades.

Primary and middle schools together compose basic education (Topuzyan et al., 2000). Enrollment rates are still quite high compared with ECA countries, however, it is declining since 1989. Calculations made using data collected from National Statistical Service indicate that enrollment rate in secondary schools decreased from 85.2% in 1991/1992 to 77.4% in 1999/2000 (Milia, 2001).

According to WB, basic education (6/7-14/15 age group) enrollment rates have declined from 95.5% in 1989 to 82.9% in 1997 (Berryman, 2000). In 2000 it encompassed about 87% (Topuzyan et al., 2000). In 1989 enrollment rates in upper secondary education (general or academic, technical, and vocational) were 68%. By 1997 it declined to 42% (Berryman, 2000). In 2000 it encompassed 76% (Topuzyan et al., 2000) (see tables 1 and 2). Prior to independence about 20% of the students completing Grade 8 moved to technical vocational schools. The rest (80%) continued to complete grades 9 and 10.

Enrollment rates are one useful measure of educational access. However, it should be taken into account that enrollment rates are typically based on administrative registration at the beginning of school years and do not capture either attendance, or dropping out during the year. There is evidence that the number of children from poorer families that leave the school before completing basic education is increasing and there are also growing number of

children who attend school irregularly because of the cost of education. Many families cannot afford proper attire, stationary, textbooks and cannot meet the informal payments of education (Hayatsk Tntesoutian, 2001, #5). So, it can be assumed that real attendance to schools is actually smaller than the official numbers indicate.

As it was already mentioned there is a significant decline in upper secondary enrollment rates. A strange correlation is observed between the age of the students and their attitude toward studies attendance. Logical outcome should be the following: the students should realize the role of education in their life as they grow and be more interested in receiving education and knowledge. 82% of the 8th grade students regard school to be a storage of knowledge, while only 72% of the 10th grade students have the same opinion (Social Indicators of Poverty, 1998). This means that in a two-year period the expectations of the students from the school have decreased by 10%. This mistrust towards the importance of receiving education also has a negative impact on their education process, as there are almost no opportunities to have an appropriate job after having secondary education. 10% of school heads think that every second of the senior grade students is involved in some kind of profitable activity either during the school hours, or after classes. It should be mentioned that in rural areas all senior grade students work on their land during the harvest season and are not completely involved in their studies. In the opinion of 64.2% of school heads, child labor has a negative impact on studies (ibid.).

The apathy towards the lessons is also influences attendance rate. 3.7% of 8th grade students and 5.5% of 10th grade students miss their classes because of apathy towards studies (with a logic, it is more interesting on the streets, all the same we shall get certificates) (ibid.). However, irrespective of the reasons, any kind of decline of the rate of attendance has a negative impact on the education quality.

In fact, given that other conditions (abilities, skills) are equal, children from poor families compared with children from financially secure families have unequal opportunities for education. One third of teachers considered that more than two third of students who have dropped out of schools are from insecure families (ibid.).

Another significant factor affecting educational equality is existence of so called “shadow” system of getting lessons in Armenian secondary schools (private lessons) (Interview with an expert). Two types of “shadow” lessons exist in Armenia: 1) the private lessons are organized in schools by teachers mainly to improve grades, and 2) by private repititors mostly for ensuring entrance to higher educational institutions. The second is due to the low quality of education provided by school: higher education requirements are higher than schools usually provide, so a gap is created that should be fulfilled. It is logical that children from well-off families can attend classes that provide better quality. It can be assumed that children from poor families cannot afford the costs of private lessons and they lose their competitiveness almost in every aspect of social life. Besides, the fact of being overloaded by private lessons also becomes a reason for missing classes in upper secondary school.

So, given the facts mentioned above, it is followed that in Armenia equality of educational opportunities is constrained, especially the equal opportunity of access to quality education. Education creates human capital that is very important in combating poverty. According to National Statistical Service of RA, the level of poverty is higher among those people who have lower education. Among those who don’t have elementary education, and those who have primary education the level of poverty is greater (see tables 3 and 4) (Hayatsk Tntesoutian, 2001, #8).

THE STRUCTURE AND CONTENT OF EDUCATION. Small government funding and the challenges of economic and social life have resulted in the deterioration of the quality of education. In “Education Development State Program” it is clearly stated, that the current quality of education doesn’t provide enough socialization of an individual, a citizen ensuring a new level nation development, labor force, and strong bases for science development (Hayatsk Tntesoutian, 2001, #5).

CURRICULUM: School curriculum has changed for the worse during transition period. Generally curriculum reflects country’s educational goals. However, in a rapidly changing environment Armenian secondary education system has not set yet clear goals, and consequently there is no clear curriculum (Hayatsk Tntesoutyan, 2001, #5). The existing curriculum does not create favorable conditions for enhancing students’ interest towards education and willingness to for obtaining knowledge independently (interview with an expert).

The syllabus for any given grade usually includes such a large number of subjects that learning is necessarily superficial, with no time for teachers and students to reflect on and question the content or for team-based and individual projects, The syllabus, textbooks, and learning materials structure the content more as facts to be memorized than as a set of building blocks and flexible tools (interview with an expert). In the information age reallocation of facts has become significantly less important, with the andante of the Internet and easily accessible printed materials, while the ability to interpret and evaluate information has become more important.

Being large in terms of numbers of subjects, curriculum provided in Armenian schools is limited in scope. In general the curriculum lacks social sciences. This was in part due to the deliberate suppression of subjects deemed incompatible with communist ideology (several social sciences). At its worst, “reform” has merely meant removal of Marxist-

Leninist doctrine from textbooks and its replacement with nothing else (UNICEF, 1998). The Soviet curriculum used until 1991 encouraged rigid ways of thinking under a totalitarian system. Some changes have been made since 1991 and new instruction programs have been created. A new curriculum is being developed where new subjects like life skills, ecology, and human rights are being included and some existing courses are being revised (Topuzyan et al., 2000). However, more attention needs to be paid to the relevance of the content of education to the new economic and civic imperatives of emerging market needs and open society, because these changes will dramatically affect the knowledge, skills, and values that citizens need.

