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Georgia: Technical Assistance to Support Preparation of Education Sector Strategy

EDUCATION SECTOR POLICY REVIEW: STRATEGIC ISSUES AND REFORM AGENDA

December 17, 2014

GEDDR

EUROPE AND CENTRAL ASIA

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Table of Contents

List of Tables

List of Figures

Abbreviations

CAT	Centralized School Leaving Exams - Computer Adaptive Testing
CIS	Commonwealth of Independent States
CVET	Continuing Vocational Education and Training
ELLI	European Lifelong Learning Indicators
EMIS	Education Management Information System
EQF	European Qualifications Framework
ESCO	European Skills Competences, Qualifications and Occupations
EU	European Union
GDP	Gross Domestic Product
GEL	Georgian Lari
Geostat	National Statistics Office of Georgia
GER	Gross Enrolment Rate
GI-GXII	Grade one - Grade twelve
HER	Home Educational Resources Index
IVET	Initial Vocational Education and Training
LLL	Lifelong learning
MoES	Ministry of Education and Science
NAEC	National Assessment and Examination Centre
NCEQE	National Centre for Education Quality Enhancement
NER	Net Enrolment Rate
NGOs	Non-Government Organizations
NQF	National Qualifications Framework
NTPDC	National Teacher Professional Development Centre
OECD	Organization for Economic Co-operation and Development
PIRLS	Progress in International Reading Literacy Study
PISA	Program for International Student Assessment (OECD)
QA	Quality Assurance
SBM	School Based Management
TE	Tertiary Education
TEDS-M	Teacher Education Study in Mathematics
HEI	Higher Education Institutions
TIMSS	Trends in International Mathematics and Science Study
UNICEF	United Nations Children's Fund
VET	Vocational Education and Training
WB	World Bank

Preface

Georgia has made significant progress in reforming its education system and the country has implemented a range of sweeping reforms targeted at redesigning the Post-Soviet education system and creating a new system more consistent to a rapidly changing world with complex technical requirements and increased international competitiveness. Despite of this comprehensive set of reforms, yet many challenges remain with respect to the quality and equity of education and training services, including linkages to the labor market.

The government's new socio-economic development strategy emphasizes high quality of education to improve human capital. Strategic priorities include increasing labor market relevance of educational programs to meet workforce requirements, increasing access to preschool education, improving quality of general education, emphasizing vocational training, and enhancing the attractiveness of the teaching profession. This document is aligned with the goals set forth by the government in the new socio-economic development strategy.

For this purpose, the Ministry of Education and Science (MoES) has launched the development of a new National Education Sector Strategy that will build on current reforms and analysis of achievements and challenges facing the education and training sector. The new strategy will span from early childhood education to higher education and other post-secondary training and the key of this integration will be the notion of life-long learning. The lead responsibility for developing the Education Sector Strategy lies with the Minister of Education and Science, supported by a Strategy Development Team.

The World Bank was requested to provide analytical and technical advisory services with the goal of supporting and building the capacity required at the MoES to develop a comprehensive National Education Sector Strategy and an Action Plan. This report intends to provide a comprehensive analytical framework and a series of actionable policy options that the Georgian authorities can use as a guiding document to the development of such National Education Strategy and its Action Plan. The present review included all levels of education except for Research and Development given that in-depth science audit was recently undertaken by the MoES and the findings will be reflected in the government's final strategy. The contents of this report are presented in the following main sections:

Part I: **Key System –wide Issues**. A thorough analysis and recommendations on key sector issues: student and labor market outcomes, access and equity, governance, strategic management of the Ministry of Education and Science, public spending in education and cross-cutting issues.

Part II: **Priority Sub-sector Issues.** Diagnostic and recommendations of the most pressing sub-sector issues at each level of education: Early Childhood Development (ECD): School Readiness; Teacher Quality in general education; Strengthening Vocational Education and Training (VET) sector; and Financing of Higher Education;

Part III: **Recommended Interventions for the Education Sector Strategy.** A summary of key recommendations and policy interventions for the government's ten-year consolidated education sector strategy (2015-2025).

Part IV: **Implementation of Sector Reforms.**

This document was prepared by a team led by Nino Kutateladze (Task Team Leader, Education Operations Officer, ECSH2) comprising Natia Andghuladze (WB Consultant), Sophie Gorgodze (WB Consultant) and Nelson Stratta (WB Consultant), with additional support from Daniel Kutner (Junior Professional Associate, ECSH2), Jason Weaver (Education Specialist, ECSH2) and Dandan Chen (Sector Leader, ECSH2) and administrative and logistical support from Lela Ghongadze. The contributions of key government counterparts were critical in the preparation of this draft, which also reflects consultations with government entities held on March, 2014. The team would like to take this opportunity to thank Minister Tamar Sanikidze as well as the Strategy Development Team, led by Ms. Medea Akhalkatsi, which she nominated to work with and provide guidance to the Bank team on these tasks.

Executive Summary

1. **The scope and pace of education reforms in Georgia over the last decade are unique in the region but have not yet yielded the expected improvements in the quality of education.** In particular, reforms of financing and governance of educational institutions, that other countries have been grappling with for years, have been implemented. The key reforms included: (i) the decentralization of the management; (ii) the adoption of a "per-student" financing mechanism at all levels of education; (iii) the creation, under the umbrella of the Ministry of Education and Science, of new public legal entities responsible for ensuring the quality of reforms; (iv) the adoption of new standards and outcome-based national curricula in general education along with the development of new textbooks; and (v) the design of a new national assessment and examination system. These policy measures were complemented by a greater focus on educational inputs such as investments in infrastructure and technology, the physical security of schools, and in improving the tuition of English. Despite the many innovations and important changes to the education sector, reforms have not yet translated into gains particularly in the quality of education. The majority of students in Georgia demonstrate below average levels of performance in reading, mathematics and science as measured by national and international student assessments (such as PISA 2009+, TIMSS & PIRLS 2011).

2. **The government has set a clear vision for the future of the education sector as a tool for human capital development to support economic growth.** One of the most important objectives in the government's new Socio-Economic Development Strategy of Georgia-2020 is to prepare labor market-responsive workforce and to strengthen research potential in the education system. The document identifies certain priorities in terms of development of the education and research sector, such as improving the quality and accessibility of education; increasing motivation and qualifications of teachers; increasing participation of stakeholders in preschool and Vocational Education and Training (VET) sector; improving learning outcomes of students in literacy, exact and natural sciences; and supporting internationalization of higher education. To achieve the new vision for the sector's development, the Government needs to address the remaining challenges both at the system and sub-sector level.

3. **The analysis presented in this report reveals that the major challenge across all levels of education in Georgia is improving quality and, more specifically, improving student outcomes.** The analysis and policy options outlined in the report emphasize the need to engage in a second wave of reforms focusing on the quality dimension and improving system's performance since the country has already made improvements in the transparency and efficiency of the sector via the reforms implemented over the last two decades. Creating improvements requires a long-term and sustained effort as evidenced by the experience of many countries with now advanced education systems. Georgia can benefit from the experiences and lessons learned from the education reforms of those countries (e.g. Poland, Finland), who have made impressive gains. The document presents comparative analysis and brings in relevant examples from other countries and country comparisons for that purpose.

Key System-wide issues

4. **Learning and Labor market outcomes.** Georgia's prospects to compete in the global economy will depend on its ability to produce a highly-skilled workforce. This largely depends on the relevance and quality of the education received by the students. To improve relevance, the education system needs to be aligned with the requirements of economy and the quality of teaching and learning needs to be improved. The key challenge is to improve significantly the achievement level of Georgian students in key domains, such as reading comprehension, mathematics and science. Over 60 percent of the surveyed 15-year-old Georgian students were found to be three years behind their peers on the reading scale as compared to OECD average scores. The education outcomes also indicate important

differences between students from different socio-economic backgrounds and residence. The low employment rates among Georgian youth (at about 51 percent) may suggest skills mismatch of graduates with the labor market needs and relevance problems for education programs apart from structural unemployment issues. Employer surveys confirm that among Georgian graduates, there is lack of specific professional skills in demand by the economy. Georgia needs to provide key competencies to all students and accelerate the creation of highly skilled workforce demanded by the labor market.

5. **Access and Equity.** Georgia compares well to comparator countries in Europe and Central Asia (ECA) region in terms of the enrollment rates at compulsory education level, but there is room for improving access to other levels of education. Preschool enrolment in Georgia is relatively low by regional comparisons. However, the enrollment rates showed moderate but promising growth in the last decade increasing from 46 percent to 57 percent in the last two years. The abolishment of parental contribution towards pre-school education in September 20013 has resulted in higher coverage, but is not likely to enhance the quality of the service being provided if no further measures are taken. If demand for preschool education significantly grows, there will not be enough vacancies in preschool institutions (in the short-term). The enrolment in compulsory education is almost universal, although, participation in upper secondary education is low at 73 percent. The demand for VET programs has been on the rise with enrolments doubling between 2010 and 2012 attributed to the concerted Government reform efforts during recent years. Nonetheless, participation still remains low due to the limited geographical coverage and more importantly, due to dead ends and rigid pathways to higher levels of education after completing the VET programs. Enrolment in Higher Education in Georgia is low by international standards. In 2012 the gross enrolment ratio in higher education reached 28 percent, which is one of the lowest in the region and significantly lower compared to the average gross enrolment rate (GER) in Western European and Central and Eastern Europe (CEE) countries.

6. The population from lower economic backgrounds, living in rural areas and from ethnic minority groups is systematically excluded from the education system. The difference in PISA results between students that belong to the wealthiest quintile and those that belong to the poorest quintile is over 2 years of education (80 PISA points) in reading and mathematics. The difficulties for these groups are very similar for all education areas, namely limited access to education and limited or insufficient financial support. The lack of consolidated social inclusion policy exacerbates the problem. In addition, most students from these underrepresented groups do not continue into higher education, perhaps due to their insufficient preparation and ability to obtain tutoring to compete with their peers for the selection process. The Government's attempts to provide support for these groups have not been sufficient.

7. **Governance.** The remaining challenge for the sector is to shift towards the governance and accountability paradigm that would support the existing decentralized management in a more effective manner. The existing accountability mechanisms at all levels of education are concentrated on controlling for inputs and regulatory norms and less so on monitoring outcomes, which restricts the MoES capacity to improve the quality of education. These governance constraints are manifested in different forms at each level of education. At the general education level, the Education Resource Centers act as mediators between the MoES and schools and are responsible for the monitoring of schools. Nonetheless, the role of Education Resources Centers remains limited and capacity needs to be further developed. There is no proper accountability framework between the MoES and schools and internal quality assurance mechanisms at the school level are weak. Moreover, insufficient capacity development has been provided to support participation of key actors (e.g. school boards, principals). The existing accountability mechanisms at VET and higher education levels restrict the autonomy of institutions and the MoES capacity to improve the quality of education.

8. **Strategic Management of the Ministry of Education and Science.** Implementation issues caused the recent reforms not to generate the expected incremental and systemic improvements. The path of recent reforms shows that large-scale reforms were introduced before gathering a clear understanding about all their potential consequences. The speed at which these reforms were introduced in many cases did not leave sufficient time for their proper planning and consultation. Some of the measures introduced were not in line with existing capacity and management limitations.

As a result, in many cases, after the reforms were implemented, several reversals were made. This happened in key areas (such as school decentralization reform, teacher training provision), producing a general sense on instability and, at the end of the day, longer periods to consolidate the desired outcomes of the reforms compared to what a proper introduction would have required.

9. **Public Spending in Education.** Expenditure in education is low by any international standards. The average level of education expenditure in Georgia as a percentage of GDP has been oscillating between 2 percent and 3 percent for a decade. This is much lower than the average for new Member States in the European Union (over 5 percent) or comparable countries in the Commonwealth of Independent States (CIS) (around 8 percent). The level of expenditures is much lower than other countries with similar level of income per capita. Although total education budget substantially increased since 2006, as a share of total public spending government allocation for education did not show significant improvement. The highest share of the education budget is allocated for general education sector. The bulk of current expenditures in general education is spent on teacher salaries, which represents 75-80 percent of current expenditures. At 8.5 percent, the student to teacher ratio of general education in Georgia is considerable lower than the OECD or EU21 countries (at 13.6 and 12, respectively; see figure 2.1) suggesting the need to raise efficiency in the management of teaching force, although this could be a politically sensitive issue. However, Teacher salaries in Georgia are among the lowest compared to other countries that participated in PISA 2009. Analyzing 2009 teacher salaries relative to GDP per capita, teachers with minimum training and 10 years of experience in Georgia are paid at substantially lower levels compared to other countries. Despite the gradual increase of teacher salaries in the last decade, they remain below the average national salaries. According to figures of the National Statistics Office of Georgia the average monthly salary for 2013 (fourth quarter) is of 875 GEL, while the average monthly salary in education is 475 GEL. The low salary system of the teaching profession makes it a poor career choice in Georgia.

10.**Life-long Learning.** Georgia does not yet have an integrated national policy and strategy for Life-long Learning (LLL), nonetheless, the ongoing efforts of MoES to develop a consolidated strategy for the entire sector in line with the principles of LLL is a major step forward. Georgia's institutional capacity would require substantial development to be capable of applying a coherent and integrated national lifelong learning policy. The scope of LLL policies goes beyond the boundaries of the education system and demands a coherent public sector response in a variety of areas.

11. **Information and Communication Technologies (ICT).** Currently there is no coherent policy framework to ensure meaningful use of ICT to advance teaching and learning. Individual ICT programs are not integrated and aligned with the curriculum goals. There is no systematic understanding of the ICT infrastructure gaps in Georgian schools. Nonetheless, the MoES recently launched concerted efforts to develop an ICT policy paper.

Priority Sub-sector Issues

12. Apart from the system-wide issues described above, there are pressing challenges specific to particular sub-sectors of education emerging from the sector analysis. The key areas for priority attention identified at each level of education are as follows: improving school readiness in preschool education; improving teaching quality in general education; strengthening Vocational Education and Training; and improving financing of the Higher Education.

13. **Early Childhood Development (ECD) School Readiness.** In Georgia, the majority of the children who attended preschool institutions show very low school readiness. The decentralized preschool education model has the advantage of being flexible and easy to be shaped to the particular needs of each region and this is an important virtue. However, the lack of supervision, monitoring, and quality assurance leads to wide differences in the quality of the service across the country. One of the major constraints towards improving the quality of preschool education is the lack of the national preschool education standards and the absence of instruments for their enforcement.

14. **Teaching Quality in General Education.** Improving teacher quality is one of the most pressing challenges for the general education sector as well as a top priority given that the long term solutions

to address education quality constraints will largely depend on resolving the issue of teaching quality. The key factors contributing to low teaching quality include the issues of teacher management, deployment, career path development, compensation, and performance evaluation. More specifically, low salaries make teaching an unpopular choice. The poor management of supply and demand of teachers and teacher deployment nationwide has resulted in imbalances between demand and supply of teachers in some subject areas and geographic locations. The inefficient use of the teaching force creates negative implications for improving effectiveness of the system. The existing teacher pre-service and in-service training system does not produce the intended results. The new Teacher Professional Development Scheme, currently in works, provides an excellent opportunity to address many of these constraints.

15. **Strengthening Vocational Education and Training.** The improvement of the quality and relevance of VET programs could be enhanced with greater participation of employers. Some progress has been made in establishing coordination mechanisms to engage stakeholders in the VET sector. However, the engagement of employers and social partners has been still insufficient in sector planning, management, program development and evaluation, which greatly limits the sector's effectiveness.

16. **Higher Education Financing.** At the higher education level, the existing level of financing and financial instruments are not conducive to improving quality of teaching and learning, and for strengthening research capacity. Introducing student state grants was instrumental in increasing transparency in the allocation of public resources for higher education. However, the student grant is nearly the main public financing instrument available. There are limited opportunities for competitive research grants. Also, the capacity of higher education institutions to generate other sources of revenue has been limited. Therefore, the tuition fees collected from students is the main source of revenue for the higher education sector. Though the mechanism helps create healthy competition for students among institutions, it also drives universities to maximize student numbers beyond their capacity, which negatively affects the quality of teaching. Moreover, the existing financing arrangement does not support the development of the higher educational institutions' research capacity and the integration of research into teaching and learning process. Government should consider setting up complementary financing mechanisms for supporting research more effectively in universities.

17. **Implementation of Sector Reforms.** To succeed in achieving the national education goals, objectives, and targets, the implementation of the future sector reforms must have a solid foundation. The development and implementation of a sector-wide Education Strategy will require active stakeholder engagement, the definition of efficient coordination mechanisms and clear lines of responsibility, authority and accountability at central as well as at decentralized levels. It is important to avoid the creation of heavy bureaucratic structures in favor of an efficient usage of the existing internal structure developing agile working groups supported with appropriate technical assistance.

Key Policy Recommendations

A number of important policy reforms have been identified as follows.

Recommendation 1: Improving Quality of Education as measured by Student and Labor Market Outcomes[1]

Researchers can now document that the quality of human resources, as measured by assessment scores, is closely related to individual earnings, productivity and economic growth. Increasing, policy makers have shifted attention from inputs in the education system to learning outcomes, what knowledge, attitudes and skills are obtained by learners as a result of their exposure to schooling and

[1] The labor market outcomes are assessed by the characteristics of employment status of graduates, skills content of the job and the occurrence of qualification mismatches.

to what extent these competencies are compatible to the needs of the global competitive economy of the 21st century. The following recommendations are aimed at improving the quality of education as measured by student and labor market outcomes:

- **Focus on the acquisition of key competencies by students in general education through curricular improvements.** The large majority of students in general education lack basic proficiency skill in key learning domains, such as literacy and numeracy, as evidenced by existing student assessments. The national curriculum has an important role to guide teachers for improving teaching and learning outcomes. However, the changes introduced in the curriculum content in 2010 were not based on a comprehensive evaluation of the curriculum implementation in the previous years. The 2013 monitoring results of curriculum implementation indicate that majority of teachers do not work towards transferring higher-order cognitive processes and individual formative assessments described in national curriculum. The emphasis should be made on strengthening the curriculum implementation process at the school level, namely supporting and strengthening curriculum experts, school principals, teachers, actively engaging parents and communities in the process. The future curriculum improvements will require strengthening the mechanisms for applying evidence (such as national assessments, examinations, feedback from educational institutions, curricula based international assessments) in further curriculum development.
- **Focus on relevance by shifting to a demand-led approach in which employers' feedback help shape the education system.** The low employment and underemployment amongst graduates suggest relevance problems for vocational education and training and higher education programs. It will be essential to engage business and industry as well as training providers in the definition of skills development priorities and design of programs. The existing quality assurance system needs to be developed in line with the internationally recognized quality assurance frameworks and focus on relevance fostering a demand-led approach.

Recommendation 2: Access and Equity

- **Develop a Social Inclusion Policy for improving access and equity.** Improving access and equity is a key strategic objective that requires strategic, sector-wide planning and management. Social inclusion standards, targets, measures and tools must be defined at the national level and not left to the arbitrary decision of the schools and municipalities. The nature of the social inclusion programs and measures cuts across all the educational areas, and therefore, their overall monitoring and evaluation requires special ministerial attributions that are not today defined at the centralized level. The responsibility for implementing and monitoring of many of these policy measures can be delegated to sub-sector area management units (pre-school, general, etc.), however there is subject specific knowledge (children with disabilities, usage of mother tongues in education, adult education, etc.) that would benefit from a more integral understanding of the topics for all education areas.
- **Promote gradual expansion of preschool enrolment with a particular attention to disadvantaged groups.** To address the issue of low preschool enrolment the following measures need to be considered: (i) prioritize the five-year old children, in case there are no spots for all children. Providing all children with at least one year of preschool education is likely to improve school readiness; (ii) encourage the growth of private providers; (iii) build public awareness; (iv) phase in free of charge service provision for all, and prioritize the disadvantaged socioeconomic groups; (v) improve efficiency in the use of existing preschool infrastructure. The government could consider using the facilities of existing, underutilized primary schools.
- **Eliminate dead-ends and improve the attractiveness of VET programs** In Georgia, due to the nature and structure of programs, VET graduates have significant difficulties in pursuing further education, which hinders career advancement for many people. The 2007 Law on Vocational Education institutionally separated vocational education from general education removing also general education content from the VET programs. This approach has resulted in the so-called educational "dead-ends". The inclusion of general content in the VET courses

is likely to reduce the content gap between general and VET track graduates. In itself, this would make it easier for VET graduates to compete for university admission. A cost-effective approach would be to add general content to VET courses that can help reduce "dead ends" and improve VET graduates' chances in case they need to look for a job different than the one they studied for.

- **Expand the geographical coverage of VET programs in rural areas and smaller towns.** The present initiatives to increase supply should be slightly refocused to address supply deficiencies to provide access to people living in these areas, for which VET would be very important. Expanding the existing financing scheme to accommodate indirect costs (living expenses) of VET participation can also be considered.
- **Improve the existing student grant allocation system in higher education to accommodate the needs of underrepresented groups.** It is recommended to review the usage of the student grants and expansion of existing programs to promote the participation of disadvantaged groups. Many of these measures could have an important short-term social impact and can be introduced fairly quickly without substantially increasing actual funding requirements. These measures include expansion of needs-based grants and introduction of flexible study programs.

Recommendation 3: Governance

- **Develop a new school performance review and support system that will be focused on monitoring school quality and supporting school development.** The existing structure of the education system (General Education Management and Development Department, National Curriculum Department, Education Resource Centers, National Quality Enhancement Center, Teachers' Professional Development Center, National Assessment and Examination Center) can provide good foundations for such a system in terms of providing the needed expert support, particularly for low performing schools. The new school performance review and support system can play a leading role in helping the schools to identify their challenges and develop school improvement plans. The ERCs should play a role in the capacity development of boards of trustees to avoid one time, costly and sporadic trainings and provide more long-term and sustainable support to individual school board members. The ERCs should be equipped by centrally developed guidelines and manuals for such support.
- **Introduce result-based accountability mechanisms at VET and Higher Education levels**. These accountability mechanisms should be built around measuring performance of these institutions according to defined outcomes, which can serve as the major driver for the improvement of the quality and output. The performance indicators should be agreed upon among key stakeholders and their tracking and verification need to be done by institutions and an independent agency respectively. It would be important to ensure that the future reform of existing authorization and accreditation system is not in conflict with the principles of institutional autonomy.

Recommendation 4: Strategic Management of the Ministry of Education and Science

- **Develop the Ministry's policy and planning capacity,** including data management and application, to support key strategic management functions and sustain the introduction of management by results practices. In particular, developing a comprehensive and evidence and data-based long-term sector strategy would create the opportunity to negotiate the necessary increases in the medium term financial support for the education sector development. It is important that the management system of the Ministry and all relevant agencies and institutions is clearly elaborated, including responsibilities, lines of accountability, vertical and horizontal communication, monitoring and evaluation systems. Having strong and clear management system will be crucial for the implementation of the new strategy and achievement of anticipated results in the medium and long-term.

Recommendation 5: Public Spending in Education

- **Georgia will need to prioritize increasing public investment in education.** Government spending on education in Georgia is low compared to countries with similar per-capita incomes and relative to both the shortage of human capital and the country's ambitions.
- **Georgia could consider prioritizing teacher salary increase over other investments in education sector.** The teacher salaries in Georgia are one of the lowest as compared to other countries and other public employees in Georgia. This creates negative implications for the improvement of the quality of teaching and learning across the system. Attracting and retaining high-caliber teachers is a challenge worldwide. Specific interventions related to this recommendation are discussed in teaching quality part of the document.

Recommendation 6: Life-Long Learning

- **Georgia needs to develop a coherent national strategy for integrating LLL principles across all education levels.** The Government does not have an integrated national policy and strategy for LLL which substantially limits the country's potential for meeting workforce development needs. Georgia's institutional capacity would require substantial development to be capable of applying a coherent and integrated national lifelong learning policy. A greater focus on educational outcomes will be required from Georgian education policy. The scope of the policies to promote lifelong learning goes beyond the boundaries of the education system and demands a coherent and integrated public sector response in a variety of areas.

Recommendation 7: Information and Communication Technologies

- **Develop a coherent policy framework to ensure meaningful use of ICT to advance teaching and learning throughout the education system.** This policy framework should address how ICT can support the resolution of many of the educational issues that were described, such as: (i) major curriculum revisions and shifts in pedagogy and assessment changes; (ii) specific curriculum reforms that emphasize higher levels of understanding of key concepts within subject areas and aimed to reduce functional illiteracy; (iii) curricular reforms aimed to introduce the abovementioned lifelong learning approaches and especially, to develop the ability to solve complex, real-world problems (providing key competences) that prepare students for the knowledge economy, such as creativity, information management, communication, collaboration, and the ability to direct one's own work and learning; (iv) support the pedagogical role of teachers by providing resources and explicitly modelling cognitive and social processes and prompting students to take up these practices; and (v) the use of technology to efficiently deliver online content and assessments in all areas of education and especially to support second chance, adult education.

Recommendation 8: Improving School Readiness

- **The state of preschool education would benefit if the MoES played a more active role.** The decentralized model has the advantage of being flexible and easy to be shaped to the particular needs of each region and this is an important virtue. However, the lack of supervision, monitoring, and quality assurance leads to wide differences in the quality of the service. Given the importance of preschool education, it is important to include this sector in the whole continuous education system, particularly it is important to pay attentions to school readiness of five-year old children for which MoES could play a pivotal role in setting up curricula and quality standards, supporting and monitoring the implementation process.
- **Strengthening service quality should be a priority.** The expansion of pre-school education is mainly justified by its great potential for improving the beneficiaries' future educational development. However, this is not likely going to happen if quality is not achieved. As this process will take a long time, initial actions are important. Clear estimations of the costs of improving quality are needed, especially to resolve MoES and municipal capacity limitations.

Recommendation 9: Improving Teaching Quality in General Education

- **Develop a sustainable school-based professional development model.** This will require a substantial capacity building at the school level, creating a critical mass of qualified teachers to assume the role of a leading teacher, encouragement of peer learning among the teachers and trained school principals to focus on instructional leadership. The latter would focus on new modalities, such as lesson study, action research and school-based professional development teams. These new modalities will allow teachers to collaborate in order to identify academic programs, formulate instructional plans, use evidence to develop interventions for improvement, observe and reflect on their interventions and thus engage in continuous improvement. Continued in-service support to school principals will be also critical. Georgia can benefit from the already existing small-scale but successful initiatives being implemented in this area by the USAID supported G-Pried project and Ilia State University.
- **Emphasize the development of new cadre of university teachers equipped with modern expertise in the field for strengthening the existing pre-service teacher training system.**
- **Provide incentives to attract qualified professionals into teaching.** It is essential to address the issue of lack of competitive compensation for teaching profession. The government may consider setting high starting salaries to attract better graduates into teaching. The government may consider increasing salaries of the existing teachers complying with the quality requirements set by the teacher professional development standards.
- **Develop a comprehensive teacher evaluation system,** which one hand serves as an effective instrument for managing teacher quality and on the other hand, provides a clear path and opportunities to teachers for professional growth and career advancement linked to financial incentives.
- **Improve the management of teacher supply and demand and teacher deployment nationwide.** In Georgia, there is an overall surplus of teachers in general education, but shortages of teachers by teaching subject and by geographic location. The existing certification and professional development scheme can play an important role in the management of the teaching force. However, the existing instruments should be based on profound understanding of teacher supply and demand issues as well as influencing factors. Moreover, the expansion and improvement of the existing teacher deployment mechanisms would help address teacher shortage issues in remote areas.

Recommendation 10: Strengthening the Vocational Education and Training Sector

- **Engage employers and relevant stakeholders to improve quality, relevance and provide a demand-led approach for VET supply.** The National Qualification Framework and professional standards need continued improvement. Significant efforts are being made in this area. Its completion would impact the overall system and can be achieved in the short term. Priority efforts should be carried out to improve the MoES capacity to properly manage the engagement of wider range of stakeholders, particularly the private sector employers. This should be staring point as it affects the quality of all subsequent reforms in this area.
- **Encourage Public Private Partnerships both in financing and delivery of vocational education.** This may an important move toward improving the alignment of VET programs with labor market needs. The business sector should play an increased role in the design of VET curriculum, management and service delivery options, which will serve as incentives for the private sector to contribute to the financing of this level of education.

Recommendation 11: Improving Financing of Higher Education

- **Increase the level of financing for the higher education sector for improving quality of teaching and learning, and strengthening research capacity.** Higher education needs adequate financial resources allocated in a manner that promotes fair competition but also ensures sustainability. Georgia should at least triple its public spending on higher education,

up to 1 percent of GDP. Although highly vulnerable to external shifts and inflation risks, Georgia's economy is growing at a steady pace. The Government should be able to maintain its current government spending.

- **Diversify funding instruments for higher education. The current limited funding mechanisms for higher education also lack clear strategic purpose in terms of improving efficiency and equity.** Funding mechanism need to first align with the sector reform objectives. Assuming Georgia increases its public funding to higher education institutions, the Government could introduce new funding mechanisms in the system to encourage improved institutional performance and support the development of HEIs. After identifying its main policy objectives (access, equity, quality, labor market relevance, etc.) for Georgia's higher education system, the Ministry of Education and Science should reassess how its current funding model fits or aligns with those objectives. The government could consider diversifying the funding mechanisms in line with international best practice in this are to facilitate research and innovation, improve the quality of teaching and learning and facilitate knowledge transfer. The options of *output-based funding formula, performance contracts or competitive grants* could be considered.

