Educating Georgia:

an overview of

Georgia's General Education system and a consideration of opportunities and challenges

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Acronyms

CAT	Computer Adaptive Test
EMIS	Education Management Information System
EPPM	Education Policy, Planning and Management
ESIDA	Education and Science Infrastructure Development Agency
EU	European Union
FSU	Former Soviet Union States
GCAT	Georgian Common Admission Test
GDP	Gross Domestic Product
GEL	Georgian Lari
GeoStat	National Statistics Office of Georgia
Gov	Government
ICT	Information and Communications Technology
IEA	International Association for the Evaluation of Educational Achievement
IEMT	Inclusive Education Multidisciplinary Team
ILP	Individual Learning Plan
ISSA	Social Studies and Analysis
ISSA	Institute for Social Studies and Analysis
IT	Information Technology
K12	Kindergarten to 12th grade
LEPL	Legal Entity of Public Law
M+E	Monitoring and Evaluation
MA	Master of Arts
MCC	Millennium Challenge Corporation
MCA	Millennium Challenge Account
MDF	Municipal Development Fund
Mln	Million
MoES	Ministry of Education and Science of Georgia
MoESCS	Ministry of Education, Science, Culture and Sport of Georgia
MoLHS	Ministry of Labor, Health and Social Affairs of Georgia
MP	Member of Parliament
MRDI	Ministry of Regional Development and Infrastructure
N	Number
NAEC	National Assessment and Examinations Center
NCAC	Curriculum and Assessment Center
NCEQE	National Center for Educational Quality Enhancement
NDI	National Democratic Institute
NFA	National Food Agency
NGO	Non-Governmental Organization
NNLP	Non-entrepreneurial Non-commercial Legal Entity
OECD	Organization for Economic Cooperation and Development
OSCE	Organization for Security and Co-operation in Europe
PDO	Public Defender's Office

PIRLS	Progress in International Reading Literacy Study
PISA	Program for International Student Assessment
PPP	Purchasing Power Parity
R^2	Coefficient of determination
SAO	State Audit Office of Georgia
SEN	Special Educational Needs
SGE	Standardized Graduation Exam
STEM	Science, Technology, Engineering and Math
TALIS	Teaching and Learning International Survey
TEDS-M	Teacher Education and Development Study in Mathematics
Thsd	Thousand
TI	Transparency International
TIMSS	Trends in International Mathematics & Science Study
TPDC	Teacher Professional Development Center
TSU	Tbilisi State University
UK	United Kingdom
UNE	Unified National Exam
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNM	Unified National Movement
USA	United States of America
USAID	United States Agency for International Development
USD	United States Dollar
VET	Vocational education and training
WB	World Bank
Yr	Year

Key Conclusions and Recommendations

Georgia has a once in a generation opportunity to transform the education system in a relatively short period of time. The government has commitment to dramatic budget increases, as well as to large changes in the body of teachers, teacher evaluation and development, methodology and school management as well as large new investments in infrastructure. Together, this is an opportunity to create an education system that is unrecognizably better in 10 years from where it is today.

There is also a big risk. The government has committed to spending money and has brought through initiatives and major changes in almost every aspect of the teaching system. Some of these are almost shockingly bold. However, all of this money and all of this change, creates huge opportunities for waste, and poorly considered policies to create massive change which are not well implemented, could certainly see educational outcomes decline.

This project was intended to provide a general overview of the current state of the general educational system in Georgia, using current available evidence, to inform debate on the reforms that are taking place and highlight the strengths and weaknesses of the system as well as the opportunities and the risks that the current reforms represent.

Strong marketing for new teachers and inducements to ensure that new entry into the profession is super competitive

No-one doubts that the most important element of any educational system is the quality of the teachers. In the most successful education systems, the competition to get onto teaching programs is fierce, attracting the most capable students, training them well and resourcing them and supporting them to succeed.

One of the big criticisms of teaching in Georgia is that because of low wages and poor work conditions there was little competition for teacher training positions, so that teacher training was done in relatively small numbers and attracted some of the lowest scoring students. Due to incredibly low turnover in the teaching body, even this small group often could not find teaching jobs. This further undermined the incentives for people to train as teachers.

Both sides of this calculation have changed recently. With salary increases in recent years, a trained teacher, working full time, now makes around 1000 GEL per month. This is a fairly attractive salary in Georgia, and in rural areas would make someone a relatively highly paid professional. Also, with huge investments in infrastructure, new training programs and professional development initiatives, both the working environment and atmosphere of professionalism are likely to go up. It also seems obvious that teaching can bring great personal rewards, in terms of job satisfaction and status, particularly in a culture with a deep respect for learning.

At the same time, this year began a (probably decade long) process, which will see a high demand for teachers across the country. By incentivizing teachers who are over the retirement age to finally step-down, the Georgian Government created 5000 teaching

vacancies in September 2019. There may be similar numbers of vacancies created again in 2020 as many teachers are forced to leave who cannot pass the competency exam, and as an aging work-force continues to retire.

Therefore, teaching as a profession is becoming a more desirable profession to enter, at the same time that places for new teachers are becoming available. This is already having an impact on recruitment – with universities reporting an increase in demand for teacher training places. However, the number of teachers being trained is currently too low to match likely demand, so the government needs to focus on increasing the number of trainee teachers, at the same time as it ensures that competition for those places increases and the very best students are absorbed into the profession.

As a starting point, this could be helped with a huge public relations push from government and stakeholders. However, marketing about higher salaries is not enough. Stakeholders need to work together to make sure that becoming a teacher is seen as an important, meaningful and rewarding job – that is also (dare we say it) *cool*.

Advertising about the opportunities offered by the teaching profession in schools and universities should occur alongside efforts to recognize and reward the best and most successful teachers. There should also be more effort to encourage promotion of teachers into the 'lead' and even 'mentor' positions. At the moment, these groups are less than 1% of the teaching body. An aggressive push to further train the most successful teachers should also go alongside an increase of the profile and support for school principals. Together, this could also highlight to aspirants that becoming a teacher provides for a potentially rich and diverse professional career path.

At the current time, many of the 1yr 60-credit conversion courses are free, but these are mostly utilized by existing teachers who want to use the study as a means of becoming senior teachers. On top of this, to increase competition, 5yr teacher training should also be free, for pre-specified number of places.

Going even further, to ensure that teacher training is attractive to people from the rural communities who find it hardest to recruit, there should be living allowances for some of the trainee-teachers, particularly if they come from under-represented communities or if they will specialize in one of the most needed subjects. This should be structured so that it is only paid to teachers who remain in teaching for 5 years, most obviously as an interest-free loan that is written off under certain circumstances by the state.

As long as one is getting the best students to become teachers, one needs to ensure that they get the best possible teacher training and professional support in their first few years as teachers. This could be challenging, given the variability of the schools into which they will be entering, therefore, one needs to be creative about how to provide support structures – within the cohort and with experts and other educationalists across the country.

Evaluation and testing, of students, schools and teachers

With so much changing in the educational system, evaluation of results is even more vital than usual. Unfortunately, there are very few measurement mechanisms in place to allow us to confidently track the reforms, to ensure that they are creating the results desired. Students only face standardized exams, if and when they try and get into university. Teachers are being recruited in record numbers, but the teacher evaluation system only externally evaluates teachers if they are trying for promotion. A new school model is being rolled out, when the system lacks even very basic tools for assessing individual school success and failure.

As a starting point, evaluation of students, teachers and any reforms needs all students to take certificate exams which are transparent and trusted and which have an impact on the students lives. This is already the case with the Unified National Exams but, unfortunately, these current exams are only taken around the time of graduation and only serve to facilitate university entrance.

In-line with key recommendations from OSCE earlier this year, instead of the Unified National Exam, there should be a School Graduation Exam that is also used as at least part of the criteria for university entrance. This should be far more condensed than the Graduation Exam that was just abolished, but should include a combination of core and elective subjects.

It is also worth considering a year-9 certificate exam (or year 10, when that becomes the earliest point of school departure), that students take to help guide them on future paths to take. This would then be a part of a final evaluation for students who exit full-time education at that point. Alongside this external exam, teachers should produce a standardized yearly report card. This is another recommendation of the OSCE report and allows the education management information system to track the evaluation of students.

Teacher evaluation also needs to become more systematic, with a larger external component. Teacher evaluation methodologies have evolved in recent years, and some of the innovations have been applauded for providing a minimum metric for assessing competency. However, the only element of outside evaluation is the teacher exams, and the 2015 adjustments to the 'schema' system made this less important so that now it is possible for teachers to become qualified (as 'senior' teachers) while only passing one of the two teacher competency exams.

At a school level, information on teachers and students needs to be aggregated with data collected by resource centers and other metrics – like the socio-economic circumstances of students, and evaluation of the infrastructure, to start a system for evaluating and scoring public schools. No government agency is ideally placed to undertake this task at the current time. The National Center for Education Quality Enhancement, is supposed to be responsible for school accreditation, but has never accredited public schools. It has nothing like the levels of staff, or the right processes to do this.

In the first instance, this should not be seen as accreditation, since there is no point in pretending to accredit schools that cannot be closed if they fail accreditation. The priority should, therefore, be to use a system of school evaluation, in the first instance, to identify the

schools that are most in need of direct intervention and work on ensuring that all schools meet a minimal standard.

To assess policy generally, the Ministry needs to develop a monitoring and evaluation unit, with a broad responsibility to assess reform efforts, using methodologies that are as scientifically rigorous as possible. These would use centrally collected data on a range of metrics collected by the Ministry, as well as international testing that should be continued. On top of that, the new agency would conduct research on proposed new innovations before piloting them. This would allow for the proper piloting of approaches, with a clearly defined M+E structure, to demonstrate a positive effect before broad roll-out. It would also act as an additional source of confidence that reform generally is going in the right direction.

Infrastructure reform

Infrastructure improvements are needed in many if not most Georgian schools, with schools in rural areas facing particular problems with heating and sanitation. The Millennium Challenge Compact conducted a physical infrastructure assessment of all of Georgia's 2000 or so public schools, though the results of this have not been publicized. This suggested that the overall cost of improving this infrastructure to an acceptable level was about GEL 1.5 billion or a little more than USD 500 million. Given the spending increases that have been promised by the government, it should be easily possible to bring Georgia's schools up to the level envisaged by this assessment within a few years.

However, at the current time, even with a large World Bank loan, the spending for 2020 is below the level needed. Also, some of this work has been decentralized to municipal government, others parts are run by the Ministry of Education or the Ministry of Regional Development and Infrastructure's Municipal Development Fund.

The problem with this diversified approach is that there seems to be no strategy for school renovation and while the piecemeal approach that seems be taking place, will undoubtedly result in schools being fixed, it may not fix those most urgently needing repair first, and may lose out on economies of scale.

More importantly, before engaging in a massive renovation campaign, it is necessary that the government review the overall stock of existing schools and identify which schools need to be consolidated, and how to do this in a way where it will create immediate benefits for all communities. Small village schools are undoubtedly the core of many villages and there will be considerable resistance to closing any of them. However, according to our preliminary analysis, significantly more than half of the schools in Georgia, even in rural communities, are less than 10 mins drive from a neighboring school. At the same time, there are more than 500 schools with fewer than 50 students, which makes it almost impossible to recruit specialist subject teachers and means that the per-student cost of renovation is considerable.

It also seems important that all of these discussions should be as public and transparent as possible, so that people are as convinced as possible, that decisions that are made are done so on a reasonable metric, rather than out of favoritism, corruption, nepotism or political

convenience. All of the data on the MCC review, should therefore be public and easily accessible, and once a strategy for infrastructure renewal is developed, it should be widely consulted-on before moving forward.

The system should work harder to compensate for inequality

Income is the biggest determinate of educational outcome, and most analysis of Georgia's educational system suggests that the division between rich and poor is increasing. While this variation is not as large as in developed countries, there is very little in the Georgian educational system to counteract it. More should be done to attract high quality teachers to low income, rural and isolated areas, including higher salaries. Also, university entrance scholarships should not only be awarded almost entirely based on test scores – which result in most of the money going to wealthier families. An equitable scholarship system, should also factor-in indicators for wealth.

Ethnic minorities and the disabled do even worse than poor families, since they often combine financial difficulties with other challenges. For ethnic minorities and ethnic minority schools, again, there need to be inducements to bring higher caliber multi-lingual teachers (probably from cities) and both physical access and financing need to improve for children with disabilities.

The only obvious gender disparity in Georgian general education is that girls do better across the board and that boys, particularly from socially vulnerable backgrounds, face particular challenges. However, there are issues with the inclusion of girls and women later, since even though Georgian girls do better than boys in maths and science, they remain under-represented in lucrative Science, Technology, Engineering and Maths (STEM) university education. This needs continued proactive effort to counteract.

The improvements described above will need more resources to be spent on education. A Millennium Challenge Compact review of all of Georgia's schools, estimated that infrastructure spending of 1.5 billion GEL, would be needed to bring Georgia's schools up to an acceptable minimum infrastructure standard. Current projected spending on educational infrastructure for 2020 is about 220 million GEL. If this level were to double, then all of the renovation could be done in 5 years.

Increasing the salaries of all the teachers in Georgia to the level of current senior teachers, assuming that they are all required to qualify, or replaced by others that do, will cost 100-150 million GEL per year.

A year or so ago, the government committed that 6% of GDP and 25% of general government spending would go on education. To get to that level the government would have to roughly double spending from the 2020 projected level. This would involve an additional 750 million GEL or so, spent on general education, every year.

This amount, if it were achieved, would therefore be more than enough to allow for the improvements in teacher salaries and infrastructure that the country certainly needs.

However, at the moment, we are a long way from this target. Ministry spending on education (excluding culture and sport) currently stands at only 2.6% of GDP, and as such is low compared to most other countries in the region. What is worse, this did not change significantly in 2020, though there have been large commitments, outside the Ministry of Education, for infrastructure.

While 6% is a great target, even reaching 4% of GDP would mean a 50% increase in current spending levels. This would probably cover most immediate needs. However, it is important to stress, that no amount of spending will be sufficient to create the change that is needed. Along with additional resources, there needs to be a strong commitment to engagement with teachers, schools and communities, to help attract teachers into schools, ensure that they are supported in their development, and a strong evaluation system for ensuring that these and other reforms are producing the results that they promise. Only then, will Georgia get the education system that it deserves.

Executive Summary

Attitudes to the educational system in Georgia are extremely polarized. On the one side, Tbilisi elites and some policy experts are almost universally negative about most aspects of the system. They routinely point to Georgia's low ranking in international tests of student skills, teachers who persistently fail tests of competency, poor infrastructure, out of date teaching methodology, an aging teaching body, and much more. On the back of these attitudes, increasing numbers of Georgians send their children to private schools and educated elites bemoan a system in disarray.

On the other side, parents of children who go to public schools have a fairly positive view. They assess schools and teachers positively and generally agree that the education system has improved in recent years.

Often acknowledging some of the more negative assessments, the Georgian Government has spent a huge amount of energy, political capital and finances, trying to improve the system. Significant increases in spending on education have already doubled spending twice in nominal terms since 2006. At time of writing, while the 2020 budget has only seen modest increases, the Government still plans a huge cash injection, effectively doubling education spending from its current level to 6% of GDP or 25% of government spending.

For sceptics regarding educational reform in Georgia, all of this spending could be a waste of money, or worse, could actually set up incentive structures that makes reform harder. For parents, there seems to be no eager rush to radically change the system – and the financial injection promised by the government is appreciated to fix infrastructure and to provide an overdue reward for long-suffering teachers.

However, these differing views seem to exist with relatively little reference to evidence. This is unfortunate as there has been a surge of research on education in recent years, particularly conducted by and for international organizations. There are thousands of pages of international studies that have been written on Georgia's education system, which are based on tens of thousands of interviews and student tests, as well as government data on the structure of schools, finances, policy, teachers and students.

This report tries to bring together the analysis of all of this recent research. It aims to provide an 'explainer' for interested non-experts, on how the Georgian education system works, and draws together existing data to offer some preliminary conclusions in many areas. This is intended to help support a more informed public debate and offer some priority areas for discussion.

Student performance

The report starts by looking at the international surveys that have been done in recent years. We look at 5 different test/survey systems. Three of them, PISA, TIMSS and PIRLS focus on

student skills while TALIS and TEDS-M focus on teachers and methodology.[1] Each of these studies are done with standardized testing and surveys across multiple countries and are overseen by international experts. As such they offer great insights into what might be happening in the Georgian educational system.

Most analysis of these studies simply focuses on the fact that Georgia ranks relatively low compared to other countries. However, that should not be surprising, as Georgia is one of the poorest countries who do these international tests. If one takes into account its relative poverty, Georgia is generally around the attainment level one would expect for its level of income, nudging above expectations in the 2015 PISA and below in 2018, but in neither case an extreme outlier.

It is hard to know, however, if we are heading in the right direction or not. According to most assessments, between 2009 and 2015, Georgia saw significant improvements, with PISA scores going up faster than in any other country they test. TIMMS also shows a significant improvement over the same period. But a recent PISA score that came out in December 2019 shows that the country has dropped back significantly, losing most of the earlier gains. While there are some early indications that this later result might be partially explained by changes in the methodology, it does place us in a situation of uncertainty.

Putting to one side differences between different results, where the results agree is that the biggest correlate of success in Georgia, is economic. The better the socio-economic situation of the student's household the better, on average, that student will do in school and in standardized tests. This largely explains why urban schools do better than rural schools and why private do better than public.

The international tests also uncover some other interesting correlates of educational attainment. The biggest factor correlating with success in science, for example, is whether the child, generally believes in 'scientific method', generally understood to include a belief that one can uncover information by investigation, the knowledge increases overtime and that science progresses.

Interestingly, the methodology employed by the teacher did not track with results the way that one might expect. The 'student-centered' approach, actually had worse results than a more conventional 'lecture-oriented' style of teaching.

This result needs to be approached carefully, as the teaching methodology assessment is based on self-reporting, and so will certainly include biases based on what teachers think their assessors want to here. However, taken at face value, the result is perhaps not surprising, since the more 'student-centered' approach is a relatively new approach for teachers in Georgia and trying to use it may confuse more than it creates benefit. It is also not surprising

[1] Program for International Student Assessment (PISA), Trends in International Mathematics & Science Study (TIMMS), Progress in international Reading Literacy Study (PIRLS), Teaching and Learning International Survey (TALIS), Teacher Education and Development Study in Mathematics (TEDS-M)

since regions that score well in the international testing, like Asia and the former soviet space, do not generally use more 'student centered' methodology.

This, of course, should not be taken to suggest the wholesale rejection of 'student centered learning'. However, it might suggest that it is unwise to apply a 'one size fits all' approach to educational development. Different approaches may be suited to different cultural contexts and different levels of attainment. The intervention needed to help failing schools or to help students who are currently scoring at the bottom of the spectrum is different to the intervention needed to improve schools or an educational system that is already doing well.

Inclusiveness

We used these results and other considerations to look at inclusiveness in terms of low-income students, ethnicity, gender and disability.

In terms of economics, the PISA 2015 result shows that those in the lowest socio-economic quartile are 80 or 90 points apart below those in the highest quartile– which is about the same as the level of difference between a mid-income country and the most of the western countries. Similarly, a low-income student is 4 or 5 times more likely to perform at the lowest level of proficiency. The dynamic of the TIMSS results, also suggest that as well as increasing scores, the variation between rich/poor, urban/rural and public/private, is increasing.

Interestingly, however, this level of socio-economic variance is NOT particularly high compared to other countries and puts Georgia in about the middle of the international rankings. The main reason for this is that even urban and private schools score fairly poorly, compared to richer countries. This suggests that, assuming all things are equal, as wealth goes up, we would probably expect to see the variation between rich and poor increase.

Historically, there has been very little built into any of Georgia's educational funding that tries to combat socio-economic variation. Preschool participation is 70% for the country as a whole but only 40% for socially vulnerable children. Also, given that rural areas are considerably poorer, this reinforces the socio-economic variation, since rural schools are often so small that they lack full-time specialist teachers.

In Georgia success in the one main standardized test, the Unified National Exam, is strongly linked to an ability to pay for pre-test private tuition. Since this test is entirely responsible for deciding who gains state financial support for university, almost all of this support goes to richer students.

There are relatively few programs to correct for income inequality in education. Free textbooks are also helpful but offer a modest correction. One program that specifically tries to target socio-economic disadvantage to schools is the Law on High Mountainous Areas. Around 25% of schools and 7% of students (as the schools are smaller), go to schools designated as high mountainous, and so the teachers who teach at those schools receive a pro-rated 142 GEL bonus.

Another big variation in school results is ethnicity, with the same difference between Georgian schools and ethnic minority schools, as between the richest and the poorest in the country. Part of this is also socio-economic, but differences seem to persist beyond that. Only 1/3 of ethnic minority children attend preschool, which is lower than socially vulnerable children.

Clearly, ethnic minority children are triply disadvantaged, as they are generally poorer and more rural than average, but added to that, they are disadvantaged by not speaking or studying in the Georgian language. Around 5% of Georgian students go to schools that have no instruction in Georgian and another 8% to schools where it is probably the secondary language of instruction. This is extremely hard to fix in the regions, as it is hard to find enough teachers who live in the community and speak good Georgian. There are numerous programs in place to improve Georgian instruction at non-Georgian language secondary schools, as well as to provide materials for student teachers in non-Georgian languages. However, we were not able to identify any analysis on the results of these programs in terms of improved student attainment.

In terms of gender, girls score across the board better than boys. Boys who come from low income families are some of the worst performers in the country. That said, even though girls do better than boys, in science and maths, they are still under-represented in the lucrative 'Science, Technology, Engineering and Math' (STEM) subjects, at university.

Finally, we reviewed inclusion policy in disability. The number of students identified as having special educational needs, has more than doubled in the last five years, suggesting a significant and positive shift in the right direction. Special needs students are integrated into the Georgian educational system, and the legal framework exists to ensure that they have support structure and funding.