ECA countries are moving at different rates from centrally planned economies to market economies. This shift will increasingly require workers with better information-processing, problem-solving, and knowing how-to-learn skills. Available international test data show that ECA countries are significantly behind OECD (Organization for Economic Co-operation and Development) countries in many such skills (Berryman, 2000).

Two attributes of a civic society are particularly important for economic growth. The first is a strong body of civic institutions that provide transparency and accountability needed to attract investors. The other is a shared commitment, across social divisions, to the rules of social participation, thereby increasing trust and social cohesion. Trust reduces transaction cost; social cohesion promotes economic development by reducing the risk of political instability. If the broader society supports these civic objectives, schools can encourage both of them (ibid.). So, it becomes necessary to realign the content of instruction with new objectives, ensure that all students attain higher levels of foundation skills, and establish opportunities for adults to adjust their human capital to new skill demands. Mass production of goods and services in centrally planned economy depended on routinization and a hierarchical specialization of function, where most workers, even middle managers, were not

expected to exercise judgment, initiative, or problem-solving skills, and most decisions were referred up to the chain of command. Inflexible production, by contrast, employers broaden job description to give each worker authority over more of the component tasks of production, flatten organizational hierarchies, and introduce job rotation and team-based work. The jobs of less skilled workers begin to incorporate some of the supervisory, planning, repair, maintenance, and quality control functions previously reserved for managers or specialists (ibid.) (See table 5).

The content of education mainly is reflected in textbooks, but the content of currently used textbooks is also incompatible with new requirements. Although, substantial progress has been made in this direction in Armenia, but a lot remains to be done. Currently implemented school textbooks' program intends to provide each student with necessary textbooks. It is done mainly by means of creation of textbook "reproduction" program: it is self-financing program that is based on renting mechanism. This will give schools an opportunity to acquire new textbooks independently, relying on own resources in a four-year time. Also, three competitions of school textbooks were organized in 1997/98, 1998/99, 1999/2000 for 80 textbooks and 29 teachers' guidebooks. As a result, 56 textbooks and 20 teachers' guidebooks that won a tender published and distributed to schools (Topuzyan et al., 2000). This kind of organization of textbooks and guidebooks publication encourages the improvement of textbooks and guidebooks quality.

THE ORGANIZATION OF UPPER SECONDARY SCHOOL. Inadequate high school structure is another vivid shortcoming identified in Armenian secondary school system. It prepares students neither for the entrance examinations for universities nor for the job market (UNDP, 2001). Although the main task of general secondary schools is different from giving students certain specialization, in terms of downsizing of vocational schools, the need that

general upper schools provide some skills for the further orientation of students in labor market becomes an urgent issue. There were 93 vocational schools with 33000 students in 1991. However, by 2000, the number of them had decreased to 56 with 2100 students. Unfortunately, many of the pre-independence vocational schools have not survived the transition, since the skills taught there became redundant for the needs of the market economy. Besides the drastic collapse of industry, as well as the existing enormous rate of unemployment has dramatically reduced the demand for vocational education (Hayatsk Tntesoutian, 2001, #5).

Given the fact about vocational secondary schools mentioned above, the professional orientation system of the secondary schools of the RA remains inadequate and unpractical. Currently, the general high school provides the student with theoretical knowledge, which creates difficulties for a person to express his or her preferences and creativity. In terms of relevance to the labor market, the country faces a unique challenge. In the Soviet system almost all school graduates were guaranteed with jobs. Unfortunately, today's school graduates leave school without the relevant skills and knowledge needed in the new economy and are liable to be unemployed (Milia, 2001). According to current statistical data, given 99% literacy in RA, 30% of unemployed are up to 30 years old, and 35-36% among them have vocational secondary and higher education (Hayatsk Tntesoutyan, 2001, #5). Besides, the data from Work and Employment Service of the RA provides that among unemployed in December 1999, 23% have secondary vocational education, 58.4% have secondary general education, and 7.1% incomplete secondary education, and 11.5% higher education (The Socio-economic Situation of the Republic of Armenia, 2000).

Also, for those who want to continue their further education in higher institutions, upper school gives irrelevant knowledge. The requirements of entrance examinations are thoroughly different from what the students learn in schools (interview with an expert). The

fact that seven out of the ten school heads think that the knowledge obtained at schools is not enough for entering higher educational institutions speaks about the irrelevant quality of education (Social Indicators of Poverty, 1998). The research survey conducted on 250 applicants by the Ministry of Statistics in 1997, confirm the fact 90-95% of those applied to the state institutions have taken private lessons simultaneously with their school studies (ibid.). One of the most important reasons of such results is that high school doesn't provide adequate tracks for special subjects for those who want to study them deeply for higher institutions' entrance exams. Given that upper secondary school generally provides neither job nor required knowledge for higher institutions' entrance exams, the education system in upper school becomes obsolete. Those who are going to continue for higher education are busy with private lessons and almost don't attend school. The others just waste time in upper classes since the knowledge provided there doesn't guarantee further job opportunity. This fact necessitates tracking in upper school, so that everybody gets education according to his or her need. Otherwise, it means that the state uses its scarce resources not purposively. In terms of limited state fund for education the spending on upper school education turns out to be just waste of money.

TEACHER SERVICE. The role of teaching staff is highly important in education process. In order to make the teaching process more effective and to maintain the appropriate level of education the teacher should be professional in his or her sphere. Currently 60.565 teachers are employed in secondary schools of RA, among which only 70% have higher pedagogical education, and 8% have only secondary education (see figure 1). Besides, student/teacher ratio is very low in Armenia, about 10 : 1, given that, in order to optimize resources, the

student/teacher ratio according to the State Program for Educational Development (2001-2005), it should be 20 : 1 (Hayatsk Tntesoutian, 2001, #5). However, there is an evidence of an increase (more than 10%) in the number of teachers between 1990-97, although the number of students decreased (see table 1) In spite of this, there is a shortage of teachers in the rural areas (Milia, 2001).