Chapter 1. Key System-wide Issues

1.1 **The scope and pace of the Georgian education reform over the last decade are unique in the region but have not yet yielded the expected improvements in the quality of education.** In particular, reforms of financing and governance of educational institutions, that other countries have been grappling with for years, have been initiated at a stroke. They introduce the per capita financing principle of 'money follows the student' in general education and decentralizing financing and management to the school level. A similar formula-funding model for teaching activities has been introduced for higher education and vocational education and training institutions. A crucial contribution to reduction in corruption and reform of higher education admission has been made by the introduction of sophisticated unified entrance examinations, launched in 2005 and administered by a new National Assessment and Examinations Center (NAEC). Similar agencies have been set up in areas important to quality assurance and support – Teachers Professional Development Center (TPDC), National Center for Educational Quality Enhancement (NCEQE), Education Management Information System (EMIS) and Education and Science Infrastructure Development Agency (ESIDA). Ambitious programs for computerization and rehabilitation of educational institutions have also been launched. Other areas of innovation include vocational education, early childhood care and education and inclusive education (for which development of policy is at a relatively early stage). The government is also grappling with the particular educational problems of ethnic minorities, the biggest of which is lack of proficiency in the state language. Despite the many innovations and important changes to the education sector, reforms have not yet translated into gains in the quality of education. The majority of students in Georgia demonstrate below average levels of performance in reading, mathematics and science as measured by national and international assessments.

1.2 **The analysis presented in this report reveals that one of the major challenges across all levels of education in Georgia is improving the quality of education and more explicitly, improving student outcomes.** The analysis and policy options outlined in the report emphasize the need to engage in a second wave of reforms focusing on quality dimension and improving system's performance since the country has already made important improvements in the transparency and efficiency of the sector via the reforms implemented over the last two decades.

1.3 **Creating improvements requires a long-term and sustained effort as demonstrated by the experience of many countries with now advanced education systems.** Georgia can benefit from the experiences and lessons learned of other advanced school systems, which have made impressive gains after structural reforms (e.g. Poland, Finland). The report includes a box illustrating Poland's reform path to success, which Georgia may find relevant in pursuing future reforms (see box 1 in annex 2). The McKinsey & Company (2010) report - "*How the World's Most Improved School Systems Keep Getting Better*" - examines the reform experiences of twenty school systems that have achieved significant, sustained and widespread gains as measured by national and international assessments. According to the same report, successful education reforms have the following characteristics in common: (i) a vision for the future of the education system and longevity of the education leadership to sustain the vision over time; (ii) a set of comprehensive, relevant, and mutually reinforcing interventions; (iii) structural measures to ensure the sustainability of the reforms implying that these systems are not merely changing the explicit structure and approach of the system but put considerable effort in transforming teachers' perceptions about teaching; and (iv) contextualizing the interventions to navigate their challenges and use their context to their advantage. The analysis also revealed that all improving school systems appear to adopt a similar set of interventions, one that is appropriate to their stage of development of the journey. These six interventions are: (i) revising curriculum and standards, (ii) ensuring an appropriate reward and remuneration structure for teachers and principals, (iii) building the technical skills of teachers and principals, (iv) assessing students, (v) establishing data systems, and (vi) facilitating the improvement journey through the publication of policy documents and implementation of education laws (see the

table below). The Table shows some of the milestones that systems in different development stages should pursue in order to improve. Georgia has already adopted some of the interventions presented in the table (decentralization of management, adoption of per student financing scheme to improve transparency, adoption of teacher standards and certification system) getting the foundations in place, but not all the essential components from the same cluster (putting in place proper accountability system to support decentralized management), therefore Georgia will need to finalize and consolidate gains from the initial reform efforts, but also move forward into the next stage of development emphasizing reform interventions illustrated for transition from "good to great" system, such as raising caliber of entering and existing teachers and principals, supporting school-based decision making.

Table 1.1: A unique "intervention cluster" exists for each improvement journey, with six interventions common across all journeys

Improvement Journey	**Poor to Fair**	**Fair to Good**	**Good to Great**	**Great to Excellent**
Theme	***Achieving the basics of literacy and numeracy***	***Getting the foundations in place***	***Shaping the professional***	***Improving through peers and innovation***
Intervention Cluster	**Providing motivation and scaffolding for low skill teachers** - Scripted teaching materials - Coaching on curriculum - Instructional time on task - School visits by center - Incentives for high performance **Getting all schools to a minimum quality level** - Outcome targets - Additional support for low performing schools - School infrastructure improvement - Provision of textbooks **Getting students in seats** - Expand school seats - Fulfil students' basic needs to raise attendance	**Data and accountability foundation** - Transparency to schools and/or public on school performance - School inspections and inspections institutions **Financial and organizational foundation** - Optimization of school and teacher volumes - Decentralizing financial and administrative rights - Increasing funding - Funding allocation model - Organizational redesign **Pedagogical foundation** - School model/streaming - Language of instruction	**Raising caliber of entering teachers and principals** - Recruiting programs - Pre-service training - Certification requirements **Raising caliber of existing teachers and principals** - In-service training programs - Coaching on practice - Career tracks - Teacher and community forums **School-based decision making** - Self-evaluation - Independent and specialized schools	**Cultivating peer-led learning for teachers and principals** - Collaborative practice - Decentralizing pedagogical rights to schools & teachers - Rotation and secondment programs **Creating additional support mechanisms for professionals** - Release professionals for admin burden by providing additional administrative staff **System-sponsored experimentation/innovation across schools** - Providing additional funding for innovation - Sharing innovation from front-line to all schools
Common across all journeys	Six interventions: (i) revising curriculum and standards; (ii) reviewing reward and remunerations structure; (iii) building technical skills of teachers and principals, often through group or cascaded training; (iv) assessing student learning; (v) utilizing student data to guide delivery; and (vi) establishing policy documents and education laws.			

Source: McKinsey & Company, How the World's Most Improved School Systems Keep Getting Better, 2010.
Note: the analysis is based on the evaluation of twenty country systems: Singapore; Hong Kong; South Korea; Ontario, Canada; Saxony, Germany; England; Latvia; Lithuania; Slovenia; Poland; USA; Long Beach, CA, USA; Boston, Massachusetts, USA; Armenia; Western Cape, South Africa; Chile; Minas Gerais, Brazil; Madhya Pradesh, India; Ghana; Jordan;

1.4 This chapter presents a thorough analysis of the status of the education sector in Georgia in terms of student learning achievement, labor market outcomes and social inclusion issues. The objective of this chapter is to provide evidence based background for setting the strategic priorities of the Education Sector Strategy.

1.1 Student Learning and Labor Market Outcomes

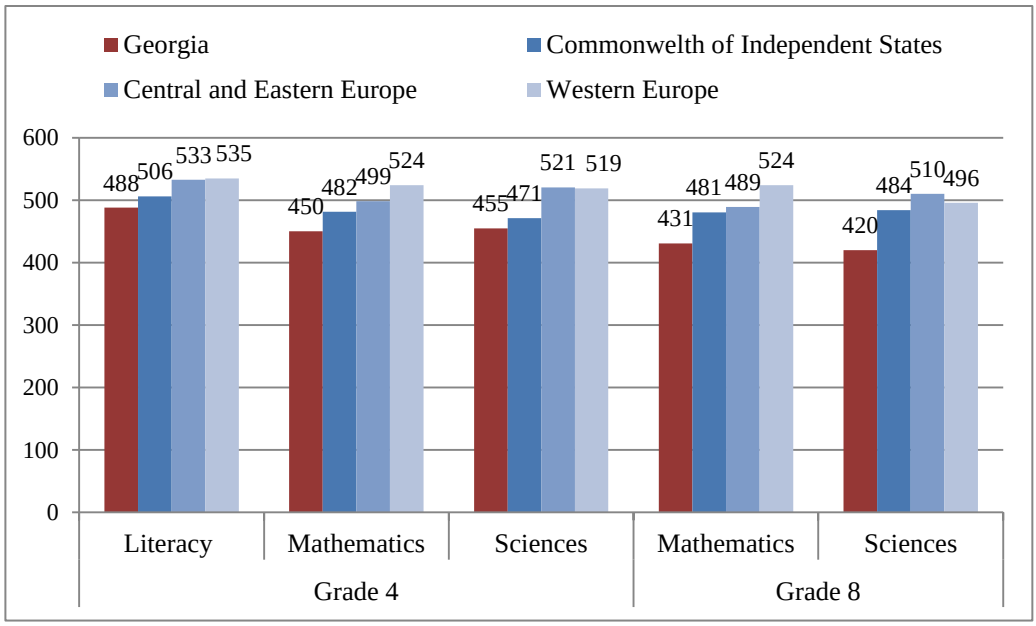
1.5 **Quality of education in Georgia is monitored through diverse instruments, such as national and international student assessments, monitoring curriculum implementation and centralized examinations, but not in a systematic manner**. Policy makers in all best-performing education systems resort to various assessment procedures (examinations, national and international assessments) to obtain information on what knowledge, attitudes and skills are obtained by learners as a result of their exposure to schooling and to what extent these competencies are compatible to the needs of the global competitive economy of the 21st century. The interest in assessing student learning has grown in countries where public services are being reorganized to allow for the use of decentralized provision of services and in education systems which undergo fundamental reforms. These changes require putting in place new clear regulations and arrangements for monitoring the system, compliance with the set goals and for evaluating the performance of actors.

1.6 **National assessments have not been carried out on a regular basis and used to inform policy making.** The responsibility for assessment function has shifted many times among three different education agencies, which affected both the quality and possibility to compare trends over time. The reasons behind were that each institution had varied capacity and used different methodologies in each of the assessment round. To date, the most useful source for judging the quality of student learning outcomes are the results of international assessments. Georgia joined TIMSS and PIRLS international assessments since 2006 and a PISA assessment was conducted only once in 2009[2] . It is important to establish coordinated mechanisms for national assessments and ensuring the platform to discuss, plan, monitor and use the results effectively. MoES needs to put in place central advisory council for the elaboration of policy and approaches for national assessments with wide participation of all important stakeholders.

1.7 **Improving student performance is a key challenge facing Georgia.** According to the results achieved in TIMSS and PIRLS 2011, academic performance of Georgian students in key learning domains (literacy, mathematics and science) remains low as compared to CIS countries, CEE and Western European countries, as illustrated in Figure 1.1 below.

[2] It was discontinued after that ant it seems that it will be resumed again as Georgia may take part in the next PISA assessment

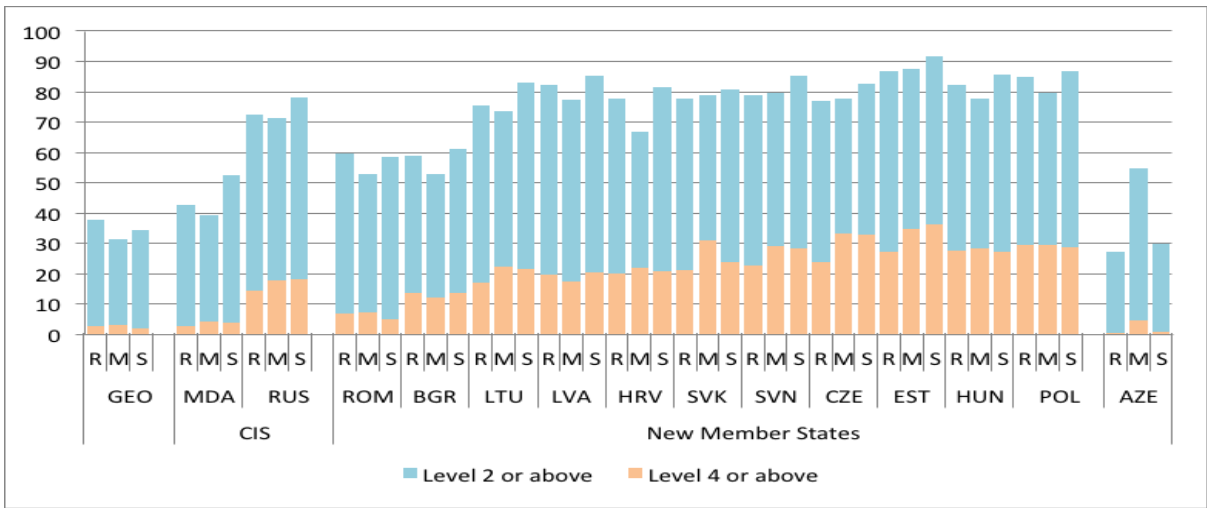
Figure 1.1:Mean Scores in Reading, Mathematics and Science in International Context (2011 PIRLS & TIMSS Results)



Source: Team calculations based on TIMSS, 2011, PIRLS 2011
Note: International Average is defined at 500 points

1.8 **The education system is failing to provide functional literacy to an overwhelming majority of students**. This point is well demonstrated by the Program for International Student Assessment (PISA 2009 Plus) results. In the PISA 2009 Plus, only a small percentage of the surveyed Georgian 15 year olds (30% to 40% depending on the subject) scored level 2 or above, the threshold that is usually referred to as functional literacy. These results are a very important warning sign for the education system as a whole, as it means that over 60% of the surveyed 15-year-old population in schools would be considered as functionally illiterate by international standards. The gap between Georgia and other comparative countries on the reading scale is quite significant and it means a difference of approximately three years of school (each year accounts for 40 points) compared to OECD average scores.

Figure 1.2: Share of students scoring levels 2 or above and 4 or above in PISA (2009+)



Source: PISA 2009 (OECD). *Note:* R, M and S refer to reading, mathematics and science, respectively. All countries except for Georgia and Moldova participated in the 2009 PISA, while Georgia and Moldova participated in 2009+ wave.

1.9 **National Curriculum has an important role to guide teachers for improving teaching and learning outcomes.** Georgia has already achieved much through the adoption of the first national

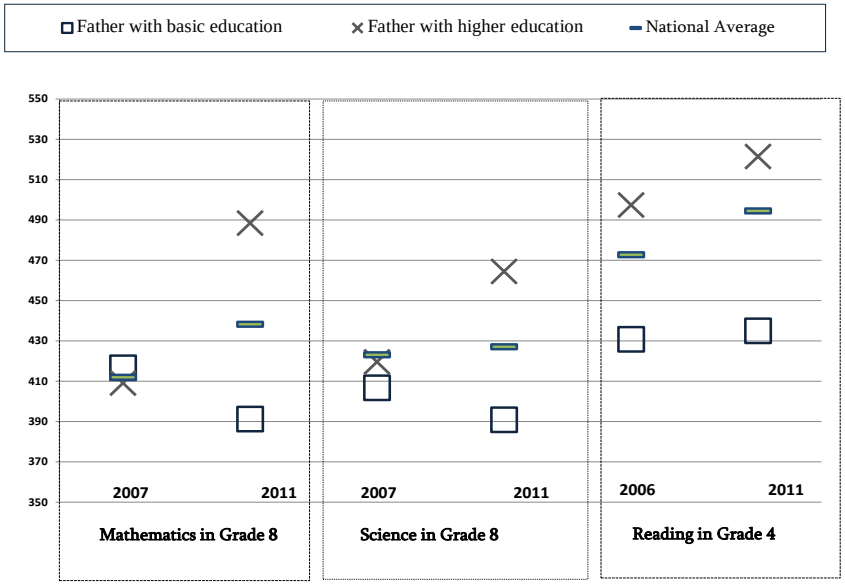
curriculum in 2005 and full-scale implementation across the country since 2006.The underlying principle for the new curriculum I to ensure modern and outcomes-based teaching. The document is oriented on students' personal development and on equipping students with solid, dynamic and functional education in line with modern challenges and demands. The new curriculum was further revised in 2010. However, the implementation of the National Curriculum has been a major challenge due to many institutional changes in the system and given the fact that the changes introduced in the National Curriculum were not aligned with sufficient capacity building of teachers. The short-term trainings and the lack of sufficient professional development support at the school level, prevented teachers to fully internalize the new concepts prompted by the new curriculum and adapt their classroom practices accordingly. Moreover, changes introduced in the curriculum content in 2010 were not based on the comprehensive evaluation of the curriculum implementation in the previous years. The absence of the curriculum implementation monitoring system at the classroom level has limited the potential benefits of improved curriculum. Moving forward, comprehensive evaluation of the curriculum content and regular monitoring of the National Curriculum implementation at the classroom level will be critical to identify curriculum improvements needs, modify the curriculum content, textbooks and support materials, and teacher training accordingly.

1.10 **Evidence from different learning measurements shows that there is a clear gap between students living in urban and rural areas.** The results of 2011 PIRLS and TIMSS indicate significant disparities in the performance of students by residence (urban/rural). More specifically, 4th grade students in urban areas scored 49, 42 and 40 points higher compared to their peers in remote and rural areas in reading, mathematics, and sciences respectively. These findings are consistent with PISA 2009 results. The students in Tbilisi perform 49, 55 and 35 points higher on average in reading, mathematics, and science respectively compared to students who live in villages (see table 1 in annex 2). These differences are equivalent to 1.6, 1.8, and 1.2 years of schooling. The differences between rural and urban students remain after controlling for student socio-economic characteristics.

1.11 **Education outcomes also indicate important differences between students from different socio-economic backgrounds**. PISA results show that students who performed better are more likely to come from: (i) the capital or large cities; and (ii) more advantaged families, according to the Home Educational Resources (HER) Index. This index is based on parents and students' reports of the number of books, the number of children's books, the presence of four educational aids (computer, study desk for own use, books of their own, and access to a daily newspaper) in the home, and on parents' education. Performance differences for students with these socioeconomic backgrounds are quite remarkable.

1.12 **The comparison of data trends further highlights the correlation between socio-economic indicators and student performance.** As illustrated in the figure below, performance of students with higher parental education in TIMSS has improved considerably between 2007 and 2011, namely by 45 points in science and by 79 points in mathematics. In contrast, performance of students whose parents have only basic education has deteriorated by 16 and 25 points in science and mathematics respectively. The reading achievement results from PIRLS also indicate that students with parents with higher education attainment have improved their performance by 24 points.

Figure 1.3: The Dynamics in the gaps in Student performance from 2006 to 2011



Source: Team estimates based on TIMSS and 2011, PIRLS 2011

1.13 **Employment rates among Georgian youth are low irrespective of their level of educational attainment.** The differences in employment rates are not significant between upper secondary and VET graduates in the age group of 19 to 24, but in the older age group employment rates are lower for VET graduates. However, it must be noted that the share of hired professionals is much higher for the graduates of VET programs as compared to the graduates of upper secondary education in both age groups. The employment rate is higher among higher education graduates aged 19-24, however, the difference is not significant among the older age group. Young people with higher education diplomas are more likely to have higher earnings[3] compared to their peers with secondary education. Nonetheless, a large share of these young people has the jobs that do not require higher education (see tables 1.2 and 1. 3 below).

Table 1.2: Employment rates among Georgian's youth (age groups of 19-34) by education attainment, 2012

	Employment Indicators (%) by Education Level		
Age groups	**Upper secondary**	**VET**	**Higher Education**
19-24 years old			
Employed	35	39	51
Hired employed	*13*	*21*	*46*
Self-employed	*22*	*18*	*4*
Unemployed	16	27	26
Non-active	50	34	23
25-34 years old			
Employed	59	49	62
Hired employed	*(20)*	*(30)*	*(46)*
Self-employed	*(39)*	*(19)*	*(16)*
Unemployed	15	19	18
Non-active	26	32	20

[3] EPPM, 2013

Source: Team calculations based on Geostat's National Household Integrated Survey of 2012

Table 1.3: Georgian's youth (25-34) economic activity and occupation statistics by education attainment

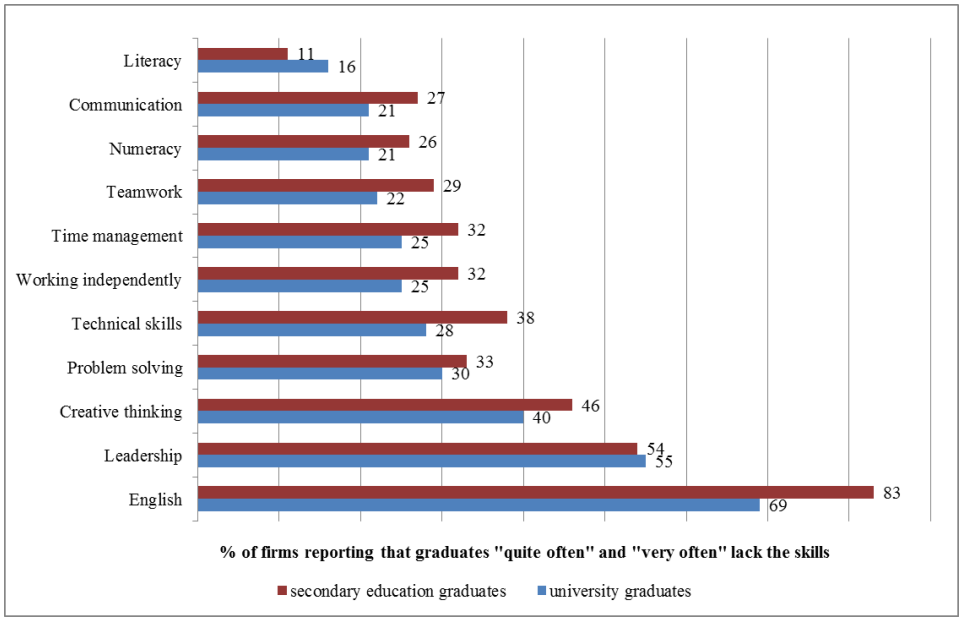
	Upper secondary education	Secondary professional program	Bachelor or equivalent	Master or equivalent
Employed	59%	49%	62%	61%
Legislators, senior officials and managers	0%	0%	5%	6%
Professionals	0%	1%	17%	23%
Technicians and associate professionals	3%	15%	11%	9%
Clerks	0%	1%	2%	4%
Service workers and shop and market sales workers	7%	7%	8%	5%
Skilled agricultural and fishery workers	34%	15%	10%	8%
Craft and related trade workers	6%	5%	2%	2%
Plant and machine operators and assemblers	3%	3%	2%	1%
Elementary occupations	6%	2%	4%	3%
Inactive	26%	32%	20%	17%
Unemployed	15%	19%	18%	22%

Source: Team estimates based on Geostat's National Household Integrated Survey of 2012

Education is producing neither cognitive nor social skills. There is a large pool of jobless workers with tertiary and secondary education, which could suggest that employers should not have problems finding workers with skills to perform the necessary labor. However, many Georgian employers complain that hiring workers with required skills is difficult. Importantly, innovative and growing firms suffer from skill shortages the most. According to the World Bank 2012 Employer Survey, the largest problem that employers face in Georgia is the skills of their workers. Employers in Georgia are looking for the professionals with effective social, literacy and numeracy skills, and higher order cognitive skills, such as solving problems and making presentations. According to Georgian employers, young workers most often lack foreign language, leadership, creative thinking and problem solving skills, as reported in Table 1.4. It should be noted that part of the mismatch may be explained by the fact that employers expect graduates to learn job-specific skills in school and that is not the objective of the education system. In any case, there are indications that graduates come to the labor market with severe basic skills gaps. This is also evidenced by PISA 2009 which shows that upon the completion of compulsory education, the prevailing majority of students do not have the basic cognitive skills that are needed to successfully engage in further studies or enter the labor market. This implies that skill shortages, if not addressed, may become an important constraint to the modernization and growth of the Georgian economy[4] .

[4] Rutkowski, 2013

Table 1.4: Job-related characteristics that secondary education and university graduates lack



Source: Rutkowski, 2013. World Bank Employer STEP survey 2012

1.14 **High unemployment rates can be partially explained by the lack of specific professional skills in demand by the economy.** The majority of jobs in Georgia are located in the traditional, low-productivity sectors, while only a minority is in modern, high-productivity sectors. While common to many countries, this traditional employment structure limits the demand for highly educated workers.[5] This is further supported by the World Bank 2012 employers' survey, which showed that there is a growing demand for middle-skilled workers, which the education sector is not producing.

1.15 **Student choices of study programs are made without adequate knowledge of labor market needs and existing instruments for making impact on student choices are not effective.** The majority of university students are enrolled in academic fields in social sciences, humanities, arts, business, and law. However, according to a recent study[6], the unemployment rate is higher for the graduates of social sciences, humanities, and arts programs. Enrolment in these programs in Georgia is higher compared to European and CIS average. In order for students to make intelligent decisions on their future career fields, they need to have reliable information on labor market prospects. Starting from 2010, the Government has been trying to affect the students' choice through financing. There is a higher share of grants allocated into sciences, engineering, education compared to law and business so that students enrolled in business and law can receive the state funding only in case they score high enough to be eligible for the 100% tuition fee waiver. However, the quality of government estimates is also not quite reliable as the links with private sector market employers are practically non-existent. Informed decision making in the process of choosing the profession still represents the significant challenge for the pupils and potential students. In order to address the need, the MoES started establishment of professional orientation system, which will be piloted from 2014 in 300 general education institutions.

Key Recommendations

1.16 **A radical improvement of the relevance of education and training is necessary.** Education and training must be relevant to individuals and to the labor market. Recent studies on Georgia's workforce development and skill mismatch recommend that substantial progress must be achieved to enable the MoES to acquire a good understanding of labor market needs and develop the capability to design and redesign programs so that they fit the needs of employers and the society.

[5] Rutkowski, 2013

[6] EPPM, 2013

This would require a renewed partnership between the education and training system and the private sector to close information and knowledge gaps that would allow employers to better communicate what they expect from education and training sector, and educators to improve quality and to better assess and certify learning. The education system in Georgia would benefit from regular assessments of the needs of the labor market, which could help increase the relevance of lifelong learning for both job seekers and employers. Additionally, regular analysis of vacancies should be also carried out to guide retraining services. However, this is likely to be an activity which requires coordination of multiple ministries and stakeholders, not only the MoES. For these purposes, it is important that the government recognizes employers as strategic partners and formalizes their role, in setting priorities and in enhancing skills-upgrading for workers[7].

1.17 The diagnostic analysis reveals two key challenges facing the general education sector in Georgia: (i) poor learning outcomes, the education system is failing to provide functional literacy to an overwhelming majority of students (over 60% of the surveyed 15 year olds are functionally illiterate); and (ii) Indications of a skills mismatch between what is learned and what the labor market needs. The key recommendations targeted at improving the quality of education are as follows:

- To address the issue that *a large majority of students in general education lacks basic proficiency skill* in key learning domains, such as literacy and numeracy (applied to analyzing and solving problems tested by PISA), as evidenced by the existing student assessments, improvements to the quality of education – including curricular improvements- should focus on eradicating functional illiteracy and developing key competencies that would prepare secondary education graduates to either pursue higher education or succeed in the labor market. In its efforts for strengthening competency based curriculum improvements, Georgia may benefit from the resources and networking opportunities available through the European project Key Competence Network on School Education (KeyCoNET). The latter is a growing network of European countries for improving implementation of key competencies in education reform.
- It is essential to harmonize other components of the education system with the national curriculum changes. This includes alignment of the in-service teacher training and professional development, high stakes examinations and school improvement and development policies and plans with the curricula modifications and innovations.
- The low Employment and underemployment amongst graduates suggest *relevance problems for vocational education and training and higher education programs*. The Focus on relevance by shifting to a demand-led approach in which employers' feedback help shape the education system will be needed. This will require a better understanding of the current situation and building consensus among training providers, employers, and key policy providers. In the meantime, the existing quality assurance system needs to be developed in line with the internationally recognized quality assurance frameworks and focus on relevance fostering a demand-led approach.

1.18 Georgian youth need adequate information on the labor market prospects to make informed study and career choices. This can be achieved by introducing counselling services at educational institutions or resources centers and web based programs providing information on the employment rates by study programs and institutions.

1.2 Access and Equity

1.19 The nature of the social inclusion issues cuts across all the educational levels and is manifested in major gaps in participation rates. The disadvantaged groups, such as children and youth

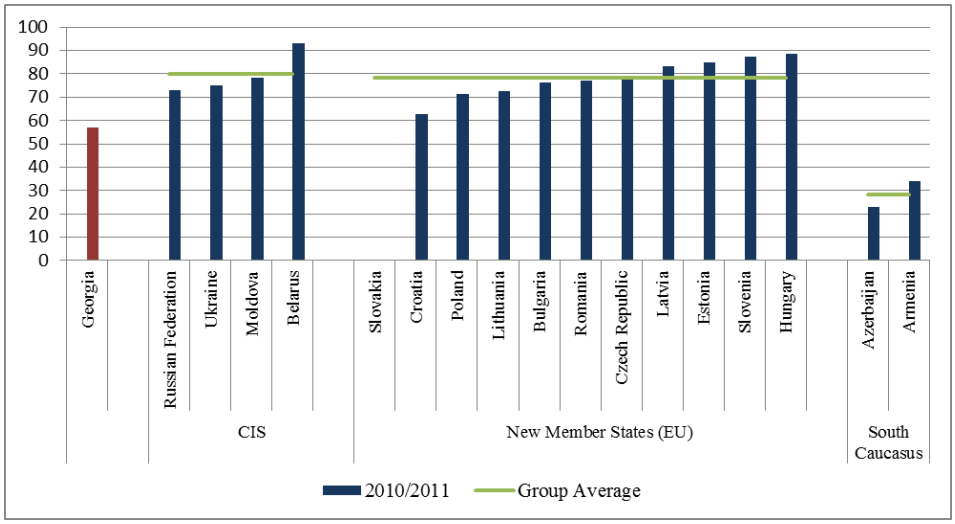
[7] Ibid:"Georgia workforce development SABER Country Report" WB, 2013 and "Skills Mismatch & Unemployment/Labor Market Challenges In Georgia", WB 2013

from poor socio-economic backgrounds, ethnic minorities, special needs students, face various challenges related to access and equity at each level of education. While participation issues are largely attributed to social and cultural issues, lack of consolidated social inclusion policy further exacerbates the problem.