However, in practice, this often falls very short. Out of 1,235 schools that included a person with special needs, around 500 schools did not have an appropriately trained staff member to work with them. The level of training is also fairly under-developed. In terms of infrastructure, the State Audit Office (SAO) found only 17, out of more than 2000 state schools, were fully adapted to people with disabilities and only about ¼ of them have basics like wheel-chair ramps or adapted toilets. There is also no system to assess whether a school has the appropriate facilities for a student, so that some schools have facilities and no students who use them, and others have students who need facilities, but no facilities.

Attitudes to education in Georgia

As we started to mention at the beginning, one of the great curiosities of the Georgian educational system is the apparent attitudes of different groups towards it. Policy experts, even those in the government, tend to focus on the negative, with many experts acting as though the whole system is essentially a disaster.

Parents and teachers, on the other hand, offer a very complicated picture. Polling done by NDI at the end of 2018, confirms the results from PISA and PIRLS, as well as the results from

our focus groups, that when surveyed, parents are incredibly positive. 2/3 of parents say that the school their child attends is 'good or very good' with almost all of the rest saying that it is 'average' and only 4% saying 'bad or very bad'. Similarly, only around 5% of parents assess public school teachers badly. The overwhelming majority of parents also seem to think that the situation is getting better, though people living in Tbilisi are a bit more skeptical.

This positive tone of parents does seem to conflict with the behavior of those parents in terms of levels of private tutoring and private education. There is a huge trend in Georgia for parents to give their children extra tuition, out of school, and particularly in preparation for the university entrance exam. This is so prevalent that it actually increases absenteeism in the last two years of school. According to the same NDI poll, around ¾ of parents agree with the statement 'Having a private tutor is essential to pass the Unified National Exams (university entrance exams).

Levels of private schooling are also surprisingly high. Around 10% of Georgia's school student population are studying in private education, a number that has more than tripled since 2004, with the fastest growth period between 2004 and 2010. Since private schools are overwhelmingly located in Tbilisi, this means that 18% or almost 1 in 5 students in Tbilisi, go to private school. This is a remarkably high number, considering the average income levels in Georgia and must involve considerable financial challenges for many families.

It is difficult to know how to reconcile these pieces of information. Certainly, it is possible that people pay for private tutoring and still think their schools are mostly good, particularly if the university entrance exam is still seen as a specific innovation. However, it seems hard to reconcile the high demand for private education, with a faith in the public system.

Part of the explanation for this is that there is a well-known bias when you survey people about their own kid's schools. Not only do people not want to acknowledge that their children are being poorly educated, when there is nothing they can do about it, but since the parents probably went to the same school, maybe even with the same teachers, this could also reflect on them. Certainly, part of the problem is the perspective of parents as well. In addition, parents in rural areas will have known their teachers for many years and since most of Georgia is still fairly traditional, this is a group you would expect to respect.

Most of the research of this paper relates to different major aspects of the general education system, intended to facilitate an overview and help allow for a more informed debate on what is going-on and how current policy discussions relate to the problems that we can see.

The structure of the system

At the end of 2018, Georgia had around 583 000 students in general education, studying at 2305 schools. One big weakness of the system is that only about 70% of them start general education following pre-school and most pre-school has, up until now, provided limited preparation. Students are required to stay at school until year 9 and around 80% of this group stay in school until year 12 graduation. Around half of college age youth go on to university.

The size of schools differs dramatically, with an average school size of around 700 in Tbilisi, an average of a little over 600 in other cities, around 400 in towns and only a little over 100 in rural areas. This means that even though there are more schools in rural areas, the student population of nearly 600 000 students are fairly evenly divided between 1/3 in Tbilisi, around 1/3 in other towns and cities, and around 1/3 are in rural areas.

Some of the rural schools are very small. Out of 1600 rural schools, 481 have fewer than 50 students and another 433 have between 50 and 100 students.

Amongst state schools there are also prestigious specialized maths and language schools.

Around 10% of students in Georgia go to private schools. This sector has grown very quickly, having tripled in the last 15 years, although growth rates have slowed since about 2010. This population is heavily concentrated in Tbilisi, so that 20% of Tbilisi's school population go to private schools. Given that growth has outstripped growth in the economy, our research took this growth to signal dissatisfaction about public education amongst Tbilisi's middle classes, since for many of this 20%, paying for private school must be a genuine financial hardship.

Infrastructure

The state of physical infrastructure is a routine complaint amongst all different factions working on education reform, and one of the areas where large expansion in spending is expected, is on school rehabilitation. The situation is fairly bleak, particularly for rural schools.

Existing analysis by the Institute of Social Studies, found more than ½ had problems with toilets, ½ had classrooms in need of repair, ¼ had frequent water supply problems and 1/5 had heating problems in the winter.

Sanitation problems have been a particular focus of investigation, with complaints prompting a Public Defenders Office investigation. This showed that 17% of schools don't have drinking water, ¾ don't have canteens, ¾ have toilets that don't flush and 57% had toilets outside the building.

This certainly has an impact on the educational system broadly. In many discussions with parents and teachers, not only did the state of the school create concerns about whether students could study under these circumstances, there is little doubt that it is harder to recruit teachers into uncomfortable schools.

The Millennium Challenge Compact, as part of its final work, supported the evaluation of all of Georgia's schools. While this project has not been able to review all of the reports, we were able to aggregate the costs for fixing Georgia's school infrastructure. This estimated that 548 million GEL would be needed for immediate repairs, 868 million GEL would be needed in the next 1-5yrs and 149 million 5-10yrs from now. This suggests a total cost for fixing all of Georgia's schools of about GEL 1.5 billion or around USD 500 million.

This would seem to be a genuine bargain. Current spending on school infrastructure is planned to be 80 million GEL in 2019 and 2010 through ESIDA, 40 million per year allocated

to the Municipalities to repair schools and 40 million in 2019 and 100 million in 2020 given to the MRDI, though the MRDI money is only to fix 18 schools and build 20 more.

The structure of this financing seems confusing and does not seem to operate under any centralized school refurbishment plan. That would seem to be unfortunate. With the MCC school evaluations in place, it would seem to be an ideal time to assess, as a country, how to prioritize school repair and potential new school building. National rejuvenation of school infrastructure could be part of a great national narrative on education reform more broadly but, like everything in public policy, it will need some trade-offs and some discussion.

The need for rehabilitation of schools and the large number of very small schools naturally leads to the consideration of possible consolidation. It seems obvious, that the return on investment on the rehabilitation of very small schools that require major structural changes, could be pretty low.

In order to consider the practicality of school consolidation, the research project took a sample of several hundred differently profiled schools and looked at how close they were to another school and/or to another big school. We found that around 90% of village schools that we looked at had another school within 20 mins drive, with over half only 10 minutes away. Even in mountainous areas, these numbers did not change very much. So, with a widening of the use of school buses, significant school consolidation seems as though it should be possible.

The challenges of school consolidation, are mostly social and political. They are social because a local school may hold a community together and familiarity with local teachers may be extremely comfortable. As a result, closing schools is usually unpopular, particularly if they are merged with neighboring schools, as people will usually ask the question ‘why us and not them’? That makes this an intensely thorny political issue with majoritarian MPs often making ‘keep the local school open’ a part of their platform.

However, it seems like an opportunity exists to move things forward. Many of the smallest schools need to be consolidated and also need significant levels of repair and renovation. This ought to allow for a trade-off that would placate parents who might be worried about the potential downside of going to a new school – the government can promise dramatic improvements in facilities that would go along with the move.

Governance

The education system is generally governed by the Ministry of Education, Science, Culture and Sport. The addition of ‘Culture and Sport’ is the result of a 2018 consolidation. The Ministry has a department responsible for general education and also includes a range of legal entities of public law, that are responsible for central management and planning of every facet of policy, national training and qualification of teachers, accreditation of schools, management of national exams, infrastructure, text books and much more.

Local management of the schools is done by the school board and the head teacher that they select. They undertake hiring and firing of teachers and have considerable latitude in teaching, within the scope of the national curriculum. At the current time, there is no central system for evaluating schools or teachers. The evaluation of teachers is devolved to the schools, except when teachers are trying to be promoted up a grade, and students only have one centrally administered exam, the university entrance exam. There used to be a school graduation exam, but this has been abolished.

Education financing flows through the Ministry and is based on general taxation. Funds are allocated to schools based on a formula that largely centers around the number of students studying at a school. If we exclude the additional finance that has been added to the Ministry with the inclusion of culture and sport, financing of general education accounts for about half of the overall budget of the Ministry, and both have increased about 3.5 times between 2006 and 2019.

In terms of GDP, this spending has fluctuated a little, representing a low of 2.3% of GDP in 2011 and a high of 3.1% of GDP in 2017. It is currently around 10% of government spending, up from 7.4% in 2011. The planned reform to increase spending on education to 25% of the budget or 6% of GDP, would therefore require more than doubling nominal spending from the 2020 level. In fact, while up in nominal terms, the 2020 projected budget is down slightly, as a proportion of GDP and Gov spending, from 2018 and 2019.

The priorities for government spending on education, are teacher salaries and infrastructure. However, current projected spending in these areas do not come close to hitting the 25%/6% target – so still leave considerable opportunity for increased spending in other areas.

Schools with over 170 students are mostly funded based on the number of students, but schools with fewer than 170 students are resourced differently, to try and ensure that they have sufficient funds to operate. The current system seems to create some irregularities with some schools receiving 3x the resources with the same number of students. There is a sense that very small schools are highly financially constrained, but there is no metric for assessing a cut-off point, below which a school is deemed financially inviable. Private schools receive 300 GEL from the state, per student.

One of the biggest weaknesses in the current structure of governance is the lack of clear oversight. At the level of students, the Unified National Exam, which is used for university entrance, is the only one centrally administered exam and the results from this exam are not used to assess teachers or schools in any way.

Assessment of teachers has gained a range of major innovations in recent times, this were assessed positively by the World Bank, but gained a slightly more skeptical assessment from the OECD since teachers similarly lacks any central component, unless a teacher is trying to get promoted.

Public schools also have no central evaluation or accreditation system. The NCEQE which is the agency responsible for accreditation in Georgia has only ever accredited private schools and while the current law requires schools to be accredited by 2021, this seems impossible given current staffing. Also, it is hard to see how this process could work, if there is no system for fixing schools that fail accreditation.

The lack of centralized assessment of students, teachers or schools is particularly problematic at the current time, since there are so many innovations being introduced into the system, and there is now way to know what is working and what is not. This weakness was made clear in December 2019, when the most recent PISA result seemed to show a precipitous drop-off in standards.

PISA's assessment may be right, or there may be methodological flaws that have led to this decline. The problem is that there is no way to know which is the case. Either way, it seems extremely likely that there are schools in Georgia that are massively failing their students. This will almost certainly remain true, even if we make great improvements to the system as a whole. Unfortunately, at the current time, there is no way for any stakeholders to identify which ones are doing well and which are doing badly, and without knowing this, there is no way for the government to intervene and help.

Teachers

Discussions of teachers is probably the area where one sees the biggest division of opinion, particularly between the opinion of experts and the opinion of parents and the teachers themselves. Assessing the performance of teachers is extremely hard to do. A number of metrics are commonly used, including their level of qualification, the international test results, their demographics or the teaching methodologies that they employ. In this report, we do not draw any strong conclusions about the quality of teachers, but instead, lay out what we know about all of these variables, and discuss the strategies being suggested to change the situation.

At the beginning of 2019 there were around 67 000 teachers in Georgia, this is around one teacher for 8.6 students. This is a lot more teachers than one would expect. The average in OECD countries is one teacher for 12 students. However, this number is incredibly varied. IN schools with fewer than 50 students there is an average of 1 teacher for 2 students, and in schools with higher than 1000 students, the average is one teacher for every 17 students.

This is possible because only 41% of Georgia's teachers are employed full-time. 17% of teachers are employed for less than 50% of full time. This group is strongly represented in rural schools.

This group is also less qualified. The most significant dividing line between teachers in Georgia is between those who have passed the subject and professional competence confirmation exam and those who have not. Teachers who have not passed this exam are called 'practitioner' teachers, and those that have passed it are called 'senior' teachers. Practitioner teachers represent about 60% of the teaching body and senior teachers represent about 40%.

However, qualification levels in smaller schools and amongst part-time teachers are a significantly lower. Teachers in schools with over 1000 students are 55% qualified while teachers in schools with fewer than 100 students are 27% qualified.

The body of teachers is also significantly older than in other countries. If we compare the numbers provided with TALIS country averages, we can see that the average age of a teacher in Georgia is 51, which is 8 years higher than the average age in the TALIS countries.[2] The share of teachers under 30 years of age in Georgia is 4%, compared to a 12% TALIS average.[3] Around 27% of Georgian teachers are over 60.[4]

One commonly cited problem with recruiting teachers is the apparent low level of remuneration. According to national statistics, the education sector is one of the worst paid sectors in the Georgian economy. However, this is partly because it includes a lot of part-time workers and pre-school teachers. Salaries have been getting better in recent years and full time salaries (or their pro-rated equivalent), for the 60% who are practitioner teachers, now make 400-600 GEL and the 40% who are senior, now make 800-900 GEL. This is also before another 'bonus' of around 100 GEL which is given to around 17% of teachers living in high mountainous areas.

For many, this will still seem like a very low salary for a full-time teacher, given their importance to society, and it is not our intention to argue against that claim. However, most metrics that compare teaching with other positions, are focusing on formal employment and formal employment is low in Georgia, particularly in rural areas. While official unemployment is 17%, the employed number includes many self-employed people, particularly in agriculture, who earn dramatically less than official numbers for salaried employment would suggest. Reflecting this, 'income from wages' in the average Georgian household (including 4 or 5 people on average) is only 244 GEL.

Against that context, roughly 1000 GEL monthly salary that is reliable and predictable, and which allows potential for further earning, like tutoring, should be fairly attractive for many. And this does not take into account the fact that it is still a potentially hugely rewarding job, that is mostly well respected.

Altogether, this may suggest a complicated picture. In Tbilisi, if the issue were simply one of money, one might expect that the salary may still be a major consideration which puts-off the best and the brightest from trying to be teachers.

[2] Average age calculated based on full list of teachers, compared to TALS average provided in National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS)*, *National Report*, pp12,14

[3] Average age calculated based on full list of teachers, compared to TALS average provided in National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS)*, *National Report*, pp10,265

[4] Average age calculated based on full list of teachers, compared to TALS average provided in National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS)*, *National Report*, pp10,265

Interestingly, when the government recently announced 5000 teaching positions, this did not turn out to be the case. Discussions with TPDC have maintained the idea that the difficulty of recruiting mostly revolved around two metrics. It was hard to recruit for village schools but relatively easy for Tbilisi and it was hard to recruit maths and science teachers, but relatively easy to recruit arts, languages and humanities. This suggests that finances are not the key consideration.

There are two main ways that one has historically been able to become a teacher in Georgia; either by completing a degree in education or by doing an education master's degree course following an undergraduate degree in another subject. The current formulation of these choices is a 300 credit 5-year combined bachelor-master's degree and a 60-credit one-year conversion degree. The new master's degree program only started in 2018, so it will produce its first cohorts in 2023.

The principle weakness of teacher training in Georgia to date is that, since it has been relatively low prestige, training for a job that had a low salary and unattractive working conditions, it was entirely uncompetitive, with many courses failing to fill all their places and it tended to attract students who did not perform well in the Unified National Exam. At the other end, since there weren't very many vacancies being made available in schools, even with a qualification, new trainee teachers could not be sure to find a job.

Added to this, it is surprising that while the 60-credit conversion to teaching is largely financed by the state, the combined undergraduate/master's degree course is only financed in the same way as any undergraduate course. Therefore, teaching has no particular financial incentive connected to it.

This situation has now dramatically changed. With the 5000 vacancies announced this year, and the likelihood of far more to come, there is about to be dramatic under-supply of teachers. Combined with higher salaries and better infrastructure, this means that teaching ought to be far more attractive and this should, in turn, create greater competition for places in teaching programs. Having spoken to the universities providing the combined undergraduate and master's program, there are strong indication that this is already happening, as universities are reporting high demand for their teaching courses.

However, the number of teachers coming through this system is small, relative to need. The combined master's degree in education has an intake of a little over 500 students, for the whole country. However, through a combination of people leaving who cannot qualify and retirement, it would seem surprising if there were fewer than 20 000 teachers leaving the profession over the next 5 years. Given that many are part-time, this should produce 10 000-15 000 job places, at least.

One very clear support that is needed, is that there need to be inducements to encourage more people to go into teaching, so that it is not just attractive, but highly competitive. As a starting point, it seems clear that anyone who completes a degree in teaching and teaches for some minimum time in a state school, following graduation, should not pay anything for

their education. Going further, I would even suggest that student-teachers from certain backgrounds and geographies, and with certain highly demanded specialisms, should gain a stipend. If all of the 2500 teaching students who will start the MA program were to be supported to the value of 5000 GEL (half for tuition and half for living allowance), this would cost 12.5 million GEL per year.

The next element to consider about teaching in Georgia is the combination of training, evaluation and promotion. The current 'Teacher Development and Career Advancement Scheme' (usually called 'Schema') was introduced in 2010 and updated in 2015. This laid out the training and evaluation mechanisms available for teachers, particularly if they wanted to advance.

The most significant element of the schema for the purposes of public discussion on the subject, is the role that it plays in identifying teacher competence. There are multiple levels of teacher in Georgia, from practitioner (who has not passed a competency exam/evaluation process), to senior (who has passed), to lead, to mentor. However, lead and mentor combined are less than 1% of the current teaching body, therefore, this project focuses on looking at how the schema lays out the transition from 'practitioner' to 'lead' teacher.

Under the early formulation, in order to advance, teachers had to pass a subject exam and a pedagogy exam. However, uptake and success on this system was slow. While under the original formulation, the government had committed that all teachers would have to pass the exam by 2014, if they wanted to be teachers, by that time. However, by the deadline, only around 1/3 of teachers had passed the exam and so the deadline was suspended. A new deadline is currently in effect, for Sept 2020.

The old schema was criticized for being too narrow and too focused on one metric, and the government adopted an amended schema in 2015. Under the new system teachers can be trained and evaluated to progress through the different levels of teaching, by acquiring credits for the completion of competency exams, carrying out trainings and producing certain outputs like 'model-lessons'.

However, the new schema has drawn some criticism because it is now possible to gain senior teacher status while only passing one of the competency exams. It has also created concerns, often expressed by teachers to whom we spoke, that the new formulation encourages success amongst those who are best at doing the paperwork.

Notwithstanding the exact quality of the exam/evaluation system, it clearly is the right approach to increase salaries, but require that teachers demonstrate competence in order to attain it. However, there are two major problems with the current system of teacher development. First, it does not consider student performance in any way. Secondly, there is very little required evaluation and no structured way of thinking about teacher competence, training needs/professional development, unless the teacher is looking for a promotion. For half of the teachers who have not passed the competency exam, this means that they live or die based on the accumulation of credits, with little consideration of how useful any particular

activity may be for them. For the half who have passed the exam, the only evaluation they have comes from inside the school.

Teachers Assessment of Their Own Ability

Another issued that we considered was how teachers rated their own ability. In spite of some generally troubling scores, both for students and a relatively low level of teacher qualification, on the face of it teachers have an extremely high assessment of their own competency, and in spite of commonly expressed concerns to the contrary, seem to have fairly high levels of satisfaction.

To look at this issue, we combined a number of sources. The Teaching and Learning International Survey (TALIS) Georgia joined TALIS, the Teaching and Learning International Survey, an OECD study in 2013 and was carried out in Georgia in 2014. The TALIS survey is carried out in 35 countries, mostly more developed than Georgia.

Overwhelmingly, the TALIS survey shows that Georgian teachers are very confident in their teaching ability, compared to other teachers in the TALIS study. Half of basic and secondary school teachers consider themselves 'very well prepared' on their subject and 46% 'well prepared'. 39% consider themselves 'very well prepared' in terms of their methodology of teaching, 46% believe themselves 'well prepared'.

This leaves only between 4% feeling less than well prepared on subject and 15% on methodology. This is a higher level of confidence than teachers in other TALIS countries, even though other TALIS countries are richer and have significantly higher performing students. This profile of confidence, according to the TALIS reports, is commonplace in Eastern European countries. It is unclear whether these survey results reflect genuine over-confidence and lack of reflectiveness, or just a desire not to be publicly self-critical. In our research we found that if you asked people straight questions about the nature of the teacher body (were they 'good', 'professional', 'hard-working', etc.), the response was overwhelmingly positive. However, if one was talking to those teachers in general, they were far more prepared to offer specific criticisms.

Similarly, the results in terms of satisfaction were strange. From focus groups and from discussions with professionals who engage with teachers daily, we know that there is a lot of frustration amongst teachers right now, who feel harassed and under-appreciated. However, Georgia's scored in the top four countries in terms of teacher labor satisfaction, in the survey results in TIMSS in 2015.

Also, in our focus groups, while teachers and parents were overwhelmingly positive, as we have seen before, students were far more willing to criticize.

School Curriculum and Textbooks

School create the curricula that students follow in Georgia, though this has to be in-line with the national curriculum. This prescribes which subjects are mandatory and which are elective, as well as providing a list of acceptable textbooks for given subjects.

In recent years, the provision of textbooks for free has been considered a big innovation and is certainly appreciated by parents. However, along with it there has come a narrowing of the range of textbooks available.

In our focus groups, most of the skepticism we encountered from teachers, related to this limited range of textbooks, and also the rather expansive range of elective courses. In particular, teachers pointed out the challenges of teaching practical courses, like music, without instruments, or being asked to teach more esoteric electives.

Probably the biggest change of recent times, in relation to curricula, is the New School Model. The New School Model is intended to develop individual curricula for schools and to work with teachers to develop their class curricula and lessons, along the 'constructivist' model, with a very much more 'student-centered' methodology and greater inclusion of modern practices and IT. This is overseen by teams who work with teachers and management to achieve the transformation.