“New times,” new curriculum requires new quality and methods of teaching to disseminate the revised curriculum effectively in the classrooms. However, the situation is far from being satisfactory with regard to introduction of new teaching methods (see table 5). The traditional form of instruction, where the teacher is an expert and student is a passive receiver, still dominates. According to the data provided by the Republican Institute of Teacher’s Advancement, only 3% of the teachers working in the public schools had attended any training course in the period of 1993-1996 (Social Indicators of Poverty, 1998). Access to training has become a challenge because of financial difficulties. According to the survey, 57% of teachers regularly prepare for their lessons and 36.7% of them read the necessary literature. 6.9% of those who have never worked to improve their qualifications have blamed such reasons as the burden of household duties and lack of time (ibid.).

The students’ requirements toward the intellectual abilities of the teachers and their initiative and attitude toward the education process has also increased. More than 60% of the respondent students mentioned that the attitude of the teachers towards the students and their professional level also have a negative impact on their education process (ibid.).

It is worth mentioning that the respondent teachers have not evaluated highly their qualification level and objectivity. 62.1% of the teachers considered their qualification level had declined as compared to the level of 1990, 27.5% of them considered it to be on the same level. The decline of the level of objectiveness of the teacher’s is confirmed by the fact that based on the awareness of the students, the parents of 9.7% of the 8th grade students and 7.3%

of the 10th grade students regularly “do some favor” to the teachers (give them some gifts). In opinion of 42.2% of the headmasters the teachers lack objectivity of grading as well, which creates a precondition for abuse and tendencies for increase of cases of trading for better grades. This provokes a decrease in the level of responsibility of students (opinion of 75.8% headmasters), which can become a character trait and impact negatively on their future development (ibid.).

The low morale of teachers mainly comes from their low salaries (despite a 30% increase in 2000, the average monthly salary of teachers is \$20) together with the existing life conditions that negatively impact the quality of education. Low salaries and irregular payment make teachers address their efforts and time at making money. Thus, the pedagogical activities go to the second plan. Teachers resort to practices such as withholding of grades or not teaching during class time to force students to take private lessons. In 1999/2000 school year about 12% of schoolchildren attended private lessons from such subjects as mathematics (35.1%), Armenian language (16.8%), foreign languages (12%), music (15.2%). The tuition is from 1000 to 10000 drams. But, in special cases it reached to 65000 drams (Topuzyan et al., 2000). Consequently, this increases the private cost of education substantially and also raises an important equity issue regarding access to quality education for the poorer children (Milia, 2001).

MANAGEMENT AND FINANCING OF SECONDARY EDUCATION. The Ministry of Education and Science (MOES) is responsible for the planning, policy, supervision and monitoring of the entire education system in the RA. The overall structure, organization and financing of the secondary education system has undergone radical changes over the past decade. The previous centralized system is being gradually replaced by a system of self-

governance and community management of schools. The decentralization process was initiated in 1996 when the management was transferred to the newly established Marz Education Departments (MEDs). These departments are responsible for the management and coordination of all schools in the respective marzes (Milia, 2001).

Decentralization of government activities has been a phenomenon in many parts of the world in recent years. Antipathy to the highly centralized government of the socialist period is a key factor in the transition economies, although the center holds tightly to its powers in a surprising numbers of cases (UNESCO, 1998). It is important to see decentralization as only a process, as just a means to an end. In the case of education, the purpose of decentralization should be to raise learning achievements. The mechanism for this, in theory are increased efficiency and greater local accountability in the supply of education, leading to higher quality schools that are more in line with the population's preferences. However, the decentralization of government activities is undertaken for various reasons that may unfortunately have little to do with improving school quality. Decentralization involves the transfer of authority from higher level of government to a lower level and may merely represent a shift in the balance of power between the two (ibid.).

“Decentralization” is rather empty phrase until the elements of to be decentralized are made clear. The impact of decentralization on learning depends on what is involved. The list could involve the responsibility for operating schools or for financing them, the choice of curricula and teaching materials, teacher training, teacher numbers and salaries, school construction and maintenance, and more besides (ibid.).

According to Education Law passed in 1999, the supreme body for school management in Armenia is the School Board, which consists of members elected by the community, parents, teachers and local government representatives appointed by the marz authority. The responsibilities of budgeting and management are being handed over to pilot

schools under the new reform in a phased manner (50 schools in 1998, 150 in 1999, and 50 in 2000) (Topuzyan et al., 2000). However, currently only 204 out of 1387 secondary schools are regulated in such manner. Although the responsibilities for planning, accounting and budgeting have been decentralized, but the fund flow is often delayed and the process is not monitored adequately. As a result, in many cases marz officials, School Board members and communities are incapable of executing their responsibilities. This acts as a disincentive for the new system (Milia, 2001).

What is going on in Armenia in terms of decentralization cannot be considered a “full” decentralization. It can be considered just as process of enhancing accountability of different levels of school administration system. If central government may devolve responsibility for operating and financing schools, for example, but retain the right to set teacher salaries and numbers, thus placing a major constraint on the room for maneuver of local government and reducing the impact of decentralization. The fact remains that central government currently has and will have at least in the nearest future a vital role in monitoring, regulating and setting standards. However, as it is seen, it is not clear what decentralization really means in Armenia. The rights and responsibilities of central authorities, marzpetarans, school and local authorities are not clear. The reason is that the core of complete decentralization of schooling is decentralized financing.

With an educated population and low per capita GDP, the country is in a difficult position where it is faced to sustain its education system with a fraction of resources that were spent during the Soviet era. In 1980 about 8% of the GDP was spent on education, while the share has been reduced to just over 2,8% of GDP in 2000 (see figure 2). As a result of economic crisis and the resulting budgeting constraints following Armenia’s independence, per student expenditure decreased from \$600 in 1985 to about \$36 in 2000 (ibid.).