1.20 **Preschool enrolment in Georgia is low by regional standards.** Regional comparisons show that the net enrolment rate in Georgia (46% for 2011/12 of which 40% in public and 4% in private kindergartens) is higher than Azerbaijan and Armenia but significantly lower than New Member States (EU) or CIS countries, such as Belarus, Moldova, and Ukraine and far from EU's or OECD's nearly universal coverage (see figure 1.4 below).[8]

1.21 **The enrolment rates showed moderate but promising growth in the last decade.** Preschool enrolment sharply declined following Georgia's independence and Net Enrollment Rate (NER) in public kindergartens decreased from 44.6% in 1989/90 to 28.3% in 2001/02. This sharp decrease was attributed to several factors that affected the country during that period: economic crises, political destabilization, the Abkhazia War and civil war[9]. In the early 2000s, it started to recover, rising from approximately 28% in 2001 to almost 40% in 2006. However, after the decentralization reform of preschool education was introduced in 2005 this recovery abruptly stopped and enrolment rates have remained almost stagnant for several years. This can be explained by the 2005 decentralization reform placing the financial burden on municipalities. Many municipalities were not able to sustain the existing kindergartens due to the lack of resources. Recent signs of improvement are encouraging, as enrolment rates showed moderate but promising growth during the last five years from 36.9% in 2008 to 57% in 2013 (figure 1 in annex 2).The growth can be partially explained by the increase in the municipality budget for preschool institutions.

Figure 1.4: Preschool Net Enrolment Rate (2011)[10]



Source: PER, 2014; Geostat, 2014.
Note: *Figures show data for 2011, except for Georgia (2013) and Slovakia (2010).*

1.22 **Significant enrolment disparities are visible across regions.** The recent evolution of gross enrolment rates by regions shows clear signs of growth in all regions since 2003 (see table 3 in annex 2). However, recent trends also indicate marked enrolment disparities exist across regions. Gross enrolment rates are over 70% in some regions (Tbilisi and Mtskheta and Tianeti) and less than half of

8 For OECD and EU figures, see OECD (2013), p. 286.

9 UNICEF 2013

10 *Note:* Net enrolment rate of children aged 3-6 (or 3-5, depending on the country). Figures for 2011, except for Georgia (2012) and Slovakia (2010).

that in others (31% in Samtskhe and Javakheti).· These disparities among municipalities appear to be correlated with the intensity of public expenditure after controlling per child expenditures.

1.23 **Although recent trends show positive improvement in enrollments, considerable gaps between various population groups remain**. Significant parts of the Georgian society are underrepresented in their participation in preschool education. Although their enrolment showed positive signs and increased in the last few years, their relative position is still poor. Table 1.5 shows the evolution of net enrolment rates for the most important underrepresented groups: people living in rural areas and people from different economic backgrounds. The gross enrolment ratio among rural children has increased to 41% from 2010 to 2013. Participation is also increasing steadily among children from poor backgrounds (from 42% in 2010 to 57% in 2013). The gap between richest and the poorest quintiles between urban and rural children remain the same.

Table 1.5: Main Social Inclusion Gaps in Net Enrolment from 2010 to 2012

Population Subgroups	2010	2012	2013
Type of residence			
Urban	54	60	70
Rural	28	42	41
Ethnicity			
Georgian	45	55	62
Consumption based poverty quintiles			
Poorest quintile	34	42	51
Quintile 2	34	48	49
Quintile 3	41	55	58
Quintile 4	47	58	67
Richest quintile	54	63	67
National Average	42	**52**	**57**

Source: Team estimates based on the National Integrated Household Survey of 2010, 2012, and 2013.

1.24 **There is wide variation in fees charged for preschool services across the country.** In 2007, municipalities started to exempt some families from fees. Although the share of children enrolled free of charge was low in 2007 (only 1% of total public enrolment), the policy was strengthened in the following years. By 2011 most municipalities enrolled various disadvantaged groups free of charge. The increase in enrolment could also be associated with the increase in private preschool enrolment. According to National Integrated Household Survey data, enrolment in private kindergartens increased from 4% to 9% from 2009 to 2011. The effect of poverty on preschool enrolment differs largely across regions, which could be partially attributed to the variation in the fee exemption policies among municipalities within the regions.

1.25 **Abolishment of parental contribution towards pre-school education in September 20013 has resulted in higher coverage, but is not likely to enhance the quality of the service being provided if no further measures are taken**. The role of the Ministry of Education and Science has remained limited and there has been no effective enforcement of minimum quality of service delivery and equal provision across the country. Similar to Georgia, in the majority of countries, preschool provision is decentralized to the local levels and such arrangement has many strengths. In contrast, however, the central government tends to play an active role in setting coherent national quality standards and monitoring service delivery. Given that currently the Ministry is developing a new law on preschool education and new consolidated educations sector strategy, there is an excellent opportunity to re-examine the role of MES in preschool education and introduce mechanisms within the current institutional set up to provide (i) coherent national goals for preschool education; (ii) coherent preschool education standards and curricula: (iii) viable system to facilitate and monitor the quality of preschool education service delivery across the country.

1.26 The limited geographical coverage of the preschool network is the most important factor for enrolment disparities in rural areas. About half of the parents interviewed in 2011 said the reason their child was not enrolled in a kindergarten was that there was none close to their home or in their village.

As NIHS data suggests, physical access to kindergartens is particularly problematic for ethnic minority population. Forty-eight percent of parents in rural population and sixty-seven percent of Azerbaijani parents said there was no kindergarten close to their home or in their village (see Table 1.6).

Table 1.6: Reasons for Not Attending Kindergarten among 3-5 years old group in 2011

Grounds for not bringing the child to Kindergarten	Settlement type		Poverty Quintiles					Ethnicity		Total
	Urban	Rural	Poorest	Q2	Q3	Q4	Richest	Geo	Azeri	
Perceptions										
The child is too young	53	23	30	31	34	32	44	39	10	33
I prefer home care	18	12	12	10	16	18	15	12	21	14
Access										
No K close to home	2	48	28	38	29	35	31	25	67	32
Money Shortage	13	12	24	12	11	6	4	15	1	12
Perceived Quality										
Bad conditions at K	3	1	3	2	2	0	1	2	0	2
Other	11	5	3	8	9	10	5	7	1	7

Source: Team estimates based on the National Household Integrated Survey of 2011.

1.27 **Enrolment in compulsory education is almost universal, although, participation in upper secondary education is low**. Georgia has historically enjoyed universal literacy rates and high value placed on education. Table 1.7 below shows that enrolment is high in compulsory education achieving NER of 96.9 percent in primary education (Grades 1 through 6) and 85 percent in lower secondary (Grades 7 through 9). However, enrolment at upper secondary education level is only 73.1 percent.

Table 1.7: Gross and Net Enrolment Rates in General Education (%)

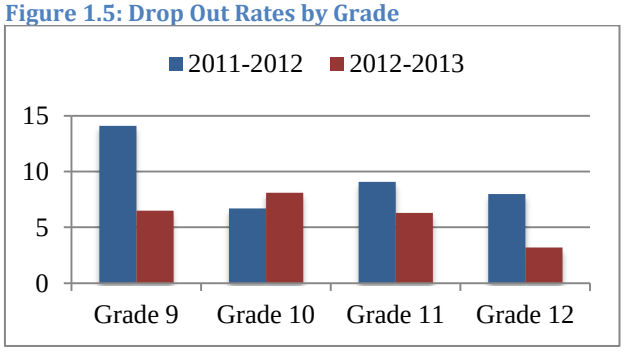
Level of Education	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Gross Enrolment Rate (GER)						
Primary	104	103	103	105	104	102
Lower Secondary	97	99	101	99	101	102
Upper Secondary	83	91	84	75	74	79
Net Enrolment Rate (NER)						
Primary	97	95	96	97	97	97
Lower Secondary	85	86	88	87	88	86
Upper Secondary	73	75	74	68	68	73

Source: EMIS, 2014

1.28 **The transition from lower to upper secondary education is problematic.** A reduction in enrolment is visible at the end of lower secondary, where dropout rates rapidly escalate from Grades eight to nine raising from 0.88% to 6.48%. Figure 1.7 below shows that high dropout rates are then common throughout upper secondary (Grades 10 through 12). A plausible explanation for this situation points to recent school management practices applied after the introduction of the school leaving exams in 2011. The low performance of students in school leaving exams was used to fire principals in several schools, without giving consideration to the complexities pertinent to specific schools based on their location. This punishment provided incentives to the principals to identify students at risk of failing the exams early in the process and discourage them to continue studies in upper grades. This seems to explain the visible effects in the following school year (2012-13) where many students either repeated the class or dropped out altogether. The situation appears to have improved since the punishment was not formally repeated in the subsequent years, however, it is still too early to say that this tendency is definitive as it is not known if school principals continue to apply these measures informally. This situation is creating a significant early school-leaving situation; this is a problem that the country will have to address rapidly as early school leaving generates substantial

social costs in the medium term. Prevention is the most important action to address early school leaving, as the compensation policies that are needed to resolve it are usually very costly.

Figure 1.5: Drop Out Rates by Grade



Source: EMIS, 2014

1.29 **Success rates for completing upper secondary education show important regional differences.** At the end of upper secondary education (Grade 12), students must pass school leaving examinations in eight core curricular subjects to receive a Diploma, which is a necessary prerequisite to access higher education. Regional differences are marked for the pass rates of the school leaving examinations. The national approval average is of 82% countrywide. Pass rates in Tbilisi are over 90%[11] as well as in other big cities. However, much lower rates are achieved in Kvemo Kartli (Marneuli: 44%, Bolnisi: 64% and Tsalka: 63%) and Samtskhe Javakheti (Akhalkalaki: 62%).

1.30 **Inclusion of special needs students in general education remains a challenge.** Initial efforts to introduce the principles of inclusive education in the education sector were launched in 2004. The inclusive education has been promoted at the general education level. Since 2012, efforts were launched to provide inclusive education at the vocational education and training level. Neither vocational nor higher education law has been amended to guarantee the rights of special needs students. All public schools are required to implement inclusive education, however not all of them have appropriate facilities. According to MoES, only 249 general education schools are equipped with ramps and 190 with special resource room. Public schools' learning environment is not adapted for the children with sensory disabilities. Currently the education system only provides boarding schools for children with hearing disability, for visually impaired children and for children with mental disorders. Approximately 3,450 Special Education Needs (SEN) students are currently involved in formal education system. The demand from parents to expand opportunities for SEN students has been growing in recent years, which is a positive trend but much work remains to be done to ensure adequate learning environment and well trained teachers to accommodate this need.

1.31 Within the reform framework a multidisciplinary team has been introduced at the Ministry of Education and Science consisting of psychologist, special education teacher and occupational therapist to assess those children, whose parents require such assessment. Evaluation procedures are yet to be developed for placement of students in an institution, boarding school or just a regular classroom. The standard evaluations would need to include IQ, academic, adaptive, social/emotional and motor skills.

1.32 The Inclusive Education group at the Ministry of Education and Science has developed an action plan for the development of Inclusive Education 2014-16, which has to following provisions: elaborating the legal framework, improving the financing mechanism for SEN pupils and students, ensuring quality inclusive education at all three levels of education (school, vocational, higher) and developing the mechanism for monitoring SEN pupils and students.

1.33 **The new per capita financing system has special provisions of inclusive education.** Namely, if a school has 1 to 7 special needs children, they are staffed with one special education teacher with the annual funding of 4,200 GEL; schools with 7 to 14 students special needs students

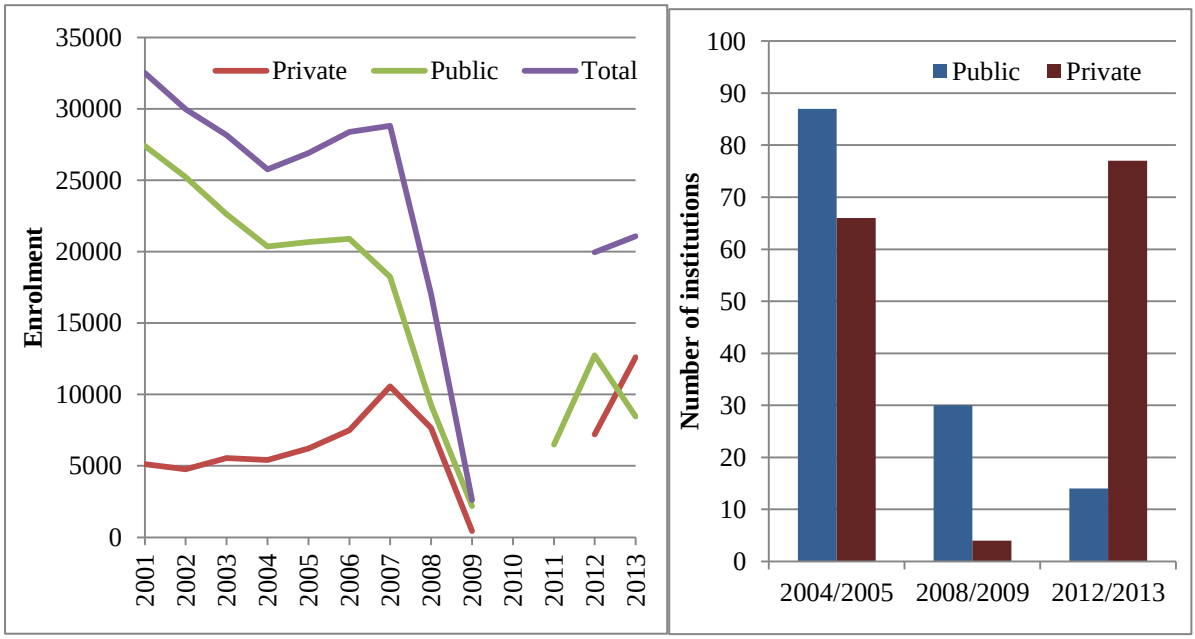
11 NAEC, 2013

are entitled to have two special needs teachers with annual funding of 8,400 GEL; schools with 4 to 23 students - 3 teachers and 12,600 GEL; More than 23 students - 4 teachers and 16,800GEL.

1.34 **Following the rise of new private institutions, VET enrolment is growing to approach the level prior to 2008**. According to information gathered by MES and Geostat, enrolment in VET programs sharply decreased in 2008 with the closure of many vocational education institutions. The demand has been on the rise with enrolment doubling between 2010 and 2011 and further increasing in 2012 (Figure 1.8). The increase in participation can be attributed both to positive and somewhat controversial interventions in recent years. On one hand, the government's investments in infrastructure of public institutions, increased focus on improving quality of the programs, and increasingly important network of private providers might have increased the attractiveness of the sector. At the same time, many low-performing students were discouraged to continue academic stream since in 2010 school principals were made accountable for student results in school leaving exams (discussed previously). Moreover, participation increased at the expense of very short VET programs, the quality of which, though not formally assessed, is not seen as being high.

The ample majority of students enrolled in VET belongs to the age group of 15-18 (7,800 students) and the age group of 19-21 (7,160 students), but these figures represent only a fraction of these age group populations (for example, only 4% of 19-21 age group participate in VET) (Team's calculations based on VET 2013 database provided by EMIS).

Figure 1.6: Trends in enrolment and number of vocational education institutions (excluding Higher Education institutions)



Source: Geostat for 2001-2009; MES for 2010-2013.

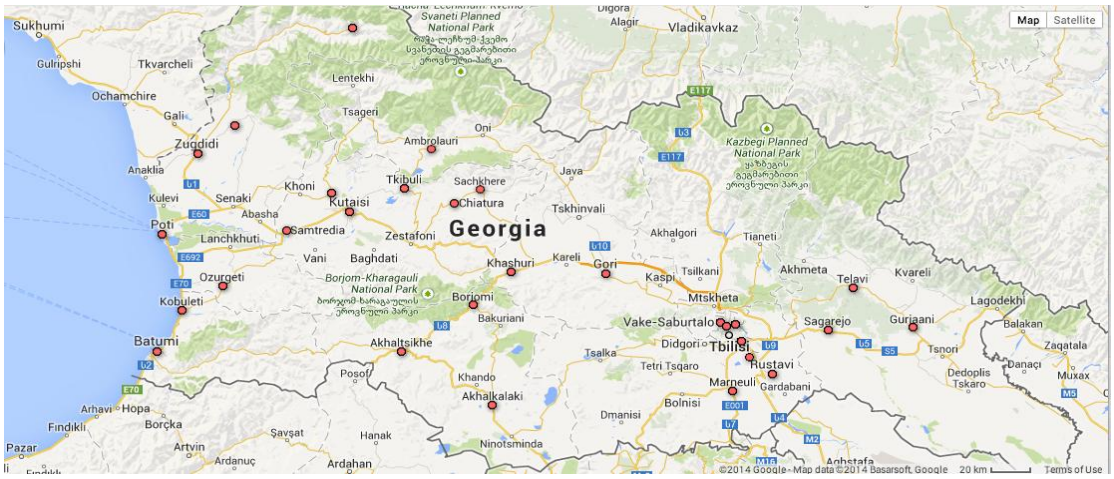
Note: Between 2009 and 2011 Geostat stopped collecting VET data resulting in data gap for this period.

1.35 **Despite recent attempts to increase the number of VET programs, the geographical coverage of VET programs represents a major obstacle to further improvements in enrolment**. Currently, there are 34 public and 66 private VET centers, community colleges, and universities that offer vocational education and training programs. The network of VET programs has grown from 442 to 529 in 2013.[12]

[12]The MoES has collected the data on enrollment from public and private VET centers in 2012 and 2013; however, the data on private enrollments is incomplete. Therefore, it is the dynamics in private enrolments.

1.36 Access to VET remains a challenge in several regions of the country. In some parts of the country there are no VET centers. Young people from these regions have to move to other cities to study, which is associated with high cost especially for the poor who represent the major barrier to VET. From 2012 to 2013 the number of VET centers has increased, but their geographical distribution is still not addressing these issues fully; .

Figure 1.7: Map of professional (Level 1-5) programs as of 2013



Source: EMIS VET Database, 2014

1.37 Since the approval of the State Professional Education Reform Strategy 2013-2020, one of the most important initiatives was the development of VET network expansion plan. Throughout 2013, the MoES also introduced new admission exams specifically designed for VET applicants and expanded VET applicant registration sites from 3 to 103 centers. On the quality side, the Ministry through EU and UNDP support updated 75 standards[13] based on Dacum methodology, which focuses on engaging employers in the standard revision process; Moreover, work was launched to revise the existing Qualification Framework; the Modular Education Concept Note, Validation Guide and other methodological materials were developed in close consultation with the stakeholders. The strategy for private sector engagement in VET was also prepared through the support of the Millennium Challenge Account Georgia. In 2013, inclusive education has been introduced and more than 100 beneficiaries have been enrolled in vocational colleges. The inclusive education specialists and assistants started working at vocational colleges, training materials are being adapted, the infrastructure projects are planned according to the principles of universal design.

1.38 **Dead ends and rigid pathways to higher levels of education are also constraints of the current VET system.** Prior to the 2005 reform, vocational and technical education was offered at the secondary level and students enrolled in secondary vocational and technical programs received secondary education together with vocational and technical education and training. The rationale behind the 2005 reforms was to create easier paths to employment and to quickly address the existing skills mismatch, which resulted in the introduction of numerous short and medium (from 3 months to 2 years) vocational education programs for graduates of compulsory lower secondary education programs (grade 9). Vocational education and training programs became disengaged from secondary education and students who enroll in vocational programs based on lower secondary education no longer receive a secondary education diploma and qualifications entitling them for further education paths. More specifically, these students are not prepared to pass external examinations for obtaining school diploma, a prerequisite for participation in the university entrance examinations. This has somewhat decreased the attractiveness of vocational and technical education and is probably related with a marked reduction in enrolment (from 20% in 1999 to 3% in 2009). An additional problem is created by the fact that the credits accumulated in VET programs are not recognized in higher and tertiary education programs creating further dead ends.

[13] 50 standards were updated by NCEQE, 17 by EU and 8 by UNDP.

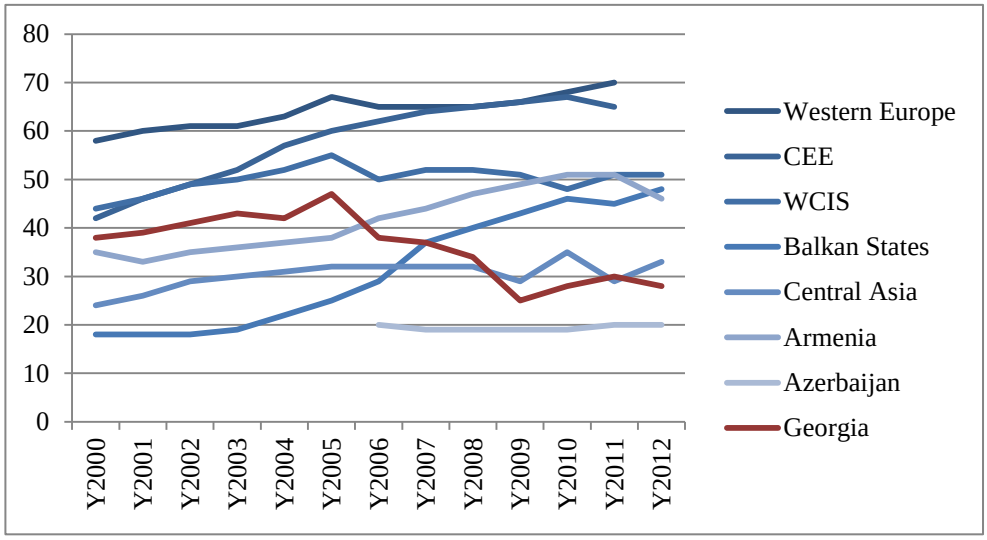
1.39 **Despite recent progress, dropouts in VET are still generating significant wastage of resources.** According to latest data, the overall dropout rate for VET programs decreased from 20% to 8% from 2012 to 2013 (EMIS, 2014). This reduction was more marked in public education (from 23% in 2012 to 8% in 2013) than in private and 8% of public VET program students drop out. This means that more than 1,000 VET students dropped out from the public education system in 2013There is no comprehensive analysis of the reasons explaining the high dropout rates, but several issues emerged from the available analysis: (i) low academic readiness of students for the selected program; (ii) the lack of information about the course and the profession (when the decision is made) and poor counselling; (iii) low quality of some of the programs (such as Gardening, Marketing, Tour Operator and Restaurant Administrator), which are marked by particularly high dropout rates on average.

1.40 The first voucher scheme was introduced by the Government in April 2012. The voucher program was the main source of VET financing for students in Georgia. . The financing for VET programs levels I to III was provided in the form of student vouchers (both full and partial). The voucher amount was flat fixed at 1,000 GEL and did not differentiate the costs of the different study programs. Tuition waiver of 700 GEL was applicable only for priority programs determined by MoES. Only vulnerable students and students under state care were given full funding as well as the ones passing specific tests. Programs at levels IV and V had similar financing arrangement as higher education programs, where financing was provided through student grants based on the results achieved in the general aptitude test of the university entrance examinations.

1.41 **Financing of the VET sector was reformed and the new financing scheme was launched in November, 2013.** Three main financing mechanisms were introduced: (i) differentiated vouchers based on the number of students taking into account costs of individual study programs and replacing the previous flat vouchers. These vouchers cover teacher salaries and learning materials; (ii) Program budget transferred quarterly to VET institutions to cover administrative costs and utilities, the size of budget support varies depending on the size of VET institutions; and (iii) targeted program financing to support Ministry's different priority initiatives. According to the new scheme, vouchers are awarded to all students who successfully pass the newly introduced VET unified admission exams and are admitted in public vocational institutions. Despite these positive shifts, some critical problems regarding financing remain to be addressed. The indirect costs borne by the students are not included in the voucher. The cost of living expenses pose serious challenges for poor students from rural and remote areas, because students who wish to enroll in VET programs have to pay for their living expenses. Because of this reason, the MoES paid rent for VET students in Mestia in 2014.

1.42 **Enrolment in Higher Education in Georgia is low by international standards.** Currently, 50 private and 18 public research and teaching universities and colleges enroll a total of 146,600 students. In 2012 the gross enrolment ratio in higher education reached 28%, which is one of the lowest in the region and significantly lower compared to the average GER in Western European and CEE countries. Compared to other levels of education in Georgia, private enrolment is highest at higher education level, although it has dropped from 53% in 1999 to 25% in 2011. At pre-primary and general education levels (Grades 1 to 12), private enrolment constitutes to 10% of total enrolment. Georgia's private enrolment at higher education level is high compared to most countries in the region except for Kazakhstan (50%), Latvia (94%), Estonia (84%), Romania (37%) and Poland (33%).

Figure 1.8: Higher Education Gross enrolment ratio in Georgia in an international context, 1999-2012



Source: The World Bank, World Data Bank. Education Statistics.

Table 1.8: Higher Education Net Enrolment Rate by Population Subgroups in 2012

Population Groups	Net Enrolment Rate (%)		
	2009	2011	2012
Georgian	32	31	28
Azeri	3	4	10
Female	33	31	27
Male	26	26	26
Poorest Quintile	13	12	8
Quintile 2	19	19	14
Quintile 3	27	25	25
Quintile 4	36	41	29
Richest Quintile	51	47	46
Urban	44	45	41
Rural	15	10	12
All	29	28	26

Source: National Household Survey of 2009, 2011 and 2012

1.43 **Participation rates in Higher Education are particularly low among traditionally underrepresented groups.** Table 1.8 shows that ethnic minorities, youth from rural areas and poor families are largely underrepresented in higher education. The differences in enrolment are notorious: rural enrolment accounts for one-third of the national average; enrolment of the poorest quintile is three times lower than the national average and almost eight times lower than the one from the richest quintile. Without creating enabling conditions and providing support (financial or otherwise), the present system is unable to address these inequities.

1.44 **Admission to higher education is mostly merit-based creating equity concerns.** Students in Georgia have to pass a high-stakes National Unified Admission Exams, which is the only determinant used for enrolling students into the higher education. This problem is acute given that the quality of public general education is not homogenous across the country as evidenced by PISA 2009 results, which shows large disparities in achievement by socio-economic status and residence.

1.45 **Wide-spread private tutoring further exacerbates equity issues.** Apart from quality disparities in Georgian schools, students from well off families often resort to private tutoring to compensate for low quality of schooling and prepare for university admission exams, which is not affordable for poor families. Some families access private tutoring starting from the primary level but it is more common at the secondary level. 16Sixteen percent of students at primary level, 37% at a

basic level and 60% of students in the 12th grade take private classes on a regular basis. Private tutoring differs by place of residence and family income, as shown in table below. As a consequence, merit-based university admission system further penalizes poor segments of population.

Table 1.9: Private Tutoring by Family Income in Grade 12

Family Income (in GEL)	Private Tutoring (%)
Up to 400	36
Between 401-700	72
Over 700	87

Source: EPPM 2013

1.46 **The cost of university education is high and difficult to afford for large part of the population.** During the last four years, the annual tuition fee in most public universities was GEL 2,250 per year (equivalent to USD 1,350) and ranged roughly between USD$1,200 to USD$6,424 in private institutions. As a share of GDP per capita, this represents 37% in public institutions, 94% in private research universities and 51% in private teaching universities. This level of tuition fees is common to some post-soviet countries (Azerbaijan, Armenia, Kazakhstan) but very high when compared to countries in Europe and Northern America as well as other developed countries (Japan, South Korea, Australia). In contrast, tuition fee as a percentage of GDP in these countries range from 1 to 20 percent in public universities, 2 to 50 percent in private universities. This puts Georgia among the countries with the highest tuition fees both in public and private tertiary institutions (see table 4 in annex 2).

1.47 **The bulk of the financial support provided to students is in the form of merit-based state grants, full or partial.** Only 6 to 10 percent of the total student grant amount is allocated by means of need-based support for students from minority language schools, schools in remote areas, students from conflict zones, orphans and students with several siblings, students eligible for social assistance, etc. The allocation of the need-based grants also has a merit component in it. The students who apply for need-based grants are ranked by their test scores within their quota group and the ones with the highest scores receive the grant. The government does not offer student loans to support students to bear the costs of higher education (see table 1.10).

Table 1.10: Student breakdown by types of state grants in 2009 and 2013

	Students in 2009-2010		Students in 2013			
			Admitted		All	
	#	%	#	%	#	%
Students paying full fees	46,796	**62**	19,160	63	80,288	**64**
Merit-based grants:						
100%	7,186	9	1,186	4	5,760	5
70%	3,844	5	1,437	5	7,150	6
50%	5,736	8	4,018	13	12,142	10
30%	9,747	13	0	0	13,870	11
Total merit-based grants	26,513	**34**	6,641	22	38,922	**31**
Of which needs based grants[14]						
30%	(242)	*(0)*	(68)	*(0)*	(397)	*(0)*
50%	(254)	*(0)*	(225)	*(1)*	(698)	*(1)*
70%	(455)	*(1)*	(0)	*(0)*	(683)	*(1)*
Total needs-based grants	1720	**2**	1006	**3**	2411	**2**
Students in priority areas	-	-	3,426	**11**	3,426	**3**
Total	75,363	100	30,458	100	12,5047	100

Source: Salmi and Andguladze, 2011; National Education Quality Enhancement Center, 2014

1.48 **The current system for the allocation of student grants intensifies inequities.** Table 1.10 shows that up to 50 percent of all students receive different subsidies from the state. Tertiary enrolment and grant allocation figures for secondary school graduates in 2010 show clear disparities in grant allocation by residence (see table 1.11). The share of students who received state student grant was 13% larger among Tbilisi residents when compared to students living in towns and rural locations and 8% larger than for students living in other major cities (Kutaisi, Batumi, and Rustavi). Moreover, students with more educated parents are also more likely to benefit from the current student support system. A higher education graduate tracer study conducted in 2013 showed that 47% of students whose both parents had higher education degree received state grant while the share of state grant beneficiaries was 28% and 16% for students with only one parent with higher education and none of the parents with higher education respectively.