This is an incredibly ambitious model. However, as with most of the changes in policy, the 'pilot' that they carried out was not really a pilot, but a gradual roll-out, and the both the capacity to carry out this change at scale and the capacity to evaluate the impact are extremely limited. This is very troubling, given the root-and-branch nature of the change, since the reform holds the potential to further confuse teachers and so it is not a given that its impact will be positive.

School Grading, Examinations and Testing

School testing has been one of the central discussion points regarding educational reform in recent years. In particular, the focus of discussion is recent changes in the High School graduation exam and the Unified National Exam, which is used to decide on placement and scholarships for university.

The Unified National Exam was first introduced to Georgia in 2005. Its original purpose was to remove the opportunity for corruption in university admission, which was common-place at the time. The intention was to have a standardized university entrance exam, to decide on who was selected and the level of state support they would receive from the state. This would be meritocratic and, as it was externally run, would make corruption practically impossible. This initiative was hugely successful and corruption in higher education was dramatically reduced in Georgia at a stroke.

As a second consideration, it was hoped that once students were being meritocratically selected, this would create pressure on teachers to perform and stimulate reform in the schools. This did not happen. Instead, it encouraged the growth of an already significant tutoring system, so that parents would pay tutors (who were usually their children's school teachers) to prepare their children for the university entrance exam. In some instances, parents would even take their children out of school in the last year, so that they could properly prepare for the tests.

Partially in response to this, in 2011, the first High School Graduation Exam was conducted. Before that, if students decided not to go to university, the only record of their school experience would be their teacher evaluations. The new graduation exam was conducted in multiple exams over year 11 and 12. They were originally intended to replace the UNE, but due to a range of reasons, the UNE was never phased out. After 7 years of running both systems side-by-side the Ministry decided that maintaining both systems was onerous and unfair to students. The graduation exam was abolished in 2018.

There have also been calls to cancel the Unified National Exam, as its efficacy in identifying the best students has been brought into question by research, and it puts significant constraints on the ability of universities to develop their own systems of selection.

However, as a result of the abolishment of the Graduation Exam, we once again find ourselves in a situation where many students leave school with no certification of demonstrated skills. School assessment cards are not standardized and, even if they were, this represent the view of teachers and is often seen as highly subjective.

This clearly leaves us in need of a more comprehensive combined graduation/university entrance exam. The former Graduation exams were almost certainly too long and too onerous and the UNE, needs to be continually subject to review, to ensure that it is a good mechanism for selecting university students on merit. It should also probably make some effort to correct for the advantage of the relatively wealthy.

However, the OSCE evaluation of testing suggested that the Georgian educational system needs two centrally administered exams. The first, would be a certificate exam, conducted in the 9th grade, and used to help students make subsequent career choices. The second, was a year 12 graduation exam that would also be used as part of university/scholarship selection. The OSCE report points out, that exams of this kind are usually important motivators for students and are essential if the system is to maintain a system for evaluating on-going reforms, teachers and schools.

1. Methodology

The project involved extensive desk research data and analysis provided by government, international organizations and local and international researchers. Field research was then provided with expert interviews, interviews with government officials from all of the relevant government agencies, in-depth discussions with the NGO community and 20 focus and follow up interviews with parents, teachers and students.

The project reviewed in detail the data and analysis provided by all of the major international testing and educational surveys that Georgia has undertaken in recent years. This includes:

- Program for International Student Assessment (PISA) 2009,2015 and 2018– focusing on student performance in reading, maths and science
- Trends in International Mathematics & Science Study (TIMMS) 2007, 2011 and 2015 – focusing on student performance in maths and science
- Progress in international Reading Literacy Study (PIRLS) 2006, 2011, 2016 – focusing on student performance in reading
- Teaching and Learning International Survey (TALIS) 2013 – a survey of teachers focusing on working conditions and learning environments.
- Teacher Education and Development Study in Mathematics (TEDS-M) 2008 – a study of how teachers are prepared to teach mathematics in primary and lower secondary school.

Many of the more recent of the research for these international tests were supported by the Millennium Challenge Corporation (MCC), in the context of their USD 140 million educational support project for Georgia. As a result, for many of these studies, there were not only international tests and large data-sets but also, large nationally-specific write-ups, most of which are primarily available in Georgian with English language executive summaries. We also reviewed primary datasets, which are available online for PISA, TALIS and TIMSS and can be interrogated directly.

This analysis has been particularly relevant and challenging in the case of the most recent PISA data, that came out on the 3rd December, when our project was nearing completion. As will be elaborated later, this provided some fairly shocking results, and we have interrogated the data to try and generate our own assessments of these results. Due to the relatively short-time for this evaluation, it remains tentative.

Government statistical data also provided an incredibly useful quantitative source. In January 2019 the Ministry of Education provided us with a spreadsheet containing basic information about all 2305 schools in the country. This central list provided information on student numbers, municipal location, number and qualification level of different teachers and number of computers.

This was not only invaluable in helping us understand the huge variation in school size and student/teacher ratios, but the list also provided a basis for further coding and analysis. We

manually coded all schools into categories of Tbilisi, Urban-non-Tbilisi, and Rural to allow us to see how many students went to different kinds of schools. We were also able to add to this information about the advertised teacher positions, to see the distribution of this change and sampled and analyzed a small number of regions in detail to see how far away schools are from one another, in order to offer a preliminary assessment of possible consolidation.

Beyond that, we were also provided with numerous data points by the Ministry of Education directly, who provided detailed information, that was not in the public domain, in response to direct email requests. MAC Georgia and GeoWel would like to thank the Ministry for their efficiency, effectiveness and transparency throughout our research process.

Data on physical infrastructure was provided from a number of sources. Until the end of the project, our primary sources were the Ombudsman's reports, as well as focus groups, the media and other public reporting.

However, in November, through discussion with the Educational System Infrastructure Development Agency (ESIDA), we were provided with 2000 reports on the state of infrastructure in all of Georgia's public schools. This information had been collected within the scope of the MCC project and constitutes a huge treasure-trove for anyone trying to understand the current state of the Georgian educational system. Unfortunately, ESIDA had no aggregate data and could only provide us more than 2000 PDF reports on a 1tb hard-drive.

Obviously, data analysis on such a large number of files was extremely difficult within the context of a highly constrained project, which was nearing completion. We did manage to aggregate the cost element of this information, to provide us with an estimate for how much it would cost to fix all of Georgia's schools, to a reasonable baseline. However, there is far more analysis that could be done on this information.

The Ministry of Education also provided data on school pupil numbers, dropouts, university and VET students that was helpful in providing a complete picture of how students progress through the years and how the dynamics of public/private have changed.

We were also able to get detailed budgetary data from the Ministry of Education, Science, Culture and Sport (MoESCS). Such information is also invaluable for understanding how spending priorities have shifted. This kind of analysis is always a little tricky, as systems for budgetary accounting change over time, so that one has to do manual data processing to make like-for-like comparisons. In addition, the current situation at the MoESCS makes full comparisons of ministerial budgets difficult, as the ministry has merged with two other ministries in recent years. However, we made efforts to correct for these changes, so that multi-year comparisons would be possible.

The desk research also aimed to bring together considerable existing research on the Georgian educational system. There is a fairly wide range of research that has been conducted in recent years, of varying quality, by government agencies, academics and international organizations. Much of this has not gained the attention that it deserves. In particular, in

addition to the huge body of research that was conducted under the MCC project, in relation to international comparatives, a World Bank analysis of teacher development policy, released in 2017 and an OECD analysis on educational evaluation, in late 2019, each deserve particular attention for their detail and scope, and we made efforts to include their findings in this report.

In addition to detailed desk research, we conducted considerable field research. GeoWel conducted a total of 20 focus groups (7 for teachers, 7 for parents and 6 for students) in 11 schools of four regions. These included 92 participants; 27 students, 28 parents and 37 teachers. Details of the schools and regions are provided below:

Figure 1.Focus groups conducted by GeoWel Research

School	Region	N of Parents	N of students	N of teachers	Total
Akhaltsikhe Municipality Town Vale Public School N1; Akhaltsikhe Municipality Town Vale Public School N2	Samtskhe-Javakheti	N/A	6	N/A	6
Akhaltsikhe Municipality Village Muskhi Public School	Samtskhe-Javakheti	4	N/A	4	8
Ninotsminda Municipality Village Gorelovka Public School N1 (probably)	Samtskhe-Javakheti	4	N/A	7	11
Akhmeta Municipality Village Duisi Public School	Kakheti	2	9	7	18
Telavi Municipality Village Ikalto Public School	Kakheti	5	4	5	14
Kazbegi Municipality Townlet Stepantsminda Public School N1	Mtskheta-Mtianeti	1	N/A	N/A	1
Kazbegi Municipality Village Arsha Public School	Mtskheta-Mtianeti	N/A	N/A	3	3
Kazbegi Municipality Village Sioni Public School	Mtskheta-Mtianeti	N/A	4	N/A	4
Tbilisi Public School N213	Tbilisi	6	4	6	16
Tbilisi Public School N55	Tbilisi	N/A	N/A	5	5
Tbilisi Public School N74	Tbilisi	6	N/A	N/A	6

The focus groups took place between June 11-27 2019. The sample was selected to include as much diversity as possible, and so included Tbilisi's central and suburban areas, mountainous regions (Kazbegi municipality), rural regions (Telavi and Akhaltsikhe municipalities), ethnic (Ninotsminda municipality and also Akhaltsikhe) and religious minority (Pankisi gorge) regions. MAC Georgia provided contacts for schools in Tbilisi, Ninotsminda and

Pankisi gorge. World Vision provided contacts for schools in Akhaltsikhe municipality, and GeoWel contacted schools in Telavi and Kazbegi because of the previous work experience in those regions. In all cases, school directors were contacted who recruited focus group members for each of the three groups: students, parents, and teachers.

Before the focus groups, all participants were asked to fill out a short questionnaire. Clearly, with such a small number of respondents, we cannot claim that the responses here are representative of a broader population, but they do help us to give more detail to accounts of the focus groups, and we do feel that where strong feelings were indicated by a wide proportion of the group, that is relevant information to consider.

This was intended to be the full-extent of our research, however, towards the end of the project, we did two final elements of field research. First, we called-back teachers from our focus groups to ask them follow-up questions on issues that had emerged during our research – particularly relating to teaching recruitment, training, student and teacher evaluation, curricula development and school management.

Second, we also decided that it was important to gain detailed information about the progress of teacher training, its popularity, recruitment practices and to gain more information about the profile of people applying to be teachers. This was mostly achieved by talking to the admissions department of 9 universities that are providing the 60 credit 'conversion courses' or the 300 credit masters degrees in education (usually both).

One clear discovery that we had in the research is that there is far more information on education already in the public domain than most people realise. However, most of it is entirely absent from the public discourse on education. Nonetheless, there are huge gaps in information, and part of our recommendations relate to the way that government and CSOs could fill these gaps to help create an informed discussion about general education and what needs to be done to improve it.

2. Student Performance

Before diving into a broad description of the Georgian K12 education system, it is useful to look in detail at Georgia at the international studies that have been carried out in recent years, often remembered for the 'rankings' that they produce. These are supposed to give us objective criteria for assessing the skill level of students and allow us to understand where Georgia stands in comparison to other countries. Since the tests have been undertaken several times in recent years, they are also supposed to create a sense of the dynamic of change. Finally, since the tests also usually include questionnaires that ask about other characteristics of schools, students and teaching methodology, they give us some indications of which elements of the system seem to correlate with success and which are less important.

There are five major tests/polls that Georgia has been part of in recent years. These are three that assess student performance directly:

- The Program for International Student Assessment (PISA) – covers reading, maths and science
- Trends in International Mathematics & Science Study (TIMSS) – covers maths and science
- Progress in international Reading Literacy Study (PIRLS) – focuses on reading and textual interpretation.

Then there are two other surveys that focus on teachers and methodology

- Teaching and Learning International Survey (TALIS) – survey of teachers and teaching practice/professional development
- Teacher Education and Development Study in Mathematics (TEDS-M) - study of the preparation of primary and lower-secondary teachers in teaching mathematics

In this section, we will focus on the tests that evaluate student performance and try to link that performance to a range of other indicators in the data that they collect. The results from TALIS and TEDS-M will be integrated into the rest of the report. Below is a summary of the three different studies.

Figure 2: Comparison table - PISA, TIMSS and PIRLS

	PISA	TIMSS	PIRLS
Full name	Program for International Student Assessment	Trends in International Mathematics & Science Study	Progress in international Reading Literacy Study
Assesses	Reading, mathematics, science, problem solving	Mathematics and science	Reading
Age	15	10 and 14	10
Grade	Grade 9 (UK Year 10)	Grade 4 and Grade 8 (UK Years 5 and 9)	Grade 4 (UK Year 5)
Frequency	Every 3 years, since 2000	Every 4 years, since 1995	Every 5 years, since 2001
Years done in Georgia	2009, 2015, 2018	2007, 2011, 2015	2006, 2011, 2016
Purpose	Evaluates education systems by assessing to what extent students at the end of compulsory education can apply their knowledge to real-life situations and be equipped for society	Measures trends in maths and science achievement Describes educational context, including home support, students' attitudes, curriculum, teachers' training, classroom activities	Measures trends in reading comprehension Investigates the experiences young children have at home and school in learning to read
Focus	Skills-based	Curriculum-based	Curriculum-based
Supplementary information	Background information obtained from learners in a questionnaire. Focuses on characteristics of learners, attitudes to subjects, motivation and learning strategies	Background information obtained from learners in a questionnaire. Information also collected about teachers, activities of schools and teachers' classroom behavior	Background information obtained from learners in a questionnaire. Information also collected about teachers, activities of schools and teachers' classroom behavior
Organization	Organization for Economic Cooperation and Development (OECD)	International Association for the Evaluation of Educational Achievement (IEA)	International Association for the Evaluation of Educational Achievement (IEA)
Countries	79 countries and economies in 2018	57 countries and 7 benchmarking entities in 2015	50 countries and 11 benchmarking entities in 2016
Test length	120 minutes, plus 35 minutes background questionnaire	72 minutes at Grade 90 minutes at grade 8 plus 15 minutes background questionnaire	80 minutes, plus 15 minutes background questionnaire
N of learners assessed	More than 5000 learners in each country/jurisdiction	At least 4000 learners in each country/jurisdiction	About 3500 - 4000 learners in each country/jurisdiction

Source: PISA 2009,2015 and 2018 Global and Georgia National Reports, TIMSS 2007, 2011 and 2015 Global Reports, PIRLS 2006 and 2016 Global Reports

Before providing an analysis of these surveys, it is worth noting that these studies are difficult and expensive to undertake, so generally most of the countries that do them are considerably wealthier than Georgia. This is an important consideration that should be kept in mind when analyzing the results – as is discussed at length below.

It also really is commendable that Georgia undertakes this research, and seems committed to carry-on doing so. This was certainly helped by the Millennium Challenge Corporation (MCC), who financed each of these studies, during their, now completed, USD140 million education support project. Their support not only paid for the research, but also paid for its analysis, and there are more than 1000 pages of great analysis done by several academics, on which this report draws. It is unfortunate, that this work has not been more central to debate about the Georgian education system up until now.

This research was started in advance of the release of the most recent PISA results, which were only released in December 2019. As is shown below, this result (named PISA 2018, as that is when the data was collected) is at odds with much of the other data. The 2019 TIMSS data collection has already been done and they are currently finalizing their database. This will provide more great information and will help us see if trends apparently identified from the first few studies are confirmed and continuing in recent years.

2.1. PISA 2018

In 2018, NAEC completed collection of data for the latest round of the Program for International Student Assessment (PISA). This was published on December 3, 2019. The report was extremely negative in its findings, showing that Georgia had declined dramatically in maths, science and literacy. This conclusion was shocking to the government who were hoping for improvements, but was also surprising, as it followed strong signs of improvement in previous years in PISA. TIMSS and PIRLS.

It is hard to know how to interpret this, or how to integrate these results. One simple explanation would be to accept the results at face value, and say that the system improved for eight years and then declined in the most recent four. However, this is unsatisfying, since obvious things like infrastructure have demonstrably improved in that time, the body of teachers has remained the same and their renumeration has gone up. Even if other recent attempts at reform had created little impact, it is hard to see why they would create such a large decline.

One possible partial explanation is that the recent test was taken by computer, while the older test was done with paper and pencil. According to representatives of NAEC, the 2018 test was done on computers for the first time, and this change has had an impact in other countries, like Poland. Others changes in methodology, including the personnel running the test, may have had an impact.

Of course, one should be wary of post-hoc rationalizations of uncomfortable results, particularly because many experts that we spoke to, did not believe that the system was improving in the first place. If we accept this interpretation, then the apparent improvement

seen in the previous studies would be the anomaly. However, it would also seem unwise to use one result to reject the conclusions of several other studies that had suggested improvements.

As this result has only just come out, academics and government officials are currently looking into its detail. Therefore, it seems premature to draw strong conclusions. Therefore, for the purpose of this report, we will not use this one result to reject entirely the extensive international testing that has been done in Georgia before. The analysis we have below, is mostly still based on the pre-existing research, though includes the new result to highlight that there is now considerable uncertainty in any findings.

2.2. Student Performance (PISA, TIMSS and PIRLS)

The most obvious finding from each of these studies is that Georgia ranks poorly. In the 2015 PISA ranking, out of the 72 countries/administrative regions that they test, Georgia ranks 60th[5] In the 2018 survey, Georgia decline further and out of the 79 countries/administrative units, placed between 67th and 74th (depending on the test).[6]

TIMSS does not provide a ranking, but around half of the students tested perform 'below basic proficiency'. This compares to 21% in OECD countries. In PIRLS, Georgia is 37th out of 50 countries tested.[7]

The overwhelming commentary of the literature has highlighted this low performance, often allowing the above cited numbers speak for themselves. Even the 2017 Georgian education strategy summarizes the PISA results by saying:

> 'According to international estimates, the average indicators of Georgian pupils are still behind the average international indicator. The PISA International Assessment Results of 2015 show that more than 50% of interviewed 15-year-old pupils do not meet the basic level of excellence in natural sciences, literacy and mathematics.'[8]

Even more damning, Transparency International argued in a report that they published in 2018,

> 'Overall, Georgian students performed quite badly. Georgia ranked 13th from the last place in mathematics, 11th from the last place - in science and 9th from the last place – in reading. 411 was Georgia's average score.
>
> The PISA studies are conducted once in three years. Georgia did not participate in the study conducted in 2012. In 2009, Georgia's average score was 374 and it ranked 10th

[5] PISA 2015 Results Volume I: Excellence and Equity in Education, p40.
[6] Data retrieved from PISA 2018 Results Volume I: What Students Know and Can Do
[7] IEA (2017), *PIRLS 2016 International Results in Reading*, p20
[8] Ministry of Education and Science (2017), *Unified Strategy for Education and Science for 2017-2021*, p15

> from the last place in mathematics, 8th from the last place - in science and 5th from the last place – in reading'.[9]

Again, these results would sound even worse, if they just focused on the recent PISA results, and none of these statements are inaccurate. But it is important to keep in mind that these international rankings rarely cover more than 1/3 of the countries in the world, and those tested are usually a lot richer than Georgia. The 2018 average PPP[10] per capita income for PISA, for example, was 41 000 USD. For OECD countries it was USD 45 568.[11] Georgia had a Per Capita GDP (PPP) of USD 11,420 in that year. Only six of the countries which conducted PISA had a lower Per Capita GDP (PPP).[12]

The reason that this is important is that we are trying to assess the effectiveness of the schooling system – particularly the curriculum, the teachers, the school infrastructure, governance and the rest. However, the wealth of the country and the students is an external factor, and one that is generally accepted to explain a lot of the variation in outcome between students. As one prominent education researcher has put it,

> 'Research shows that socioeconomic status is the single most important cause of performance outcomes. Students from wealthy families and communities consistently outperform students from poor families and communities'.[13]

Comparing Georgia to other countries needs to take into account this difference if it is to stand any chance of drawing reasonable policy conclusions.

Of course, that does not mean that Georgia should not aim high. But one cannot say that a low ranking represents a failing system. GDP per capita correlates significantly with educational attainment. That means that, assuming all things are equal, higher GDP will result in higher test scores. This suggests that rather than just asking questions about results in the abstract, the better question to ask is how does Georgia perform relative to how one would expect it to perform at its current level of GDP?

This comparison is more difficult but can be done in a few ways. In one of their international comparatives, PISA adjusts the test scores for per capita GDP. This shows how a country is doing, keeping in mind differences in income, and it highlights that Georgia, while still not doing well, is not doing too badly either. In the 2015 PISA scores, for example, Georgia is

[9] Transparency International Georgia (2018), *We Spend More and More on Low Quality School Education*, Tbilisi, p9

[10] Within this report, when comparing countries, we usually use the Purchasing Power Parity (or PPP) version of per capita GDP. This is in line with economic convention, as PPP is intended to give a better sense of what one is able to buy with average income inside a given country.