Government expenditure on education in 2001 is 11% - one of the lowest in the world (see figure 3). The budgeting allocations earmarked for education do not provide for the full operation of the educational institutions and do not cover a major part of the necessary expenses related to education (UNDP, 2001). This has resulted in poor physical facilities in schools, insufficient teacher training, inadequate teacher compensation and incentives and the absence of timely supply of textbooks and other teaching materials. The quality of education has, therefore, deteriorated considerably. The State Program for Educational Development (20001-2005) proposes that budgeting allocation to education be increased to 4% of GDP by 2005 with annual increase for teachers salaries and free textbooks for elementary grades. Since the program is yet to be approved by the Parliament, the financial facilities of the education sector remains uncertain and somewhat dismal (Hayatsk Tntesoutian, 2001, #5).

According to the new Education Law, the money allocation to schools is to be based on per student cost, according to “money follows student” mechanism. It implies the following formula:

$B = AN + C$, where N is the number of students learning in the school, A is the certain amount of money assigned per student, C is the money assigned for maintaining of a school.

So, the formula becomes: $B = 14.000 \times N + 2600.0$ (thousand drams).

This mechanism aims at:

- 1) enlarging the opportunities for purposive spending of money giving the power of allocation to School Boards,
- 2) rationalizing the use of resources within the schools (the average class-size, student : teacher ratio, the Average number of students in schools).

Currently, 204 schools are being piloted to test this new funding modality. The remaining part is financed by the old system – based on the class-units. It implies that money is given to the schools to spend for specific purposes identified by the center. This sometimes results in

that money for school's communal services is not provided from the center (Topuzyan et al., 2000). However, "money follows student" financing mechanism will be implemented only in those schools that have more than hundred students. Those schools with students less than hundred will be financed based on class-unit numbers. However, they will be given an opportunity to use the resources given them according to their discretion.

In most cases funds are transferred from the Treasury to the marz authorities, which are responsible for ensuring proper allocation of funds and smooth functioning of the School Boards. In some cases the responsibility for overseeing the School Boards has been delegated to the community or "hamainks". The new system provides flexibility to the schools to use the allocation money according to their needs and use resources more effectively. However, since the schools have not been given an autonomous legal status there is reluctance on the part of the local management to take major decisions like optimizing the number of teachers and increasing salaries. There is also a weak transparency in terms of clear definition of roles and responsibilities of the MED, school Board, school administration and the MOES. In addition, delays in funding result in teachers not receiving salaries for 3-6 months at a stretch (Hayatsk Tntesoutian, 2001, #5).

Another problem occurs with the appointment of the principal, which according to the new system is the responsibility of the Board. Pressures from local vested interest groups in some cases result in a lack of objectivity in the hiring process. Checks and balances need to be introduced to ensure that the process is guarded against nepotism (Milia, 2001).

In terms of scarce funding resources, other foundations and NGOs are not so much involved in education sector, which puts the burden only on the government. Besides, parents and communities are also alienated from schools. However, their involvement in decision-making process also makes school administration and teachers more accountable. In this regard, the School Council and parents could play a more proactive role (ibid.). Since

Armenia has a history of a strong, centrally controlled and fully financed free education system, it is difficult for the teachers, students, parents and administrations to adapt to a new system where some of the responsibility for mobilizing resources and ensuring fiscal sustainability is gradually being shifted to local level. The communities or “hamainks” as well as the local authorities are not ready yet to assume this responsibility (Milia, 2001). Hence awareness building and training programs have to be undertaken for teachers, parents and the community to enhance their knowledge and understanding of the changes and to ensure full ownership of these changes (ibid.).

Coming to the issue of financing, since it is currently impossible to create enough locally generated funds to finance local schools, it means that Armenian education system has to predominantly rely on centrally generated revenues. The first requirement for any system of financing to accompany decentralization is that local government should be given access to local sources of taxation with freedom to vary the tax rate. The tax base should ideally yield a substantial proportion of local government income. The second requirement is a system of transfers from central government to provide more money to poorer areas (those with a lower tax base). Furthermore, it should give more funding to areas with a higher need to spend on education, for example where there are more children per capita or greater social deprivation (UNESCO, 1998). But the extent these requirements are met in Armenia is limited. Local revenues in Armenia are generated mainly by property and land taxes that encompasses only a very small part and is not enough to cover the expenditures on education (Hayatsk Tntesoutian, 2001, #4). The tax rates are set by the central government, preventing communities from making adjustments to suit their own needs. So, local tax and revenue systems are not well developed and are unable to support educational expenditure and other essential social expenditures without help from the center. So, it gives great importance to the system of transfers from central government. Besides, even if local taxation system operates

in Armenia, and if subnational government pay for education only of children in their jurisdiction, geographic differences in income translate into unequal educational opportunities. Poor regions have poor education systems that produce poor educational outcomes (Berryman, 2000). The assurance of an equitable provision of education almost inevitably includes a system of financial transfers to local governments in poorer areas (UNESCO, 1998).

So, it can be assumed that in Armenia decentralization for pilot schools currently implies centrally funded “money follows student” mechanism and local allocation of those resources. The main power schools are getting from the overall process of control decentralization and changed financing mechanisms, it is the power to use money given them according to their discretion. The benefit of such kind of decentralization in Armenia is that it will enhance the transparency of the use of the money, as it is controlled by hamainks and parents. The priority of such financing is the purposive use of available resources. If the roles and responsibilities of different levels of government are clearly defined this type of financing will result in efficient and fair outcomes.