Table 1.11: Higher Education Enrolment and Allocation of Grants by Residence in 2010

Student's residence	Tbilisi	Other cities	Towns and rural locations	Country
Mean score received on the National Unified Exam	1894	1872	1816	1823
Total Grant recipients	40%	32%	27%	33%
100% grant recipients	(6%)	(4%)	(4%)	(5%)
70% grant recipients	(7%)	(5%)	(4%)	(6%)
50% grant recipients	(10%)	(9%)	(6%)	(8%)
30% grant recipients	(17%)	(14%)	(13%)	(14%)
Students paying full fees	60%	67%	73%	67%

Source: Salmi and Andguladze, 2011

1.49 **The existing higher education programs are rigid and do not meet the needs of students who need to work on a full or part-time basis.** An emerging challenge in TE education is the large share of undergraduate students being employed full-time. According to 2012 Integrated Household Survey, 15% of students enrolled in TE institutions have part or full time jobs and almost half of these students work 40 or more hours a week (see table 5 in annex 2). The students might be working for

[14] Supplementing merit based grants

financial reasons or for accumulating the experience that would make them more competitive in the labor market. According to the World Bank Study, employers value previous experience highly.[15] These students, however, are not given an option of part-time studies because the law on higher education does not allow for such option for universities to offer. Irrespective of how many courses a student takes a semester, s/he has to pay the full tuition. This arrangement makes the university system highly rigid and forces students into less engagement in their studies. Other options such as acknowledging progress through a credit system, providing part-time or evening courses are not available.

Key Recommendations

1.50 **Improving access and equity is a key strategic objective that requires strategic, sector-wide planning and management.** Social inclusion standards, targets, measures and tools must be defined at the national level and not left to the arbitrary decision of the schools and municipalities. The nature of the social inclusion programs and measures cuts across all the educational areas, and therefore, their overall monitoring and evaluation requires special ministerial attributions that are not today defined at the centralized level. The responsibility for implementing and monitoring of many of these policy measures can be delegated to sub-sector area management units (pre-school, general, etc.), however there is subject specific knowledge (children with disabilities, usage of mother tongues in education, adult education, etc.) that would benefit from a more integral understanding of the topics for all education areas.

1.51 **A fundamental issue that needs to be addressed is that the ministry is operating in the absence of a Social Inclusion Policy that should define the main principles, goals and targets together with the criteria to guide its implementation**. Partial initiatives are already emerging in this area, (regarding adult education, children with disabilities and dealing with displaced population and ethnic minorities), but a more integral approach and stronger support is needed to achieve good educational results.

- To address the issue of *low preschool enrolment* by regional standards despite moderate increase in the last decade, and the exclusion of several groups (ethnic minorities, rural children and children leaving in poverty); it is critical to find the most affordable solution before starting the preschool network expansion. The expansion should take into account all possible means of reducing costs for the provision of new classrooms (including efficiency gains, public private partnerships and other) in all areas. Consultation with a wide range of stakeholders should be a precondition for any further expansion of the system. The follow options can be considered:

    - Prioritizing the five-year old children, in case there are no spots for all children. Providing all children with at least one year of preschool education is likely to improve school readiness.

    - Bringing the private sector in can have beneficial impact**.** By encouraging the private sector to provide preschool education, the Government would (i) allow for different options of service delivery, which can be appealing to parents that are willing to pay for these differentiated services and (ii) free spots for poorer children in the public system. If demand is in place and supply of public institutions is not large enough or parents have different preferences with respect to the type of preschool education, private institutions with different models will arise. In this scenario, the existence of a body that assures quality standards and monitoring preschool institutions is critical.

    - Building public awareness. The individual benefits of preschool education should be underscored as a means of making parents more knowledgeable about preschool education and hence more willing enroll their children. There is anecdotal evidence that

[15] Rutkowski, 2013 based on World Bank employer STEP survey, 2012

in many cases, parents are more concerned with food provision rather that the quality of teaching and care.

- Planning for more inclusive access to existing pre-school services. The measures that are being applied somehow worked, but enrolment is not growing fast enough for these underrepresented groups. The preparation of a national plan is essential, and it should not be a costly exercise. It may take a full calendar year to complete, as it is necessary to develop it in consultation with key stakeholders (including samples of the families of future users). The plan must offer clear estimations of the costs of resolving financial and capacity asymmetries for all municipalities.

- Phasing in free of charge service provision for all, and prioritizing the most needy and disadvantaged socioeconomic groups would be important. Whenever there is oversubscription in public institutions, ensure priority is given to low-income/socio-economic status families and ethnic minorities. The possibility of using the existing Targeted Social Assistance (TSA) mechanism to support the disadvantaged families could be considered. The possibility that rich children – whose parents could pay for this service – takes up the place of poor children in free preschool is of important concern..

- Improving efficiency in the use of existing preschool infrastructure. The government could consider using the facilities of existing, underutilized primary schools.

- To address the issue that the *curriculum at upper-secondary education* is rigid and not tailored for students with different academic backgrounds and aspirations and thus narrow enrolment at this level, there is need to diversify education paths at upper secondary level in order to accommodate students with various interest, aspirations, and backgrounds. This includes introduction of more flexible curriculum to allow students concentrate in the areas of interest along with core curriculum.

- To address the issue of dead ends for VET graduates, as well as low attractiveness of VET stream, adding general education component to VET programs should be considered. This would help to improve the employability of these students and compensate for the fact that they are streamed relatively early in their lives, before they get the basic skills. Additional general education helps prepare students to adapt to changing labor market circumstances, rather than training them for a specific occupation, which raises obstacles for those who choose or need to switch professions later in their lives. Alternatively, adding more general education content to the vocational track would also contribute to improving permeability of the VET system. In Georgia, due to the nature and structure of programs, VET graduates have significant difficulties in pursuing further education, which hinders career advancement for many people. The inclusion of general content in the VET courses is likely to reduce the content gap between general and VET track graduates. In itself, this would make it easier for VET graduates to compete for university admission. A cost-effective approach would be to add general content to VET courses that can help reduce “dead ends” and improve VET graduates’ chances in case they need to look for a job different than the one they studied for.

- To improve the *inclusion of special needs student* in general education, a good plan for social inclusion in general education is necessary. This is not costly, time consuming or difficult exercise, but it should be done in consultation with key stakeholders. The plan must offer clear estimations of the costs of addressing inclusion. Its final application may be costly, as it is could involve voucher-based support or other conditional cash transfers.

- To further expand *geographical coverage of VET programs*, there in need to re-orient the expansion plans of the system to offer better service provision in rural areas and smaller towns. The present initiatives to increase supply should be slightly refocused to address supply deficiencies to provide access to people living in these areas, for which VET would be

very important. Expand the existing financing scheme to accommodate indirect costs (living expenses) of VET participation can also be considered.

- To increase the *low participation rates in higher education, particularly among traditionally underrepresented groups,* there is need to reduce the high cost of higher education and improve student grant allocation system. It is recommended to review the usage of the student grants and expansion of existing programs to promote the participation of disadvantaged groups. Many of these measures could have an important short-term social impact and can be introduced fairly quickly without substantially increasing actual funding requirements. These measures include expansion of needs-based grants, introduction of subsidized student loans and introduction of flexible study programs.

1.3 Governance

1.52 **Georgia's current education governance system has been shaped by the decentralization and finance reforms launched in 2005.** The Ministry of Education and Science is the dominant player in education policy-making and has the primary role for the sector oversight and management for all levels of Education (except for preschool education) in accordance to the sector priorities set by the Parliament of Georgia through education legislation. The decentralization process was applied to all levels of education, as part of which, management was decentralized at the institutional level (except for preschools) and all education institutions were transformed into legal entities of public law and new structures of internal accountability were created. More specifically, School Boards of Trustees in schools, Supervisory Councils in VET centers and Academic and Representative Councils in higher educational institutions. At the preschool education level, the management and financing have been decentralized to the local government level. The intermediary institutions were set up at preschool level (Kindergarten Agencies) and general education level (Education Resource Center across the country). The financing system has also been transformed introducing per capita financing system in general education and student vouchers in higher education and vocational education and training. More details about the organizational structure of the education sector and the Ministry of Education and Science are presented in the Annex 1.

1.53 **The remaining challenge for the sector is to shift towards the governance and accountability paradigm that would support the existing decentralized management in a more effective manner.** The existing accountability mechanisms at all levels of education are concentrated on controlling for inputs and regulatory norms, which restricts the MoES capacity to improve the quality of education. These governance constraints are manifested in different forms at each level of education, as described below.

1.54 **At the general education level, the functions of the existing internal audit are limited to investigating only the compliance with regulatory norms without little attention to school performance.** The new school authorization standards are limited to evaluating only inputs, checking technicalities related to school mission, human resources and infrastructure. At the school level, the division of responsibilities between BoTs and Principals lacks clarity. The functions of the newly created ERCs, originally created to support the implementation of education reforms, came down to only bureaucratic functions. Eventually the Ministry became closely engaged in the school level functions (selection of school principal, approving staff plans, etc.

1.55 **Internal quality assurance mechanisms are ineffective.** At school level, BoTs are supposed to monitor performance of principals. The evaluation should assess school principal's standard; strategic plans of schools; school budgets and annual reports of principals. However, the structure and quality of baseline documents is poor. Strategic plans of schools are mostly identical; they don't contain clearly formulated indicators to provide enough information for monitoring. Insufficient attention to BoT capacity building in the state policy is also a constraint.

1.56 **Current mechanisms of evaluation of school performance are mostly based on the analysis of inputs.** There was only one attempt to evaluate school outcomes using the results of school leaving examinations, but the results were used for punitive measures without proper consideration of school characteristics that could have contributed to low results. When attempting to assess outcomes, the MoES adopted a criterion to evaluate principals that was too narrow: principals were fired if the failure rate for school students in school leaving exams was high. This policy resulted in negative unintended consequences. Specifically, this gave incentives to the principals to identify at risk students and discourage them to continue studies. This practice resulted in massive student drop outs and increased repetition rates in the following years. One alternative is to follow more successful education systems, which adopt a comprehensive set of outcome based monitoring instruments that are used as part of the school accountability system, such as student performance as measured by school based student assessment, parent satisfaction, etc. Assessment results are used to strengthen and support school performance rather than punish individuals. A more sophisticated metric like this can be used to assess principals' performance.

1.57 **There was insufficient investment for running the new system.** According to the users of the system, school level strategic planning "makes no sense" as funds are barely enough to pay salaries of teachers and to cover running costs. Lack of funding put principals under the pressure to make difficult choices between competing budgetary priorities.

1.58 **At VET and Higher Education levels, the absence of effective accountability instruments is a major obstacle to the improvement of the quality of educational institutions.** The excessive focus on inputs and processes in the present accountability mechanisms, particularly at the higher education level, deludes the attention from what really matters – the academic results that the educational institutions seek to achieve. In most parts of the world, educational institutions are held accountable on various aspects including equity, quality, relevance, the contribution that universities makes to the local or national development and nation building, internal efficiency and sustainability of these institutions. In contrast, in Georgia, the Government puts considerable effort into controlling inputs and processes in the post-secondary education system, which substantially restricts institutional autonomy. At the same time, the mechanisms for measuring the results achieved by these institutions are non-existent. Also, the accountability system is highly centralized where the state represents the only party with little cooperation with employers, alumni, students and other stakeholders. This seems particularly paradoxical considering that the share of government funding with regard to higher education and in the entire system in general is very small compared to the household's contribution. More successful education systems exercise the accountability mechanisms that concentrate on the results rather than the operation of HEIs, bring positive incentives rather than punishment, and are mutually agreed or accepted voluntarily.

Key Recommendations

1.59 Despite the decentralization reform, Georgia has not been able to shift towards the governance and accountability paradigm that is now part of leading education systems. The existing school based management system fails to support school improvement. The following factors affect the effectiveness of the school management system: (i) There is no proper *accountability framework* between the MoES and schools; (ii) *Internal quality assurance mechanisms are ineffective*;(iii) *insufficient capacity development* was provided to support participation of key actors;

1.60 Meaningful combination of effective school accountability and support mechanism will be an important prerequisite to improve the quality of general education. Future quality efforts should be targeted towards further enhancement of school autonomy through the development of strong school accountability instruments and school improvement mechanisms. In this regard, successful educational systems are increasingly resorting to introducing outcomes-based accountability mechanisms focusing on school development. When introducing new school accountability instruments, it would be essential to take into consideration the three main principles: (i) accountability mechanisms should be designed to evaluate schools (including principals and teachers) and help them improve. Hence, punitive measures should not be the ultimate goal of these mechanisms, but perhaps an alternative to be used in extraordinary situations; (ii) school performance

review should include diverse assessment measures and should not be relying only on standardized tests for measuring school performance given that tests can only measure part of students' learning; (iii) different schools face different challenges. For example, a school with the majority of students from lower socioeconomic background faces challenges that are very different from a school with well-off students.

1.61 The following measures should be considered to address these school and education institution accountability and quality assurance issues in Georgia:

- Developing a new school performance review and support system that will be focused on monitoring school quality and supporting school development. Such new system should be a part of a school improvement and development policy and tightly linked with the teacher in-service training and professional development. The system will also require specialized professionals who provide expert advice to schools. The existing structure of the education system (Education Resource Centers, National Quality Enhancement Center, Teachers' Professional Development Center, National Assessment and Examination Center) can provide good foundations for such review in terms of providing the needed expert support, particularly for low performing schools. The new school performance review and support system can play a leading role in helping the schools to identify their challenges and develop school improvement plans. The ERCs should play a role in the capacity development of boards of trustees to avoid one time, costly and sporadic trainings and provide more long-term and sustainable support to individual school board members. The ERCs should be equipped by centrally developed guidelines and manuals for such support.
- At VET and Higher Education levels, introducing result-based accountability mechanisms is essential for quality improvement. These accountability mechanisms should be built around measuring performance of these institutions according to defined outcomes, which can serve as the major driver for the improvement of the quality and output. The performance indicators should be agreed upon among key stakeholders and their tracking and verification need to be done by institutions and an independent agency respectively. The indicators should be shared publicly with all higher education stakeholders (e.g. parents, students, employers, etc) to inform both policy and personal decisions. It would be important to ensure that the future reform of existing authorization and accreditation system is not in conflict with the principles of institutional autonomy.

1.4 Strategic Management of the Ministry of Education and Science

1.62 **The path of recent reforms shows some recurrent problems that should be avoided in the future.** Georgia has made significant progress in reforming its education system, however, the approach used for introducing many of them should be carefully reviewed before addressing large-scale reforms in the future. These constraints include the following: (i) very important, large-scale reforms were introduced before gathering a clear understanding about all their potential consequences; (ii) the speed for the introduction of these reforms in many cases did not leave sufficient time for their proper planning and consultation. Hence, a substantial degree of "improvisation on the go" was later required during the implementation phase; (iii) some of the measures introduced were not in line with existing capacity and management limitations; (iv) in many cases, after the reforms were implemented, several "back and forth" revisions were made. This happened in key areas, producing a general sense on instability and, at the end of the day, longer periods to consolidate the desired outcomes of the reforms compared to what a proper introduction would have required.

1.63 **The scope and quality of the data provided by the Education Management Information System does not effectively support the implementation of a sector-wide strategy.** EMIS development made important achievements so far and is a good experience to build on. The present system could be improved by: (i) expanding EMIS coverage from general education to VET and

higher education; in most cases, this data is available but not part of the formal EMIS. (ii) make access to data easier for all users and information more readily available from different databases existing in isolation in various education agencies (i.e. EQE, NAEC) into one consolidated EMIS; and (iii) improving the application of the existing data to support evidence-based policy making. Some initial steps to address these issues have been launched. The new concept of school score-cards has been developed, which is aimed to provide unified information on each school based on standardized criteria.

1.64 **The financial planning capacity of the MoES is relatively weak to ensure availability and consistency of financial support for the implementation of a national education strategy.** More specifically, more developed economic simulation scenarios, to project the financial impact of population trends and of specific measures that the Ministry may want to introduce or similar financial planning tool that could substantiate any attempt to improve financial predictability and long term support (either from the government or the international cooperation partners).

1.65 **With the available data, not enough information is produced to support effective decision-making; the production of knowledge to support strategic management is in great need of improvement**[16]. In many cases, the data that is available in the EMIS and other systems is not integrated and collated to produce usable information (general statistics and trends about enrolment, schools, teachers, social inclusion and other key areas) to support management at the national or regional levels. The Ministry does not systematically produce all the knowledge and analysis that is needed to support its decision-making and most of the key analytical studies that are produced are financed by donors. Moreover, the way in which this knowledge is produced is not helping to develop the technical capacity of the Ministry and make it self-sustainable in the long term.

Key Recommendations

1.66 The *lack of a strategic vision, consistency and contradictions in the introduction of many reforms* are not generating the expected incremental and systemic improvements. "Back and forth" implementation of radical reform measures generates instability and lack of credibility of all involved parties about the future of education that will be difficult to overcome. The MoES "navigates blindly" in some areas as it does not collect the data that would be necessary to appropriately manage the education process. To address this issue, it is recommended to:

- Develop the Ministry's policy and planning capacity, including data management and application, to support key strategic management functions and sustain the introduction of management by results practices. In particular, developing a comprehensive and evidence and data-based long-term sector strategy would create the opportunity to negotiate the necessary increases in the medium term financial support for the education sector development.

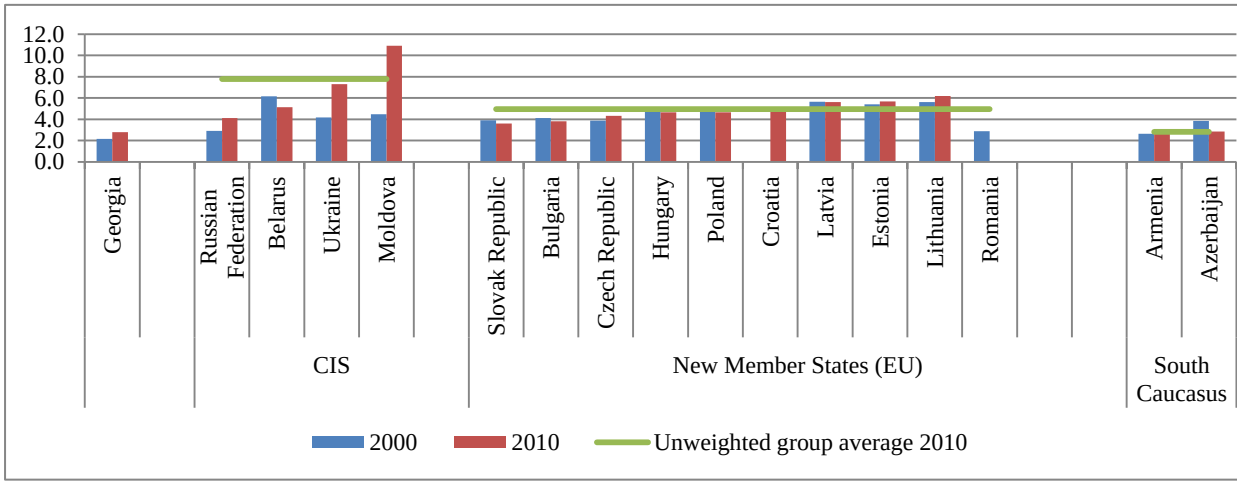
1.5 Public Spending in Education

1.67 **Georgia's expenditure in Education is low by regional standards.** Expenditures as a share of the country's GDP have oscillated between 2 and 3 percent since the late 1990s[17]. Figure 1.11 shows that this level of expenditure is low if compared to countries in the Commonwealth of Independent States (CIS) and New Member States in the European Union (EU). Public expenditures in 2012 and 2013 (estimated) have been 2.8% and 2.9%, respectively, including public funding for preschool education expenditures. The level of expenditures is much lower than other countries with similar level of income per capita.

[16] It is understood here that the strongest contribution of Information technology and systems is to assist primarily with collecting, collating and analyzing data and information. While technology is a key enabler, it is up to humans to take this data and information and turn it into knowledge that can be applied in the education management process. Precise definitions of the meaning of terms "data", "information" and "knowledge" that used in this section is provided in Annex 3.

[17] Source: World Bank, EdStats.

Figure 1.9: Comparative data on public spending on education as a share of GDP



Source: WB Georgia Education Public Expenditure Review, 2013

1.68 **Although total education budget substantially increased since 2006, in relative terms government allocation for education did not show appreciative improvement.** The expansion of total government expenditure in current values[18] accounted to 84% for the period 2006-2013 (see table 1.12). The budget for education followed a similar trend and, despite some oscillations, remained stationary around an average value of 8.3% of total government expenditure for the whole period. The growth rate of the education budget was on average 9.52% for this period and showed consistency with the exception of two low growth years: a sharp decrease noted during the economic crisis in 2008 and a slight decrease in 2011 due to the decline in public allocation for preschool education by 24% with the introduction of parental fees in 2011[19]. The overall size of government expenditures (total government expenditure as a percentage of GDP) showed a marked contraction in 2011 and recent figures appear to confirm that this tendency will be maintained in the near future. This does not provide a very optimistic scenario for expecting substantial increases in the share of education in government expenditure in the near future.

Table 1.12: General Government Expenditures on Education (state + local)

	2006	2007	2008	2009	2010	2011	2012	2013 est.
Total Government Expenditure (current GEL values)	4,208	5,865	7,119	6,536	7,273	7,728	8,287	7,726
Total Education Expenditure (current GEL values)	378	438	480	531	586	629.3	727	777
Share of Education Expenditure (Ed Exp. as % of Total Gov.)	8.98	7.47	6.74	8.12	8.06	8.14	8.77	10.06
Growth of Education Expenditure (% of current values)		15.87	9.59	10.63	10.36	7.39	15.53	6.88
Gross Domestic Product (GDP) *(current GEL values)*	*13,790*	*16,994*	*19,075*	*17,986*	*20,743*	*24,344*	*26,167*	*26,800*
Education expenditures as % of GDP	2.7	2.6	2.5	3.0	2.8	2.6	2.8	2.9
Government size (Total Gov. Exp. as a % of GDP)	30.5	34.5	37.3	36.3	35.1	31.7	31.7	28.8

Source: WB Georgia Education Public Expenditure Review, 2013 based on MoF, MoES and GeoStat data

1.69 **General education represents the largest share of total education spending followed by Higher and Pre-school Education**. The large share of general education of the total education budget (over 62% in 2012) highlights the relative importance of the role of public sector financing at

[18] Similar figures are obtained when comparing real values (taking into account the incidence of inflation measured by the CPI Index)

[19] WB Georgia Education Public Expenditure Review, 2013

this level of education. Table 1.13 shows that the relative share of education spending for all educational areas was stable during 2006-2012 with the only exception of VET, which suffered a marked reduction: from 3.5% of total education expenditure in 2007 to 1.28% in 2012. For all education levels, the majority of government funding is channeled through the MoES. Preschool education is the main exception, which is under the responsibility of local government. A small share of the education budget is also managed by other line ministries, which mostly support programs in vocational and higher education in technical areas that are related to their area of competence (for example: health; medical education; agriculture; police academy, etc.).

Table 1.13: Education Expenditures by level of education

	2006	2007	2008	2009	2010	2011	2012	2013 est
Total Education expenditures	**377.5**	**437.7**	**480.4**	**530.7**	**586.2**	**629.3**	**727.0**	**776.9**
Preschool	29.2	53.7	59.9	71.1	82.1	64.5	74.5	96.9
General education	199.3	293.8	315.3	331.0	367.3	392.1	451.6	502.9
Vocational education	0	15.3	13.3	11.7	10.7	9.2	9.3	9.3
Higher education	23.6	48.2	52.5	65.0	64.3	68.2	79.6	78.8
Other education programs	125.5	26.7	39.4	51.9	61.9	95.3	111.9	89.0

Source: WB Georgia Education Public Expenditure Review, 2013 based on MoF data

1.70 **Current expenditures represent the major economic category in the state education budget.** The majority of routine expenditures is allocated for per capita financing of the general education schools followed by subsidies and transfers to other education entities, (such as Teacher's Professional Development Centre, Education Infrastructure Agency, National Examination Centre) to implement education programs. The bulk of recurrent expenditures is spent on salaries, which represents 75-80 percent of current expenditures in general education. Capital expenditures have been on the rise since 2008 given the increased focus of the government to address the existing investment needs of the education infrastructure. [20]

Table 1.14: State Budget Allocations to the MES by Economic Categories

	2006	2007	2008	2009	2010	2011	2012	2013 est
Total Expenditures	**358**	**411**	**458**	**490**	**538**	**553**	**627**	**675**
Current Expenditure	**358**	**411**	**408**	**462**	**501**	**491**	**556**	**616**
Compensation of employees & social contrib.	3	5	5	5	10	17	21	21
Other goods and services	1	2	12	12	38	48	62	58
Subsidies and transfers	354	404	330	375	384	348	351	442
of which: General edu. vouchers	187	201	269	300	325	316	326	410
Social provision	0	0	6	5	2	2	2	3
Other expenditure	0	0	55	65	68	75	121	92
Capital expenditures	**1**	**0**	**50**	**28**	**36**	**62**	**71**	**59**

Source: WB Georgia Education Public Expenditure Review, 2013 based on MoF data

1.71 **The government has also introduced some targeted programs in specific disciplines although they form a small share of education spending.** The largest share of resources is spent on per capita financing of general education schools. Voucher financing of higher education institutions and infrastructure programs are a distant second and third. In parallel, over the last few years, the MoES has initiated relatively small-scale but well-targeted programs (see table 1.15) placing a focus on Information and Communication Technologies (ICT) such as "My First Computer" for first

[20] Figures and final redaction of this paragraph need revision. We are awaiting for MoES data to do this.

graders, the physical security of schools ("Mandaturi" Program for enhancing safety and disciplinary measures in all schools), and provision of English language classes taught by native speakers ("Teach & Learn with Georgia" inviting native English speakers to teach in Georgia).

Table 1.15: State Budget Education Expenditures by Major Programs

	2006	2007	2008	2009	2010	2011	2012	2013
Total MoES	**358**	**411**	**458**	**490**	**538**	**553**	**627**	**675**
General education per capita vouchers	187	201	269	300	325	316	326	410
National examination center	0	2	6	8	9	17	12	12
Science Programs and Grants	17	22	31	40	38	22	19	27
Education Infrastructure Development	82	99	37	14	16	38	72	43
Teachers' professional development	0	0	1	2	9	18	18	14
VET support programs	4	6	8	8	8	6	18	14
HED support programs	30	40	47	52	52	56	81	78
WB: APL1, APL2	10	9	8	18	13	3	0	0
Other small scale projects	29	31	51	47	68	76	81	76

Source: WB Georgia Education Public Expenditure Review, 2013 based on MoF data

1.72 **On a per student basis, Georgia's expenditures are lower than that of comparators in all education levels.** In preschool education the unit cost is approximately 12% of the GDP per capita (in addition to which parents used to pay approximately 30% until 2013) while OECD and EU countries spend about 20% of the GDP per capita. The unit cost of preschool is approximately 80% of that of general secondary education, which is similar to the ratios in OECD and EU, however at a lower absolute level. Expenditures per student in higher education are 30% higher than those of general secondary education. This is relatively low when compared to the EU and OECD countries, which spend approximately 60% more per higher education student. Vocational education expenditures in 2012 were particularly high because of heavy capital investment. There are 12,746 students attending public institutions. In addition to these students, there is a small share of students who receive the state voucher and attend private institutions.

Table 1.16: Expenditure, student population in public education and unit costs by level (2012)

Level of education	Expenditures (million GEL)	Students (2012)	Unit cost (GEL)	Unit cost (USD)	Ratio (general sec. = 1)	Share of GDP per capita
Preschool	74,500	103,027	723	438	0.8	12.4
General secondary	451,600	516,738	874	529	1.0	14.9
Vocational education	9,300	12,746	730	442	0.8	12.5
Higher education	79,600	70,922	1,122	680	1.3	19.2

Source: WB Georgia Education Public Expenditure Review, 2013 based on MoF data[21]

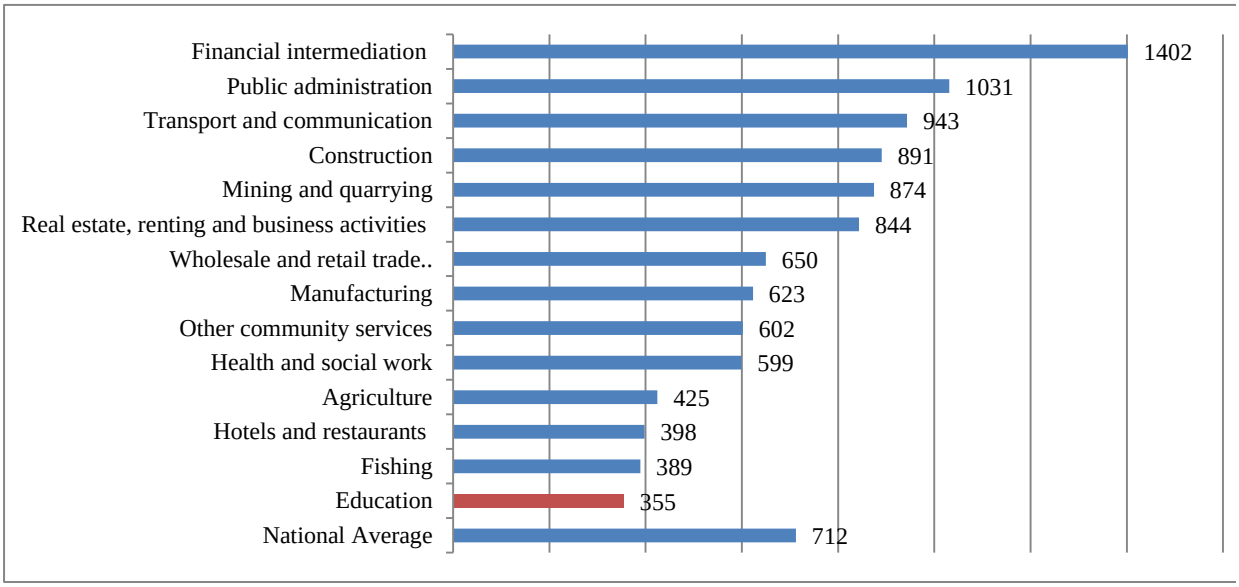
1.73 **The low salary system of the teacher profession makes it a poor career choice in Georgia.** Despite the gradual increase of teacher salaries in the last decade[22], they remain below the

[21] Note: Preschool spending includes expenditures by local governments and parental contributions. Other levels consider only public spending. Vocational education expenditures in 2012 were particularly high because of heavy capital investment There are 12,746 students attending public institutions, but there are some students who receive the state voucher and attended private institutions. Due to this, we provide an upper bound for the unit cost (assuming that no students in private institutions had the voucher).