[11] World Bank (last updated 28 October 2019), *World Development Indicators, GDP per capita, PPP (current international $)*

[12] Poorer countries are Moldova, Ukarine, Phillipines, Jordan, Morrocco and Vietnam,

[13] Alexander Wiseman (2015), How the World Learns, Comparative Educational Systems, *The Great Courses: The Teaching Company*, Virginia, USA, p8

ranked 60th out of 70 countries.[14] However, if you adjust for per capita GDP, then Georgia jumps to 33rd. This means that, bearing in mind its relative poverty, in 2015 Georgia is slightly above the median.[15]

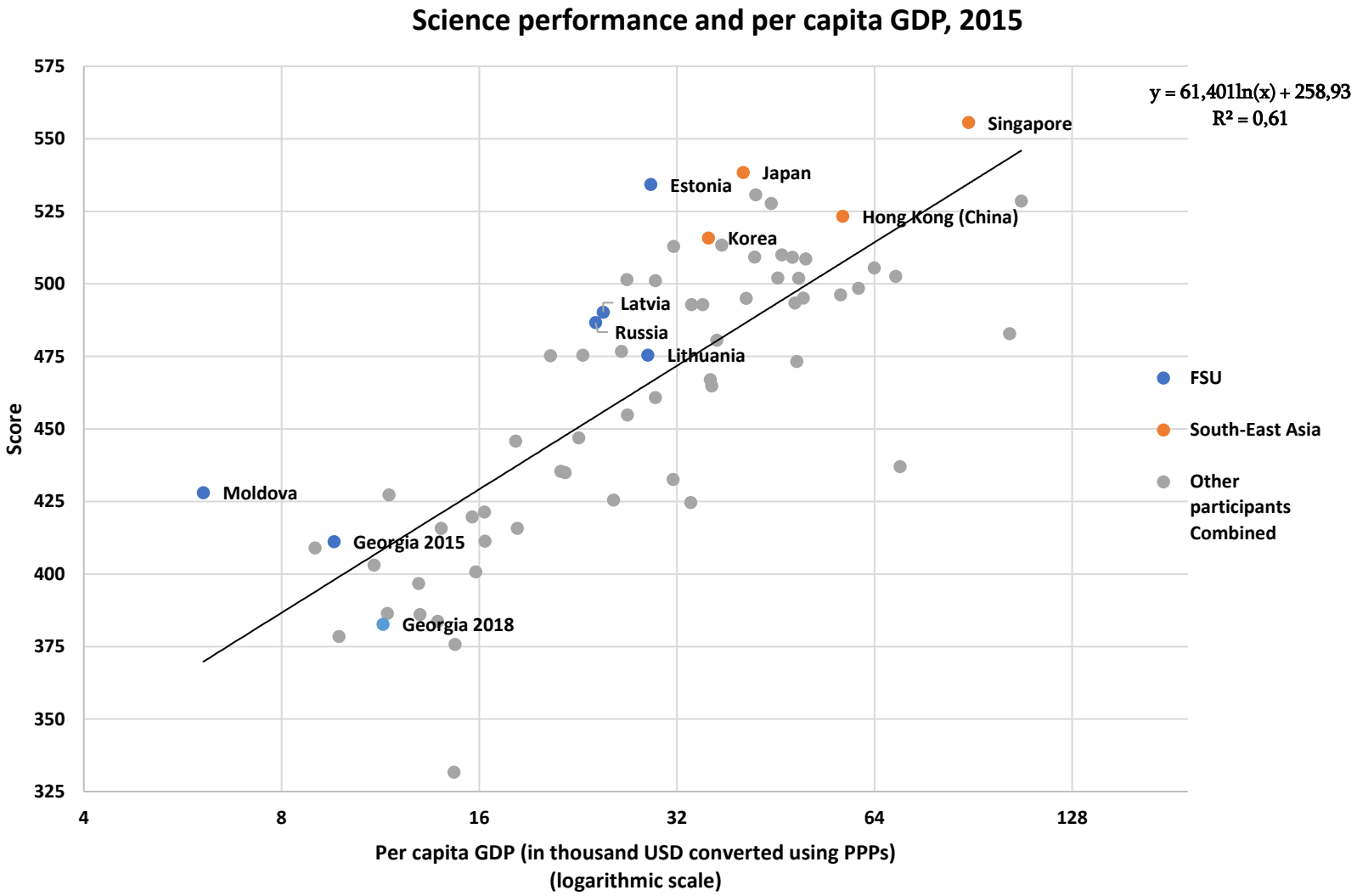
Another way of looking at where you might expect Georgia to fall is to correlate GDP per capita (PPP) and the test scores. In the charts below, we did this, using per capita (using World Bank purchasing power parity numbers) and each of the countries who are tested in PISA's science test.

For chart below, we correlate all of the countries in the 2015 report (excluding Vietnam and Qatar as extreme outliers) and have added the score for Georgia from the 2018 report, as a comparative.

[14] PISA 2015 Results Volume I: Excellence and Equity in Education, p40

[15] Information deduced from data to be found at: PISA 2015 Results Volume I: Excellence and Equity in Education. http://dx.doi.org/10.1787/9789264266490-en (Reviewed 12 February 2019)

Figure 3: PISA scores in science and GDP PPP, 2015 – taking out the two outliers



The most obvious thing to note from this chart is that Georgia's score in the 2015 report, is above the line, suggesting that it was doing somewhat better than one might expect, based on GDP alone. In 2018, however, it has dropped significantly, and is performing below where one would expect.

Perhaps equally importantly, however, is that the correlation has an R-squared of 0.61 – which means that around 61% of the variability is explained by per capita GDP PPP. This highlights that, while Georgia may do fairly badly relative to other countries, in both instances economics is the biggest driver of Georgia's relatively poor scores.

That said, this also highlights that Georgia should be doing quite a bit better. Another indicator of high scores is geography. Some regions tend to do better than their per capita GDP would suggest alone. Two regions that stand out from the table above are East Asia and the Former Soviet Union States (FSU). East Asian countries are generally huge positive outliers, with Vietnam the biggest positive outlier in the whole PISA system, but Korea, Japan, Singapore and Hong-Kong also positive.

For the FSU, all of the countries tested are doing better than the correlation would suggest with Moldova, Ukraine and Estonia big overperformers, Russia, Belarus, Latvia and Lithuania above the line and only Georgia and Kazakhstan below.

This may suggest two ways in which the story about education in Georgia is misunderstood. First, just looking at the international comparative, the results are not as bad as many people think, when one takes into account the wealth of the country. Second, while Georgia perhaps should not be seen as a big global underperformer, it should be seen as a big regional underperformer. FSU states generally do well, probably due to a history of industrialization, relatively high levels of education and strong cultural interests in physics, astronomy, chess, etc. In that context, Georgia is certainly underperforming.

This can be seen as a negative, since it suggests that we are doing a lot worse than we should be doing, but it can also be interpreted pretty positively. A culturally positive disposition towards education can be seen in Georgia in a range of ways; in high levels of private education, in high levels of tutoring and in high university participation rate, all of which is significantly paid for by families who are extremely financially constrained. This cultural bias could be a resource that, if approached in the right way, could be a huge resource to support educational reform.

2.3. Dynamics of Change

The second fact that stands out from PISA and TIMSS is that Georgia seemed to have improved quite a bit in the years up to 2015. In PISA, Georgian students had actually shown the highest level of improvement of all PISA participant countries between 2009 and 2015.[16]

However, as already mentioned, we have seen most of this improvement reversed in 2018.

[16] International Student Assessment PISA: Georgia Report 2017, pp13,192

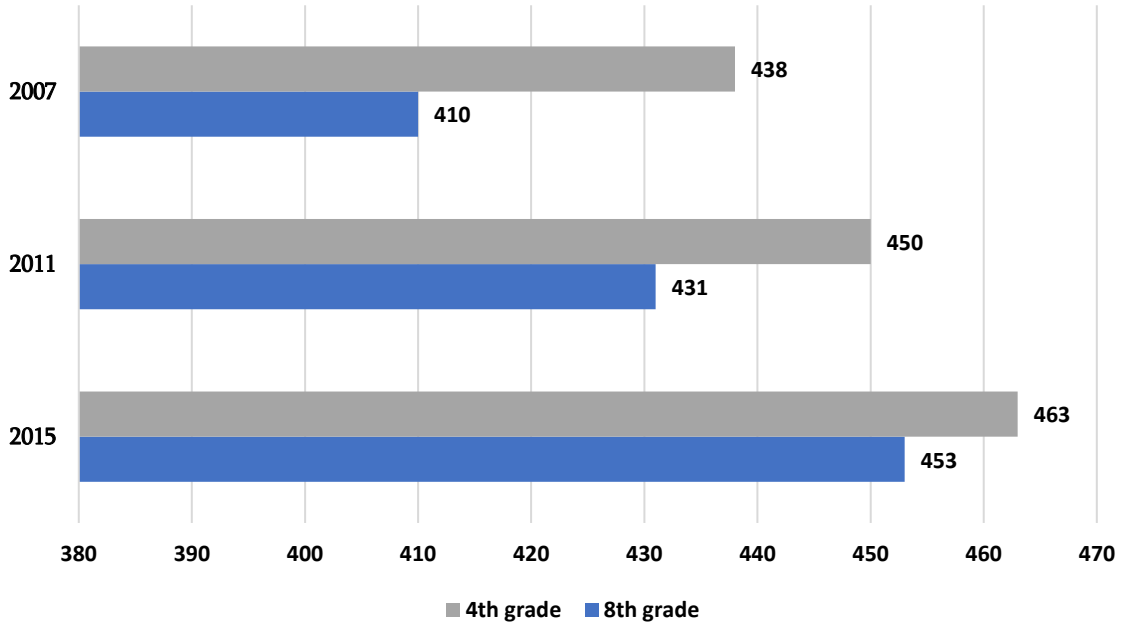
Figure 4: PISA score averages for OECD and for Georgia by competency, 2009, 2015, 2018

	2009	2015	2018	Difference 2018-2009
Natural Sciences				
OECD Average	501	493	489	-12
Georgia Average	373	411	383	10
Reading				
OECD Average	494	493	487	-7
Georgia Average	374	402	380	6
Mathematics				
OECD Average	495	490	489	-6
Georgia Average	379	404	398	1

Source: PISA 2009 and 2015 Georgia Reports & PISA 2018 Global Report

One option for interpreting this data, might be that the 2015 result should be seen as an aberration. While TIMMS has not published its most recent results, it also shows a significant improvement up to 2015.[17]

Figure 5: TIMMS score averages for 4th grade and 8th grade, 2007, 2011 and 2015

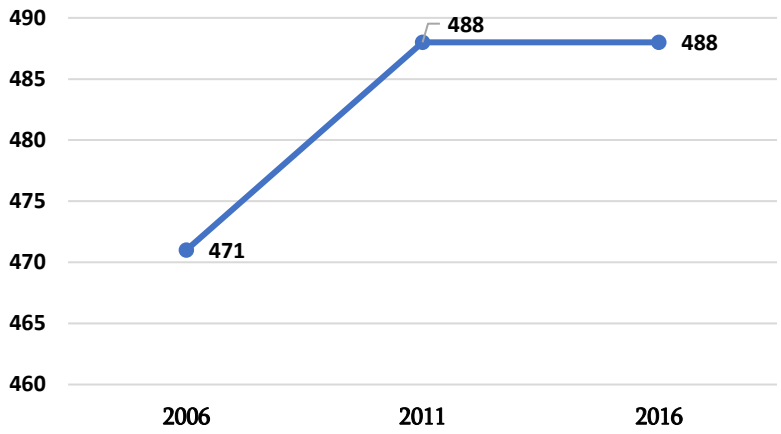


Source: TIMSS 2007-2015 Georgia Report

In PIRLS the change is less pronounced, and occurs from 2006-2011 with no change between 2011 and 2016.

[17] Mathematics Study and Teaching Capacities and Results: TIMSS 2007-2015, p339

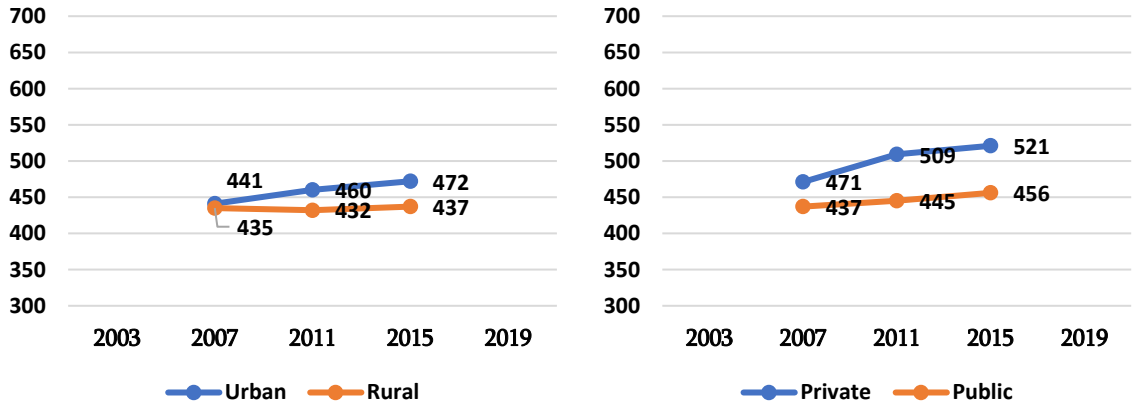
Figure 6. PIRLS reading score averages for 4th grade, 2006, 2011 and 2016



Source: PIRLS reports 2006, 2011, 2016

Generally, therefore, there is agreement in the tests that over the decade up to 2015, there has been some improvement. Therefore, it is worth making an effort to understand what drives the change, it is useful to consider multiple factors. TIMMS gives more breakdown about the nature of the improvement. One divide is to look at the difference in improvement in scores between urban versus rural and public versus private.[18]

Figure 7: Dynamics of TIMSS student achievement in rural and urban, private and public schools, 2007, 2011 and 2015



Source: TIMSS 2007-2015 Georgia Report

One of the challenges of interpreting this data is that both public/private and rural/urban are also proxies for the wealth of the student's households and since we know that kids from richer backgrounds do better, it is hard to say whether differences reflect difference in teaching environment, or simply reflect home life. Simon Janashia and Gigi Tevzadze, for

[18] Mathematics Study and Teaching Capacities and Results: TIMSS 2007-2015, p343

example, both acknowledged experts on Georgian education, said that any improvements were probably just the result of people being richer.[19]

This idea is also supported by the fact that, on the face of it rural schools have seen no improvement over the eight years and that the bulk of the improvement has been centered in the urban schools. Further, a disproportionate amount of the improvement in urban schools seems to come from private schools (which are almost entirely urban). These schools saw a 50-point improvement in their TIMSS scores, versus 19-point improvements in public schools (including rural).

One way of seeing this shift, is that at 456, the Georgian public schools are almost the same as Chile (which is 459) and Georgian private schools TIMSS score of 521 are approaching the average national scores of Sweden (519), Slovenia (520) and Germany (522).

Interpreting these effects is further complicated by the fact that there was an increase in number of students going to private schools during this time, going from 38 000 students in private schools in 2007 to almost 52 000 in 2011.[20] This is an increase of more than 1/3.

This is important to keep in mind, since as the private sector gets bigger, more of students from richer households will be shifting from public to private. This is important because this group scores higher generally, so that all things being equal, this shift would lead to public-school scores going down (even if all the students received exactly the same scores).[21] The fact that public school scores continued to go up, in spite of the expansion, suggests that there may be a higher positive improvement in students in the public schools than these numbers suggest on the face of it.

Similarly, if there was a shift in level of urbanization during this time (again, with kids from richer families moving to urban areas) then the lack of improvement shown in the aggregate numbers might also hide the fact that, for averages to stay the same when the higher scoring students left, the students who stayed in rural areas must have seen their results go up.

Of course, all of this is based on the assumption that there have been improvements. The recent PISA data seems to suggest otherwise, and it will be worth seeing the TIMSS results that will come out in 2020 to see if this apparent reversal is confirmed. It is worth noting that most of the experts that we spoke to were skeptical of the improvements demonstrated in the international tests. Simon Janashia, a well-known education expert, for example, presented a position that we heard several times,

> 'The data and methodology of these tests is problematic and you can interpret them in many ways. Even if there is some recorded difference in the results, it is hard to

[19] Interview with Simon Janashia, 22 April 2019. Interview with Gigi Tevzadze, 30 April 2019
[20] National Statistics Office of Georgia, *General Education: Distribution of Private School Pupils by Grade*. https://www.geostat.ge/en/modules/categories/59/general-education (Reviewed 2 August 2019)
[21] Note, this would not, however, mean that private schools would go up. If there were a 100% correlation between wealth and performance and between wealth and private school attendance, then this shift would lead to both groups lowering their scores as averages stayed the same.

know if that is the result of changes in the education system or outside the education system. If the situation of student's home life has improved, you would expect things to improve'.[22]

Gigi Tevzadze, another Georgian expert, made the same point even more forcefully. Asked if he thought that changes in test scores reflected an improving system, he said:

'No. People are simply getting wealthier and increasingly using private tutoring'[23]

In the absence of the PISA 2018 result, this would be a difficult position to maintain, as wealth may be going up, but that would not seem to be enough by itself to explain the apparent change. However, the 2018 result forces us to accept the possibility that these experts may be right.

The key problem, as will be discussed below, is that we lack other criteria to evaluate success. The confusion over the PISA scores and what they may mean is potentially useful from a policy point of view because they highlight the need for robust evaluation and testing that allows us to check the impact of changes on an ongoing basis, so as not to rely too heavily on one dataset that, as with all research, is susceptible to changes and error.

2.4. Factors that correlate with success in PISA

In PISA, they collect considerable data about other factors of the student and the learning environment, and some of these are also correlated with success. As in any social-science context, correlation does not, of course, necessarily mean causation, as some factors can correlate with one-another for other reasons. For example, as has already been mentioned, while rural/urban and public/private seem to correlate highly with results, the correlation may simply reflect differences in socio-economic differences between the groups, rather than differences in school systems.

In this section we have looked at the 2015 data, to identify some of the more prominent variables that seem to correlate with success and some of the surprising things that do not seem to correlate. However, these should be seen as interesting findings, suggestive of possible causal influences, and should not be seen as definitive without further investigation.

[22] Interview with Simon Janashia, April 2019
[23] Interview with Gigi Tevzadze, April 2019

Figure 8. Statistically significant changes in the PISA science score per unit of various science-related indexes (before accounting for students' and schools' socio-economic profile), 2015

Theme	Index	Change in the science score per unit increase in the index
Students' attitudes towards science	Epistemic beliefs about science	42
	Enjoyment of science	23
	Science self-efficacy	17
	Instrumental motivation to learn science	-7
Teaching practices	Enquiry-based instruction	-16
	Teacher-directed science instruction	14
	Perceived feedback from science teachers	9
The school learning environment	Disciplinary climate in science classes	16
	Parental involvement in school-related activities	-4
Resources invested in education	Shortage of educational material	-11
	Certified teachers	9[24]

Source: PISA 2015 Global Report data

Many of these characteristics require explanation. Under 'Student attitudes' the biggest impact on PISA results was a student characteristic called 'epistemic belief'. This is essentially, the extent to which a student subscribes to accepted scientific method – whether they share the idea that knowledge is developing and changing and that it should be based upon scientific enquiry.

A similar number of students generally agree with scientific method, as one finds in OECD countries. The size of the effect of epistemic beliefs on science performance is the third highest in Georgia out of all PISA countries. One-point increase in the index score is associated with 42 score point increase in science test results.[25]

Intrinsic motivation, or simply the extent to which students enjoy science, also strongly correlates highly with results. A one unit increase on the science enjoyment index is associated with 23-point increase in science scores. Also strongly associated with the success in achievement is the science self-efficacy index. It measures the extent to which the students believe that they can achieve goals or solve problems that require scientific abilities, such as explaining phenomena scientifically, evaluating and designing scientific enquiry, or

[24] For the certification level, the PISA study showed that a 10% increase in the percentage of certified teachers, translated into a 9-point improvement in test scores. PISA 2015 Results Volume I: Excellence and Equity in Education, p198

[25] PISA 2015 Results Volume I: Excellence and Equity in Education, *Figure I.1.2: Snapshot of students' science beliefs, engagement and motivation*, p45

interpreting data and evidence scientifically.[26] One-point increase in this index is associated with a 17 score-point increase in science score.[27]

On the other hand, and very surprisingly, instrumental motivation, correlates negatively. Instrumental motivation is the statement from a student that they study a subject because they think it will be useful to their future careers negatively correlates with performance. One might expect this to correlate positively, since if someone thinks that science is good for their future, this should translate into greater dedication to it – but this seems not to be the case here.[28]

This requires further investigation. However, it seems to suggest, for example, that it is more important to convince students that science relevant, interesting and cool, than to convince them that it is useful.

TIMMS also confirms a high correlation between attitude to maths and achievement, though TIMMS do not distinguish intrinsic and instrumental motivation.

Also, according to TIMSS. while there has been an improvement in achievement, self-perceived ability towards mathematics has declined between 2007 and 2015.[29] One explanation of this result might be associated with a more accurate self-assessment among students. In previous cycles of the TIMSS study, Georgian students were in the top of the ranking in terms of positive attitudes towards mathematics and in the bottom quarter in terms of achievement. Now, they seem to be getting better, but are more aware of their weaknesses.

The index of shortage of educational materials measures the availability and quality/adequacy of education materials, such as textbooks, IT equipment, library, laboratory, and of physical infrastructure (building, grounds, heating/cooling, lighting and acoustic systems). One unit of 'quality of infrastructure' score correlating with 11 points of lower score. However, this effect mostly disappears when one corrects for socio-economic difference.[30]

One simple way to explain this would be to say that physical infrastructure may not be as important as many people think. For quality of scientific resources particularly, there is considerable variability but no correlation with results. This may be because the number of

[26] PISA 2015 Results Volume I: Excellence and Equity in Education, p136
[27] PISA 2015 Results Volume I: Excellence and Equity in Education, *Annex B2: Results for Regions Within Countries*, Table B2.I.56 Index of Science Self-Efficacy, p459
[28] PISA 2015 Results Volume I: Excellence and Equity in Education, *Annex B2: Results for Regions Within Countries*, Table B2.I.50 Index of Enjoyment of Science; Table B2.I.54 Index of Instrumental Motivation to Learn Science; Table B2.I.58 Index of Epistemic Beliefs, pp457-458
[29] Mathematics Study and Teaching Capacities and Results: TIMSS 2007-2015, p347
[30] International Student Assessment PISA: Georgia Report 2017, pp20,198; PISA 2015 Results Volume II: Policies and Practices for Successful Schools, *Table II.6.2 Index of Shortage of Educational Material, Science Performance and School Characteristics,* p391. http://dx.doi.org/10.1787/888933436513 (Reviewed 23 August 2019)

schools with good equipment is very low, and very new equipment provided by projects like MCC had not yet been provided.[31]

Having 10% more certified teachers, resulting in a 9-point variation in test scores. However, again, since we know that rural schools have fewer qualified teachers and they are also poorer, it is also hard to disentangle cause and effect.