FINDINGS

As it turned out educational fairness and equal opportunities are not fully functioning in Armenia. Enrollment rates are declining in Armenia since 1989, mostly due to the rising costs of education. Children from poorer families are especially disadvantaged to acquire quality education in terms of growing “private lessons.” As a result they lose their competitiveness in the job market. The implications of a market economy for education are radically different from those of a planned economy. Price-based economies generate relationships between wages and human capital; in planned economies there is little relationship between the two. Education builds human capital that increases worker productivity and affects poverty through incomes. As studies show, in Armenia, as elsewhere in the world, there is inverse correlation between the level of education and level of poverty. So, those students that do not have equal opportunities to acquire adequate quality education lose their further prospects to compete in the job market. In Armenia, as it was seen above, declining enrollment and attendance rates speak about a large number of such disadvantaged students.

The main challenge that needs to be addressed in secondary educational system is the low quality and the lack of relevance of education. Such indicators as “factology”-based curriculum, poor teacher performance and inadequate methodology used by them, low teacher salaries, inappropriate organization of upper secondary schools speak about low quality of secondary education in Armenia.

Poor curriculum accompanied with traditional inadequate methodology used by teachers, doesn't encourage the development of students' creative thinking. Market economy and rapidly changing environment require creative and flexible individuals who can easily orientate and adapt in different and unforeseen situations characteristic of modern workplaces.

Low salaries have resulted in low incentives for teachers and indifference to the efficiency of their work. This in turn negatively impacts on students' interest towards classes and learning process. So, the overall quality of education suffers. Low salaries of teachers also give rise to the development of "shadow" lessons to cover the gap resulted from the low quality of formal education, so creating unequal opportunities for students to acquire quality education.

The inadequate organization of upper secondary school is another shortcoming of the secondary education system. It prepares a student neither for entrance examinations nor for a job market. This serious shortcoming hinders an individual's transition from one level of social life to another.

In general, the low quality of secondary education may result in a significant long-term social and economic impact since the extent of poverty and social inequity, the level of social cohesion and the development of civic and democratic institutions depend largely on the quality of human capital.

Coming to the issue of school management and financing, it turned out that school management and financial roles and responsibilities at each level of the school system are not clearly defined and articulated. Consequently, it leads to weak accountability and transparency of each level of school administration. That makes the overall performance of the secondary education system ineffective.

As for the financing mechanism "money follows student," it is the best alternative in terms of the current condition of scarce revenues for education. It is a fair type of financing, that guarantees each student's right of a certain amount of money. It is also sustainable and efficient way of financing, because it gives an opportunity to spend money given to schools according the needs they face. The automatic result of this mechanism will be to purposive and rational use of available resources.

RECOMMENDATIONS

After studying and evaluating the current secondary education system in Armenia within the framework of WB approach to secondary education, it turned out that Armenian secondary education system faces serious shortcomings in terms of main parameters that compose the overall structure of secondary education system (organization, control, financial support, curriculum, teaching-learning process, educational opportunity).

Since the education is very important in creating productive human capital, to provide economic advancement and consequently alleviating poverty, Armenian secondary education needs serious changes. Some reformation in schooling system has had positive effects, such as passing from rigid control to system to more flexible one, and many specialists from education sphere are struggling for preserving those changes. So, to provide quality secondary education system in Armenia, the reformation should be implemented in the following directions:

Recommendation 1. Access. To achieve maximum enrollment in secondary education and increase access for hard-to-reach children to schools, schools should provide social assistance for those children who are in need. It is necessary to adopt a differentiated approach for providing free textbooks and stationary for those children whose families can't afford the costs of education, so giving them opportunity to meet required school expenditures. However, this assistance should be provided by means of scholarships funded by state and local budgets.

Recommendation 2. Increase the relevance and improve the quality of secondary education, it is needed to implement reformation in the following directions:

Curriculum. If Armenian students are to compete with students from the rest of the world, it is imperative that a new curriculum with emphasis on problem-solving and decision-making skills be introduced in the schools.

The curriculum used under Soviet system has to be redesigned and reformed to suit the needs of new democratic political system and market economy. This will require not only a change in the curriculum content and scope, but also a change in approach. The school curriculum needs to be further revised to incorporate a certain degree of flexibility for more active learning methods. It should be supplemented with adequate reading materials, textbooks, and other teaching aids. The curriculum has to be introduced not only on the cognitive front, but also in the domain of attitudes and values. Analysis and problem-solving need to be emphasized more than mere memorization and accumulation of facts. The nature and range of options and the degree of specialization offered also need to be optimized both from the internal and external efficiency point of view. If students are to be prepared for employment in a dynamic market economy they will require transferable skills and ability to adopt.

As it was already mentioned, current school organization prepares students neither for higher institutions' entrance exams, nor for the job market. So, in order to enhance the value school education and to spend state resources more efficiently and purposively, school curriculum must cater to the needs of two basic groups of students: those who will seek immediate employment after general education and those who will continue for higher education.

The organization of upper secondary school. In terms of deteriorated vocational secondary school system and not completely formed labor market demands (it is not clearly decided what specialties currently have demand in labor market), general secondary upper school should provide foundation skills – good literacy and quantitative skills that can be flexibly

deployed – and the higher order cognitive and metacognitive skills. Students do not need to acquire in public schools detailed vocational skills that are quickly rendered obsolete due to rapid technological change characteristic of modern workplaces. It is better to give such knowledge that enables students to orientate in the job market. Besides, the list of subjects for upper secondary school needs to include those subjects, which correspond with the demands for specific areas and localities (e.g. for rural areas agricultural skills and knowledge may be taught).

For those who want to continue for higher education, it is needed to provide specialized tracks according to the subjects student have to take for the entrance exams.

Teacher Service. The revision of the curriculum and implementation of the new curriculum must be accompanied by teacher training and incentive programs. Both pre-service training in the Pedagogical Institute as well as in-service training should be implemented. This will mean revising the teacher training curriculum and training of trainers and teachers. This should be geared toward a smooth and efficient implementation of the new curriculum and also for re-orienting teachers to new approaches to teaching methods.