[22] In order to make the profession more attractive, the government introduced changes in the teacher compensation scheme in January 2013. The base salary of teachers rose from 245 GEL, set in 2009, to 305 GEL. As a result, this change has raised teachers' wages in a range of 26 to 60 percent amounting to about 60-205 GEL.

average national salaries. According to figures of the National Statistics Office of Georgia the average monthly salary for 2013 (fourth quarter) is of 875 GEL, while the average monthly salary in education is 475 GEL[23]. As can be seen in the figure 1.12, the education staff receives the lowest salaries from all professions. Entry salaries and progressions do not offer great incentives either. Neither the number of years in service nor the academic degrees determine significant salary increases. For example, the salary of a BA holder beginner teacher is of 359.90 GEL, the difference with a BA holder who has 5 to 10 years of experience is only 14 GEL (373.63 GEL). The salary of BA holder with up to 5 years of experience compared to a teacher who gained an MA degree only increases by 40 GEL (from 359.90 to 394.98 GEL)[24].

Figure 1.10: Average Monthly Salaries (2013)



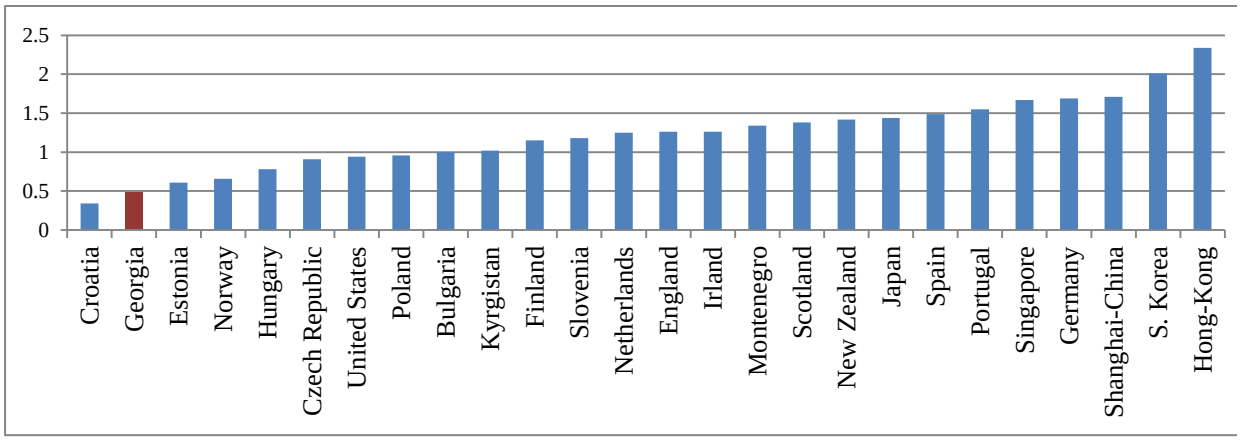
Source: Geostat, 2014

1.74 **Teacher salaries in Georgia are among the lowest compared to other countries that participated in PISA 2009**. Analyzing 2009 teacher salaries relative to GDP per capita, teachers with minimum training and 10 years of experience in Georgia are paid at substantially lower levels as compared to other countries (see Figure1.13 below).

23 The agency gives overall salaries in education, which also include non-teaching staff, therefore this information could be little inaccurate but it does not change much in comparative terms

24 More data about this is provided in Annex I: Statistical Information

Figure 1.11: Teacher Salaries Relative to GDP Per Capita in Georgia and PISA 2009 Participant Countries in 2008



Source: WB NAEC 2014 based on data from PISA 2009

1.75 **Private sector financing of higher education in Georgia is amongst the highest in the region.** Table 1.16 shows the comparative figures for both private and public expenditure as a percentage of GDP for a selection of countries. Private expenditure as a share of GDP in Georgia accounts for 0.75%, this is much higher than Kazakhstan (0.52%), Russian Federation (0.53%), Belarus (0.40%) and the average values of other European countries (0.35%). Despite of the relevant share of higher education from the national education budget (11% for 2012), in comparative terms the contribution of public sector financing in higher education in Georgia is much lower than most of the reference countries listed in Table 1.17 and to other European countries.

Table 1.17: Higher Education Public and Private Expenditure

	TE Public Expenditure as % of GDP	Year	TE Private Expenditure as % of GDP	Year
Georgia	0.47	2013	0.75*	2013
Armenia	0.25	2012		
Tajikistan	0.28	2011		
Kazakhstan	0.40	2010	0.52	2007
Belarus	0.73	2012	0.40	2012
Kyrgyz Republic	0.87	2010		
Russian Federation	0.95	2008	0.53	2007
Moldova	1.30	2012		
Ukraine	1.79	2005		
CEE	0.87	2010	0.29	2010
Other European Countries	0.87	2010	0.35	2010

Source: World Bank Databank; State Budget Report for 2013
**TE private expenditure in Georgia includes only tuition fees paid by students and was estimated based on EQE enrolment and NAEC tuition fee data*

Key Recommendations

1.76 The relationship between education expenditure and sector outcomes is not always linear and counts after a certain minimum threshold. As evidenced by international studies, increasing level of financing does not always translate into better learning outcomes unless accompanied with other structural measures. However, in countries where public spending is below adequate level, increased investment has substantial impact on the quality. In the meantime, there are still areas that spending efficiency can be sought. The key issues and recommendations on public spending in Georgia can be summarized as follows:

- *Government spending on education in Georgia is low* – compared to countries with similar per-capita incomes and relative to both the shortage of human capital and the country's ambitions. Given continuous increase in the national GDP, Georgia should prioritize increasing public investment in education as a proportion of the GDP.

- *The teacher salaries in Georgia are one of the lowest as compared to other countries and other public employees in Georgia*. This creates negative implications for the improvement of the quality of teaching and learning across the system. Georgia could consider prioritizing teacher salary increase over other investments in education sector. Attracting and retaining high-caliber teachers is a challenge worldwide. Many developed countries have dealt with this challenge by increasing real wages of teachers. Between 2000 and 2011, OECD and EU countries increased teachers' wages by around 15-20 percent in real terms. Comparator countries such as Czech Republic and Estonia experienced dramatic increases: approximately 100 percent and 60 percent, respectively [25]. Specific interventions related to this recommendation are discussed in teaching quality part of the document.

1.6 Cross-cutting Issues

1.6.1 Life-long Learning

1.77 **Several factors contribute to the growing importance of lifelong learning policies over the 21st century.** These include an increased demand for a better skilled work force, accelerated technological changes and shifting demographics. Initial measurements of the European lifelong learning indicator (ELLI) showed there is a strong correlation between ELLI's performance and three important measures of a nation's wellbeing: global competitiveness, accessibility of healthcare and reduction of corruption[26]. These are the end results of long chains of causal factors, chains that invariably begin with learning and human development.

1.78 **Georgia does not yet have a consolidated national policy for integrating lifelong learning (LLL) in the education sector.** The existence of a national policy would be helpful to guide a gradual and consistent introduction of lifelong leaning approaches in Georgia. The notion of *lifelong* learning defines a process that involves the development of knowledge, skills and values throughout all stages of a person's life from early childhood through adulthood[27]. This concept of uninterrupted learning encompasses all forms of learning, conventionally categorized as: formal, non-formal and informal learning[28]. A holistic policy approach would be useful in Georgia as it will be necessary to redefine some aspects of formal education and to develop and integrate to it two important learning systems: *(i)* the *recognition of workplace learning* and the need to value and support learning at work, which will require addressing many questions about the nature of the curriculum, the relation of educators to employers, and practical arrangements to locate or connect, and to recognize and accredit, purposeful learning on as well as for the job and (ii) *the recognition and accreditation of learning that takes place away from the classroom.* This integration must be also developed, as it

[25] OECD (2013), p. 392.

[26] See Annex 3 for more details about these correlations

[27] The European Commission defines lifelong learning as: "Lifelong learning embraces all learning activity undertaken throughout life, with the aim of improving knowledge, skills/competences and/or qualifications for personal, social and/or professional reason" European Commission 2001

[28] (i) *Formal learning* typically provided by an education or training institution, structured (in terms of learning objectives, learning time or learning support) and leading to certification. Formal learning is intentional from the learner's perspective. (ii) *Non-formal learning* is embedded in planned activities not explicitly designated as learning, but which contain an important learning element and structured (in terms of learning objectives, learning time or learning support). It is usually provided outside public educational institutions and caters to persons of all ages. Non-formal learning is intentional from the learner's point of view. It normally does not lead to certification. (iii) *Informal learning* resulting from daily activities related to work, family or leisure. It is not organised or structured (in terms of objectives, time or learning support). Informal learning is in most cases unintentional from the learner's perspective and includes self-education, in which the individual does not test the acquired knowledge. It is not institutionally coordinated and usually it is not systematic. It typically does not lead to certification See more of this in Annex 3: The notion of Lifelong Learning policies and its relevance

should enhance the standing and recognition of informal learning, in its own right and as a way into more formal education and training.

Key Recommendations

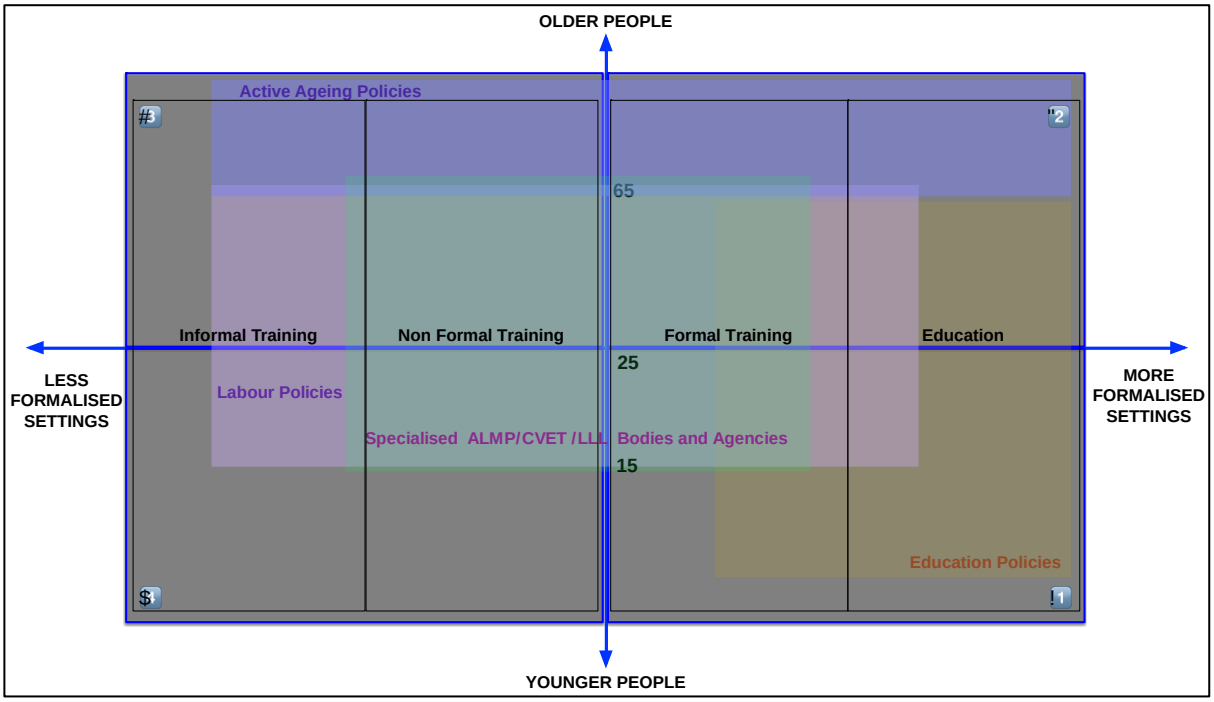
- To tackle the current challenge that *the Government does not have an integrated national policy and strategy for LLL* which substantially limits the country's potential for meeting workforce development needs. Georgia needs to develop a coherent national strategy for integrating LLL principles across all education levels. The following points should be considered in the development of LLL strategy:
    - **Georgia's institutional capacity would require substantial development to be capable of applying a coherent and integrated national lifelong learning policy.** The scope of the policies to promote lifelong learning go beyond the boundaries of the education system and demand a coherent and integrated public sector response in a variety of areas. Figure 1.14 above portrays the wide range of these policy areas based on the time-age dimension of its beneficiaries (vertical axis) and the type of learning (horizontal axis). The main challenges for the Georgian institutional system will be to provide a coordinated government response for, at least, the following policy areas:

        (i) *Initial Education**:*** this area (core of Quadrant 1) mainly involves the MoES and the generation of knowledge acquired at primary, secondary and tertiary education institutions.

        (ii) *Continuing Education***:** This area (Quadrant 2) includes all forms of education or training after initial education or after entry into working life. This includes: full-time and part-time programs for older adults leading to qualifications, courses taken for vocational reasons or leading (but not necessarily) to credits, diplomas and degrees, courses taken by graduates. This area is crucial for supporting the employability of individuals and one of the most challenging in Georgia as it would require coherence in policies domains as: education, labor, ALMP and CVET.

        (iii) *Vocational Learning.* Applied skills, closely tied to occupational success, (Quadrants 1 and 2); work-related knowledge and skills that may be acquired in educational institutions and/or vocational training institutions (e.g. tertiary or work-oriented post-secondary institutions) or even workplace training. The availability of such type of training, which may or may not be accessible outside the working environment, is key to keeping the country's workforce competitive. Georgia needs substantial work to articulate recognition, supply and demand.

Figure 1.12: The Institutional framework of lifelong learning policies



Source: Adapted from: "European Lifelong Learning Indicators (ELLI) - Developing a Conceptual Framework" 2008

- **A greater focus on educational outcomes will be required from Georgian education policy**. A shift towards effective measurement of the learning of beneficiaries within the education system will be required. The lifelong learning approach advocates to monitor whether or not learning has actually taken place to shift the emphasis from inputs (teaching, training or instruction) to the learner. This should mark a departure from the traditional supply-based approaches in Georgian education policy to a learner-centered one. Developing skills and knowledge (for example literacy, numeracy and critical thinking) should become even more essential outcomes that the Georgian education policy must focus on delivering. Such type of skills and knowledge are critical for the preparedness of young people to face challenges in life because they determine the capacity for innovative thinking and the adaptability required in today's knowledge-based economy. The need to improve the adaption of skills and knowledge to the labor market is a problem that has been recurrently identified in several recent studies[29].

- **It will be necessary to focus on ensuring the achievement of functional literacy for a much larger part of the student population**[30] . This is a particularly relevant problem in Georgia as according to the international test results, a large proportion of students (over 60%) are considered functionally illiterate. Functional literacy is a crucial element for addressing inequalities in lifelong learning as it affects the ability of people to learn effectively. Low levels of functional literacy lead to marginalization of large groups of people. This will require substantial improvements in teaching methods and education curricula. International experience shows that non-formal learning is also a preferred route for those who want to improve their functional literacy, therefore, civic and community organizations may have a particularly important contribution to make to its development and their work should be considered by the education strategy. Large employers can also be

[29] See for example: "Georgia workforce development SABER Country Report" WB, 2013 and "Skills Mismatch & Unemployment/Labor Market Challenges In Georgia", WB 2013

[30] Usually defined as: "The ability to understand printed information and utilize it in everyday activities, in personal life, in employment and in the community so that the individual achieves their goals, develops their knowledge and potential." is used to denote a broad range of abilities to process information

important agents to bridge the functional literacy gap by providing on the job training. Although their programs are usually labelled differently (report writing, communication, etc.) most of them are conducive to the same end. Their integration would require new management approaches at the MoES as the institution has demonstrated systematic weaknesses to work in partnership with employers and other stakeholders in several areas.

- **The education system should evolve towards ensuring competence-based learning and the provision of key competencies.** A complementary challenge for the education system in Georgia will be to develop the capacity to assess quality of learning in terms of competences. This will require a holistic understanding of the individual and which combine knowledge, skills, attitudes and values towards learning. There is a greater need than ever for citizens to acquire the knowledge and key competences that are necessary to meet recent changes of the modern life work[31]. The European Qualifications Framework for Lifelong Learning identifies eight key competences that the education system should provide [32] even before completion of lower secondary. The acquisition of these key competences represents a new standard of quality that substantially affects the present conception of educational programs. This new requirement should be consistently incorporated both into framework educational programs for primary and secondary education and also into the entry requirements for higher secondary education levels, as well as into the requirements on final examinations for compulsory education.

- **It is essential to successfully conclude the introduction of effective and internationally recognized quality assurance frameworks**. Effective systems of standards and accreditation that enable students to document what they have learned and employers to identify workers with the relevant skills are the core of an LLL system. For this purpose, the education system should continue the development of relevant and reliable quality assurance frameworks and tools. The final integrated system should include: (i) a National Qualifications Framework that covers most occupations and a wide range of skill levels, (ii) a National Classification of Occupations that registers all major occupations and identifies the corresponding learning outcome-based competencies required for them; (iii) new and robust protocols for assuring the credibility of skills testing and certification[33]; (iv) a professional system of accreditation standards that guarantees the quality of training provision; (v) an institutionalized process to engage participation of key stakeholders (especially employers) in all these areas. For these purposes, it is important for Georgia to continue the path of adopting internationally recognized standards[34] and to strengthen the operation of key institutional actors, as for example, the NCEQE and Sector Committees to ensure the full alignment of their role and responsibilities with the needs of the labor market[35].

- **It will be necessary to develop a more open system for lifelong learning diversifying pathways for skills acquisition and adopting new and effective systems to recognize prior learning.** Recognizing the results of all forms of learning should be promoted,

[31] Globalization, development of new technologies, changes in the organization of work and the structure of enterprises define ever-increasing requirements on the qualifications of employees.

[32] These are: (i) communication in the mother tongue; (ii) communication in foreign languages; (iii) mathematical competence and basic competence in science and technology; (iv) digital competence; (v) learning to learn; (vi) interpersonal, intercultural, and social competences, together with civic competence (vii) entrepreneurship; and (viii) cultural expression. In addition, critical thinking, creativity, initiative taking, problem solving, risk assessment, decision making, and managing feelings constructively are seen as playing a role in all eight key competencies. The EQF identifies the essential knowledge, skills, and attitudes related to each.

[33] These must ensure that skills testing for most occupations follows standard procedures, is competency-based and assesses both theoretical knowledge and practical skills and provides certificates that are valued by most employers (for more details see the WB SABER-WfD Analytical Framework)

[34] Such as: the alignment of the NQF and the European Qualifications Framework, and the introduction of other equivalences in areas such as European Credit System for Vocational Education and Training, and the European Quality Assurance in Vocational Education and Training.

[35] See: "Georgia workforce development SABER Country Report" WB, 2013

ensuring that the transitions between education sub-sectors are facilitated and their pathways do not lead students to "dead ends". Recognition of prior learning is also very important to demonstrate qualifications required for employment. A broad range of vocational skills acquired either on or off the job should be easily recognized by established mechanisms. An open systems focus should provide: (i) mechanisms to facilitate the recognition and demonstration of qualifications acquired by non-formal and informal training; (ii) flexible ways to increase access for adults to primary and lower secondary education studies prioritizing the reinsertion of people without primary education; and (iii) more flexible ways to increase access of adults to TVET and higher education studies. These reforms will require substantial institutional capacity development in a variety of government agencies that go beyond the limits of the MoES.

- **Ensuring effective stakeholder participation is mandatory to ensure effectiveness of resources invested in this area.** As it was mentioned before in this document, this is one of the areas where the MoES has shown important structural weaknesses. Unfortunately, stakeholder collaboration is critical for the achievement of increased access and improved quality and relevance and other LLL goals. Coordinated efforts are needed of a large number of heterogeneous lifelong learning actors, including: government agencies at the central and regional levels, employers, trade unions, service providers and NGOs. In particular, private sector employers should be encouraged to become active players in the market for LLL, both by articulating their needs, partnering with the supply side (education and training providers) and by promoting learning in the workplace. Intra governmental, formal "partnerships" are also important to assure coherent, structured government coordination and deliver effective interventions.

1.6.2 Information and Communication Technologies (ICT)

1.79 **Currently there is no coherent policy framework to ensure meaningful use of ICT to advance teaching and learning.** The individual ICT programs are not integrated and aligned with the curriculum goals. The Ministry runs the "Buki" project for first graders countrywide and all 1st class pupils receive netbooks (specially designed by Intel Corporation for Georgian schools) with installed educational programs/games on mathematics, logics, in Georgian and foreign languages. This program opens the gates for very important transformations and changes in student's learning capacities that should be further capitalized with the modernization of the curriculum for primary and secondary education. An ICT curriculum was developed for the students of Grades V and VI, but it is designed to develop only general skills of using personal computers (such as MS applications) at the level of a basic computer user. Existent curriculum should be adapted following current global standards that aim to equip students to use computational thinking and creativity, and have deep links with mathematics, science and design. The number of application currently used in Georgian public schools must be expanded, at present it only includes: (i) Microsoft Windows office products, (ii) Intel classroom management software, (iii) interactive games (for ISCED6 level I), (iv) Internet Browsers (Google Chrome, Opera, Mozilla Firefox) and (v) Adobe Products. Out of these, the interactive games for ISCED Level I are the only applications available in Georgian. Nonetheless, the MoES recently launched concerted efforts to develop an ICT policy paper.

1.80 **The adequacy of the skills and knowledge of ICT teachers at the school level is not properly assessed**. There is still limited awareness among schoolteachers and administrators on ICT tools to be applied in education. The school curriculum of most subjects does not certify that ICTs are used by school teachers in delivering classes or presentations in other topics but ICT. The level of support provided to teachers in integrating ICT in education systems is uneven and greatly depends on the school leadership. Positive transformations have been recently introduced in the area of ICT trainings for in-service training of teachers provided by the National Centre for Teachers' Professional Development (TPDC). The TPDC offers: basic courses, second level courses and primary class tutor's training sessions. In addition, it provides other training courses related to principles to be applied in

education and integration of ICT into the education process and also offers access to online resources to advance teaching quality in schools. The extension of these services is still limited; NTPDC selects training participants countrywide to ensure that at least 32% of teachers per school attend ICT trainings[36]. However, it is also reported that teachers from the schools located in rural areas, remote and mountainous regions have very limited access to receive even the initial training in basic computer skills.

1.81 **There is no systematic understanding of the ICT infrastructure gaps in Georgian schools**. EMIS reports that all 2,328 schools in Georgia (2,084 public and 244 private) are provided with computers and Internet access; however, other evidence also suggests that although Internet is reported to be available in all regions in Georgia, not all schools have access to it, especially schools in rural and remote areas[37]. An important dispersion in connectivity quality is also visible, as high-speed optic-fiber connection is available but to a very limited number of schools mainly located in the central regions of the country (capital and nearby cities)[38]. Many schools experience problems in making computer labs equally accessible for students and teachers. The major reason is that some schools physically allocate all computers in one specific area/room, thus making it difficult to conduct simultaneous ICT sessions. The EMIS developed a set of internal policies developed for schools, such as: (i) User's access policy; (ii) External hard/flash drive restriction policy; (iii) Software update policy; (iv)Users' guideline for maintenance school computers; (v) Internet access restriction policy and its ICT specialists are in charge of maintaining school infrastructure and software. This might have worked as a short-term solution, but it is not sustainable in the long run. The main focus area of the EMIS, should be to continue to improve the quantity and quality of data and information to support decision making and monitoring and evaluation of the educational process. The development of the ICT policy, including infrastructure development plans and ICT-related support to schools belong to a more specialized ICT management unit that is not available right now in the present organizational structure of the MoES.

Key Recommendations

- To fill the *gap of lack of coherent policy framework to ensure meaningful use of ICT*, such framework needs to be developed to advance teaching and learning throughout the education reform. This policy framework should address how ICT can support the resolution of many of the educational issues that were described in the previous sections, for example: (i) major curriculum revisions and shifts in pedagogy and assessment changes; (ii) specific curriculum reforms that emphasize higher levels of understanding of key concepts within subject areas and aimed to reduce functional illiteracy; (iii) curricular reforms aimed to introduce the abovementioned lifelong learning approaches and especially, to develop the ability to solve complex, real-world problems (providing key competences) that prepare students for the knowledge economy, such as creativity, information management, communication, collaboration, and the ability to direct one's own work and learning; (iv) support the pedagogical role of teachers by providing resources and explicitly modelling cognitive and social processes and prompting students to take up these practices; and (v) the use of technology to efficiently deliver online content and assessments in all areas of education and especially to support second chance, adult education.

36 Dolidze, 2014

37 USAID, ibid

38 Dolidze, ibid

Chapter 2. Priority Sub-sector Issues

2.1 Early Childhood Development: School Readiness

2.1 **Apart from the low rates of participation and equity issues in preschool education examined in chapter 1 more broadly, the quality of preschool education is also a pressing challenge**. There is an accumulating body of evidence[39] that shows that investment at an early stage of life is an effective policy. Research by Nobel laureate in Economics James Heckman praised investment in disadvantaged young children as "a rare public policy with no equity-efficiency tradeoff" as it promotes social justice and fairness by reducing inequality and at the same time raises the productivity of society. It has also been shown that, due to the nature of the skill formation process, early investments are those with the highest rate of return. Both medical and economics literature agree that gaps in both cognitive and non-cognitive skills emerge early in life and persist. Policies to mitigate these gaps later in life have proven very costly.

2.2 **Early childhood interventions are very effective at boosting non-cognitive skills.** These are often neglected at the expense of cognitive skills. However, research has found that they are very important determinants not only of schooling, but also of labor market and behavioral outcomes (such as participation in criminal activities and teenage pregnancy). Evidence shows that increasing non-cognitive ability is associated with a reduction both in the probability of being a high school dropout and in the likelihood of spending time in jail. It is also a good predictor of who will graduate from college. Moreover, these effects seem to be more pronounced for females and disadvantaged groups. Estimated benefit-to-cost ratio of increasing enrolment in preschool from 25 percent to 50 percent in low- and middle-income countries ranges from 6.4 to 17.6[40].

2.3 **In Georgia, the majority of the children who attended preschool institutions show very low school readiness.** Although children who attended preschool institutions on average show higher school readiness, than those who don't, there is a large variation in school readiness among children who attended preschool institutions. In 2011 the National Curriculum and Assessment Center (NCAC) conducted a school readiness study that evaluated five domains of child development among children during the early days of their first year of schooling. Only one-third of the children presented satisfactory school readiness. The share of children, who have relevant cognitive, emotional and social, and fine motor skills development, is still very low. Only one-third of children who attended preschool institutions meet cognitive milestones expected of them, which casts doubt on the quality of preschool education (see Table 2.1).

[39] See Heckman and Masterov (2007), Heckman (2006), Cunha and Heckman (2006) and Carneiro and Heckman (2003) among others.

[40] See The Lancet, Volume 278, Issue 9799, 2011.

Table 2.1: Performance on cognitive tasks at the beginning of their primary education among the children who attended kindergartens and who did not attend kindergartens

	Kindergarten Attendance		
	Yes	No	All
Can tell own date of birth	35	25	32.1
Can tell seasons of the year	59.5	38	53.4
Can tell the days of the week	38.4	19.7	33.1
Can name 6 animals	66.3	57.2	63.7
Can name 6 birds	30.3	25.7	29
Can count up to 20	41.6	32	38.9
Can calculate 9-3	74.7	60.6	70.7
Can calculate 4+5	65.4	51.2	61.4
Can calculate 5-1	93.1	84	90.5
Can calculate 3+2	91.7	85.4	89.9

Source: NCAC, 2011

2.4 **There are marked disparities in the quality of preschool institutions that these groups have access to.**[41] Among children who participate in preschool education, children from rural areas show lower school readiness as compared to their peers living in urban areas.[42] This is a significant bottleneck given that an accumulating body of evidence[43] shows that gaps in both cognitive and non-cognitive skills that emerge early in life and persist throughout adulthood. Policies to mitigate these gaps later in life have proven very costly and investment at an early stage of life is the most effective policy. Analysis of Georgia's performance in PISA 2009 shows that students who attended preschool attain significantly higher scores than those who did not. The long-term impact of these inequities is hard to quantify as the government does not keep records about children enrolled in pre-school education in the EMIS and therefore, has serious limitations to address these fundamental gaps. The present de-concentration of the system did not provide support for adequate social inclusion policies to address these asymmetries and the resolution of these situations is left to the initiative, capacity and willingness of municipal and regional authorities.

2.5 **One of the major constraints towards improving the quality of preschool education is the lack of the national preschool education standards and the absence of instruments for their enforcement**. Preschool education management and service delivery are highly decentralized and quality standards are not enforced. Reform of preschool education shifted the responsibility for the delivery of preschool education from the MoES to the local governments. Attendance is not compulsory and provision and financing are the responsibility of local self-governments (municipalities) and the full-day delivery model is the most prevalent. As a consequence of decentralization, there is wide variation in service modalities and quality. Financing also varies significantly. While exemptions are given in some cases (low-income families, second child, disabled, orphans, etc.), local governments usually require parental contributions. The only role played by the MoES is that of proposing to local governments a set of standards, which are not enforced often due to limited human and financial resource capacities in municipalities. Given the high level of decentralization, it is unlikely that the majority of the municipalities have the institutional capacity to implement and monitor quality standards proposed by the MoES. Neither has the MoES tools to monitor and enforce the standards proposed.