Perhaps some of the most interesting findings in PISA, relate to the connection between teaching methodology and results. Their questioning and analysis on teaching methodology actually suggests that teachers who use traditional methods – so those that are focused on 'teacher directed instruction', actually do better than teachers who try and use enquiry-based instruction, (sometimes called 'student centered learning'). Use of enquiry-based instruction actually has a 16-point negative correlation with results.

It may seem strange as 'student centered learning' performs relatively poorly as many people will take it as an unquestioned article of faith that 'student centered learning' must always be best. However, there are reasons to question this dogmatic attachment to student centered learning. For a start, while 'student-centered' approaches are focal in the West, they are not widely adopted in Asian or former Soviet countries which, as we have seen, tend to perform well in PISA testing.

That said, even if 'student centered' approaches were shown to be better, it seems extremely plausible that teachers who have been teaching a certain way ('teacher centered') for many years are better-served to try and improve this methodology, rather than adopt a radically different approach.[32]

The idea that a radical shift to 'student-based' learning may be a step too far, is further supported by PISA results because, while 'teacher centered' approaches actually do better than 'enquiry-based' approaches, the research does suggest that teachers who are more engaged (while remaining teacher centered) do best of all.

Under the 'teacher-directed learning model' a focus on interaction and explanation correlates with positive results. For example, if one corrects for the income differences of students and schools, teachers who explain scientific concepts regularly achieve a 31-point higher science test results. Teachers who discuss their questions do 27 points better and teachers who conduct class discussions are 11 points better.[33]

The PISA Georgia report makes more or less this same point. In their recommendations, they argue that,

> 'Together with strengthening teacher capacity for using complex teaching strategies (such as enquiry-based teaching) teacher directed methods should be further

[31] International Student Assessment PISA: Georgia Report 2017, pp20,198
[32] International Student Assessment PISA: Georgia Report 2017, p197
[33] International Student Assessment PISA: Georgia Report 2017, pp106,196

> reinforced as well. In particular, within this approach a particular challenge for Georgian teachers is demonstrating science concepts, guiding effective discussions in large classes and providing effective feedback. Utilization of all these methods has a significant effect on student performance in Georgia as well as in other countries'.[34]

This analysis also aligns with a broader idea – that the PISA article makes in a range of ways, that the strategy for improving educational institutions should be differential, that is, the strategy for fixing a failing institution is different from the strategy to improve an already fairly decent institution. The PISA recommendations highlight this in both teacher training and educational management. In teaching training, they say:

> 'based on starting position of schools (student performance indicators and distribution of teachers across the categories of the professional development scheme) it is possible to introduce differentiated approached for teacher professional development activities. For example, in those schools where starting position is not favorable focus should be placed on centralized provision of professional development resources (e.g. electronic resources and consulting) while encouraging school principal and teacher development through the use of internal resources at those schools that are performing better to start with'.[35]

In broader terms, they argue that this differentiated approach should apply to educational management generally. In the final recommendations, they offer a summary of an academic paper which distinguishes different strategies for different levels.

[34] International Student Assessment PISA: Georgia Report 2017, p206
[35] International Student Assessment PISA: Georgia Report 2017, p206

Figure 9: Different strategies for institutional improvement dependent on the different starting point performance levels.

Level	Priority strategies
Low performing	- Developing detailed instructions on teaching processes for teachers - Introducing incentive structures for improving teacher performance - Ensuring student attendance and participation - Ensuring the attainment of a baseline standard for the school
Medium performing	- regular monitoring of educational process and the implementation of results-based accountability systems - Designing consultation system and supporting implementation of specific interventions based on results - Decentralization of administration and finances
High performing	- Strengthening role of staff in planning - Implementation and monitoring of educational processes - Removing administrative roles from teachers by employing administrative staff - Strengthening peer evaluation by teachers and principle - Encouraging Cooperation

Source: Michael Barber and Mona Mourshed (2007). How the World's Best Performing School Systems Come out on Top, McKinsey and Company, referenced in the International Student Assessment PISA: Georgia Report 2017, p203

In 'school environment', 'disciplinary climate' correlates strongly with student results, but parental involvement actually negatively correlates, suggesting that while discipline matters, parental involvement is not that important. This may come as a surprise to many, particularly Americans, who put a high premium on parental involvement, but is not particularly surprising. Finnish parents, for example, are notoriously uninvolved in school life.[36]

3. Some thoughts from International Comparatives

One of the driving logics of work in international development is the assumption that developing countries, in similar circumstances, can learn from each other. This has been made doubly true in the case of education because the plethora of systems for international standardized testing have provided a metric of comparison.

There are two ways in which the results of these standardized tests are most commonly used; for allowing cross-national comparison to help identify the successful and the less successful – one might say that the 'the winner' educational systems are those that produce the highest scores, while 'the losers' are those that produce the lower scores. Additionally, one can use these standardized tests to assess differences between systems as correlates of success.

[36] Ripley, Amanda. (2013). *The smartest kids in the world: And how they got that way*. Simon and Schuster.

These can be differences, across time, but in the same country, as in the policy analysis of longitudinal studies or across countries.

Both ranking and assessing cause in this way are problematic because of the problems of difference in context. Since different countries, or even the same country across time, are different in many ways, it is hard to isolate whether differences inside the educational system or outside the system are responsible for identified differences in results. Nonetheless, it is hard to get away from the need to try and use some standard for evaluation and learn lessons from *somewhere.*

As the founder of PISA is quoted as saying, "Without data you are just another person with an opinion".[37]

Therefore, the intent of the following section is to highlight some apparent lessons that seem to have been agreed by many of the academics who have been looking at these international comparisons for many years, at the same time as acknowledging the deep philosophical concerns that other academics have with precisely this kind of comparison.

If we accept the value of standardized international testing, it seems unavoidable that we will engage in the comparison game. Certainly, even people who know nothing about the literature of comparative education, and who have no idea what PISA or TIMMS are, will know that Finnish schools are good and that Asian schools score well in maths and science.

If this comparative is to serve any purpose, other than making parents in some countries feel happy and others miserable, it is presumably to offer comparative public policy lessons. If the Finnish are the best in the world, so the reasoning goes, then there must be something about their system that we can learn-from and adopt in our countries to make our systems better.

This seems intuitive, and has created a veritable cottage industry of books about which educational systems are best and why. It has also turned those people who have developed the testing systems over the last 20yrs into some of the most important people in educational reform globally. However, it has also created something of a backlash, with many writers arguing that 'context is king' and that the most important consideration is not to look for universal fixes, but to look for fixes that seem to align with cultural and socio-economic context. At the most metaphysical end, many educationalists would reject entirely the logic of comparing based on standardized test-scores, as they would reject the value of those scores as a reasonable metric for assessing if the educational system has achieved what it should achieve.

For our purposes, we will keep this simple, and highlight a few areas where there is considerable (though far from universal) agreement.

Possibly the most uncontroversial claim in the literature is that teachers matter, and that attracting the best and the brightest into the teaching system has been a cornerstone of most

[37] Quote attributed to Andreas Schleicher, the creator of the PISA system.

of the highest scoring countries, including Finland, South Korea and Singapore.[38] The biggest apparent determinant of being able to do this is the status of teaching in the country as a whole, but a fairly high starting salary is also seen as valuable.

Interestingly, and highly relevant for the discussion of Georgia below, a McKinsey and Company Report on the subject, also suggests that *when* you recruit is important. There are two places where one can be selective, restricting who gets into teacher training or allowing many teachers into training, but then selecting the best. They argue that it is important to be highly selective about who gets into teacher training, since the quality of students in teacher training will significantly effect that experience of that training – and will help make the profession more prestigious.[39]

It is also fairly uncontentious that in order to develop and retain good teachers one needs to have training that is heavily class-room based and instruction inside the school that specifically takes some of the best teachers and develops them into principles and coaches.

Another trait of successful countries is that teachers are treated as professionals and teachers act that way as well.[40] 'They have time to prepare lessons and learn from their peers. They tend to direct classroom instruction rather than be led by their students. Their advancement is determined by results, not by teachers' unions. There are high expectations of nearly every student and high standards, too.'[41]

Another area where there seems to be a fair amount of agreement is in the need for testing. The actual level of testing is very much open for discussion, but it is generally accepted that it is hard to know what is working, particularly while major reform is taking place, without testing students and evaluating schools using some kind of centralized and standardized methodology.

This issue can seem a little contentious, since the United States has considerable testing (and is considered pretty sub-standard) and Finland has relatively little. However, in most of the literature, there is an acceptance that data is essential to know what is working and what is not.

Standardized tests seem to be an effective way of ensuring smaller gaps between rich and poor students. 'Even in the United States, where tests have historically lacked rigor and

[38] This really does seem to be universally acknowledged, though is presented in different ways.
[39] McKinsey and Company (2017), *How the worlds best performing school systems come out on top*, OECD
[40] The Economist, '*Culture or Policy? What the world can learn from the latest PISA test results*' Published on December 10, 2016, available online https://www.economist.com/international/2016/12/10/what-the-world-can-learn-from-the-latest-pisa-test-results (accessed on August 20, 2019)
[41] The Economist, '*Culture or Policy? What the world can learn from the latest PISA test results*' Published on December 10, 2016, available online https://www.economist.com/international/2016/12/10/what-the-world-can-learn-from-the-latest-pisa-test-results (accessed on August 20, 2019)

purpose, African-American and Hispanic students' reading and math scores have gone up during the era of widespread standardized testing'.[42]

Rigor and high standards

Autonomy of schools is another controversial area. Again, some of the best school systems in the world include considerable autonomy, and some of the fastest improving systems have tried to give greater autonomy to schools, but in rapidly reforming systems, there has also been greater levels of testing.

The comparative literature it Teaching methodology – lots of variation

Parental engagement – lots of variation

In general, one area of concern about international comparisons is that it may create confusion if we prescribe transfer of structural characteristics from successful systems to less successful systems, without realizing that those characteristics only work in a more successful context. For example, on the subject of autonomy, the Mackenzie report says,

> 'In general, school systems use more prescriptive standards when the overall performance of the system is low, and then relax those standards as the system improve'[43]

Similarly, there may be methodological approaches that work well in the best schooling systems, but which are difficult to implement in school-systems with more problems.

More socially heterogeneous societies have more social heterogeneous results – and it is important to try and make sure that your social system combats, rather than exacerbates those differences. Streaming – bad – Poland example

Lucy Crehan, the author *Cleverlands*, a widely acclaimed book on PISA, points out that most of the successful countries delay formal schooling until children are six or seven. Instead they use early-years education to prepare children for school through play-based learning and by focusing on social skills. Then they keep students in academic courses until the age of 16.[44] Estonia and Poland, for example, try to keep selection by ability to a minimum: delaying "tracking" children into academic or vocational routes until they are 15 or 16 years old. By contrast, where students are diverted from an academic track at an early age, whether towards a vocational school or a less rigorous class in the same school, the gap between rich and poor children tends to be wider. In the Netherlands pupils at vocational schools have results equivalent to about three years less of schooling than their peers at general schools.

[42] Amanda Ridley (2014) The smartest kids and how they got that way, Simon and Schuster Paperbacks, New York, p132
[43] McKinsey and Company (2017), *How the worlds best performing school systems come out on top*, OECD, p35
[44] Lucy Crehan (2016), Cleverlands: the secret behind the success of the world's educational superpowers, Unbound, London

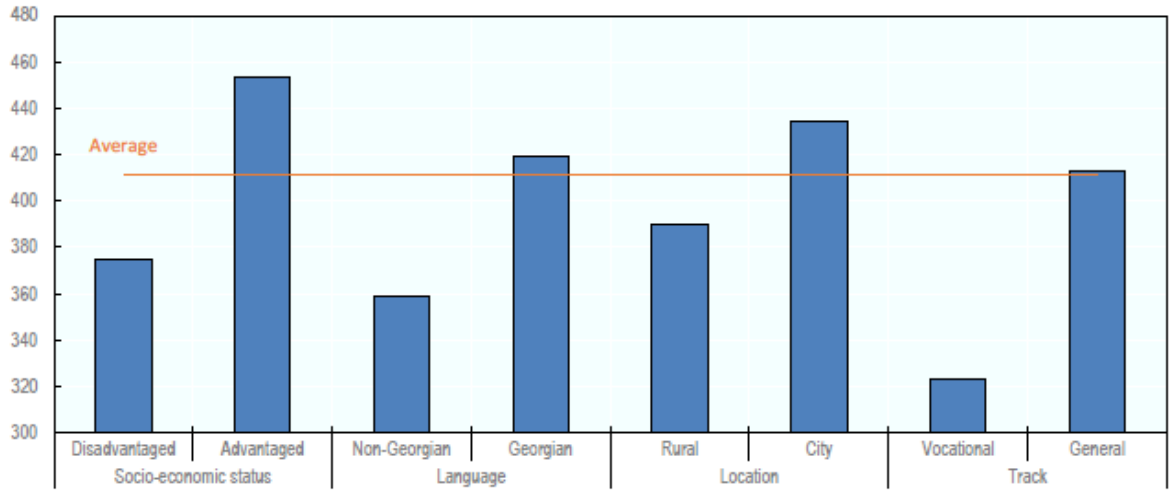
"The more academically selective you are the more socially selective you become", says Andreas Schleicher, the head of education at the OECD.[45]

4. Inclusiveness

One metric of international testing is how inclusive it implies the system to be. In the following section we will try to bring together information about what the testing, as well as what other analysis, can tell us about how inclusive the Georgian education system is. The inclusiveness of the education system can be organized around three dynamics; poverty and disadvantage, ethnicity, disability and gender. We will deal with each of these in turn.

A simple summary of some of the major basis for difference is given in the recent OECD report,

Figure 10: PISA 2015 science performance between different groups



Source: OECD/UNICEF (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia

We will consider these factors, as well as other differentiating factors for inclusiveness below.

4.1. Socio-economic considerations

As highlighted above, there are clear differences in scores between rural and urban, public and private. However, the PISA 2015 report states that most of these differences are explained by socio-economic considerations and language, since children from poorer backgrounds and children from non-Georgian backgrounds score lower. The implication of this could be that it is not that private schools are a lot better than public schools or that urban schools are a lot better than rural schools, but rather, that the worse performing group just have students from poorer families or (in the case of ethnic minorities) have students with less good Georgian language skills.

[45] The Economist, '*Culture or Policy? What the world can learn from the latest PISA test results*' Published on December 10, 2016, available online https://www.economist.com/international/2016/12/10/what-the-world-can-learn-from-the-latest-pisa-test-results (accessed on August 20, 2019)

Rather like the assessment of educational dynamic, while socio-economics is likely to explain a lot of the identified differences, there seem to be good reasons to believe that it does not explain everything.

Also, PISA highlights differences between the variations in its science, reading and maths scores. In general, they say that in science and reading, socio-economic and ethnic factors explain almost all of the variation. However, in maths they do say that there is an effect that is noticeable from private schools, which is greater than that which is explained by socio-economics and ethnicity alone.

PISA scores students on a scale of 'socio-economic status' which includes income and several other indicators. There is a considerable difference in the average scores of those in the upper quartile of socio-economic status versus those in the lower quartile; with a 78-point difference in science, 92- points in reading and 88-points in maths. Low socio-economic status students have 4 times higher probability of performing at the lowest level of proficiency in science and 5 times higher – in reading and math.[46]

This analysis is also in line with TIMMS. According to the TIMSS, 25% of 4th grade public school students and 5% of private school students do not reach the lowest standard. In the eighth grade, 28% in public-schools compare with 14% in private schools.[47] Therefore, the level of difference between public and private seems to be lower in the lower years.

While this difference may seem considerable, the socio-economic difference is NOT as high as the PISA average in 2015. This is mostly explained because a relatively small portion of ANY group in Georgia score at the highest possible level. The share of outstanding students, i.e. students demonstrating high proficiency (levels 5 and 6) on PISA tests is 8 percent in Georgia while in OECD countries it is 29 percent.[48] Therefore, slightly lower socio-economic variation might result from the fact that even private schools don't do particularly well, compared internationally. Also, it suggests that if teaching standards and wealth go up, we may see an increase in socio-economically driven variation.

According to PIRLS, the likelihood of low socio-economic status resulting in lower scores – is about the same as in other countries. Georgia is close to the average – where disadvantaged students are 3 times more likely to get a low performance than none-disadvantaged students.[49]

As we will see below, socio-economic considerations are definitely exacerbated by rural/urban splits and major differences in the physical infrastructure of schools, the qualification of teachers and resources more generally. Poorer children, all over the world, are immediately disadvantaged in the educational system, since they are less likely to have

[46] International Student Assessment PISA: Georgia Report 2017, p90
[47] Mathematics Study and Teaching Capacities and Results: TIMSS 2007-2015, pp7,342
[48] International Student Assessment PISA: Georgia Report 2017, p18
[49] PISA 2015 Results Volume I: Excellence and Equity in Education, Figure I.6.9. Likelihood of Low Performance Among Disadvantaged Students, Relative to Non-Disadvantaged Students, p222

the resources at home, their parents are less likely to be educated, they are less likely to have books etc. This is then usually exacerbated because schools that exist in richer areas have a concentration of more advantaged kids that help to raise expectations, create easier teaching environments, are more attractive for teachers (and so attract the best teachers) and have greater parental involvement. This natural clustering that happens in many geographies is exacerbated when the middle class send their kids to private schools or when more educated people are more likely to urbanize.

The most obvious inherent weakness of the current system in terms of disadvantaging poorer students, is that people living in rural areas are quite a bit poorer than people living in urban areas (particularly Tbilisi) and, on top of that, their schools are smaller, with worse infrastructure and with a more aging and less qualified work-force. If a school includes all 12 grades, then with fewer than 200 people, it becomes more or less impossible to have specialist teachers working for many hours in a week. That, in turn, makes it impossible to attract people to teach from outside the village.

There are a range of efforts to combat this natural disadvantage. The biggest national program is the support for High Mountainous areas. The law on high mountainous areas offers some benefits to the schools within its coverage. The largest benefit is the 142 GEL per month increase to teacher salaries in mountainous settlements (for full-time). In addition, the program funds sports trainers in such settlements to provide access to popular sports like football or rugby. In addition, infrastructure component of the program covers rehabilitation to sport facilities and equipment.

At the current time, this 'High Mountainous' classification covers 575 or around ¼ of all schools.[50] 22 of these schools are in towns, the rest are rural, so the program covers 35% of rural schools. However, these schools are much smaller than the national average, so only covers about 7% of students and 11 000, or 17%, of teachers.

Also, the university entrance system does not take into account the financial circumstance of students when providing financial support for university. As a result, far more people from rural areas are not even bothering to take the Unified National Exam, as they know that there is no way they would afford it. Around 70% of students who register for the national exam, end up entering university. However, only 20% get a state grant, and in its best form, this will only cover tuition fees. However, the distribution of that grant skews heavily in favor of urban, and even privately educated children.

[50] Parliament of Georgia (2015), *Law of Georgia on the Development of High Mountainous Regions*

Figure 11. Unified National Exam grant recipients by settlement and school types, 2014-2019

Grant recipient status	Settlement type			School type	
	Tbilisi	Urban	Rural	Private	Public
Received a grant	27%	19%	10%	28%	18%
Received a 100% grant	5%	3%	2%	5%	3%

Source: 2019 Report on School Graduation and Unified National Exams in Georgia

Share of grant recipients is significantly higher at expensive universities. Only 34% of students enrolled in universities with fee higher than 4000 GEL do NOT have a grant, compared to 78% for less expensive universities and 93% at regional universities.

This variability reflects differences in general levels of attainment, but is also supported by high levels of tutoring, particularly for the Unified National Exam specifically. According to 2011 International Institute of Education Policy, Planning and Management (EPPM study, 90% of surveyed schools students considered a tutor as necessary preparation for the Unified National Exam. It also showed that around 2/3 of wealthier families paid for extra tuition compared to ¼ of poorer families. Wealth of famiies also impacted on the quality and the cost of the tutor.[51]

4.2. Ethnicity

There are nearly 300 schools that are either non-Georgian or bilingual Georgian and either Russian, Azeri or Armenian.[52]

[51] Education Policy, Planning and Management (2011), *Examining Private Tutoring Phenomenon in Georgia*. https://drive.google.com/file/d/0B9RC0lzxlY4ZZDVhZGU1MmYtNGNiNS00OTFmLThmNjktZDRiNzYxNTIzZDcw/view (Reviewed 29 July 2019)

[52] Ordinance *N448 of the Minister of Education and Science of Georgia on Establishing General Education Institutions as Legal Entities of Public Law and Approval of a Public School Charter, Attachment N9*

Figure 12: No of students and schools in non-Georgian or bilingual public schools

Languages of instruction	No of students	N of schools
Armenian	12 831	117
Armenian/Azeri	145	2
Armenian/Russian	11	1
Azeri	15 117	79
Russian/Azeri	318	2
Russian	4 321	11
Total non-Georgian schools	**32 743**	**212**
Georgian/Russian	28 824	33
Georgian/Azeri	13 917	34
Georgian/Armenian	3 096	10
Georgian/Russian/Azeri	1 330	1
Georgian/Russian/Armenian	700	1
Total Georgian mix language schools	**47 867**	**79**
Total	**80 610**	**291**

Source: Ordinance of the Minister of Education and Science and Education Management Information System

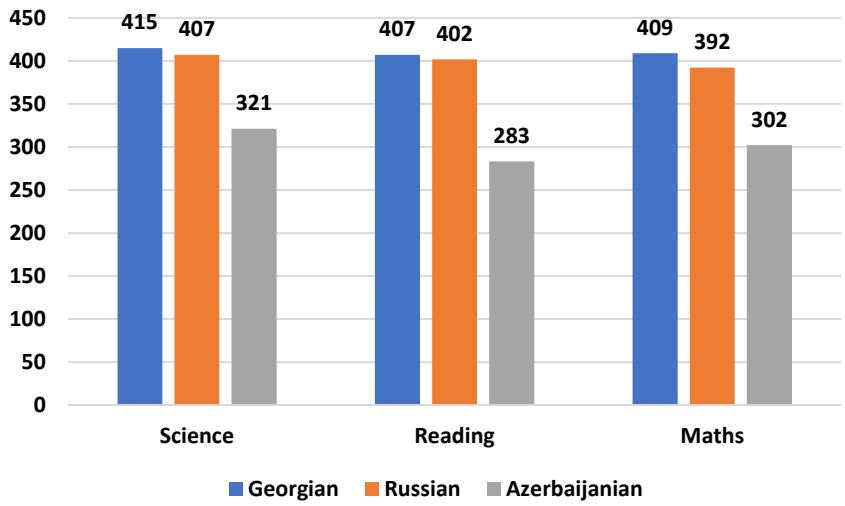
At 80 000, the total number of students in these schools is around 14% of the total student body, though the 32 000 who are not gaining instruction in the Georgian language, is around 5%.[53]

Of course, there are private schools that instruct exclusively in foreign languages, particularly English, Russian, German and French, but as these are a very small proportion of the overall student body and is heavily dominated by relatively wealthy families, this group need not be considered in detail here.