The best incentive for teachers to perform well is the rise of their salaries. As there is a an oversupply of teachers, to optimize resources it is needed to reduce the number of teachers to reach to the student/teacher ratio of 20:1. It will give an opportunity both to raise the salaries and to enhance the quality of education.

Recommendation 3. Management. To improve management capacity, accountability and transparency both at central and local level, and if the new system is to succeed, the rights and responsibilities of the central authorities, marzpetarans, School Boards, and local authorities need to be further clarified, so that they can better facilitate the delivery of educational services. Besides, to ensure better accountability parents' active involvement in

school affairs is needed. Since there is some resistance by a part of teachers, students, parents and administrators towards the implementation of a new system of school management, it is necessary to conduct awareness programs at all levels to ensure understanding of responsibilities and ownership for the change. For the implementation of a new type of decentralized management, it is also needed to provide training to MED staff, “hamaink” members, School Boards and school administrators to enable them to execute their new responsibilities in planning and accounting and school management.

Recommendation 4. Financing. Since local financing system of schools is not realistic in Armenia at least in the nearest future, the best alternative of school financing is “money follows student” mechanism. This mechanism provides sustainable financing for equity and fairness and each student’s right for certain amount of money. It is necessary to continue the implementation of “money follows student” formula extending it to those schools in Republic of Armenia that have more than hundred students. For others that have less than hundred students it is better to provide differentiated approach: those schools should be financed in traditional way, according to class-units number. But, they should be given a right to spend the resources given them corresponding to their needs.

The main priority of “money follows student” formula is the opportunity of purposive spending of scarce resources provided to schools. However, if the financing mechanism is to succeed it is necessary to ensure the money’s transparent spending actively involving in that process the representatives from parents and “hamaink” members.

Box 1

In U.S.A. school choice includes *open enrollment* and the *voucher system*. Open enrollment allows parents to send their children to a public school in or outside their local district, provided that their choice does not interfere with desegregation plans. One way of providing families with a school choice is *magnet school* that draw students from one or more districts, a region, or an entire state. The voucher system gives parents a coupon, or voucher, to pay for their children's education in private schools as well as from special public schools. They claim that educational choice would enable poor parents to send their children to better schools and would improve schools by making them compete for students and funds.

Source: Webpage: "*Education reform: Ten Basic Questions Answered*" <http://www.urban.Org/news/factsheet/eduFS.html>

TABLE 1**Data on Number of Secondary Schools, Teachers, Enrollment 1991-2000**

Years/Numbers	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
School	1344	1365	1385	1393	1402	1402	1399	1407	1387
Teachers	54449	56910	58945	57626	57424	60804	60181	62318	60.565
Students	587538	600309	589408	574027	591579	584218	596630	596630	578461
Age 7-16 Population	689800	712192	728127	739973	747262	750996	757782	759030	753887
Enrollment Ratio	85.2%	84.4%	81%	77.6%	76.5%	77.9%	78%	78.6%	77.4%
Teacher/Student Ratio	1/10.7	1/10.5	1/9.9	1/9.9	1/10.3	1/9.6	1/9.9	1/9.5	1/9.5

Source: Milia, Ali. Education Sector Review, Armenia. UNDP, 2001, April.

TABLE 2

Enrollment rates for basic, overall (general, vocational) upper secondary, general secondary and vocational secondary education from 1989-1997.

Education	1989	1990	1991	1992	1993	1994	1995	1996	1997
Basic (6/7-14/15)	95.5	94.6	91.6	91.1	86.4	82.2	81.4	82.8	82.9
Overall upper sec.	67.5	63.4	58.3	54.1	49.5	45.6	40.4	41.3	41.5
General	35.9	34.3	32.5	31.3	31.2	30.7	29.1	29.6	30.4
Vocational	31.6	29.0	25.8	22.7	18.3	14.9	11.3	11.7	10.9

Source: from Sue, E. Berryman, "Hidden Challenges to Education Systems in Transition Economies" (2000). World Bank estimates based on UNICEF-ICDC TransMONEE Database.

TABLE 3
Education and Poverty

The level of education	Not Poor (%)	Poor (%)	Very Poor (%)	The Level of Poverty (%)
Have not elementary education	42.1	26.3	31.6	57.9
Elementary	44.1	26.7	29.2	55.9
Primary	36.9	40.2	22.9	63.1
Secondary	37.7	43.3	19.0	62.3
Vocational	41.1	44.3	14.7	59.0
Higher	41.9	50.5	7.6	58.1

Source: from "Education and Economic Activity of Population" in **Hayatsk Tntesoutian** Newsletter, "Information Analytical Center of Economic Review" of the Government of the Republic of Armenia. 2001, #8.

TABLE 4

The relationship between those who have worked after graduating and those who haven't worked

Level of Education	Have You Worked After Graduation? (%)	
	yes	no
Incomplete Secondary	21.1	78.9
Secondary	31.4	68.6
Vocational	43.5	56.5
Higher	39.8	60.2
Total	34.8	64.9

*Source: from "Education and Economic Activity of the Population" in **Hayatsk Tntesoutian** Newsletter, "Information Analytical Center of Economic Review" of the Government of the Republic of Armenia. 2001, #8.*