Key Recommendations

- To address the issue of *low school readiness, quality disparities, lack of quality standards and capacity for delivering and monitoring these standards*, the following needs to be considered:

[41] UNICEF: Comprehensive Costing and Finance Strategies for the Early Learning System in Georgia, 2013

[42] NCAC (2011), School Readiness Study.

[43] See Heckman and Masterov (2007), Heckman (2006), Cunha and Heckman (2006) and Carneiro and Heckman (2003) among others.

- **The state of preschool education would benefit if the MoES played a more active role.** The decentralized model has the advantage of being flexible and easy to be shaped to the particular needs of each region and this is an important virtue. However, the lack of supervision, monitoring, and quality assurance leads to wide differences in the quality of the service. Given the importance of preschool education, the MoES could play a pivotal role in setting up curricula and quality standards for facilities and teachers, and monitoring them.
- **Strengthening service quality should be a priority.** The expansion of pre-school education is mainly justified by its great potential for improving the beneficiaries' future educational development. However, this is not likely going to happen if quality is not achieved. As this process will take a long time, initial actions are important. Clear estimations of the costs of improving quality are needed, especially to resolve MoES and municipal capacity limitations.

2.2 General Education: Teaching Quality

2.6 **Long term solutions to address education quality constraints will largely depend on resolving the issue of teaching quality:** a more efficient management of the teacher force, the introduction of better recruitment policies, a new teacher career regime and salary incentives and more effective pre-service and in-service training investments. Ineffectiveness in the utilization of the teacher force manifests itself in a variety of symptoms.

2.7 **Capacity limitations, especially for human resource management and forecasting, lead to an overall surplus in the quantity of teachers.** This problem is expressed by the low national averages of the student/ teacher ratios (roughly 8.2 for 2013/14). This surplus is caused by a variety of factors, amongst which: (i) the poor capacity of the system to adapt to the general population reduction trends that caused a steady decline in student population. In the last decade, the total number of students decreased by approximately 23% whereas the teacher to student ratios remained almost the same (see Table 2.2); (ii) Additional challenges generated by poor school management practices that resulted in the occurrence of massive "forced drop-out of students" in upper secondary education. The threat of destitution of school principals, if too many students showed poor performance in school leaving exams, create additional idle capacity in the system; (iii) lowered entry requirements for new teachers that tended to add quantities of low-skilled new entrants to the teacher force. In fact, present rates of teacher to student ratios in Georgia are so low that teaching capacity could be virtually doubled with the present number of teachers.

Table 2.2: Teacher and Student Numbers 2005-2014

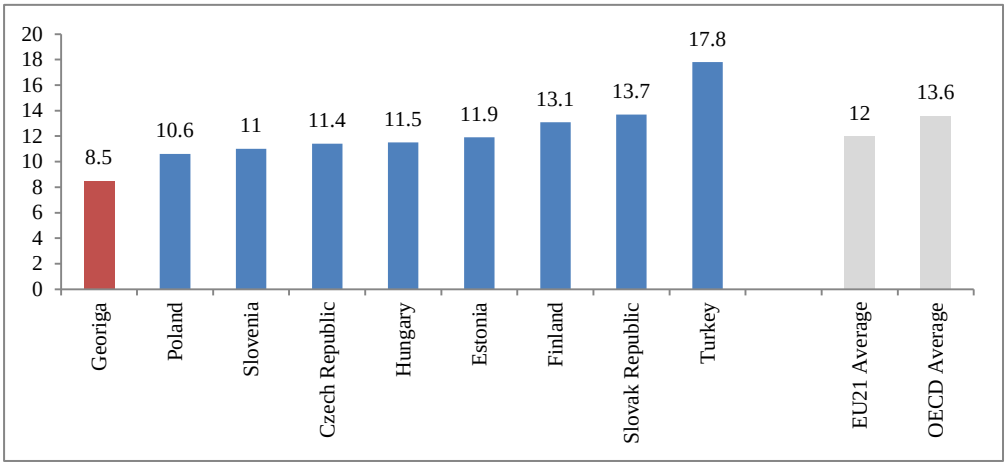
Year	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Nr. Students	634,700	636,000	614,700	635,616	624,526	595,394	568,486	558,589	553,016
Nr. Teachers	75,829	76,339	75,492	76,887	79,891	71,747	69,955	67,917	67,339
S/T Ratio	8.4	8.3	8.1	8.3	7.8	8.3	8.1	8.2	8.2

Source: EMIS, 2014

2.8 **Ample variances in the dispersion of the teacher to student/ratios by regions and by type of schools suggest that there is room for additional efficiency improvements in teacher management**. At 8.5 percent, the student to teacher ratio of general education in Georgia is considerable lower than the OECD or EU21 countries (at 13.6 and 12, respectively; see figure 2.1). Despite the general trend of having a low teacher to student ratio, the ratio significantly differs according to location and school size. In big cities it is relatively high while in the regions it is low. For example: in Tbilisi it can be as high as 15/1 while in mountainous Adjara or Racha-Lechkumi it can be 2.8/1[44]. In larger schools (1,000 student and above) these ratios are more efficient (15,6%) while in small size schools can be as low as 2% (see Table 2.3 below). Over 36% of the students in Georgia learn in schools with one digit student to teacher ratios.

[44] According to data from EMIS 2012, MoES

Figure 2.1: Ratio of Students to Teaching Staff in Secondary Education, 2011



Source: OECD, Education at a Glance 2013, pg. 275
Note: Data for Georgia was provided by EMIS for 2012

Table 2.3: Number of Schools, Students & Teachers by Class Size, 2012

Class size	School Size (Student Number)	Number of Schools Share of Total	Number of Students Share of Total	Number of Teachers Share of Total	Student/Teacher Ratio
3-4	1-50	410 (18%)	12,287 (2 %)	5,889 (9%)	2
4-15	51-100	475 (21%)	35,426 (6%)	9,509 (14%)	3.7
15-18	101-320	1033 (39%)	164,796 (29%)	25,067 (38%)	6.5
18-30	320 -1000	449 (19%)	252,453 (45%)	21,563 (32%)	11.7
30-35	1000 and above	67 (3%)	93,175 (16%)	5,946 (9%)	15.6
Total		2,322	558, 137	65, 666	8.5

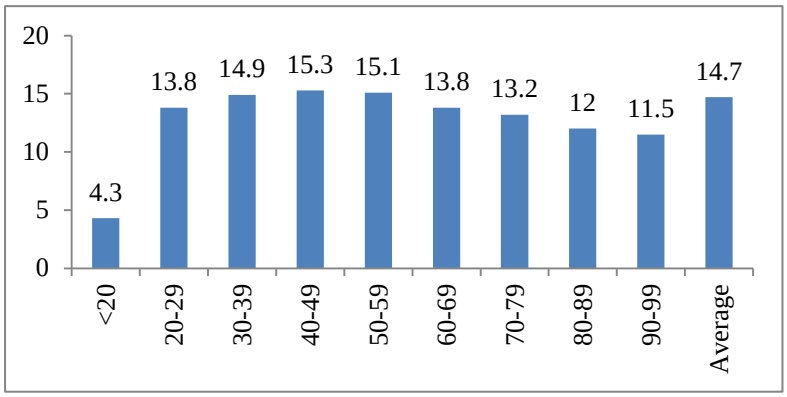
Source: Data from EMIS 2012, MoESs

2.9 **Teaching workloads are very low**. According to the statutory requirements, a full time teacher is defined as a teacher who has 18 contact hours and 18 non-teaching hours[45] per week, primary teachers and science teachers have even less teaching hours (14 and 15 respectively). Based on an academic year of 36 weeks, the average yearly teaching hours in Georgia accrue to less than 600 while the average teacher in an OECD country teaches 790 hours in primary, 709 in lower-secondary, and 664 in upper-secondary education. In countries such as the United States and Chile, these figures go beyond 1,000 hours per year (25 per week)[46]. Since there is no formal procedure for monitoring teaching and learning processes and no accountability system, there is no way to assess if teachers really take non-teaching hours seriously and spend the time for preparing lessons. Considering the widespread practice of private tutoring in Georgia, many qualified teachers engage in private teaching after school, which means a significant part of the teacher force may not dedicate many of the non-teaching hours for other pedagogic purposes.

[45] Ministerial Decree 576, 2005

[46] OECD (2013), Table D 4.2, p. 402. For more on this see WB Public Expenditure Review, 2014

Figure 2.2: Average Hours of Teaching per Teacher by Age Range (2012-2013)



Source: EMIS, 2014

2.10 **Despite the excess of teachers, shortages of teachers by teaching subject and by geographical location also happen.** There is a generalized shortage for science, mathematics and Georgian language teachers everywhere. Remote and rural schools have problems to attract teachers especially in foreign languages, mathematics and sciences. A combination of factors ranging from poor teacher deployment, financial limitations of the regions and low school management incentives contribute to generate this situation.

2.11 **As a consequence of the existing management practices, teaching is becoming an aging profession in Georgia, leaving few opportunities for the youth to join.** The average age of the teacher force is 47 years old. Less than 19% of the teachers are 35 or younger, while almost 20% are 60 and older. It is also exceptional to note that 3.9% of teachers are in the 70-80 age group and 0.3% are above 80 years old[47]. A large proportion of the active teachers have already retired (18 % of all teachers) but despite reaching their retirement age, teachers remain in their teaching position and continue to teach. This is mainly because pensions are low but especially because the teacher retirement policy encourages them to stay in school: after reaching the retirement age, teachers receive both pension and salary. In the last three years the average age of teachers has increased by one year. Data from EMIS shows that it was 45 in 2011-12, and 46 in 2012-13 and the percentage of pension age teachers grew from 14.3% to 18.2% in the last three years. The space for young people entering in the teaching force is quite limited by these practices. However, new entrants are not precisely quite young either. EMIS figures also show that in the last two years, the average age of new entrants to the teaching force was of 39 years in 2012-13 and of 40 years old in 2013-14.

Table 2.4: Percentage of pension-age teachers

	2011-2012	2012-2013	2013-2014
Number of Teachers	69,955	67,917	67,339
Number of pension age teachers	10,015	11,321	12,301
Percentage of pension age teachers	14.3%	16.6%	18.2%

Source: EMIS 2014, MoES

2.12 **Teaching in not attractive career path in Georgia.** The country's brightest students rarely choose teaching as their profession. This is evident from the test scores of university entrants where education students have one of the lowest average scores according to the fields of study[48]. This is probably associated to the fact that the low salary system of the teacher profession makes it a poor career choice in Georgia. A recent teacher Supply and Demand Analysis[49] indicated that surveyed teachers expectations on an acceptable average salary is GEL 771, which is close to the national average salary and double of the present average teachers level salary. The same research also showed that from those teachers who declared that they want to leave their jobs in the next ten years, low salary and pensions are amongst the two primary reasons.

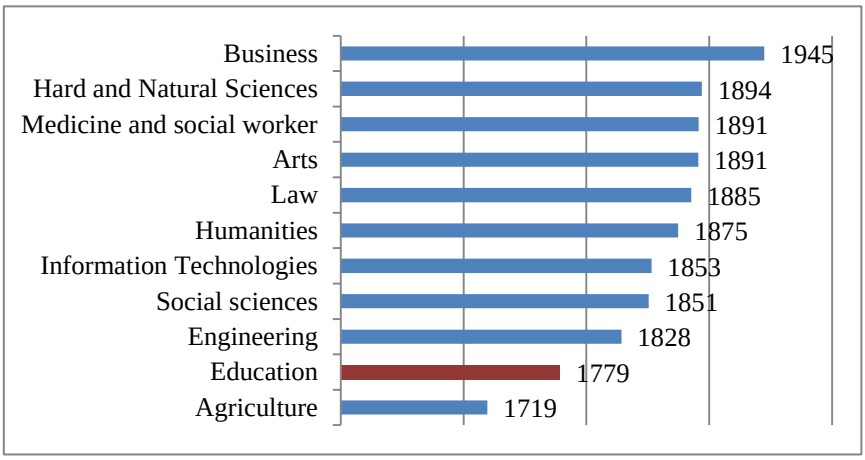
[47] More data about this is provided in Annex 2: Statistical Information

[48] NAEC, 2011

[49] ISSA,2012

2.13 **With the present conditions, the system is incapable of attracting qualified young candidates**. This is alarming information as the poor quality of the TE pool is an important limitation for in-service training performance. Countries with successful education systems have understood the importance of having top quality teachers and created mechanisms to attract and retain talent. Currently there is no motivation for young people to enter teaching, considering the teaching profession that pays below the average national salary, that does not reward higher qualifications and the longer commitment to teaching does not mean more benefits. Acting teachers have no motivation to raise their qualifications; however, they may still be motivated to remain in teaching for longer periods (as the profession offers more free time, stable conditions, etc.)[50]. It is possible to conclude that the current policies contribute to having retaining teachers, as well as not attracting the highest qualified people into the profession.

Figure 2.3: Student Average University Admission Test Scores by Field of Study in 2011



Source: National Assessment and Examination Center, 2011

2.14 **Despite the government's efforts, only about 25 percent of teachers have been certified till present.** There are few metrics of teachers' quality in Georgia, one of the criteria employed is certification examinations administered since 2010. Both new and in-service teachers take two types of tests to be certified: a subject matter test and a test in pedagogical abilities. However, no comprehensive teacher evaluation system is in place that would capture actual teacher performance in the classroom. Certification rates (share of test-takers approved) have been very low. In particular, subjects such as mathematics, physics and primary education have seen approval rates below 25%, which cast doubt on the quality of teachers.

2.15 **The quality of the pool of pre-service graduates is low**. Universities that prepare teachers have a number of problems impeding sound initial teacher education: (i) from the outset they get the students, who, on average, have low scores at National University Entrance Examinations; (ii) they experience a deficit of well-trained professors in modern teaching and learning methods. There are no incentives to enroll in doctoral programs in education, which is the only way to be able to teach at the university in teacher education programs (exception applies to some lecturers that can have status of an invited lecturer, but there is a limit for such invitees); and (iii) universities and schools do not have incentives to work closely together to provide meaningful practice for student teachers. These incentives could encompass rewarding teachers for accepting students from the universities for practice and making it part of their professional development. Identifying best practices of meaningful cooperation between schools and universities could become example for other schools and universities. The only comparative measurement on the quality of pre-service teacher education programs is a Teacher Education Study in Mathematics (TEDS-M) conducted in 2008. The study showed that competencies of future mathematics teachers near the end of their programs were very

[50] Same research ranks love for children, free time and stable job as the top three reasons why teachers choose to teach (ISSA, 2012).

low and revealed that teachers in Georgia performed significantly below most of the 16 participating countries when assessed both in terms of their knowledge of mathematics as well as their knowledge of how to teach mathematics.

2.16 **Teacher in-service development and support systems are also underperforming.** In 2004, the Ministry decided to decentralize the provision of teacher training to eligible accredited training providers. The objective was to encourage the much-needed competition and stimulate quality improvements in the delivery of teacher training. The system was implemented for only one year when the government decided to go back to centralized trainings. Currently the National Teacher Professional Development Centre (NTPDC) provides all trainings for teachers. This exercise has diverted the focus of NTPDC from being a major policy planning organization in teacher issues to becoming a training center. Teachers' perceptions on the quality of delivered trainings does not vary for centralized or decentralized model, however; when asked if the training system should be centralized or centralized, a great majority of teachers prefers a decentralized model as opposed to 27%, who prefer centralized[51]. Another research on the impact of training decentralization on school effectiveness shows that, after the programs have been centralized the trainings became less diversified and their availability has worsened[52]. Teachers are not required by law to take a certain number of hours of professional development trainings; however the general requirement of professional development exists. So far, the government has paid (through vouchers) for the professional development of teachers, both in centralized and decentralized models but no meaningful results from these investments were yet obtained.

2.17 **The current teacher professional development model is ineffective** because its content and structure provides neither incentives nor mechanisms for teachers to internalize the knowledge acquired through trainings and use it in the classroom. Limiting teacher professional development to trainings contradicts basic principles of contemporary learning theories by failing to acknowledge that learning occurs from experience, reflection, and practice. Short-term trainings where teachers take up the roles of passive learners do not ensure that the knowledge that is transmitted to teachers translates into understanding of the concepts and principals of effective teaching and redefining teaching. Growing evidence shows that traditional teacher professional development modalities are not effective in changing teaching practices[53]. More effective teacher professional development modalities give teachers the opportunity to work on academic programs long enough to solve them and discover causal connections between their instruction and student outcomes.

2.18 **Short-term subject matter trainings are not aligned with the teachers' needs.** If the majority of teachers fail to meet subject matter standard requirements according to teacher certification results, it is unlikely that short-term trainings are going to address the major knowledge gap. The relevant agencies should provide a more comprehensive analysis of the areas where teachers fail to demonstrate sufficient knowledge of their subject. The information should be used to develop the content, structure, and format of the subject matter courses and modules.

2.19 **The lack of qualified inclusive education teachers is also an important concern.** Some progress has been made with the adoption of Special Education Teacher Standards. The National Curriculum also has a requirement that SEN children should study according to the individualized education program. However few teachers have the capacity and resources to materialize this requirement. Teachers Professional Development Center (TPDC) offers in-service trainings for inclusive education teachers as well as some non-governmental organizations offer such trainings. In the past, no pre-service training opportunities existed for inclusive education teachers. However, it is important to note that new programs have been introduced in one of the higher education institutions in recent years.

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51 ISSA,2012

52 CDI, 2013

53 Darling-Hammond and Bransford, 2006; Gallimore et al 2009; Little, 1982; Little and McLaughlin, 1993; Little, 2003; Grossman et al, 2009.

2.20 **The development of school principals as instructional leaders is also a challenge.** Moreover, insufficient professional development for school principals further limits their leadership capacity. Main causes for this are: (i) principals in-service training process remains sporadic and less linked with the overall needs of school leadership workforce development; (ii) the package of training modules for principals available through MoES and different private providers is considerably smaller than that for teachers; (iii) an integrated professional development scheme for principals that is linked with salary hasn't yet been developed.

2.21 **The new Teacher Evaluation and Professional Development Scheme currently under development provides a good opportunity to improve management of the teaching profession.** The design of the new framework should take into consideration the following factors: (i) teaching is an aging profession in Georgia and the existing pension policies encourage pension-age teachers continue teaching leaving limited opportunities for young professionals to enter into the system; (ii) unemployment rate among young professionals is high, which can be considered as an opportunity given right policies are in place.

Key Recommendations

- To improve teacher quality, Georgia will need to build a new system for teacher profession addressing multiple challenges, which will require a long-term holistic approach addressing all the essential components for building the critical mass of professional teachers. The specific recommendations outlined below should be viewed as part of one integral vision, where recommended policy options reinforce each other to achieve the intended results.

- To improve the effectiveness of teacher in-service training and professional development, emphasis should be made on the introduction of a sustainable school-based teacher professional development model. This will require a substantial capacity building at the school level, creating a critical mass of qualified teachers to assume the role of a leading teacher, encouragement of peer learning among the teachers and trained school principals to focus on instructional leadership. The latter would focus on new modalities, such as lesson study, action research and school-based professional development teams. These new modalities will allow teachers to collaborate in order to identify academic programs, formulate instructional plans, use evidence to develop interventions for improvement, observe and reflect on their interventions and thus engage in continuous improvement. Georgia can benefit from the already existing small-scale but successful initiatives being implemented in this area by the USAID supported G-Pried project and Ilia State University.

- To improve the performance of teacher pre-service training, emphasis should be given to the development of new cadre of university teachers equipped with modern expertise in the field. School principal training courses would be particularly important for developing future school leaders.

- Provide incentives to attract qualified professionals into teaching. It is essential to address the issue of lack of competitive compensation for teaching profession. The government will have to consider setting high starting salaries to attract better graduates into teaching. The government may consider increasing salaries of the existing teachers complying with the quality requirements set by the teacher professional development standards.

- Develop a comprehensive teacher evaluation system, which one hand serves as an effective instrument for managing teacher quality and on the other hand, provides a clear path and opportunities to teachers for professional growth and career advancement linked to financial incentives.

- To correct the overall surplus of teachers in general education, there is need to improve the current poor management of supply and demand of teachers nationwide. This will require a

solid understanding of teacher supply and demand status and influencing factors and implementation of targeted policies/measures to respond to emerging trends.

- To address the shortages of teachers by teaching subject and by geographic location, the expansion and improvement of the existing teacher deployment programs will be needed. Georgia has implemented small-scale programs providing financial incentives to qualified candidates to teach in remote and ethnic minority schools and can build on this experience.

2.3 Strengthening Vocational Education and Training

2.22 **In the last few years, Vocational Education and Training (VET) has undergone various reforms**, the pace and scope of which have varied significantly and the system has been adapted multiple times in response to the political context. Key developments underpinning Georgia's reforms in this area are the integration in the Bologna Process in 2005, the adoption of the Law on Vocational Education in 2007 and the development of the VET strategy for 2009-2012. Much of these efforts were oriented towards bringing the VET sector closer to the labor market demands and encouraging private sector participation. In recent years, further amendments were made to the Law on Vocational Education (2010), and the Law of Georgia on Development of Quality of Education (2010) was adopted. The reform process involved radical changes and reorganization of the sector including: (i) optimization and consolidation of vocational education institutions in 2008-2009; (ii) introduction of a voucher financing system for level I and III programs in May 2012, as part of which eligible students could use their voucher funding in accredited state educational institutions for level three VET programs and funding through grants for lever four and five VET programs in accredited state or private educational institutions offering priority programs set by the government; and (iii) significant investments were pledged by the government for supporting the VET sector as part of the 2012-2016 program of the previous government, which was targeted on new school infrastructure, launch of three new vocational colleges, construction of the new technological university in Batumi , and summer jobs for students.

2.23 **However, the reforms in the VET sector were launched without a comprehensive development plan, full understanding of the skills development needs and potential impact of the new proposed programs.** This translated into a set of rushed and improvised measures. One such measure was the separation of VET pathways from general education by the 2007 VET law and introduction of artificially fragmented short-term programs in 2010 (sometimes as short as two months) to meet the government objective of creating rapid path to employment. Many young students with compulsory education enrolling in these programs found it difficult to get employment as the competencies acquired were not sufficient to meet the labor market needs. At the same time, these changes resulted in dead-ends in the system.

2.24 **The improvement of the quality and relevance of VET programs is hindered by the limited participation of employers.** Progress has been made in establishing coordination mechanisms to align supply with demand, but substantial progress is still needed. One important instrument for ensuring the relevance of VET programs is the National Qualification Framework and qualification descriptions. In 2011, the National Centre for Education Quality Enhancement created 14 Subsector committees. The purpose of these committees was to accommodate the needs of the labor market into the qualifications and competencies described in the National Qualification Framework.[54] However, the engagement of employers and social partners in these subsector committees is still minimal. As the subsector committee meeting reports show, the prevailing majority of the participants are from government agencies, universities and VET centers. Increased

[54] Committees were established in the following areas: (1) mining and geological engineering; (2) engineering, technology, metallurgy and materials science; (3) arts; (4) business administration; (5) tourism; (6) health; (7) marine, railway, air, land transport; (8) energy and commerce; (9) agricultural sciences; (10) mass media and journalism; (11) construction and environmental protection; (12) computer science and telecommunications; (13) architecture; and (14) sciences

involvement of the business community would help make the system more responsive to employer needs, while regular assessments of current and future skills needs could increase the information available to decision makers.

2.25 **VET Teacher professional development is limited and focused on the development of teaching skills only.** While teacher training is conducted annually and several hundred teachers participate in VET programs participate in them, the trainings were mainly focused on the development of general skills but not specific occupational skills.

Key Recommendations

- The improvement of the *quality and relevance of VET programs is hindered by the limited participation of employers*. Therefore the follow should be considered:
    - **Greater stakeholder participation is needed to improve quality, relevance and provide a demand-led approach for VET supply.** The National Qualification Framework and professional standards need continued improvement. Significant efforts are being made in this area. Its completion would impact the overall system and can be achieved in the short term. Priority efforts should be carried out to improve the MoES capacity to properly manage the engagement of wider range of stakeholders, particularly the private sector employers. This should be staring point as it affects the quality of all subsequent reforms in this area.
    - **Public Private Partnerships should be encouraged both in financing and delivery of vocational education.** This may an important move toward improving the alignment of VET programs with labor market needs. The business sector should play an increased role in the design of VET curriculum, management and service delivery options, which will serve as incentives for the private sector to contribute to the financing of this level of education.

2.4 Higher Education Financing

2.26 The government of Georgia introduced changes in the financing of the sector aimed at increasing transparency and efficiency in allocating public resources. Direct budgetary allocations have been gradually substituted by student grants and research grants and lump sum funding has faded over time. A similar observation can be made about research funding. The state has diminished traditional (based on historical trends) lump sum funding and substituted it with competitive research grants.

2.27 **The financing of this sub-sector of education remains low**. Public spending on higher education is 0.47 percent of GDP and less than 0.2 percent of GDP on research and development in 2013. Private spending on higher education constitutes 0.75 percent of GDP for the same year. Public higher education expenditures allocated to institutions as well as per student expenditures is very low in Georgia as compared to selected ECA countries (see table 2.5).

Table 2.5: Higher Education Financing Indicators, Georgia and Selected ECA Countries

Country	Total public expenditure on educational institutions and administration as a % of GDP.	Public expenditure per pupil as a % of GDP per capita
	(1)	(2)
Georgia	0.30	12.2
Bulgaria	0.54	15.6
Czech Republic	1.15	27.3
Estonia	1.17	23.8
Hungary	0.97	28.8
Latvia	0.87	20.0
Lithuania	1.33	23.9
Moldova	1.36	42.9
Poland	1.03	20.9
Romania	0.77	19.7

Source: WDI Database, 2014

Note: Figures for all countries are 2011, figures for Bulgaria and Poland for indicator one are from 2010, Estonia for indicator two from 2010.

2.28 **While the funding reform was instrumental to increase transparency in the allocation of public resources for higher education, existing financing instruments fail to support the improvement of quality of teaching and learning and increasing research capacity**. The largest share of higher education revenues comes from student tuition fees only, which motivates higher education institutions in Georgia to maximize their enrolment numbers. In 2009, the share of tuition fees in public higher education institutions was 73 percent of the total revenues. By 2011, the share of tuition fees in some public universities (Georgian Technical University and Tsereteli State University) exceeded 80 percent of the total budget. As tuition fees are used to finance not only current expenditure of higher educational institutions but also capital investments, universities try to make savings on other costs such as staff salaries.

2.29 **The sector's capacity for generating private sources other than tuitions paid by households is limited, which is largely attributed to financial autonomy constraints and the absence of formal incentives for the private sector participation.** Georgian universities, in theory, can generate income from contracts with business sector, philanthropy, services, and international public funding sources. There are no national data available on revenues raised from these sources. However, the budget plans (2012) and budget reports (2011) of several leading research universities as well as small teaching universities show that resource mobilization from private sources other than students' fees is low. Research universities like Tbilisi State University, Ilia State University, and State Medical University generate 20 to 30 percent of their revenues from research contracts, services, rent, and other research and education grants. However, in other universities funds generated from these sources are insignificant Philanthropic funding is rare for Georgian universities. Budget reports of 2010-2012 for 10 Public universities (including the three largest research universities) show only one case when a local foundation donated money to a higher educational institution[55] (see HEI income sources in table 6 in annex 2).

Key Recommendations

- *Existing financial resources allocated to higher education is insufficient for improving quality of teaching and learning, and strengthening research capacity.* Higher education needs

[55] In 2011 a national foundation established by a Georgian billionaire contributed GEL 0,8 million to Ilia State University for sustainable development of the Georgian Botanical Garden.

adequate financial resources allocated in a manner that promotes fair competition but also ensures sustainability. Georgia should at least triple its public spending on higher education, up to 1% of GDP. Although highly vulnerable to external shifts and inflation risks, Georgia's economy is growing at a steady pace[56].

- *The current limited funding mechanisms for higher education also lack clear strategic purpose in terms of improving efficiency and equity*. Diversifying funding instruments will be essential. Funding mechanism need to first align with the sector reform objectives. Assuming Georgia increases its public funding to HEIs, the Government could introduce complementary funding mechanisms in the system to encourage improved institutional performance and support the development of HEIs. After identifying its main policy objectives (access, equity, quality, labor market relevance, etc.) for Georgia's higher education system, the Ministry of Education and Science should reassess how its current funding model fits or aligns with those objectives. (Annex 3 describes different financing mechanisms against main policy priorities).

  The government could consider diversifying the funding mechanisms in line with international best practice in this are to facilitate research and innovation, improve the quality of teaching and learning and facilitate knowledge transfer. The following options could complement some form of base funding:

  - **Output-based funding formulae or payment for results**: Denmark, Australia, South Africa, and the Netherlands use output-based formula funding to distribute public funds in a transparent way based on mutually agreed output indicators. In this funding modality the amount a university receives is linked to the number of graduates or institutional output indicators. Some systems diversify the amount per student by field of study (Salmi and Hauptman, 2006).
  - **Performance contracts:** In France, Finland, Denmark, Spain, Chile, and several U.S. states governments enter into regulatory agreements with institutions to set mutual performance-based objectives. Denmark signs so called development contracts over improvement goals of HEIs (Salmi and Hauptman, 2006).
  - **Competitive funds**: The Government of Georgia already has the practice of using competitive funds for financing research projects. This practice could be extended to other development areas in higher education system such as infrastructure development and innovative teaching projects etc. International experience shows that setting clear criteria and procedures are critical factor for ensuring transparency and fairness. Some countries with a relatively small or isolated academic community invite international or transnational reviewers to reduce the danger of complacency and subjective evaluation among a limited group of national colleagues. Scandinavian countries and the Netherlands offer a good example of involving transnational reviewers in the process.