Ethnicity is another variable that PISA consistently highlights to have a significant effect on performance, over and above, socio-economic differences. For some reason the PISA 2015 report did not include a separate breakdown of results for Armenian populations. PISA 2015 reading and maths achievements significantly vary according to language, especially among those who did the test in Azerbaijani[54]:

[53] National Statistics Office of Georgia, *General Education: Number of General Education Schools and Pupils in Them*. https://www.geostat.ge/en/modules/categories/59/general-education (Reviewed 12 July 2019)
[54] International Student Assessment PISA: Georgia Report 2017, pp34,74,83

Figure 13. PISA score differences in student achievement according to teaching language



Source: PISA 2015 Georgia Report

Obviously, this shows a small difference between the Georgian and the Russian language schools, and a bigger difference between Georgian and Azerbaijani. However, in one part of the PISA analysis, they correct for socio-economic difference and, in the case of science and reading competency, this reduces the difference between Georgian and Azerbaijani students by about half. For maths scores, when one corrects for socio-economic difference, the linguistic effect disappears, but public/private divisions do start to show an effect. We asked why Armenian schools were not included in this analysis, but it was explained by NAEC that they had constituted less than 5% of the sample.[55]

Efforts to improve the Georgian language skills of non-ethnic Georgians in Georgia, are longstanding. One of the central focal points for these efforts, is the national concept on tolerance and integration, which has been implemented since 2009 and includes 6 directions:

- Access to Preschool education
- Access to general education
- Access to higher education
- Improvement of state language knowledge
- Access to adult education programs
- Access to vocational education

The first textbooks to teach Georgian as a Second Language were created in 2005 for grades 7, 8, and 9 and were also taught in grades 7-12 as it was not designed for specific grades. The textbooks were disseminated for free.[56]

[55] Engagement with NAEC officials 4th and 5th September 2019
[56] European Center for Minority Issues (2009), *Education Reform and National Minorities in Georgia, ECMI Working Report #46*, p15

Currently a 2015-2020 strategy and action plan on national concept on tolerance and integration is in force, according to which the quality of textbooks and teachers qualification remains a challenge.[57] According to the action plan, efforts to improve Georgian language skills of ethnic minority representatives include teacher training by TPDC and Zurab Zhvania School of Public Administration, public schools, professional development of school principals on their preferred language, introduction of dual language teaching and teacher training in this regard, assignment of consultant-teachers to non-Georgian schools, and improvement of textbooks.

The Professional Development Program for Non-Georgian School Teachers was launched in 2016 and combines the ministry's past programs 'Teach Georgian as a Second Language' (2009-2015) and 'Georgian Language for Future Success' (2011-2015). The aim of the program is to promote professional development of non-Georgian school/sector teachers and improvement of teaching and learning quality through strengthening state language teaching. Georgian language courses, professional skills trainings for teachers with A+ level Georgian language and informational resources, such as teaching schema guideline, self-assessment questionnaire and other schema-related and training materials in Russian, Armenian and Azerbaijani languages were disseminated.[58]

The Zurab Zhvania School of Public Administration (est. 2005), which is an LEPL of the Ministry of Education, offers State Language Program in three regions: Kvemo Kartli, Samtskhe-Javakheti and Kakheti at 10 regional educational centers (Marneuli, Bolnisi, Dmanisi, Gardabani, Tsalka, Akhalkalaki, Ninotsminda, Lambalo, Lagodekhi, Akhmeta) and mobile groups existing in villages. The program is accessible to anyone interested.[59] The language studies are financed by the state.[60]

Public schools teach a subject called Georgian as a Second Language. The National Curriculum 2018-2024 divides Georgian as a Second Language program in two, for the primary and base levels of general education. According to the current annual program, the primary level has 6 sub-levels for each of the first 6 grades[61] and the base level has 3 levels for each of the grades

[57] Ordinance of the Government of Georgia N1740 of 17 August 2015 on Approval of State Strategy and 2015-2020 Action Plan of Tolerance and Civic Integration

[58] National Center for Teacher Professional Development (2017), *Programs: Professional Development of Teachers of Non-Georgian Schools*. http://www.tpdc.ge/geo/non-georgian-teachers/68 (Reviewed 16 July 2019)

[59] LEPL Zurab Zhvania School of Public Administration, *Programs: State Language Program*. http://www.zspa.ge/eng/page/120 (Reviewed 9 September 2019)

[60] LEPL Zurab Zhvania School of Public Administration, *School History*. http://www.zspa.ge/geo/page/15 (Reviewed 9 September 2019)

[61] The Portal of National Curriculum, *New Primary Level Curriculum 2018-2024: Georgian as a Second Language (Annual 13.05.2016)*. http://ncp.ge/ge/curriculum/satesto-seqtsia/akhali-sastsavlo-gegmebi-2018-2024/datskebiti-safekhuri-i-vi-klasebi-damtkitsda-2016-tsels (Reviewed 9 September 2019)

7-9[62]. The current national curriculum does not have information on 10-12 grades but there are textbooks (for teachers and the students) for these grades.[63]

Therefore, while the work has been considerable, ever since 2009, there have been criticisms that Georgian language and non-Georgian ethnic support has been weak or poorly focused.[64] General education in some ethnic minority areas is possible only until 9th grade, after which it is necessary to go to another location to access 10-12 grades.[65] The main problem this creates, of course, is the lack of specialist teachers in minority languages.[66] In addition, small numbers of ethnic minority languages going into large schools may create resource problems for the schools they enter, as they will only bring voucher supplements to the school income, but since they may not be able to be absorbed into regular classes, they probably don't bring enough to cover the additional costs in teacher-time this requires.

A detailed consideration of this issue is beyond the scope of this project, as analysis of this issue clearly needs detailed consideration of the existing non-Georgian and dual-language schools, which we were not able to do. However, there are clearly significant numbers of ethnic minorities in Georgia who are coming out of schools with very little Georgian language skills, and with a standard of education which, according to international assessments is objectively worse than the Georgian language schools. In terms of direct evidence FG participants from Gorelovka also noted that one Math book was almost half Georgian, impossible for non-Georgian speakers to understand.

4.3. Gender

Gender is often not really seen as a major issue in the Georgian educational system, since girls, in fact do quite a bit better than boys, across the range, and quite a bit more so than the international average. According to PISA, in science, boys, on average across OECD countries, score 4 points higher than girls. Boys score significantly higher than girls in 22 countries. Georgia is one of only ten countries in PISA where girls score significantly higher than boys, with a 16-point gender gap.[67]

In maths, girls perform on average 8 points better than boys across the whole OECD, but in Georgia they perform 13 points higher. This difference is bigger in lower socio-economic groups, which is the reverse of the situation in most of the rest of the OECD, perhaps reflecting

[62] The Portal of National Curriculum, *New Base Level Curriculum 2018-2024: Georgian as a Second Language (Annual Program)* http://ncp.ge/ge/curriculum/satesto-seqtsia/akhali-sastsavlo-gegmebi-2018-2024/sabazo-safekhuri-vi-ix-klasebi-proeqti-sadjaro-gankhilvistvis (Reviewed 9 September 2019)
[63] Electronic Library of The Ministry of Education and Science. http://elibrary.emis.ge/ge/search (Reviewed 10 September 2019)
[64] European Center for Minority Issues (2009), *Education Reform and National Minorities in Georgia, ECMI Working Report #46*, pp16-20
[65] Civic Development Institute (2017), *Educational Needs of Ethnic Minority Students*, p32
[66] Liberali (2016), *Ethnic Azerbaijanians and State Language – "They Hear Georgian Only at Lesson of Georgian Language"*. http://liberali.ge/articles/view/26140/etnikuri-azerbaijanelebi-da-sakhelmtsifo-ena--qartuli-mat-mkholod-qartuli-enis-gakvetilze-esmit (Reviewed 10 September 2019)
[67] PISA 2015 Results Volume I: Excellence and Equity in Education, Table I.2.7. Likelihood of Low Performance Among Disadvantaged Students, Relative to Non-Disadvantaged Students, p222

the VERY low scores in poor boy students and the lack of exceptionally high scores, even in the wealthy.[68]

In reading, girls score better than boys across most of PISA countries, but in Georgia, the gap is an enormous 58 points.[69] In PIRLS (which is also a study of reading), which focuses on reading, the gap is also large, with girls doing 19 points better than boys.[70]

This is widely acknowledged, and actually suggests that, if anything, Georgia may need to focus on figuring-out how to ensure that boys are not excluded. However, there are still some gender weak-points for girls too. In particular, there has been some attention on the fact that, even though girls do better at maths and science, they are under-presented in math and science degrees. As a result of this, vocational training and university entrance, in the Science, Technology, Engineering and Maths (STEM) have focused on developing programs to expand inclusion of girls. The MCC project is a good example.

4.4. Disability

Inclusive education means that all students, regardless of ability, are able to attend age-appropriate, regular classes where they are supported to learn, contribute, and participate in school life. Since 2006, Georgia has been working to make its classrooms more accessible to persons with special educational needs (SEN). Inclusive education has been a mandatory component of general education since 2009 and of vocational education systems since 2013. However, much remains to be done. According to a study assessing the statutory legislation for inclusive education for persons with special educational needs, Georgian legislation was rated as 'partially supportive'.[71]

It is estimated that there are around 8600 registered students with SEN, up from approximately 3500 students in 2013. This seems to reflect a greater willingness of parents to place their children with SEN into public school. It also suggests improved efforts by the schools to identify and support students.[72] A process for assessment has been developed by the Ministry of Education and continues to evolve. Currently, if a parent of a child who is about to start school expresses concern for their child's individual needs or abilities, that parent and the school can jointly apply to be evaluated by the Inclusive Education Multidisciplinary Team (IEMT). If the application is approved, the IEMT visits the school and

[68] International Student Assessment PISA: Georgia Report 2017, pp83,194
[69] International Student Assessment PISA: Georgia Report 2017, pp14,193
[70] IEA (2017), *PIRLS 2016 International Results in Reading*, p36; IEA TIMSS & PIRLS International Study Center, PIRLS 2016 International Results in Reading: Exhibit 1.5: Average Reading Achievement by Gender. http://pirls2016.org/download-center/ (Reviewed 8 August 2019)
[71] Chincharauli, Tinatin., Javakhishvili, Nino. (2013). Inclusive Education Indicators in Georgia. Survey report prepared by the Ilia State University for the Ministry of Education and Science of Georgia.
[72] Personal correspondence with the employee from the ministry.

based upon their assessments, determines whether the child qualifies for additional support.[73]

If a child is already in school and a teacher suspects that s/he might have a special educational need, the teacher can, with parental consent, request an assessment by the school's specialist teacher or a trained psychologist (if the school has one) to confirm the need(s). If, after the intervention of the school specialist, the child continues to require further support, including teaching and/or physical adaptations, the school can refer him/her to the IEMT for further assessment. Once determined by the IEMT that the student does have special educational needs, that student will receive an individual learning plan (ILP) that establishes individualized goals and recommends specific modifications and/or adaptations.

While this process is certainly a step in the right direction, many hurdles persist. For example, though the number of students with SEN in school has significantly increased in recent years and special education has become a more accepted concept, many parents still refuse to allow their child to be assessed, not wanting their child to be labeled as 'special needs'. Moreover, attitudes of school administrations continue to vary from school to school, with some administrations strongly supporting assessment and inclusive education and others disparaging or discouraging it.

Also, structure of financing creates particular challenges. If 1-5 students with special needs are enrolled in a school, that school becomes eligible for additional financial support of GEL 500 per month. Only if the school receives a sixth SEN student does it then become eligible for an additional GEL 500 per month. This cycle continues with funding increasing in blocks of fives. While given some discretion on how to use the money, schools are expected to direct it towards the cost of a specialist teacher and the purchase of relevant special education resources. It's not uncommon, however, for some of this money to be instead directed towards general expenses, such as utilities, etc.

Schools that have even one student with SEN are supposed to hire a specialist teacher or psychologist. However, as the State Audit Office (SAO) report from 2016 revealed, this is not always the case: While a total of 6254 students with SEN studied in 1235 schools across Georgia in 2016, only 719 schools actually had a teacher or psychologist who had received some form of inclusive education training.

Current professional standards for Georgian teachers have likewise progressed over the years and now emphasize a teacher's ability to engage and instruct a student with special needs. Schools are now obliged to collaborate with the National Center for Teacher Professional Development or other authorized organizations in order to heighten the competence of the teachers in this area. From 2006-2010, the primary focus of such trainings was on awareness

[73] Ministry of Education and Science (2018). Order No16/n "Approving the regulations for the introduction, development and monitoring of inclusive education, as well as the identification mechanism for students with special educational needs"

raising. Since 2010 though, more specific needs such as teaching strategies and ILP development have been integrated into the training curriculum.[74]

While the quality of trainings and their availability is considered adequate[75], teacher turnout remains low, with many reporting a disinterest in the topic. Teachers also tend to perceive their abilities in the field of special education to be higher than their actual competence level. Despite receiving little or no training, many teachers report themselves to be proficient in the field of inclusive education. Unfortunately, the poor quality of ILP development and implementation across much of the country suggests otherwise.[76] While 73% of the teachers have had at least one student with a disability in their class, only 38% have received any kind of training on the topic.[77]

Internal and external processes were established to monitor a school's successful implementation of inclusive education practices. Internal monitoring is to be implemented by the school itself, at least annually, with results being presented by the school to the MoESCS. External monitoring, meanwhile, is conducted by the Ministry's IEMT. While this process should include an onsite visit and classroom observations, in practice, this rarely is the case. Due to human and financial constraints, most external monitoring consists of a remote randomized review of ILPs submitted electronically by the school.

Another consideration is physical infrastructure. Newly built schools are obliged to be accessible but many of the existing schools still fail to provide ramps, adapted bathrooms, or elevators. Previously built schools were not designed with persons with disabilities in mind, and adaptation of the building to better accommodate students with SEN is usually not a priority for infrastructure spending.[78]

According to the State Audit Office of Georgia (SAO), as of 2016, of 2082 public schools, only 17 were fully adapted to the needs of persons with disabilities. 624 schools had installed ramps, 26 had elevators, and 440 had adapted their lavatories. However, of the 223 schools where students in wheelchairs were enrolled, 101 didn't have a ramp and 143 didn't have adapted lavatories. 75 of those schools had neither a ramp nor an adapted lavatory. On the other hand, there were multiple instances where schools had been adapted but had no children with disabilities enrolled.[79] According to SAO, these inconsistencies stem from the absence of a control mechanism to prioritize school infrastructure development according to

[74] Chincharauli, Tinatin., Javakhishvili, Nino. (2013). Inclusive Education Indicators in Georgia. Survey report prepared by the Ilia State University for the Ministry of Education and Science of Georgia.
[75] Interview with Tamta Kamushadze, MAC Georgia
[76] Institute of Social Studies and Analysis (ISSA) (2018). Monitoring of inclusive teaching and transit education programs in Georgian public schools.
[77] Civic Development Institute (CDI) (2016) Inclusive Education Practices in Georgia: Implementation of the Convention on the Rights of Persons with Disabilities in Georgia (Right to Education).
[78] Institute of Social Studies and Analysis (ISSA) (2018). Monitoring of inclusive teaching and transit education programs in Georgian public schools.
[79] SAO (2017), Inclusive Teaching: Audit of Effectiveness, pp25-28. https://sao.ge/files/auditi/auditis-angarishebi/2017/inkluziuri-scavleba.pdf (Reviewed February 15, 2018)

the current needs of its student body. This is due, at least in part, to a lack of coordination between the Inclusive Education Development Division of the MoESCS and LEPL Education and Science Infrastructure Development Agency (ESIDA).[80]

Another ongoing shortcoming is the limited access to adapted technologies. Such resources are currently accessible for special schools only. Likewise, braille and gestural language learning program for students with sensory deficits is also currently only available in special schools.[81]

When a student with SEN completes primary school, access into higher education becomes a significant barrier. University entrance exams, for example, are not adapted to special needs. VET schools, meanwhile, have made better progress in the field, where infrastructure, materials and equipment are usually adapted for persons with SEN.

5. Attitudes to Education in Georgia

One of the great challenges facing anyone interested in educational reform in Georgia is that while there is clearly significant opportunity for improvement and a number of clear paths to achieve it, education is not really considered a priority by most of the population and parents, in particular, don't seem to be particularly unhappy with it.

This is a problem for those who want to undertake reform because even the most well-intentioned government official may see greater downside than upside to reform. If the population is clearly unhappy about the provision of a service, then fixing that failure brings political dividends for anyone who carries it out. But, if people are generally OK with the service, why bother to change it, particularly when that change will be disruptive and has strong constituencies opposed to it? This is one of the key reasons that major structural change has not happened in the Georgian educational system, in a way that has happened in other areas.

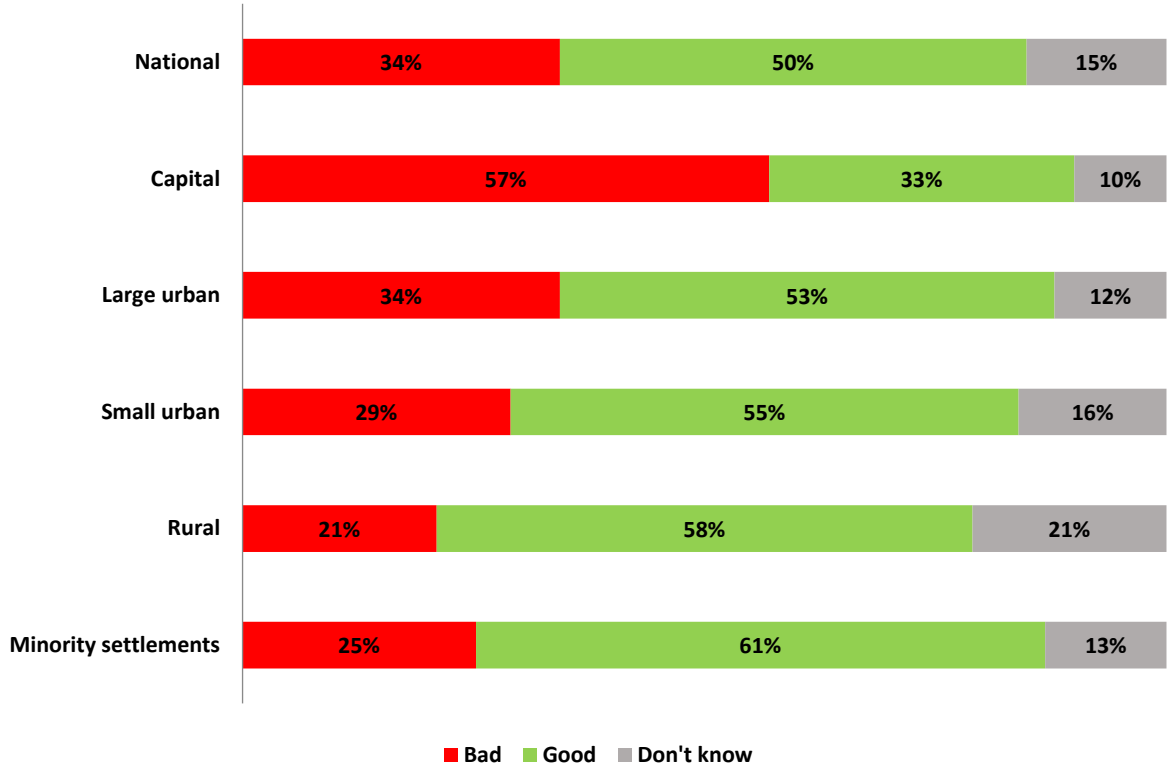
A National Democratic Institute poll carried out in December 2018 included a whole section on education, and was highly illuminating. First, when asked to list the 'three most important issues facing you and your family', only 12% listed 'education' as one of the three.[82]

Nonetheless, when asked about education policy in the abstract there was quite a lot of criticism. When asked whether the reform process was 'going in the right direction' or 'going in the wrong direction', 35% said improvement was positive, 30% saw no change and 27% said it was going in the wrong direction.

[80] SAO (2017), Inclusive Teaching: Audit of Effectiveness, pp25-28. https://sao.ge/files/auditi/auditis-angarishebi/2017/inkluziuri-scavleba.pdf (Reviewed February 15, 2018)
[81] Tinatin Chincharauli, Nino Javakhishvili (2013), *Inclusive Education Indicators in Georgia: Survey report prepared by the Ilia State University for the Ministry of Education and Science of Georgia*.
[82] NDI (2018), Public Attitudes in Georgia: Results of December 2018 Poll. p10

When asked how good or bad is the government at providing a high-quality education to all citizens, the picture was also not entirely rosy and varies considerably depending on the location of the speaker.