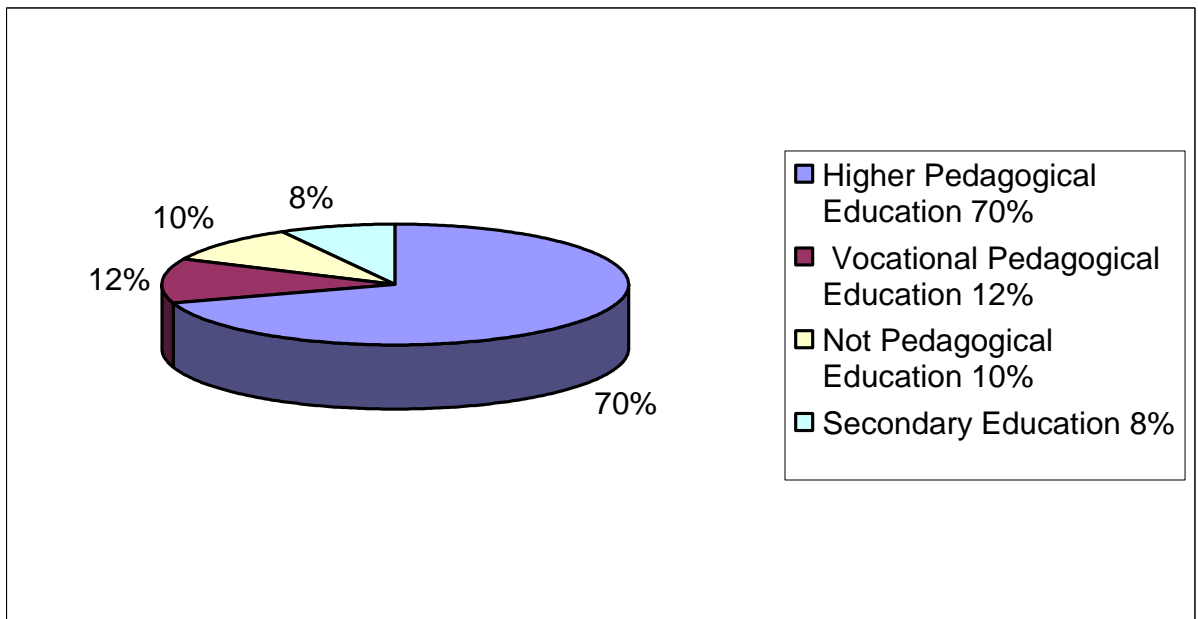
TABLE 5

Differences between Traditional and New Teaching Strategies and Workplaces

Traditional arrangements		New Arrangements	
Teaching strategy	Workplace	Teaching strategy	Workplace
Teachers as experts convey knowledge to passive learners	Passive order-taking in a hierarchical work organization; heavy supervision to control workers	Under teacher guidance, students assume responsibility for learning, in the process developing knowing-how-to learn	Workers are expected to take responsibility for identifying and solving problems and for adapting to change by learning
Emphasis on facts and on getting the right answers	Emphasis on limited responses to limited problems and on getting a task done	Focus on alternative ways to frame issues and problems	Workers deal with non-routine problems that have to be analyzed and solved
What is to be learned is stripped meaningful content	Focus on the specific task independent of organizational context or business strategy	Ideas, principles, and facts are introduced, used, and understood in meaningful context	Workers are expected to make decisions that require understanding the broader context of their work and their company's priorities

Source: Sue, E. Berryman, (2000) "Hidden Challenges to Education Systems in Transition Economies," page 14.

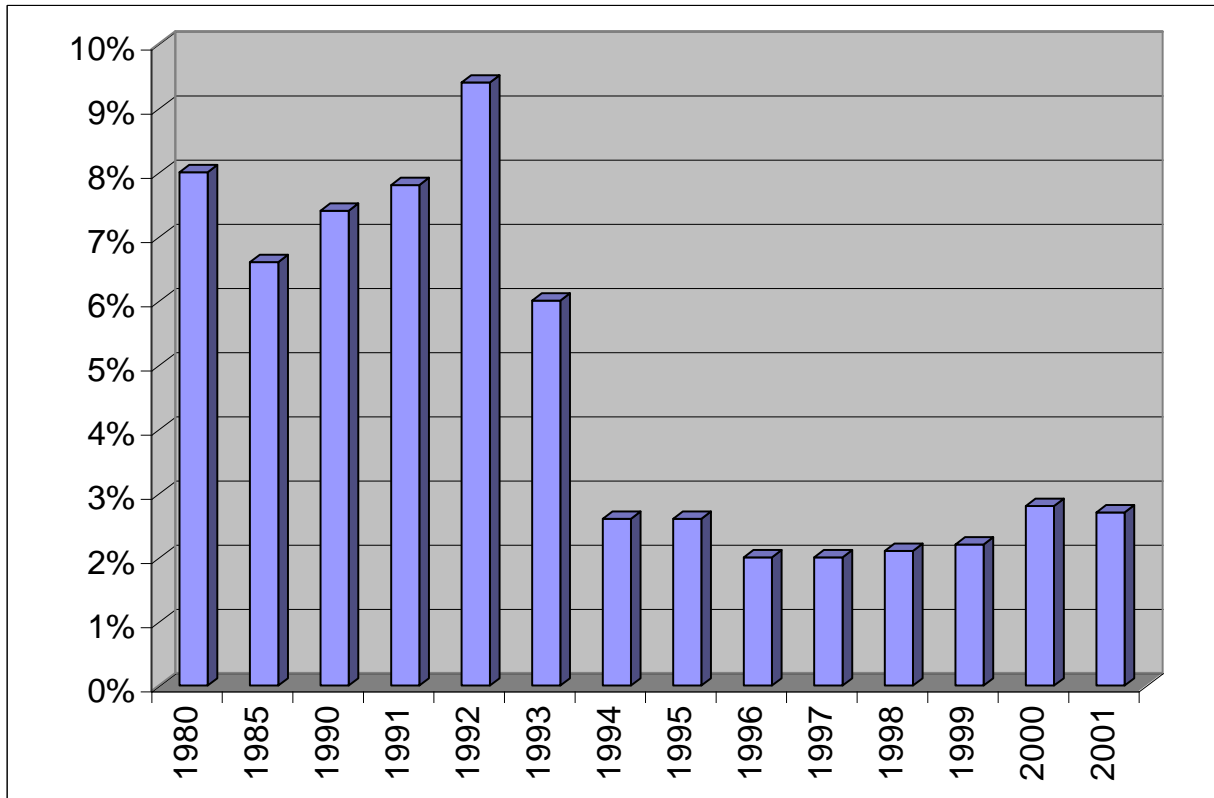
CHART 1
Teachers' Qualification



Source: Education for All. Ministry of Education and Science, 2000, Yerevan, Armenia.