56 *Global Economic Prospects June 2011: Regional Annex: Europe and Central Asia.* The World Bank. Retrieved from: http://siteresources.worldbank.org/INTGEP2010/Resources/GEP2010Summer2010-ECAAnnex.pdf

Chapter 3. Recommended Priority Interventions

3.1 Based on the strategic analysis and recommendations presented in the previous sections, a list of priority interventions has been identified for the government's consideration as part of the new Education Sector Strategy. This is not an all-encompassing list but a prioritized selection of essential interventions needed. These programs were selected based on their importance to the sector strategic focus as stated above. Each recommendation is assessed according to following three criteria: sequencing (short (six months), medium (one year) and long–term (two years) indicating the time taken to start the reform), impact (high/low impact on improving learning outcomes), and technical complexity (low, medium or high covering cost implications, political sensitivity, and implementation level risk).

3.2 This matrix presents proposed priority interventions grouped under each "key recommendations" discussed in Chapter 1 and 2 of the report.

Key Recommendations	Sequencing	Impact	Technical Complexity	Proposed Policy Interventions
1. Improving Quality of Education as measured by Student Learning Outcomes and Labor Market Outcomes				
1.1 Improvement to the quality of education – including curricular improvements- should focus on eradicating functional illiteracy and developing key competencies that secondary education graduates need to acquire to meet the needs of the labor market.	Short-term	High	High	1.1.1 Introduce further changes into the curriculum consistent with the existing challenges of functional illiteracy and lack of key competencies that are necessary to meet the basic needs of the labor market.
				1.1.2 Strengthen the mechanisms for applying evidence (such as national assessments, examinations, feedback from educational institutions, curricula based international assessments) prior to incorporating further changes in the curricula content.
1.2 Focus on relevance by shifting to a demand-led approach in which employers' feedback help shape the education system. Quality assurance mechanisms need to be revisited for the new mechanism to be functional.	Short-term	High	High	1.2.1 Develop formal mechanisms (employer and graduate surveys; labor market studies) to identify labor market needs, skills forecasting and training needs and strengthen Ministry capacity to apply this information for improving qualifications framework and standards.
				1.2.2 Strengthen the MOES capacity in the engagement of the employers and sector specific professionals in the development of VET standards and programs.

				1.2.3 Improve accreditation process through increasing engagement of sector-specific practitioners and employers in the process
				1.2.4 Develop a stronger career counseling and guidance services at educational institutions/resource centers and ensure access to information on employment statistics by study programs and educational institutions
2. Access and Equity				
2.1 Promote increased participation in preschool education starting with older children first (5 year old) and focus on social inclusion.	Short-term	High	High	2.1.1 Develop and implement a plan to gradually promote participation starting with the aim of enrolling the older children first (5 year olds) and progressing to other groups in close cooperation with the Ministry of Regional Development and municipalities.
				2.1.2 Develop a national plan promoting incentives for increasing the role of private sector in providing preschool education.
				2.1.3 Develop targeted awareness campaigns to stimulate parents' interest towards preschool education.
				2.1.4 Develop national criteria and targeted financial measures to promote participation of underrepresented groups
				2.1.5 Plan more efficient use of underutilized government school infrastructure to extend service coverage
				2.1.6 Retrain underutilized teachers from general education to become full-time preschool teachers
2.2 Increase participation rate in upper secondary education	Medium-term	High	Medium	2.2.1 Introduce general education component in the vocational education and training stream (also discussed in VET program)
				2.2.2 Develop more flexible and diversified curriculum options at upper secondary level (along with minimum core curriculum, introduce students with option for diversified streams, such as advanced science and math, social sciences and/or humanities)
2.3 Increase inclusion of special needs students in general education	Medium-term	Medium	High	2.3.1 Expand in-service and pre-service teacher professional development programs for inclusive education
				2.3.2 Expand the existing number of schools with infrastructure tailored to handicap access

2.4 Expansion of VET network to increase access consistent with focus on quality improvements.	Long-term	High	High	2.4.1Identify geographical locations for new VET centers to improve regional coverage and encourage the development of private VET providers through introducing financial incentives
				2.4.2 Expand the existing financing scheme to accommodate indirect costs (living expenses) of VET participation.
				2.4.3Expand the opportunities for special needs students to attend vocational courses and eliminate artificial barriers
2.5 Eliminate dead-ends and improve the attractiveness of VET.	Medium-term	High	Medium	2.5.1 Introduce general education component into vocational education and training programs
2.6 Establish effective mechanisms to expand enrolment and promote participation from under-represented groups, especially students from poorer backgrounds and students from traditionally under-represented communities (particularly rural and ethnic minorities).	Short-term	Medium	Medium	2.6.1 Gradual expansion of needs-based grants for underrepresented groups, such as students from low socio-economic background, ethnic minorities and special needs students
				2.6.2 In cooperation with local banks, develop and implement a pilot program of subsidized student loan program targeting students enrolled in TE programs with the highest private return to TE
				2.6.3 Development new measures for stimulating the participation of students that are employed full time, such as: acknowledging progress through a credit system, providing part-time or evening courses or financial support
3. Governance				
3.1 Develop and fully implement and new school management system	Short-term	High	High	3.1.1 Develop school level performance monitoring instruments to track progress towards achieving national education and curriculum goals: (i) student enrolment, retention and transition; particular attention should be paid to school efforts to ensure participation o of more vulnerable groups and early detection and early interventions systems to prevent early school leaving; (ii) student learning outcomes at least in core competencies through standardized tests and examinations; ensure a balanced assessment mechanism that combines indicators of input, output and process;

				3.1.2 Develop support system to help school leadership and teachers address school challenges: school inspectorate responsible both for performance review and school support through specialized teams to work closely with schools; the latter will require close cooperation among education agencies;
				3.1.3 Improve the quality standards of internal quality assurance baseline documents (i.e. school self-evaluation report) ensuring they provide clearly formulated indicators and enough information for monitoring
				3.1.4 Introduce a new modular, credit-based in-service and pre-service school principal development system to ensure that all school principals are capable to serve as instructional leaders
				3.1.5 Consistently improve the capacity of Board of Trustees through more focused and sustainable procedures through engaging ERCs and resources to ensure the effective functioning of the new internal mechanisms of quality monitoring in schools
				3.1.6 Revisit the division of functions and responsibilities between MoES and schools for principals recruitment and re-define goals and procedures of the interview stage of principals selection process
3.2 Reform the post-secondary education governance by improving accountability while providing autonomy	Medium-term	High	High	3.2.1. Develop and implement a sound monitoring and evaluation framework consisting of accountability indicators built through consensus among the major stakeholders, which are concentrated on graduate satisfaction, employment, research output and measure the post-secondary educational institutions contribution to other aspects of national and local development; also consider integrating leading Georgian universities into a European university ranking system.
				3.2.2 Review the legal framework for authorization and accreditation to ensure that these instruments are not in conflict with the principle of institutional autonomy
4. Strategic Management of the Ministry of Education and Science				

4.1 Develop the Ministry's policy and planning capacity, including data management and application, to support key strategic management functions and sustain the introduction of management by results practices	Short-term	High	Medium	4.1.1 Develop a comprehensive, long-term sector strategy via relevant stakeholder consultation process that would create the opportunity to negotiate the necessary increases in the medium term financial support for the education sector development.
				4.1.2 Develop and implement a monitoring framework for each of the desired outcomes of the strategy programs providing an initial set of targets, baseline measurement and time frames to achieve them
				4.1.3 Define and request the systematic preparation of evaluation studies concerning the main programs and measures implemented by the Ministry.
				4.1.4 Fully integrate all available information into an EMIS system that provides all managers access to all available data, information and knowledge
5. Cross-cutting issues				
5.1 Ensure the application of LLL principles across all levels of education	Long-term	High	High	5.1.1 Develop the MoES capacity to coordinate, implement and monitor the development of the National LLL Policy and Strategy
				5.1.2 Develop National LLL Policy and Strategy
5.2 Ensure meaningful use of ICT to advance teaching and learning and skills development	Medium-term	Medium	High	5.2.1 Revise the curriculum to ensure effective application of ICT in teaching and learning.
				5.2.2 Evaluate the impact of "Buki" for improving the quality of teaching and learning and education outcomes.
				5.2.3Develop ICT based teaching and learning resources. The development of the resources should prioritize basic education and the subject areas where teacher shortage is a long-term issue.
6. ECD: School Readiness				
6.1 The MoES must be capable of ensuring that preschool quality standards are achieved across the whole country.	Short-term	High	Low	6.1.1 Development of preschool education law to ensure mandatory enforcement of national preschool education standards and curriculum mandatory
				6.1.2 Development of teacher and principal standards for preschools that should guide the selection/entry into the preschool profession
				6.1.3 Develop pre-service and in-service preschool education programs.

				6.1.4 Develop instruments to measure school readiness of children entering primary education, which should serve as basis for capacity development support to municipal and regional government to enforce national preschool quality standards.
				6.1.5 Develop MoES capacity to manage pre-school development reforms
				6.1.6 Provide the capacity development support to decentralized authorities to enforce national quality standards.
7. General Education: Teaching Quality				
7.1 Strengthen teacher in-service and professional development system	Short-term	High	Medium	7.1.1 Develop a new policy for teacher professional development that is built around the concept of school based professional development model and create a critical mass of teachers who will lead school-based professional development process at individual school level
				7.1.2 Diversify the existing in-service trainings through the introduction of the decentralized teacher training system, where various organizations including higher education institutions would offer trainings to schools in line with quality standards enforced by MoES
				7.1.3 Develop and implement measurement systems to assess and monitor the impact of in-service PD investment in increasing the quality of education
				7.1.4 Introduce a new modular, credit-based in-service school principal development system to ensure that all school principals are capable to serve as instructional leaders
7.2 Strengthen pre-service teacher training	Short-term	High	Low	7.2.1 Review and modernize pre-service programs, including school leadership programs for school principals. This would require providing targeted support to transform quality in the selected pre-service teacher training programs: (i) faculty development through financing study abroad programs; (ii) extending leading expert support for program revision; (iii) infrastructure improvements; (iv) improving quality and availability of learning resources.

				7.2.2 Develop, implement and ensure communication of new measures (such as scholarships, subsidies and bonding systems) to ensure the flow of qualified students entering pre-service training
7.3 Provide competitive compensation to attract top caliber candidates into teaching	Long-term	High	High	7.3.1 Provide high starting salaries for qualified teacher candidates
7.4 Develop a comprehensive teacher evaluation system	Short-term	High	High	7.4.1 Develop multiple measures for the assessment of teaching quality apart from the existing certification system; This would require development of new instruments to measure teacher performance in the classroom
7.5 Improve management of teacher supply and demand	Short-term	Medium	Low	7.5.1 Develop a system for forecasting and managing teacher supply and demand
				7.5.2 Expand and improve the existing teacher deployment programs to ensure teaching quality in remote and rural areas and in all teaching subjects
8. Strengthening Vocational Education and Training				
8.1 Ensure greater stakeholder participation to improve quality, relevance of VET programs.	Short-term	High	High	8.1.1 Develop formal mechanisms (employer and graduate surveys; labor market studies) to identify labor market needs, skills forecasting and training needs and apply this information for improving qualifications framework and standards
				8.1.2 Strengthen the Ministry capacity in implementing the demand-led approach in the VET sector and engaging employers and sector specific professionals in the development of VET programs
				8.1.3 Reform existing accreditation mechanisms to ensure employer and sector-specific practitioners' participation in VET program evaluation
				8.1.4 Introduce financial and other incentives for fostering partnerships (e.g. for supporting apprenticeships) between VET centers and business and industry
9. Higher Education Financing				
9.1 Align higher education financing mechanism with the Government's national objectives in higher Education	Medium-term	High	High	9.1.1 Develop and implement a pilot plan for introducing innovative financing mechanisms (e.g. competitive innovation grants and performance contracts)

				9.1.2 Develop MoES capacity in (i) using higher education institutions' performance information to identify and evaluate links with financing instruments and TEI performance indicators and (ii) refining financing instruments to ensure better link with the national goals in TE
				9.1.3 Based on the results of pilot programs and after discussing with stakeholders (HEIs, private sector, and relevant GoG agencies) introduce new financing framework with clear procedures for (1) allocating pubic sources among HEIs and students, (2) their monitoring and evaluation and (3) further modification.

Chapter 4. Implementation of Sector Reforms

4.1 **Georgia has made significant progress in reforming its education system and adopted swift reforms in many areas.** As the government is ready to implement more large-scale reforms to advance the education system, this section describes the main overarching areas that should be also addressed to ensure the appropriate implementation of sector-wide Education Strategy during 2015-2024. These recommendations pretend to mitigate some of the key issues described in Chapter 1, Strategic Management of the Ministry of Education and Science: (i) lack of a strategic approach applied to the overall management of the ministry operations considerably limited the achievement of the desired outcomes; (ii) lack of consistency and contradictions in the introduction of many reforms did not generate the expected incremental and systemic improvements or took too long to do it; (iii) the ministry sometimes "navigates blind" in some areas as current EMIS does not integrate all critical education data; (iv) with the data available, the ministry does not produce sufficient and periodic information and knowledge (evaluation studies for example) to feedback and improve the strategic management of education; (v) social inclusion standards, targets, measures and tools are strategic and must be defined at the national level and not left to the arbitrary decision of the municipal governments. The following are the areas that will deserve special attention:

- *Addressing Management Challenges:* ideas to strengthen the executive management capacity and the operational management support structure and mechanisms that will be needed.
- *Monitoring and Evaluation Framework:* the main elements of the monitoring plan to track the progress of program implementation and the achievement of outcomes of the strategic plan.
- *Start-up Phase:* the implementation of the plan will demand a series of changes and modifications and stages to ensure the long-term introduction of this new work approaches.
- *Critical Success Factors and Risk Management:* the major internal and external factors that may affect the overall success of the plan and how to address them.

4.1 Addressing Executive Management Challenges

4.2 **To succeed in achieving the national education goals, objectives, and targets, the implementation of the plan must have a solid foundation**. The effective implementation of a sector-wide Education Strategy will require the definition of efficient coordination mechanisms and clear lines of responsibility, authority and accountability at central as well as at decentralized levels. It is important to avoid the creation of heavy bureaucratic structures and favor an efficient usage of the existing internal structure developing agile working groups supported with appropriate technical assistance.

4.1.1 Strengthening the Executive Management Functions

4.3 The *Minister of Education and Science* should act as the chief executive officer in managing the implementation of the sector wide strategy and should provide leadership, ongoing problem-solving and executive decisions to ensure the smooth operation of the Program Implementation Teams and their accountability. At the strategic management level, a new coordination mechanism, ***a Strategic Plan Coordination Group,*** could be defined under the coordination of the Minister of Education and Science. This Group should be responsible for overseeing the entire implementation process, making sure that the Ministry structure is fully supportive of the achievement of the Strategic Plan goals and targets. The *Coordination Group* should receive technical inputs and additional support from the following ministry functions:

- ***Finance*****:** provide adequate budgeting financial management support and information systems.
- ***Legal Advisory*****:** review on a continuing basis the existing rules and regulations to be improved and revised as necessary in addition to setting up a supportive, enabling regulatory framework for effective implementation of the education reform concepts embedded in the Strategic Plan.

- ***Policy, Planning and EMIS Support:*** these functions are essential to ensure provision of key technical support for managing and monitoring the implementation of the plan and are explained in more detail later

4.4 The characteristics of some of the priority programs (especially PP1: Teaching Quality and PP2: School Accountability and Support Systems) will require the direct involvement of the Minister and other top management authorities of the ministry. This will be needed to provide the general coordination, initial orientation and the criteria that will be used to guide the capacity strengthening support to some of its present capacities or for the creation of new capacities.

4.1.2 Strengthening Policy, Strategy and Planning Functions

4.5 Changes to the present structure of the MoES are needed to create a special technical unit, a new *Strategy, Policy and Planning Department* to develop the technical capacity to support key strategic management functions and sustain the introduction of management by results practices. Without adequate management by results, the implementation of sector-wide reforms risks of failure are increased, as there are too many areas that require horizontal and vertical coordination that will not be automatically provided by the present structure. This department should also provide (i) monitoring and evaluation frameworks and (ii) host the development and implementation of cross cutting policies that involve the whole sector, such as for example, social inclusion, lifelong learning or early school leaving policies. The strategic planning services provided by this unit should cover the following main functions:

- ***Monitoring Framework.*** A sector-wide monitoring framework should compile for each of the desired goals a specific set of key performance indicators, targets and baseline measurement as well as the intermediate results and time frames to achieve them. For each of the implementation priorities well defined multi annual plans and budgets must also be provided
- ***Annual Action Planning.*** Develop methodologies to support national authorities in the preparation of *Annual Action Plans and Budgets* to correctly reflect the specific implementation requirements for each priority programs and sector results.
- ***Management by Results.*** These MBR tools should combine the traditional, "input-based" expenditure monitoring systems with "output-based" project and program monitoring using the information contained in the execution calendars established in the Annual Plans. This tool will help the Ministry to prepare expenditure plans and avoid administrative bottlenecks but more importantly, it will enable to begin to monitor that the resources spent were actually used to achieve the desired results.
- ***Performance Assessment and Evaluation Framework*** The new department must also provide tools to assess the achievement of educational as well as management goals and outcomes stated in the strategy and priority programs. For this purpose, systematic and evidence-based studies must be carried out to provide regular follow-up of the adequacy and impact of the selected policy interventions.

4.6 **To monitor and review overall progress of the strategy implementation, the *Monitoring Framework* should describe the outcomes to be achieved, the target figures selected for the key outputs and the ways of measuring their achievement**. This list can be divided by year, and therefore, provide the main elements necessary to monitor progress in the implementation of the programs. A more detailed framework will be necessary to monitor the implementation of the Annual Action Plans, as these require a more detailed description of the actions to be performed. Output planning will have to be readjusted on a yearly basis: after measuring what has been achieved during the previous year it will be necessary to adjust the plans for the year which follows to ensure the achievement of the long-term targets.

4.7 **The new department could also be instrumental in supporting the development and implementation of crosscutting policies that require the active intervention of central and decentralized bodies of the Ministry.** A good example could be provided by a top priority: the development and implementation of a Social Inclusion Policy. The following are the main actions

needed to create an appropriate institutional framework and support system that clearly demarcates responsibilities at the national municipal and school levels:

- Define and implement a national social inclusion policy to promote the educational success of socially marginalized groups[57] ensuring that they gain full access to the same opportunities, rights and services that are accessed by the mainstream of society
- Regulate the articulation of national policy definitions and financing for social inclusion measures and regional /municipal responsibilities for their implementation
- Develop evidence-based studies to analyze the most vulnerable groups that should receive assistance in all education sectors and the best means to support them
- Define general policy criteria to use voucher/grants and other tools for providing financial support to stimulate participation of the desired target groups in all education sectors
- Define coherent principles for using mother tongues in all education levels
- Define the scope and quality of the support that the government will be able to provide to children with special educational needs
- Establish the extent of the educational support to strengthen the reinsertion of displaced populations
- Define the criteria to reduce other problems that hinder enrolment and retention, such as: the hidden costs of education, distance to schools, inadequacy of school buildings, violence in schools and the perception that families have about the quality and usefulness of the education that the children will receive
- Produce regular assessments of the impact of the measures implemented and their cost-effectiveness

4.1.3 Strengthening Management Information Systems Capacity

4.8 **A key element for providing evidence based information for monitoring program implementation and assessing educational outcomes will be the availability of reliable and comprehensive data from the EMIS**[58]. A comprehensive EMIS should be designed to store, retrieve, analyze and evaluate raw data on student enrolment, staffing and school infrastructure and asset inventory at all educational levels (from pre-school to tertiary education). The EMIS could also be compatible with and integrate valuable data from other internal sources, such as financial execution data, infrastructures payroll and human resources management, allowing access to a series of predefined integrated management indicators. It could also provide access to a number of external databases (national census and population data, general infrastructural databases, poverty maps and surveys) that would add value not only to the decision-making process but also to the Monitoring and Evaluation process.

4.9 To fully benefit from the introduction of ICTs and Management Information Systems to appropriately support education management at the central, municipal and school management levels, the Ministry should strengthen the following capacities:

- Design and implement systems and procedures to ensure the expansion of EMIS to cover all educational areas (including preschool, VET and tertiary education) and extend present EMIS information with enrolment information at the classroom level (linking teachers with classrooms)
- Fully develop a Human Resource MIS. The system should contain information about all MoES administrative employees, schools, and boards of trustees and integrate all available information about teachers (personal history, classroom performance, in-service training, etc.)
- Develop a School MIS to include detailed information about students (school attendance, assessments, achievements, etc.), history (mobility of students, etc.), electronic journals and

[57] Those groups who are systematically denied access to entitlements and services because of their socio-economic condition, ethnicity, language, race, religion, age, gender, disability, HIV status, migrant status, or where they live

[58] As has been planned in Priority Area "Planning, Budgeting and Information Systems"

time-table of lessons. The system should allow schools to fully maintain educational process online and provide daily information to parents and students (attendance and academic achievements, student support systems).

- Develop social inclusion management information support systems to enable schools to better manage the situation of children from socially vulnerable families and under-represented groups (access to grants, learning and counselling history, etc.)
- Develop a system to support school infrastructure management and accumulate information about physical school infrastructure (buildings, school yard, etc.), idle capacity, inventory, etc.
- Develop geo-referenced capabilities of the EMIS to allow it to plot the education outcomes/ input information on maps to assist macro and micro education planning and inspections based on real-time evidence
- Fully integrate all available information in internal databases (human resources, teachers, in-service training records, school infrastructure development/assessments, financial) and all relevant external databases (census, population relocation, new-born, poverty, infrastructure development plans, etc.) into the MIS system
- Develop user-friendly and customizable user interfaces and web access to facilitate the usage of available data for all management staff (central, regional or school level)
- Design and implement a comprehensive capacity development program to ensure that all MoES management are capable of using these systems to achieve excellence in their managerial duties
- Gradually develop the quality of the ICT infrastructure and access systems (intranet, web based access, school connectivity, etc.) to allow efficient access to all potential users

4.2 Addressing Main Operational Functions

4.10 **At the *operational level,* the implementation can be ensured by the definition of *Priority Program Implementation Teams.*** The main function of these teams will be: (i) to ensure proper coordination between the different components and activities of each program; (ii) to prepare and implement Annual Action Plans with the technical support of the Coordination Group; (iii) to monitor the implementation of the plan through regular structured meetings; and (iv) to prepare regular reports on the program implementation. Each implementation team will be composed of the people responsible for the different education sub-sectors/departments directly involved in carrying out the corresponding program and will include the technical advisors working in each area. For each team the following key roles should be established:

- *Team Leader*. Each program should have only one team leader. This person will be directly accountable to a Deputy Minister and responsible for the successful implementation of the Priority Program. Team leaders should normally correspond with one Deputy Minister. There will be some cross cutting programs (Teaching Quality, Donor Coordination) that may require the creation of specific coordination teams. In that case, a team leader will be selected from among the heads of the directorates that are mainly responsible for the Program implementation.
- *Focal Point.* For each program, one technical person should be appointed to facilitate the planning and monitoring tasks to be carried out by the implementation team. The Focal Point will act as the contact person to define the technical tasks to be performed by the Team, (for example: preparing the team's annual action plans, the data for the management by results monitoring tool, and reporting to the Coordination Group). Focal Points will be selected on the basis of precise criteria including having: the technical skills to deal with data, information and performance indicators; good communication skills, and the ability to coordinate efforts regarding the implementation of the plan.

4.3 Addressing Implementation Start-Up Challenges

4.11 The implementation of the Strategic Plan will start in 2015. A pre-implementation stage should be defined to make a series of preparatory arrangements and ensure that in 2015 the implementation is correctly addressed. The early stages of the implementation are of critical importance, as substantial changes will happen at the same time: (i) new managerial staff in charge;

(ii) new managerial practices introduced to implement the plan, (iii) the need to start implementing calendars that will require significant levels of coordination. The following are the key inputs to ensure an adequate start for the Pre-Implementation and the early Implementation Phases:

4.3.1 Pre-Implementation Phase

4.12 During pre-implementation phase, the following issues should be addressed:

- *Ministry Structure Review:* the present Ministry structure must be analyzed to establish if any changes are needed to facilitate the implementation of the Strategy.
- *Ensure an appropriate 2015 budget allocation*: 2015 should mark a discontinuity point from the traditional budgeting for Education. The budgetary proposal to be presented to the Prime Minister may require substantial increases from the traditional education budgets. This is not going to be achieved overnight, and several rounds of negotiations supported by accurate technical documents will be required during 2014
- *Define Key Donor Support:* it will be necessary to ensure that all necessary support can be obtained to implement key priority actions where the Ministry may not have the technical expertise or the volume of investment that will be required to start the implementation of the plan. It is important to engage all donors as early as possible and start the process of defining all necessary proposals to ensure adequacy of their 2014-2020 cooperation support since their decision making processes may take substantial time to process the Ministry's requests.
- *Prepare an Adequate Inception for the Strategy Management Teams:* all priority program teams should undergo an intensive training and induction process by the end of 2014. During this period, they should be able to excel in the following areas: (i) general understanding of the contents of the Strategy; (ii) in depth analysis on the priority program that they have to implement; (iii) understand management by results monitoring and reporting principles and tools; (iv) preparation of annual budgets and plans (v) engage in the preparation of the 2015 Annual Action Plans

4.3.2 Implementation Start-up Phase

4.13 The initiation of the Implementation Phase will require addressing the following issues on a one-off basis:

- *Baseline and Performance Assessment Framework:* it is important to define the indicators that will be used to monitor performance and the starting point data that will be used to compare to. This is an activity that needs to be developed as soon as possible.
- *Donor Coordination:* close donor coordination is important to ensure smooth implementation from the outset.
- *Coordination with the Government:* new mechanisms should be established to ensure participation of the Prime Minister's office and the Ministry of Finance in the initial steps of starting up the implementation of the Strategy. There will be a significant number of situations that will benefit from their participation. It will also help to initiate a new, and more coordinated way of working with all other executive branches of the government and regional governments.
- *Significant managerial leadership* will be required to ensure that the Implementation of the Strategy starts on the right track and to anticipate and avoid initial coordination and management problems. This will no longer be a "business as usual" situation and a critical success factor will be an engaged and focused leadership from the Minister and key Directors.

4.14 Several *critical success factors* to ensure the success of the implementation of the overall strategy:

- An important shift in the allocation of public financial resources to education will be required to ensure the various aspects of the strategy can be realized.

- Careful and results-oriented management of the public resources, ensuring that annual spending is coherent with the implementation needs emerging from the monitoring and evaluation system will be needed.
- An ongoing and well-managed capacity building plan will be indispensable for the sustainability of the outcomes stated in the Strategy
- A sector-wide approach to coordinate the support of all development partners is needed to make possible the smooth implementation of all the targets of the plan, as well as their sustainability
- It will be also critical to achieve an effective dissemination of the plan to enable learners, teachers, parents, and, indeed, all Georgians, to realize the importance of the proposed changes
- Maintaining a good degree of flexibility and developing the ability to adapt to change will also be crucial in light of Georgia's ever-changing circumstances

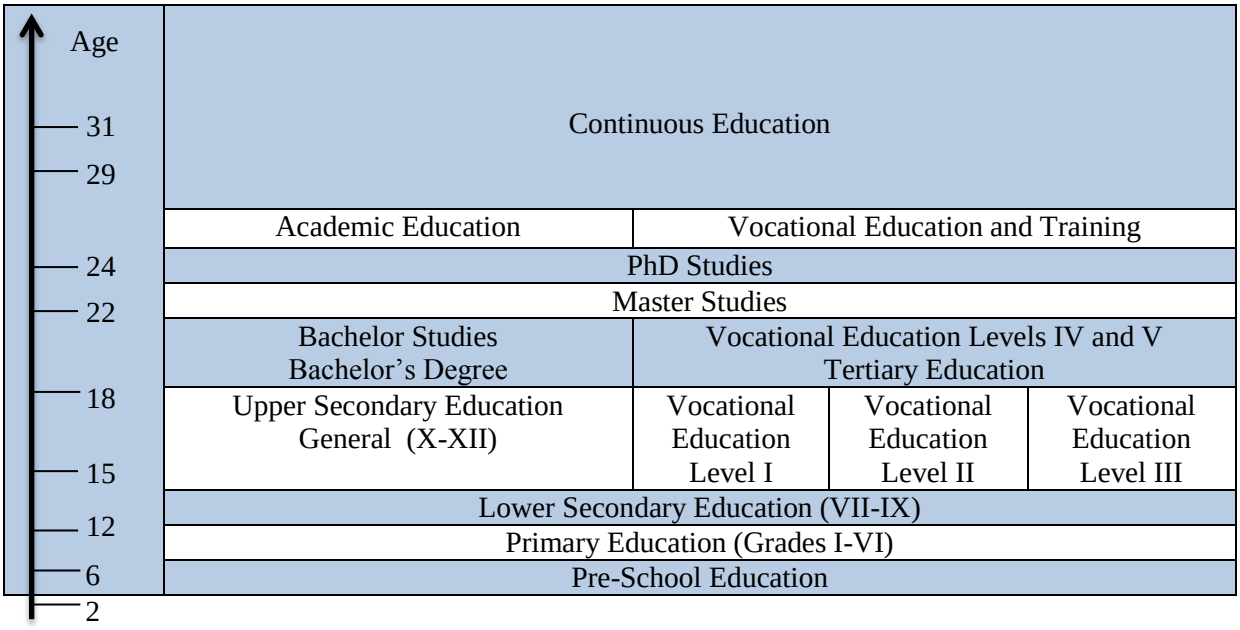
4.15 **The achievement of project objectives is always subject to influences beyond the direct control of the MoES management.** It will also be important to monitor this 'external' environment to identify whether or not the assumptions that have already been made are likely to hold true, what new risks may be emerging, and to take action to manage or mitigate these risks where possible. A Risk Analysis and Management Matrix should be built once the main characteristics of the priority programs of the strategy are fully defined.