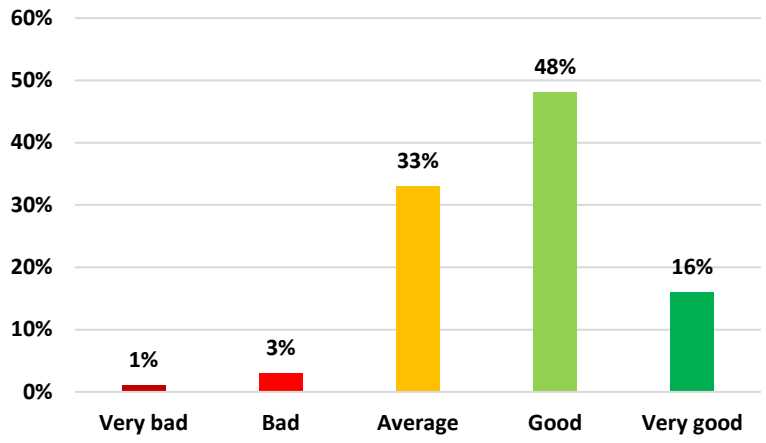
Figure 14: How good or bad is Government in providing high quality education



Source: NDI (2018), Public Attitudes in Georgia: Results of December 2018 Poll, p31

However, while government policy on education might draw a lot of general criticism, the assessments of schools and teachers is overwhelmingly positive. NDI asked parents to rate the schools their children attended.

Figure 15: Do you think that the school your children attends is….

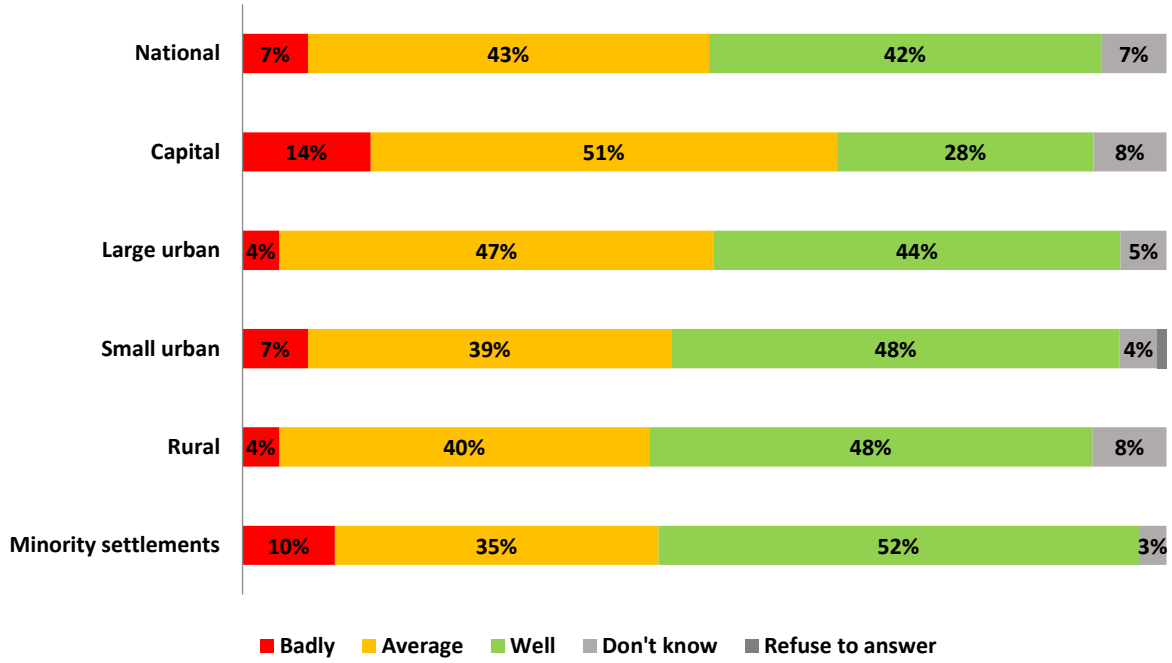


Source: NDI (2018), Public Attitudes in Georgia: Results of December 2018 Poll, p33

As we can see, only 4% consider the schools their children attend to be bad.

Assessment of the teachers is also pretty good. As part of their survey NDI asked the assessment of teachers.

Figure 16: How would you assess the professionalism (knowledge and skills) of public school teachers in Georgia?

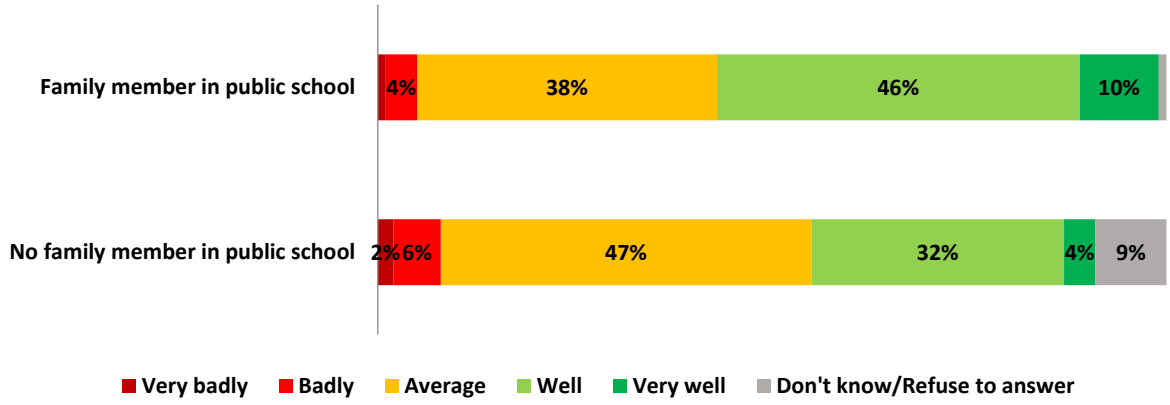


Source: NDI (2018), Public Attitudes in Georgia: Results of December 2018 Poll, p33

The data above is for the general population and is still fairly favorable with only about 7% assess parents badly, with 42% as good or very good and 43% as average. Again, the picture is a lot less optimistic in the capital, where almost 1/3 of respondents assess teachers negatively. The reverse of this is that in rural areas, only 4% had a negative assessment of teachers.

The assessment of people who have a family member in public school is even more positive than the general population.

Figure 17: How people assess the professionalism of public school teachers in Georgia



Source: NDI (2018), Public Attitudes in Georgia: Results of December 2018 Poll

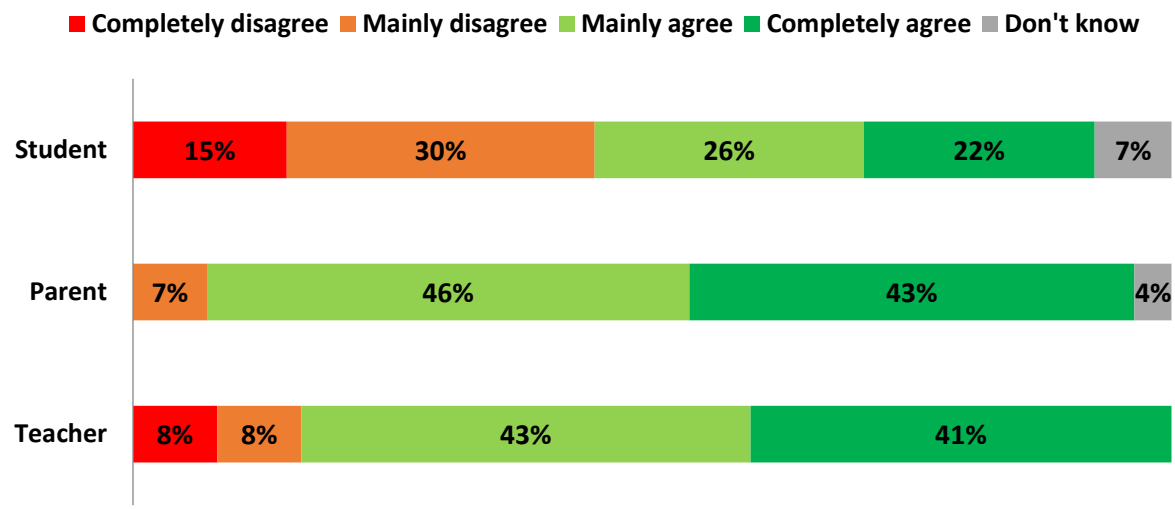
As one can see, the total negative assessment for people with family members in public education is 5% compared to 8% for those who don't. The positive assessment is even more different with households that have people in public education assessing 56% positively compared to 36% positively for those who don't.

TIMSS survey paints an even more rosy view. In their questionnaire 70% of Georgia's students are very satisfied with the schools - only 1% of parents were 'less satisfied' with the school.[83]

In our focus group survey, we asked all three groups whether they agreed or disagreed with the statement, 'Students mainly receive a good education'.

[83] Mathematics Study and Teaching Capacities and Results: TIMSS 2007-2015, p13

Figure 18: FG survey responses to statement ' Students mainly receive a good education'

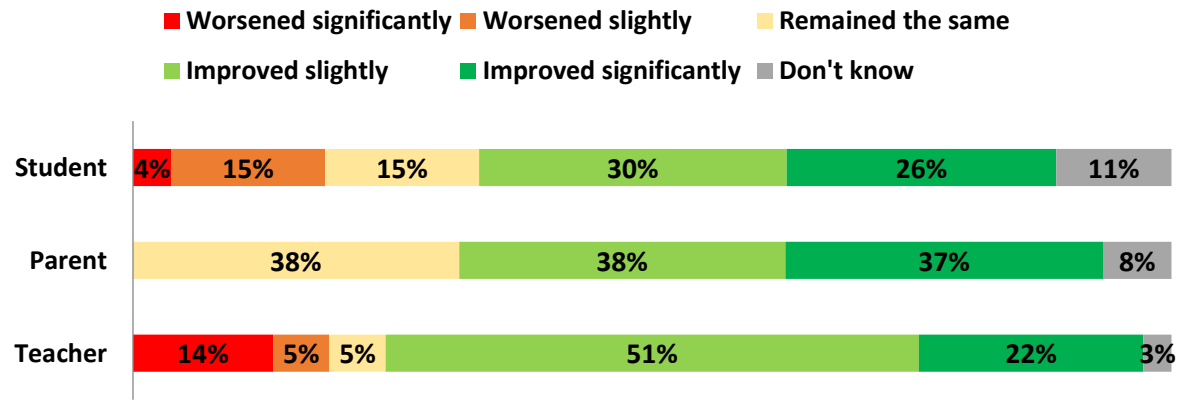


Source: Focus Groups, Conducted by GeoWel in June 2019

As one can see, consistent with other sources, around 90% of parents agreed that the education was generally good, with only 7% offering modest criticism and no-one completely disagreeing. Teachers, also, were overwhelmingly positive, though 16% or around 1 in 6 teachers have a more negative view. Most interestingly, our student focus group were the most skeptical group with 48% taking a positive view of Georgia's educational system and only a slightly lower 45% taking a negative view. However, in all of these focus group aggregations, it is important to stress that these are not representative samples.

To ask what they thought about the dynamic of change we also asked these three groups whether they thought the situation in schools had improved or worsened in the last 5 years.

Figure 19: In the last 5 years education quality at schools has:



Source: Focus Groups, Conducted by GeoWel in June 2019

Here, the picture is somewhat more positive. Only 1 in 5 students think that things have gotten worse, while more than half think that things have improved. No parents thought that

things are worse, and ¾ thought that it had gotten better. It is curious that, in relation to the dynamics, teachers are the most skeptical group with 14% strongly disagreeing that the situation has improved and another 5% disagreeing. This is an important number, since disillusionment amongst teachers is a potential big problem for education reform.

Perhaps it is not surprising. While salaries have gone up, they have mostly gone up for those who have passed the qualifying exam, and we know that this is less than half of the full body of teachers. Similarly, while there is more spending on infrastructure, not all schools will have benefitted. As we mention later, we also found out from the focus groups that many teachers are skeptical of the push to greater teacher qualification, suspecting that it is simply an excuse for getting rid of some teachers. In this context, having 19% suspicious of the direction of educational reform is not surprising.

As discussed at the start, the most surprising element of all of these results is the degree to which experts and parents seem to diverge in their assessment of the educational situation. While the majority of experts really focus on the weaknesses of the system, parents are generally pretty positive.

6. The Basic Structure of the Georgian Education System

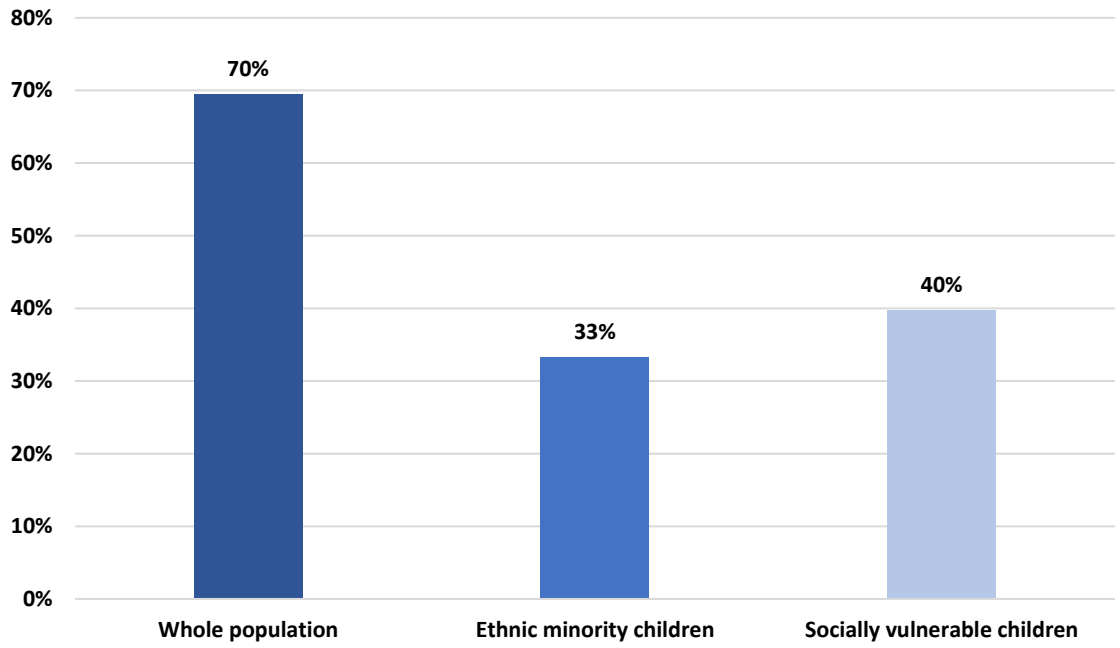
At the end of the 2018 school year there were 583 000 children in Georgian general education. These children were spread across 2305 schools. About 10% of the students (around 61 000) went to private schools, and this group represented about 10% of the schools. They are being taught by around 67 000 teachers or one teacher for about 9 students.

Regular general education starts at 6yrs old (year 1) and finished at 18yrs (year 12) at which point many people proceed to tertiary education; mostly university, but some go to vocational training. The research undertaken here and this report focused on General Education but, in this section, will also connect to pre-school and tertiary education, to provide a sense of how the whole system fits together.

Before starting school, preschool is available for four years, starting at 2yrs old. According to a 2018 UNICEF report, around 70% of children between 2 and 5 are enrolled in preschools, but this number is massively varied, depending on geography and socio-economics.[84]

[84] UNICEF (2018), *Study on Quality of Early Childhood Education and Care in Georgia*, pp6-7

Figure 20: Preschool enrollment rates of children from 2 to 5 years of age by different category



Source: UNICEF 2018 Study on Quality of Early Childhood Education and Care in Georgia Report

Similarly, there is considerable geographic variation, with Tbilisi seeing 89% inclusion, most of the other regions at 60-70%, and more ethnically diverse regions of Kvemo Kartli, Adjara and Samtskhe-Javakheti around 50-55%.[85] It is particularly troubling that children from poorer households do not attend, given the international evidence concerning the positive impact of pre-school education, particularly on the outcomes for students from low income households.

Preschool education, however, is widely criticized. Pre-school teachers are extremely poorly paid (averaging 336 GEL per month according to the UNICEF report), only about half of them have any teaching qualifications, classes are routinely very large and expenditure on resources is low.[86]

That said, the situation facing preschool in Georgia is changing quickly with a new law requiring pre-school children to follow a curriculum to prepare them to start school, courses developed to train pre-school teachers and considerable resources being devoted to upgrade facilities. This set of policies are being monitored by UNICEF, but is too soon to say how much effect this will have.

At the current time, general education in Georgia is mandatory until year 9 (usually finishing at around 16yrs old), though it has recently been announced that mandatory year will be

[85] UNICEF (2018), *Study on Quality of Early Childhood Education and Care in Georgia*, p6
[86] UNICEF (2018), *Study on Quality of Early Childhood Education and Care in Georgia*. This report will not, however, consider preschool education in detail

changed to year 10.[87] Around ¾ of schools teach students all the way from year 1 to year 12.[88] In some instances, students have the same year grade teacher throughout, though teachers generally divide into 'primary' (years 1-6) and 'secondary' (years 7-12).

Because school ceases to be mandatory after year 9, the transition into year 10 sees the biggest dropout rate, with the two years also seeing some students drop out. These rates have gone down a little in recent years.

Figure 21: Number who drop out of school in a given year

Year	2013	2014	2015	2016	2017
10	17%	15%	13%	14%	14%
11	6%	5%	4%	4%	5%
12	3%	3%	3%	3%	3%

Source: National Statistics Office of Georgia (GeoStat)

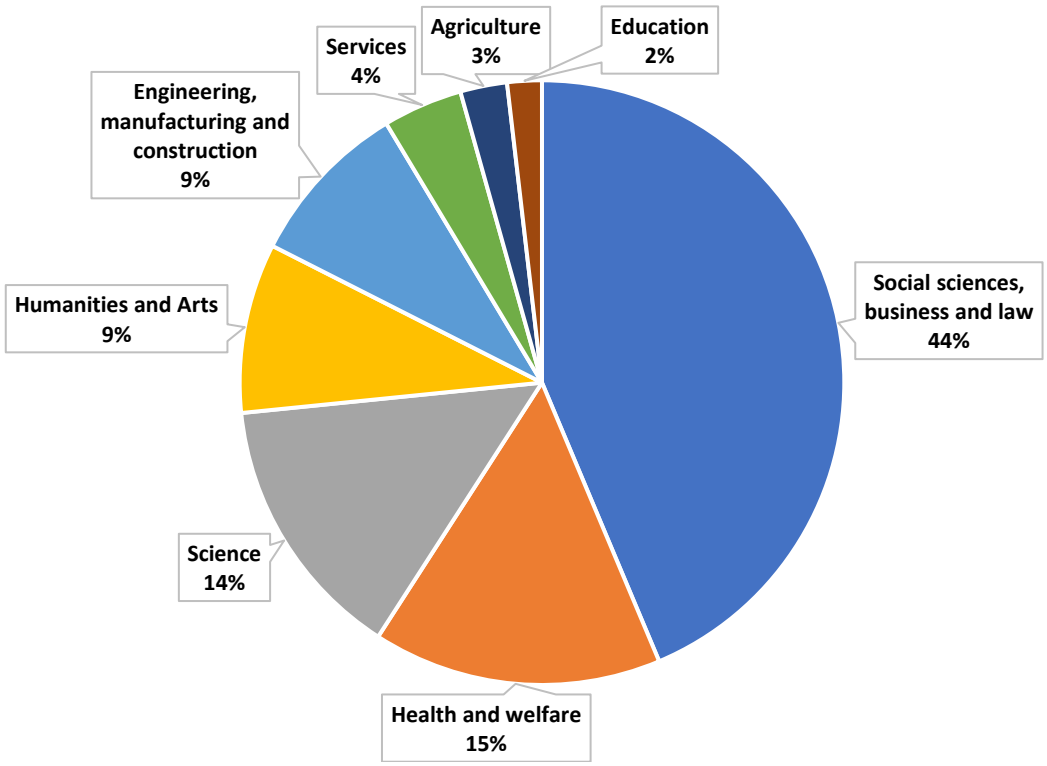
The number of students who leave school at this age has varied in recent years. But, at the current time around 14% dropout in the transition to year 10, with another 8% dropping out in the last two years. This has improved by a few percent in the last few years, but means that around 20 to 22% (or one in 5) of students who complete year 9, do not go on to complete year 12.[89]In terms of graduation and inclusion in tertiary education, in 2017 there were 35 763 public school students and 3 766 private school students in 12th grade.[90] Of this group:

- 34 260 (or 87%) passed the graduation exam
- 27 129 (69%) passed the unified national exam and gained the right to enter university
- 5 128 (13%) gained the right to enter vocational/professional colleges.[91]

We were not able to gain a breakdown of exactly which courses these students went on to study, but the breakdown of the 111 000 students in bachelor programs in the 2018, 2019 school year is as follows:

[87] Edu.aris.ge (2019), *"Mandatory Base Education to Be Increased from 9 to 10 Years" – Irina Abuladze*. https://edu.aris.ge/news/savaldebulo-sabazo-ganatleba-9-wlidan-10-wlamde-gaizrdeba-irina-abuladze.html (Reviewed 2 August 2019)
[88]OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p53
[89] National Statistics Office of Georgia, *General Education: The Number of Pupils Who Abandoned Their Studies*. https://www.geostat.ge/en/modules/categories/59/general-education (Reviewed 30 March 2019)
[90] National Statistics Office of Georgia, *General Education: Distribution of Public General School Pupils by Grades & Distribution of Private School Pupils by Grades*. https://www.geostat.ge/en/modules/categories/59/general-education (Reviewed 30 March 2019)
[91] Information provided directly from the Ministry of Education, Science, Culture and Sport, in response to a request email.