CHART 2

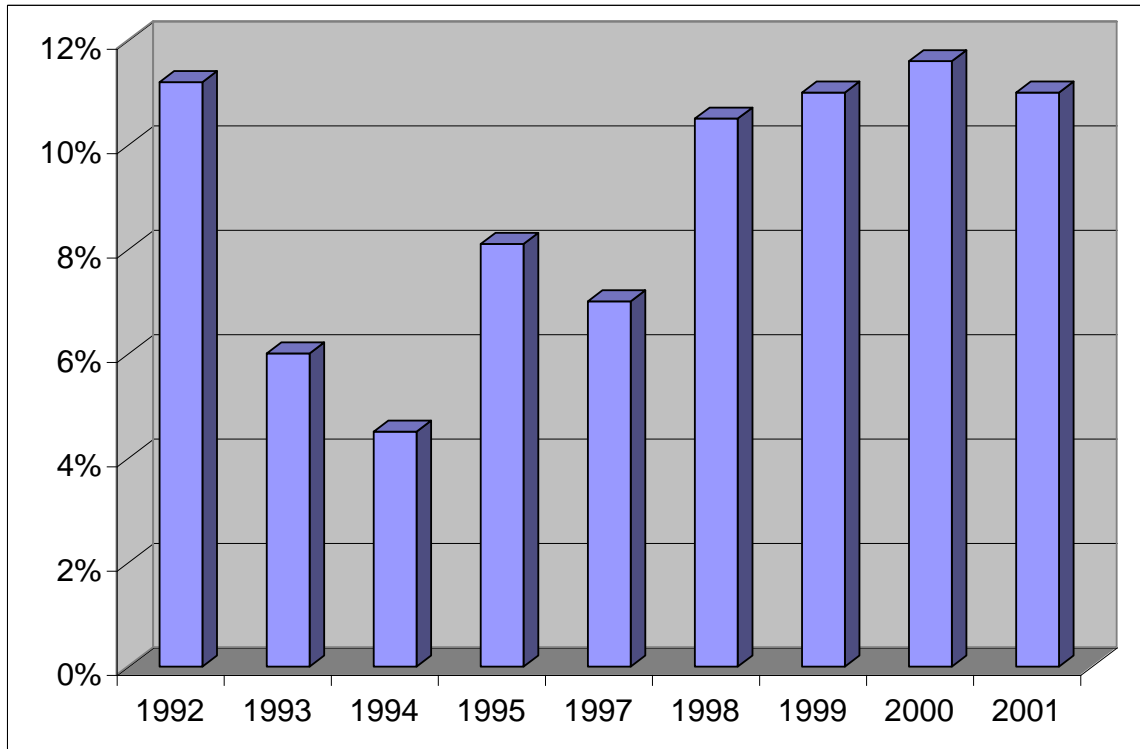
Total Public Expenditures on Education (percentage of GDP)



*Source: from "Education System and the State's Poverty" in **Hayatsk Tntesoutian** Newsletter, "IACER" of the Government of the Republic of Armenia, 2001, #8..*

CHART 3

State Budget Expenditures on Education



Source: Education for All. Ministry of Education and Science, 2000, Yerevan, Armenia.

REFERENCES

- Berryman, Sue E.. (2000) Hidden Challenges to Education Systems in Transition Economies. The World Bank.
- Education Sector Strategy (1999). The World Bank Group, Washington, D.C.
- Filmer, Deon and Pritchett, Lant. (1998) The Effect of Household Wealth on Educational Attainment. Policy Research Working Paper. The World Bank, (September).
- Finn, E., Jr. Chester, and Rebarber, Theodor (eds.). (1992) Education Reform in the 90s. Venderbilt University, Education Excellence Network.
- Hayatsk Tntesoutian Newsletter, “Information Analytical Center of Economic Review” of the Government of the Republic of Armenia 2001, #4
- Hayatsk Tntesoutian Newsletter, “Information Analytical Center of Economic Review” of the Government of the Republic of Armenia 2001, #5.
- Hayatsk Tntesoutian Newsletter, “Information Analytical Center of Economic Review” of the Government of the Republic of Armenia 2001, #8.
- Interview with Nuriyan Manukyan, an expert of secondary education department of Ministry of Education and Science. 10.05,2001, Ministry Education of Science.
- Milia, Ali. (2001) Armenia: Education Sector Review. United Nations Development Program, (April).
- OECD. (2000) Literacy in the Information Age. Paris: OESD; Human Resources Development Canada and Statistics Canada. Quoted in Berryman, E. Sue. (2000) Hidden Challenges to Education Systems in Transition Economies. The World Bank.
- Oliva, F. Peter, (1988) Developing the Curriculum. Scott, Foresman and Company. (second edition).
- Social Indicators of Poverty (1998). Republic of Armenia, Ministry of Statistics and United Nations Development Program. Yerevan.
- State Program for Educational Development (2001-2005) – draft. Ministry of Science and Education, for the Republic of Armenia. Yerevan, 2000. Quted in Ali, Milia. (2001) Armenia: Education Sector Review. United Nations Development Program, (April).
- The New Encyclopedia Britanica. (1998) Volume 18. Chicago.
- The World Book Encyclopedia. (1994) Volume 6. Chicago.

The Socio-economic Situation of the Republic of Armenia. Republic of Armenia, Ministry of Statistics, State Register and Analysis of the ROA. Introduction – Analytical Monthly Report. For January-December,1999. Yerevan, 2000.

Topuzyan, A., Gabrielyan, R. Melkonyan, K., Ghukasyan, N., Petrosyan, H., Poghosyan, J., Magluchanz, G., (2000). Education for All. National Report. Ministry of Education and Science, UNICEF and UNESCO.

UNICEF. (1998) Education for All. Regional Monitoring Report. The MONEE Project #5.