Annexes

Annex 1: The structure and institutional setup of the education system

Georgia's National Qualifications Framework[59] consolidates and defines qualifications at all levels of the education system. General education system consists of non-compulsory pre-school education (2-5/6 years[60]), compulsory education (9 years: 6-12 years/grades 1-6 for primary education and 12-15 years for lower secondary education/grades 7-9) and upper secondary education (15-18 years/grades 10-12). After completing the compulsory basic education, students can choose to enroll in vocational education (levels1 to three according to the European Qualifications Framework), 15-18 years). Students completing the third level of VET can choose to continue studies in the subsequent levels (levels 4 and 5). For some programs, the occupational standards require to have general education diploma in order to enroll in VET programs 4 and 5. Higher education consists of Bachelor's Degree (4 years), Master's Degree (two years) and PhD (3 to 6 years). Students are required to successfully pass the unified university entrance examinations (UEE) for progression to the academic stream of higher education.

Figure1: Structure of Georgia's Education System



The Ministry of Education and Science (MES) has the overall responsibility for education policy formulation and control over its execution while some of the key implementation functions are assigned to the Legal Entities of Public Law (LEPL). The MES has the primary responsibility for the policy and management of the education sector in Georgia. Nonetheless, some of the core functions such as examinations and assessment, teachers' professional development, quality assurance, educational infrastructure development, science development, education statistics are implemented by the specialized semi-autonomous LEPLs under the umbrella of the Ministry, as presented in Figure 2 and Figure 3 below. These institutions receive financing from the state budget but also generate revenues through their activities. The National Examination Center (NAEC) is

[59] Adopted by the Ministry of Education and Science (MES) Decree N120/N on December 10, 2010.

[60] Amendments to the law on education in 2010 reduced enrolment age in primary education from 6 to 5.

responsible for administering school leaving examinations, teacher certification examinations and international assessments of learning outcomes. The National Center for Educational Quality Enhancement (NCEQE) is responsible for authorization and quality control of educational institutions. The National Center for Teachers Professional Development Center (NCTPDC) sets teacher standards, certification requirements, and administers professional development programs. The Central Education Management Information System (EMIS) collects data on general education and is responsible for ICT infrastructure development in the sector. School Infrastructure is managed by the National Agency for the Development of Education and Science Infrastructure.

Figure 2: Institutions involved in Georgia's education sector governance

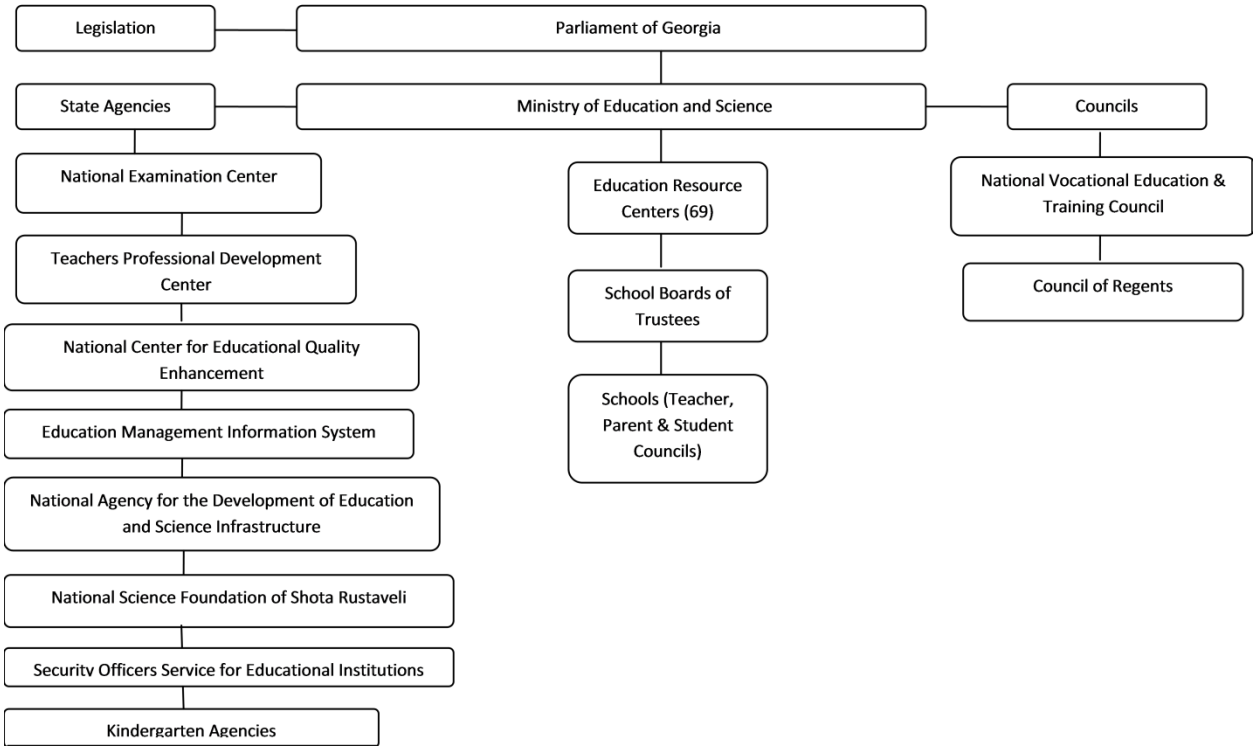
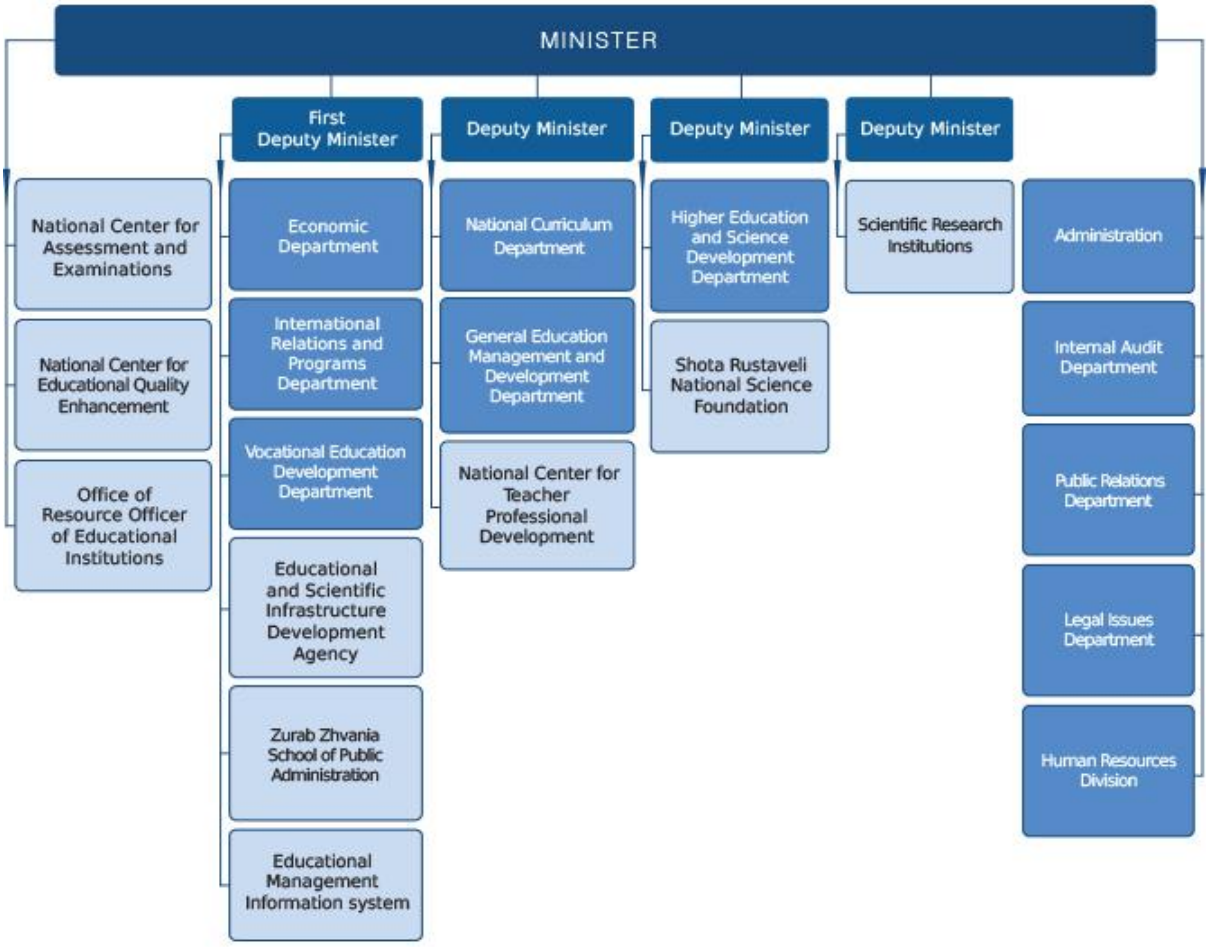


Figure 3: Organizational Chart of the Ministry of Education and Science



Annex 2: Statistical Information

Box 1

Poland

In 2012, Poland was among the top performers across the whole world in the PISA survey, which assesses 15-years-old students. Poland's average score (across reading, mathematics and science) was 520 points, above both the OECD average and also that of most countries in the EU. It is also more than 40 points above the country's average score in 2000, when PISA's first wave was conducted. This unprecedented leap in education quality is equivalent to the knowledge acquired in one extra year of education.

In 1989, when Poland started its transition towards a market economy, no one could have predicted it would become one of the greatest examples of successful education reforms. Prior to that, the system had been focused on preparing youth for jobs. Vocational education was considered a safe, stable path to life-long employment, in particular for the disadvantaged. Students were streamed into different types of schools at the age of 14 or 15 (after 8 years of general education). The track was defined by a stringent placement exam and the streams were (i) two-year basic vocational schools run by sector industries, (ii) two-year technical schools, or (iii) three-year general secondary *lyceum*. After 1989, many of the industries stopped funding vocational schools, as a result of which some vocational schools were converted in general or technical schools. Moreover, in the 1990s the importance of teaching basic, general skills had already been recognized and a four-year technical lyceum, that included general and technical education, was introduced.

In the late 1990s, a concerted effort to promote structural reforms led to a major education reform. Its objectives were to: (i) increase secondary and higher education qualifications, (ii) ensure equal education opportunities and (iii) improve the quality of education. In order to accomplish these goals, the structure of the education system was changed to ensure that students would attend at least 9 years of general education (6 years in primary and 3 years in lower secondary) before being streamed into 3 additional years of academic or vocational education. This provided all students with an additional year of academic studies. In addition, a new core curriculum for lower secondary education was introduced to raise the level of education and expectations (previously, most students were expected to go to basic vocational education). Curricular standards were set at the national level, but curriculum development was decentralized to the local level, engaging teachers and helping to change the teaching philosophy and culture of schools. Finally, an accountability system to monitor results was put in place. External examinations at the end of primary, lower secondary and upper secondary education were introduced.

The results are impressive and came about quickly. Poland's PISA score jumped from an average of 479 to 497 between 2000 and 2003(The students tested in 2000 had already been streamed in different types of schools while after that most students were still in lower secondary). Very importantly, the results were not concentrated among the top performers although they also improved. In 2003, 21.4 percent of the Polish had not acquired the basic mathematical skills by the age of 15. In 2012, this figure had dropped to 13.8 percent. At the same time, only 8.1 percent were considered top performers in 2003 while 15.4 percent reached that level in 2012.

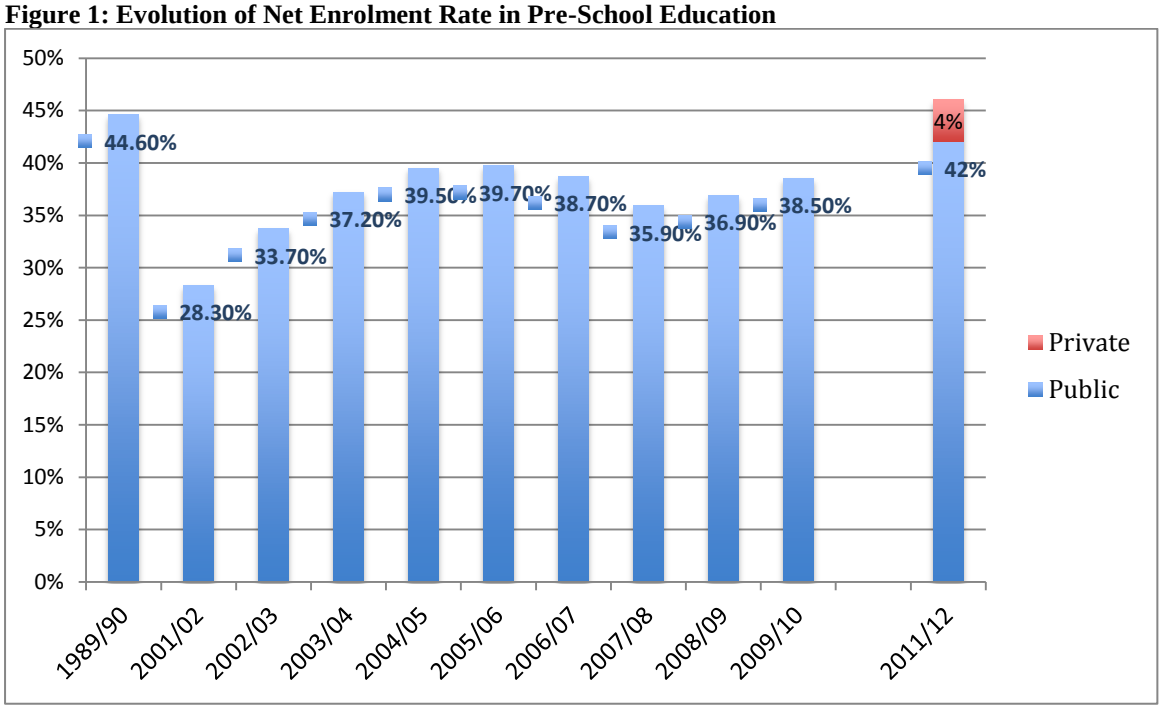
The story of Poland provides an invaluable example of how smart reforms, if well implemented, can lead to positive outcomes in the medium term.

Table 1: Students' performance in PISA 2009+ by school location and family characteristics

Population characteristics	Mathematics	Reading	Science
School's legal status			
Private school	435	435	424
Public School	376	371	370
School Location			
Village	355	347	353
Town	377	364	371
Small City	387	386	380
City	391	385	385
Tbilisi	404	402	389
Number of Books at Home			
0-10 Books at home	324	319	332
201-500 Books at home	427	426	414
Parents' highest education attainment			
None of the parents with higher educat	362	356	358
Both parents with higher education	422	420	419
National average	**380**	**374**	**373**

Source: Team calculations based on PISA 2009 Results

Figure 1: Evolution of Net Enrolment Rate in Pre-School Education



Source: UNICEF estimates based on official sources (IHS by Geostat NCAC, MoES and TransmonEE2012 database)

Table 2: Preschool Enrollment Gaps by Regions from 2003 to 2012

	Gross Enrolment Rate (%)			
Regions	2003	2006	2009	2012
Regions				
Samtskhe and Javakheti	8	14	28	31
Achara	14	14	47	50
Lower Qartli	12	23	42	43
Mtskheta and Tianeti	20	27	65	71
Imereti, Racha and Lechkhumi	22	18	62	67
Samegrelo and Upper Svaneti	23	34	71	67
Kakheti	18	21	55	75
Inner Qartli	13	11	26	44
Guria	7	12	39	63
Tbilisi	26	35	55	77
Total	19	23	52	63

Source**:** The World Bank Poverty Assessment in Georgia based on the national Integrated Household Survey. Team estimates based on the National Integrated Household Survey of 2009, 2010, 2011, and 2012.

Table 3: Average tuition fee as a share of GDP per capita at public and private Higher Education Institutions in the countries charging tuition fees

Selected countries	**Public institutions**	**Government dependent private institutions**	**Independent private institutions**
Australia	12		25
Netherlands	4		
United Kingdom		13	
United States	13		48
New Zealand	11	15	
Austria	2	2	1-30
Norway			9
Iceland		8-22	27-41
Belgium (Fr.)	2	2	
France	1-4	3-24	3-24
Ireland	8-27		
Italy	4		14
Mexico			37
Poland			11-14
Portugal	5	21	
Slovak Republic	12		
Spain	3		
Switzerland	2		17
Japan	13		21
Korea	20		35
Kazakhstan*	33		27 -271
Georgia	**37**		**37-200**

Source: Salmi and Andguladze, 2011

Table 4: Breakdown of employed students by workload

Breakdown by workload per week	%
20 hours and less a week	18.8
21-40 hours	23.7
41-60 hours	45.6
More than 60 hours	5.1
Depends on a period (season)	6.9

Source: IHS 2012

Table 5: Income structure for public and independent HEIs: Share (%) of various funding sources in the university budget

Funding sources	Tbilisi (Iv. Djavakhishvili) State University	State Medical University	Georgian Technical University	Ilia State University	Kutaisi (Tsereteli) State University	Btumi (Rustaveli) State University	Sokhumi State University	Gori state University	State Conservatory	Akhaltsikhe State University	Institute of Drama and Theatre
State lump sum funding	10	5	0	12	3	19	0	2	98	12	3
State Excellence stipends for students	1		0	1	1	1	1	0			0
National Research Foundation	4	1	2	5	4	4		0			0
State student grant	29	55	94	16	10	7	11	70			90
Tuition from individual students	29			47	81	56	66		2	88	
Research contracts, services, rent, interest	10	21	4	10	4	2	1	0			7
Research grants from bilateral and multilateral agencies	7		0	10	0	1	0	0		0	0
Other international grants	1		0		0		0	0		0	0
Surplus from previous year	9	18	0	0	0	11	20	27		0	0
Total revenues in GEL (million)	58.3	31.9	31.4	29.4	13.1	11.1	5.5	4.9	3.5	2.1	1.5

Source: Salmi and Andguladze, 2011

Table 6: Teacher pay scheme in GEL (monthly wages)

Qualification	**Less than 5 years**	**Between 5 and 10 years**	**More than 10 years**
General education	290	303	308
Vocational education	325	339	343
BA	360	374	378
MA	395	409	413
Masters	430	444	448
Additionals			
Multi-grade	31		
Georgian culture, language, history	31		
Head teacher	76		
Certification	75		
ICT	125		
Certification (excellent scores) and ICT	1000 per month		

Source: MoES, 2013

Annex 3: Review of Higher Education Financing Options and Accountability Instruments

Financing Mechanisms

After identifying its main policy objectives (access, equity, quality, labor market relevance, etc.) for Georgia's higher education system, the Ministry of Education and Science should reassess how its current funding model fits or aligns with those objectives. Specifically, the MoES may want to consider diversifying its financing methods to serve as policy instruments to help steer the higher education sector towards the national priorities in higher education. The table below shows different financing mechanisms, none of which are mutually exclusive) that could be used, for example, to facilitate research and innovation, improve the quality of teaching and learning, facilitate knowledge transfer, and make universities more socially inclusive. These financing instruments are:

- *Competitive grants*: Well-designed competitive funds can greatly stimulate the performance of higher education institutions and can be powerful vehicles for their transformation and innovation – all while still respecting the diverse profiles of institutions within the system. Competitive funds are typically established for the purposes of improving quality and relevance, promoting innovation, and fostering better management.[61] Competitive grants can be used to facilitate research and innovation and improve the quality of teaching and learning. According to Salmi and Hauptmann, one way of improving quality through competitive research grants is to use quality improvement as a criterion in evaluating proposals and selecting recipients. In Georgia, competitive grants can also be used to encourage cooperation between more resourceful universities in Tbilisi with universities in the regions, or cooperation with foreign universities to develop and deliver joint programs and conduct joint research.
- *Priority based funding formula: T*he traditional way for funding relevance occurs when central bodies determine which programs to fund based on their determination of relevance. The Ministry introduced priority based funding in 2013: priority programs identified by the Ministry receive state funding based on the number of students enrolled. This financing instrument can be effective in increasing the relevance of TE programs. Together with priority fields (such as engineering, education, etc), the government could use the funding instrument to increase the attractiveness of tertiary level type B programs. However, identification of priority programs should be based on valid criteria and reliable labor market data.
- *Performance contracts:* This financing mechanism is aimed to articulate explicitly the agreement between the government and universities. The mutually-agreed upon contract details the expectations (degrees awarded, research output, etc.) the government has for the institution receiving state funding. While there may be financial incentives for exceeding expectations, there should also be financial penalties for failing to meet expectations. This funding instrument can be used together with competitive grants to reward the universities with high performance on research and innovation or knowledge transfer.
- *Needs based grants* are used to remove financial barrier for poor students. Currently Georgia provides partial and full needs based grants for some 4 percent of the student population. Existing poverty assessment infrastructure provides a good opportunity for Georgia to identify the target population: potential beneficiaries can apply for assessing their need and based on the assessment, students will become eligible for the means tested state grant.
- *Subsidized student loans:* The experience with student loans has been mixed. Some student loan schemes have been successful in meeting its goals and also maintaining high repayment and recovery rations. Georgia has the experience of offering subsidized student loans. In 2008, the

[61] Salmi and Hauptman, 2006

Government introduced "Tsodnis Kari" program. The program offered subsidized student loans for Georgian citizens to study in graduate programs abroad. The program awarded 54 loans through five commercial banks. The recovery rate of the loans has not been investigated and it is hard to judge about the effectiveness of the program. The issue of subsidized loans needs to be further investigated in terms its potential for lifting financial budget for some groups of students. Traditionally, student loans schemes were designed for poor students. In Georgia, however, subsidized student loans can also be targeted towards non-poor students enrolled in programs that have potentially high individual rate of return. This way the scheme will target the students who are more likely to be able to pay for the loans after graduation.

- *Portable student grants*: the principle of portability is to give students the freedom to take the grant or scholarship to the institutions of his/her choice. This has indirect impact on the quality of teaching and learning because it gives the students the voting power in favor of the universities that offer better quality education. Georgia's student grants scheme is based on this principal. However, in order for the principal to be realized, applicants and students should have reliable information on the quality of teaching and learning in Georgian universities.

- *Merit based scholarships*: The scholarships that reward students for good performance at university have positive effect on students' engagement in education. Georgia introduced merit-based scholarships in 2009. Students are ranked according to GPA and the students with the highest GPAs receive scholarships. Unlike merit based grants, merit based universities administer the scholarships: the Ministry distributes a certain amount among universities based on the size of their undergraduate student population. However, this instrument is effective only if students' learning is assessed in a reliable and objective way and motivates students to perform well. This aspect of the Georgian merit based scholarships needs further investigation. Embedding the scholarship recipients' success in the labor market and further education as well as students' attitudes towards the university policy in awarding the scholarships as indicators in TE accountability instrument would help inform universities and improve their assessment practices.

Table 1: Financial Mechanisms by Strategic Priorities

Strategic Priority	Financing Mechanism	Enabling Conditions
Improving Quality of Teaching and Learning	Merit based student scholarships based on student achievement during their performance in a university Competitive research grants	- TEI accountability mechanism measuring the quality of teaching and learning
Improving Relevance: graduates meet labor market needs	Priority-based funding formula Performance based contracts	- TEI accountability mechanism measuring TEI graduate employment related indicators - Labor market information system to identify and project labor market needs
Increasing Research and Innovation Capacity:	Competitive grants Performance contracts	- TEI accountability mechanism measuring TEIs by research and knowledge transfer indicators
Increase equity and access: increase the share of traditionally underrepresented groups	Needs based grants Student loans	- Reliable and transparent mechanism to assess need - Reliable labor studies to project students' employment chances and salaries after graduation

Source: The authors' adaptation based on Salmi and Hauptman, 2006

Accountability Instruments

Accountability mechanisms that are developed through consensus among the major stakeholders and are concentrated on measuring HEIs according their outcomes can serve as the major driver for the improvement of the quality, equity, effectiveness, efficiency, and relevance of HEIs. The HEI outcome indicators should be related to the role the TE system should play in national development. The indicators should be built and modified with participation of stakeholders and the performance of higher education institutions should be measured by an independent agency.
Recently developed European classification and ranking instruments provide a very good example for Georgia as well as the opportunity to join this initiative. In 2005, researchers at the Center for Higher Education Policy Studies (CHEPS) piloted their first European classification of tertiary education institutions – the U-MAP, which groups universities in homogenous groups according to indicators in 6 dimensions. In 2010, U-Multirank was developed which ranks universities according 5 of the 6 U-MAP's dimension indicators. U-Multirank ranks universities according to the following indicators under the dimensions of teaching and learning, research, knowledge transfer, regional engagement and general indicators such as percentage of online programs, size of an institution etc.

Joining U-Multirank initiative would serve multiple purposes for diverse audiences - HEIs, students, employers, policy-makers, and researchers - in the following way:

- Higher Education Institutions will be better able to develop and communicate their missions, to show their profiles to stakeholders and to engage more effectively in partnerships, benchmarking and networking.
- Students will be better able to identify their preferred higher education institutions and make better choices regarding their study programs and labor market perspectives.
- Business and industry: the classification reveals which types of institutions are of particular interest for them, facilitating easier creation of mutual partnerships and stronger relationships.
- Policy-makers in governmental and other contexts will benefit from a deeper insight into institutional diversity. National and European policies for higher education cannot be based on a 'one size fits all' approach. Instead, policies need to be attuned to diversity in such a way that they can be made to work most effectively.
- Researchers and analysts**:** A classification serves as a methodological tool for researchers. It will provide analysts and other experts with more insight into institutional diversity both methodologically and analytically which will assist them in policy analyses, international comparative studies, and institutional benchmarking studies (van Vaught et al 2010).

Table 2: U-Multirank Dimensions and Indicators

Dimension	Indicators
Teaching and Leaning	
Expenditure on teaching (%)	Percentage of expenditure on teaching
Graduate Students (%)	Percentage of graduate & post graduate students (master and beyond)
Scope	Degree of comprehensiveness/specialization measured by the number of broad subject areas offered
Level of study	Degree levels at which the institution awards degrees
Broad Subject Area	Broad fields of study in which the institution offers programs
Research	
Expenditure on Research	Percentage of expenditure on research
Professional Research Publications	Number of professional publications (self-reported data)
Academic research publications	Number of research publications (bibliometric data)

Knowledge Transfer	
Income from Private Sources	Percentage of income from private sources
Patent Publications	Number of patent applications
International Orientation	
Income from International Sources	Percentage of income from foreign sources
Foreign degree seeking students	Percentage of degree seeking students with foreign qualifying diplomas
Regional Engagement	
Income from Regional Sources	Percentage of income from regional sources
New entrants from the region	Percentage of first year students from the region
General	
Size of an institution	Number of students (head count)
Legal Status	Legal status of the institution
Age of an Institution	Foundation year of the institution or its oldest constituent part
Percentage of Online Programs	Online programs as a percentage of all degree programs

Source: www.u-multirank.eu

U-Map and U-Multrirank choose universities as data providers. The reason, as the authors explain (2010), is that international databases comprising comparable data at the institutional level do not exist or cover only a very limited part of the data needed. In many countries national databases exist but they are not comprehensive and, even more importantly, are seldom disaggregated to the institutional level, which makes their use problematic. This implies that the higher education institution is the central source of information for the classification tool (CHEPS, 2010).

The main instrument to collect data from the higher education institutions is the on-line questionnaire for higher education institutions. The questions in the new version of the U-Map questionnaire are organized around seven sections.

- General information: name and contact; public/private character and age of the institution
- Students: numbers; modes and age; international
- Graduates: level of degrees awarded; subjects; orientation; graduates in the region
- Staff data: FTE and headcount; international
- Income: total; sources of income
- Expenditure: total; by cost center; use of full cost accounting
- Research and knowledge exchange: publications; patents; concerts and exhibitions; start-ups

Together with the U-Multirank indicators, Georgia should use other indicators that are essential in measuring HEIs effectiveness, efficiency, relevance and equity. These indicators may include the share of various vulnerable groups in an institution, student engagement index, students' engagement in research, graduate employment and graduate satisfaction indicators etc. (see table 3).

Table 3: Sample Additional Dimensions for an External Results Based Accountability Mechanism in Georgia

Dimension	Description	Data Source
Admissions	Data from institutions on number of new students by program and program type, place of origin (intl/domestic), prior education, etc	Institutions
Social Inclusion	Data on socio-economic, ethnic, disability backgrounds, etc. of new students	Government survey
Professoriate	Data on rank, pay & qualifications of staff	Institutions
Institutional finances	Data on income from various sources (government, students, other), plus expenditures by type (academic salaries, non-academic salaries, IT, etc)	Institutions
Student engagement/financial survey	Survey data from student which describe the quality and extent of their engagement and experiences, as well as questions about income and expenditure	Mandatory institution-al surveys, with government support
Attrition data	Data on students enrolled in previous yr who did not return & students newly enrolled who were previously at another institution	Institutional data
Graduation data	Number of graduates by program/field of study	Institutional
Graduate Survey	Following up on graduates 24 months after graduation to examine questions of employment, income, further education plans, satisfaction, etc.	Mandatory institution-al surveys, with government support
Employers survey	Survey of employers to ask about satisfaction with recent graduates, whether skills are improving or worsening, areas for improvement	Mandatory institution-al surveys, with government support

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