Figure 22: The breakdown of students in university education by program (2018-2019 school year)



Source: Ministry or Education, Science, Culture and Sports (2019)

7. Structure of Schools

At the beginning of 2019 Georgia had 2 305 schools. This represents a 420-school reduction in the last 15 years, or around 20%. The number of closures of public schools is closer to 30%. Most of the reduction happening between the years 2005 and 2010.[92] It is unclear how many of these closures actually represent a physical school being closed, as some experts have suggested that some of these closures were administrative and actually just involved consolidating more than one physical school under a single administrative umbrella.

7.1. Regional variation in schooling

The regional variation of school-size and involvement in private schools is considerable.

[92] Data provided by the Education Management Information Center of the Ministry of Education, Science, Culture and Sport of Georgia in January 2019

Figure 23: Breakdown of schools and students by region

Region	Number of students	% of total students	% of private school students	N of schools	Average school size
Tbilisi	200 862	34%	18%	288	697
Imereti	76 364	13%	8%	395	193
Kvemo Kartli	69 354	12%	3%	267	260
Adjara	57 687	10%	14%	255	226
Samegrelo Zemo Svaneti	43 452	7%	8%	262	166
Kakheti	42 531	7%	2%	193	220
Shida Kartli	37 623	6%	5%	171	220
Samtskhe-Javakheti	24 370	4%	1%	206	118
Guria	14 151	2%	7%	101	140
Mtskheta-Mtianeti	11 917	2%	3%	86	139
Racha-Lechkhumi and Kvemo Svaneti	2 954	1%	3%	68	43
Abkhazia	2 130	0.3%	0%	13	164
Total	583 395	100%	10%	2 305	253

Source: Education Management Information System (EMIS)

Obviously, Tbilisi stands out in a range of ways. As one would expect, since Tbilisi represents about 1/3 of the population of the country, it also represents about 1/3 of the student population. These students go to schools which are, on average, 3x bigger than schools outside of Tbilisi. Also, as one would expect, since Tbilisi is richer than the rest of the country, it has around double the proportion of private school students as the rest of the country. 1 in 5 students in Tbilisi go to private schools.

7.2. Rural/Urban

While the division by region is interesting, other metrics are more useful for understanding what is happening in terms of school size and private-sector education provision. We coded the 2305 schools manually by using the geographic location provided by the Education Management Information System of the Ministry of Education or by looking at school names.[93] This gave us the following breakdown.

[93] 'Urban-City' is made up of Batumi, Kutaisi and Rustavi, 'Urban-Town' includes other municipal centers, smaller cities and towns. 'Rural' includes townlets, villages and communities.

Figure 24: Number of students by settlement type

Settlement type	Private	Public	Total
Tbilisi	36 819	164 422	201 241
Urban – City	12 019	71 580	83 599
Urban – Town	9 923	97 612	107 535
Rural	2 180	188 840	191 020
Total	**60 941**	**522 454**	**583 395**

Source: Education Management Information System (EMIS)

If we merge the categories 'Urban-City' and 'Urban-Town' then the country roughly divides into three similar sized blocks with 1/3 of the student in Tbilisi, 1/3 for Urban non-Tbilisi and 1/3 for rural.

Figure 25: Number of schools by settlement type

Settlement type	Private	Public	Total	Average number of students per school
Tbilisi	115	176	291	692
Urban – City	39	94	133	629
Urban – Town	54	225	279	385
Rural	15	1 587	1 602	119
Total	**223**	**2 082**	**2 305**	**456**

Source: Education Management Information System (EMIS)

As one can see, there are around 5 times the number of schools in rural areas, as there are in Tbilisi, in spite of the fact that student numbers are roughly the same. Therefore, there are about 5x as many students per school in Tbilisi as there are in rural schools. However, even these averages understate the extreme variations across the country. If we break down schools into a wider range of size categories, we can see how different size schools are distributed.

Figure 26: Number of schools by size and by settlement type

Size of school range of N of students	Urban - Capital	Urban – City	Urban - Town	Rural	Total Schools	Total students
0 – 50	5	4	14	481	504	13 872
50 -100	13	8	23	433	477	35 306
100 – 200	43	21	49	426	539	76 537
200 – 500	71	36	109	233	449	135 947
500 – 1000	83	37	75	25	220	159 312
1000 – 2000	70	25	9	4	108	143 700
>2000	6	2	-	-	8	18 721
Total	**291**	**133**	**279**	**1 602**	**2 305**	**583 395**

Source: Education Management Information System (EMIS)

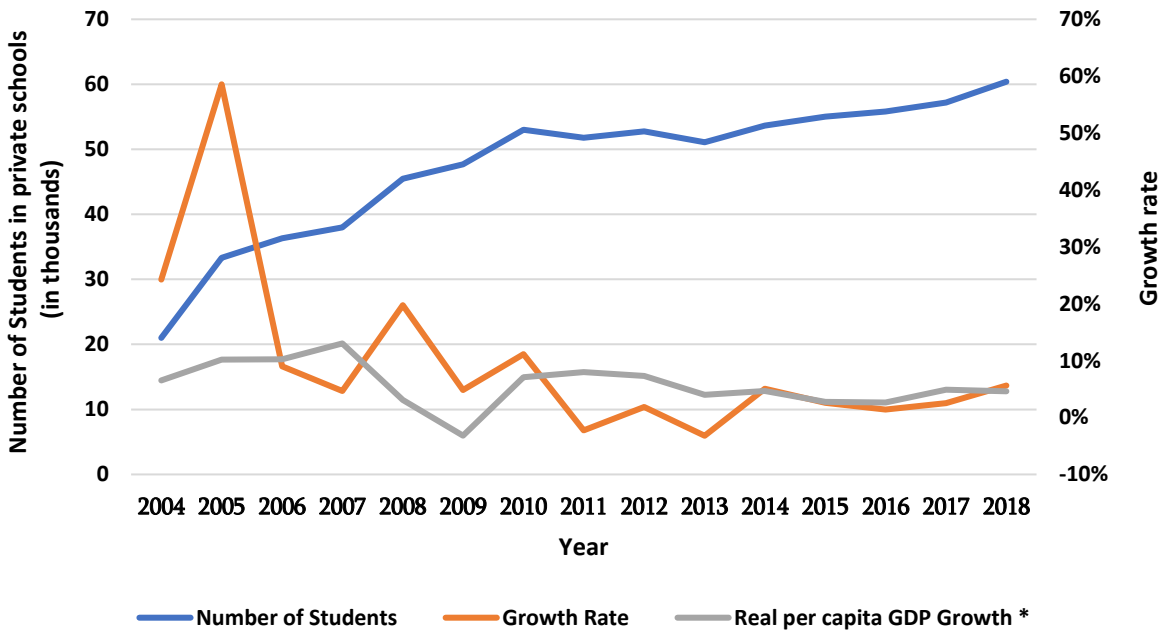
As we can see, 95% of students in schools with under 50 students, and 93% of schools with fewer than 100 students are in rural areas.

For many, this suggests that schools should be consolidated. This will be discussed further below, following a brief overview of many other characteristics of the structure of schools.

7.3. Private schools

The number of students in private schools has grown dramatically in the last 18 years.[94]

Figure 27: Number of students in private schools (2000-2018)



Source: National Statistics Office of Georgia (GeoStat)

It is worth noting a couple of factors about this dynamic. First, there has been a 6x increase in private education in 17 years that translates into an 11% year-on-year growth rate over the same period. Obviously, this is wildly higher than GDP growth, or the expansion of any 'middle class'. However, this growth is heavily concentrated in the 2004-2010 window. After 2004 we see slight declines and from 2014 growth seems to have been in-line with GDP growth.

It would need more analysis of the private sector to draw strong conclusions about what is driving this change. The most obvious explanation is that, as people have become richer a larger proportion has been able to send their children to private school. That would suggest the shift is demand driven. Another alternative would be that the nature of private schools has changed, so that maybe there are more schools opening at the lower price-end of the spectrum. This would suggest that the change was supply driven.

[94] National Statistics Office of Georgia, *General Education: Number of General Education Schools and Pupils in Them*. https://www.geostat.ge/en/modules/categories/59/general-education (Reviewed 12 July 2019)

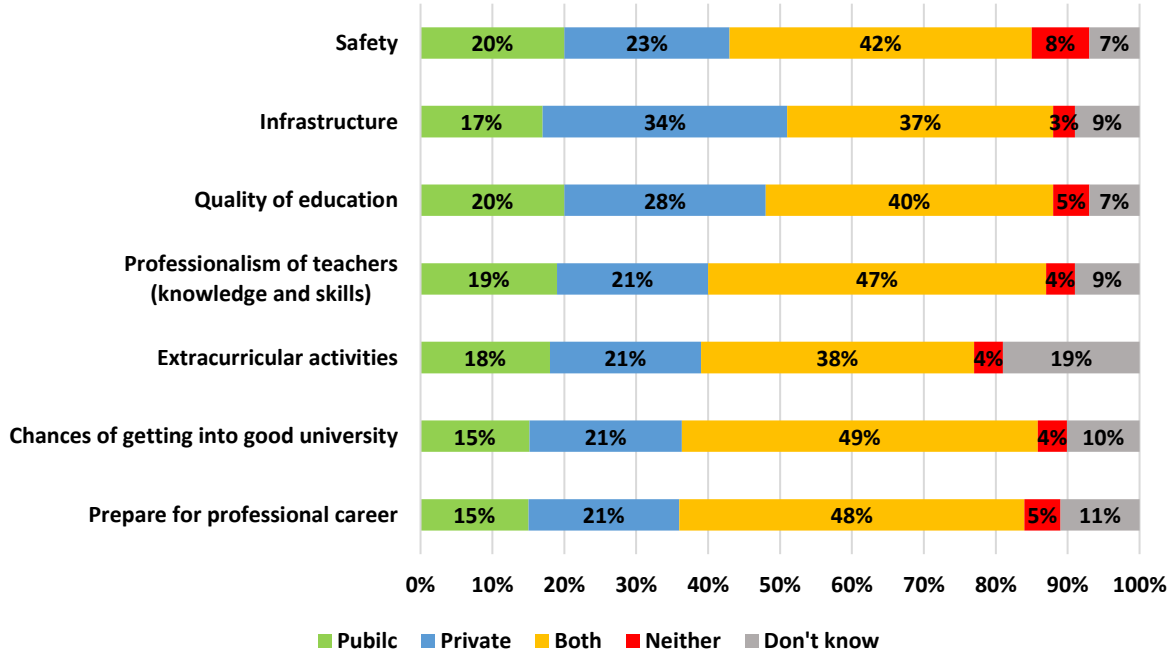
To decide between these two options, one would probably need more micro-analysis of private schools and surveys of parents' decision-making. This is beyond the scope of this research.

Whatever the exact explanation for the remarkable growth, it is telling of the level of dissatisfaction, at least amongst wealthier segments of Georgia's population. Private education is extremely wide-ranging in how much it costs. It can cost from 1000 GEL to more than 70 000 GEL per year. But given the relatively low salaries of most people living in the country, and the dramatic price sensitivity that this creates in other areas, even at the low end this is still a very significant cost to bare. It is therefore telling that 10% of families with students in the country and almost 20% of the Tbilisi population, choose to take on this burden.

On the face of it, this would seem to suggest that a significant proportion of parents are not satisfied with public education and, of course, belief that private education is better. However, as we have seen, when polled, most parents seem fairly happy with their schools. Similarly, when polled about public versus private education, the population also seems to equivocate, more than their actual spending patterns would suggest.

In the December 2018 National Democratic Institute (NDI) Poll, they asked about private education:

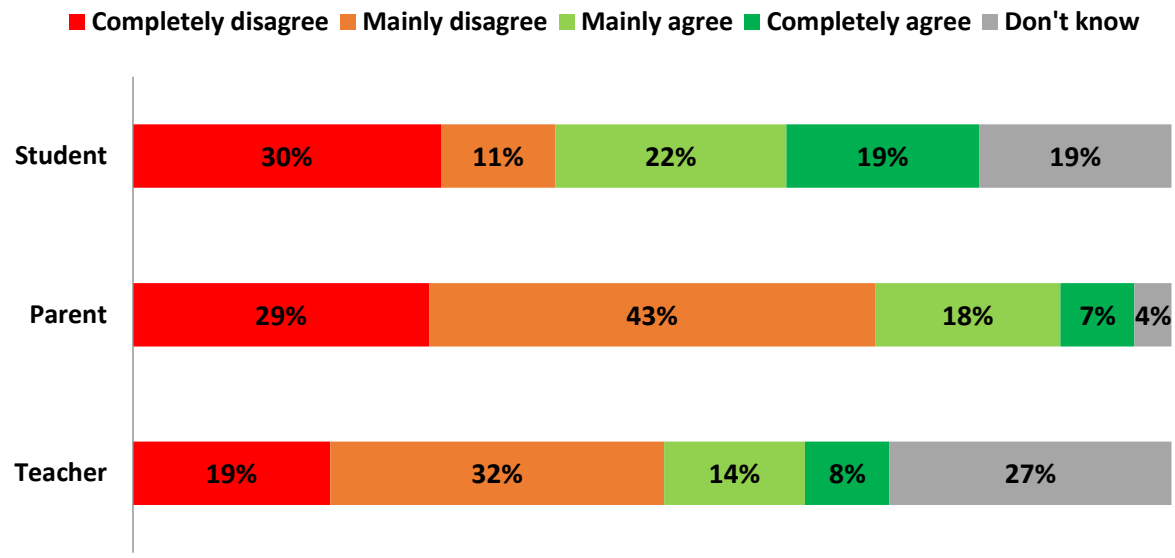
Figure 28: If you think about public and private schools in Georgia, which do you think better provides the following: public, private, both or neither.



Source: National Democratic Institute Public Opinion Poll 2018

Our focus group analysis actually suggested a similar pattern. Amongst parents and teachers, between 20% and 25% openly stated that they thought that private schools were better.

Figure 29: Focus Group responses to the statement, 'I think that private schools are better than public schools'



Source: Focus Groups, Conducted by GeoWel in June 2019

Students were, again, the most skeptical of public schooling, with the same 41% agreeing that private schools were better than public, as disagreed. 72% of parents thought that private schools were not better than public schools and just over half of teachers did not think that they were better.

Overall, it is hard to know what to make of all this. The easiest explanation is that those who send their children to public school have a strong incentive to believe that the schools are OK and people who send their kids to private schools, similarly, want to think that private schools are better.

But it is clear to the authors of this report, that at least in Tbilisi amongst the educated 'middle class' there is a strong conviction that public schools are very bad, and that any parent who is able to do so should send their child to private school.

This perception of 'desperately failing public schools' has established itself extremely strongly in certain parts of the public psyche. It is hard to be clear why it has come about. However, it has a number of curious features. First, many people will say that the system is a disaster, and will highlight the problem of the older teachers – but not only is there evidence that the system is not 'a disaster' but the older teachers who are so often highlighted to be part of the problem are the exact same teachers who taught the people who are complaining. These people, often don't consider their own education to have been too bad, and many who complain about the current state of the Georgian system will certainly say that the soviet system was better.

On top of that, while students at private schools perform better, once one takes into account the difference in socio-economic background of the students at private schools, the

difference largely vanishes.[95] As a result, one can say that private school students, if they went to public schools may have done no worse. Of course, this fact which is true in many different societies, rarely seems to convince wealthier parents.

7.4. Specialist schools and non-Georgian language schools

In addition to private schools, Georgia has a very small handful of specialized public schools. There are five schools specialized in physics and mathematics, out of which two are located in Tbilisi and the other three – in Batumi, Kutaisi and Rustavi.[96] These public schools are specialized in enhanced teaching of physics and mathematics where students cover advanced topics such as derivatives and limits.

These are very prestigious institutions to join, and the requirements are high. For example, Vladimir Komarov Tbilisi School of Physics and Mathematics N199 is one of the leading schools in Georgia. Students are only accepted into the school if they have an annual grade of physics and mathematics should be more than 7 and more than 6 in other subjects except for the foreign languages. The school also provides preparatory classes from the 3rd grade and classes in the evenings and week-ends. All of the additional classes charge fees. The other schools have slightly different profiles, but they are all selective.[97]

There are also two schools that specialize in German instruction and one that specializes in French.[98] They host around 8500 students in total.[99]

[95] International Student Assessment PISA: Georgia Report 2017, pp193,194
[96] Ordinance *N448 of the Minister of Education and Science of Georgia on Establishing General Education Institutions as Legal Entities of Public Law and Approval of a Public School Charter, Attachment N10*
[97] Tbilisi Vladimir Komarov School of Physics and Mathematics N199, *Admission Rules*. http://komarovi.edu.ge/ge/Admissions (Reviewed 19 July 2019); Tbilisi Vladimir Komarov School of Physics and Mathematics N199, *Evening School*. http://komarovi.edu.ge/ge/Tuition_fees_evening_school (Reviewed 19 July 2019); Tbilisi Vladimir Komarov School of Physics and Mathematics N199, *Saturday School*. http://komarovi.edu.ge/ge/saturday_school (Reviewed 19 July 2019); Tbilisi Ilia Vekua N42 Public School of Physics and Mathematics, *Admission Rules*. http://vekua42.edu.ge/ge/news/view/79?fbclid=IwAR3aiw92AGLDSkpkGhb5XL5D_2C0Lhu2j2SnVlVH3nl-20BE1l4sHU7Q1H0 (Reviewed 19 July 2019); Batumi N6 Public School of Physics and Mathematics, *Internal Regulations*, p29. http://pmc.edu.ge/skola/css-admin/css-admin/upload/shinaganawesi2018_2019.pdf (Reviewed 19 July 2019); Kutaisi A. Razmadze N41 School of Physics and Mathematics, *Internal Regulations*: *Chapter 12, Article 45*. http://41skola.blogspot.com/p/blog-page_74.html (Reviewed 19 July 2019)
[98] Ordinance *N448 of the Minister of Education and Science of Georgia on Establishing General Education Institutions as Legal Entities of Public Law and Approval of a Public School Charter, Attachment N10*
[99] Data provided by the Education Management Information Center of the Ministry of Education, Science, Culture and Sport of Georgia in January 2019

Figure 30: Type and number of students in specialist public schools

School specialization	N of students	N of schools
German Language	2 186	2
French Language	1 441	1
Physics and Mathematics	5 131	5

Source: Ordinance of the Minister of Education and Science & Education Management Information System

8. Physical infrastructure and school resources

Physical infrastructure is clearly a priority concern for many people. The 2017 Education Strategy says,

> 'Improving educational infrastructure is one of the most important prerequisites for creating positive environment in schools. The teaching and learning activities of about 2085 schools are conducted in more than 3000 buildings. As infrastructural problems of general education have been out of focus for decades in terms of maintenance and renewal of buildings, most of them are outdated and require rehabilitation or dismantling. Despite the fact that since 2013, significant work has been done in this direction: more than 20 new schools have been built, more than 1500 school buildings have been rehabilitated, and challenges are still big and require timely response. Infrastructural problems of small-scale schools are specific'.[100]

Schools have many problems regarding infrastructure and there is a general perception that this problem is greater in rural areas than in the big cities or the capital. Until relatively recently there was no real audit of Georgian public schools. The reporting of the Educational State Infrastructure Development Agency (ESIDA) did not allow one to deduce the scale of the problems or the scale of the work being done to fix it and the National Center for Educational Quality Enhancement does not even plan to start a public-school accreditation process until 2022.

However, in 2019, as part of the Millennium Challenge Corporation Compact, the MCC commissioned an assessment of all of the schools in Georgia, which made an estimation of the costs to fix Georgian schools. These reports were provided to us in November and are made up of 2000 detailed school reports and summaries for each municipality. We aggregated the costs included in the reports to generate the summary presented below.

Figure 31: Summary of School Renovation Costs by Region (million GEL)

Region	0-1 year	1-5 years	5-10 years	Total
Adjara	71	79	16	165
Guria	22	39	6	67
Imereti	84	104	17	205
Kakheti	56	103	17	175

[100] Ministry of Education and Science (2017), *Unified Strategy for Education and Science for 2017-2021*, p16

Kvemo Kartli	63	107	16	187
Mtsketa-Mtianeti	23	20	14	57
Racha-Lechkhukumi_Kvemo Svaneti	11	12	3	26
Samegrelo-Zemo Svaneti	75	117	20	212
Samtkhe-Javakheti	34	53	11	97
Shida Kartli	32	61	9	102
Tbilisi	78	172	20	271
Total	548	868	149	1 565

Source: MCC Reports provided by ESIDA, Nov 2019

This is a fairly modest total – representing an average of round GEL 780 000 per school. It is also certainly within the scope of the governments currently planned budgets. It is also in line with other actual costs that we have seen. The MCC project rehabilitated schools representing 8% of public school students, with USD 56.5 million (or 164 million GEL at current exchange rate). At the same level of spending, it would cost GEL 1.9bn to fix the entire system.

Media reporting on education and discussions with parents/teachers and students are dominated with discussion about infrastructure. This anecdotal evidence varies widely in its assessment of the nature and scale of the problem. Issues that are generally raised relate to two main categories of concerns. On the one hand, we could say that there are questions about minimal standards. These would include:

- Heating systems and insulation
- Sanitation, particularly toilet facilities
- Food and dining facilities
- The physical state of classrooms and classroom furniture
- Appropriate outdoor recreation areas.

On the other side, there is the question of how prevalent are what we might call 'the characteristics of a modern school'.

- Availability and use of ICT equipment
- Modern chemistry labs or facilities for wood-working or engineering

In 2015 the Institute of Social Studies and Analysis conducted a representative survey of 271 schools, that included interviews with 628 administration staff, 940 board members and 2261 teachers. This identified the most prevalent problems.[101]

[101] Institute of Social Studies and Analysis (2015), *Study of School Organizational Culture*, p83

Figure 32. Reasons for lack of safety of school infrastructure, 2015

Reason	%
Toilets need repair	57%
Classroom needs renovation	55%
Some classroom doors don't lock	44%
Frequent water supply problems at school	25%
Natural gas, electric and water supply systems need repair	21%
Heating problem in winter	20%
Stairs need repair	16%
No soap or hygienic products available	15%
Other	10%
Difficult to answer	6%

Source: Institute for Social Studies and Analysis (ISSA) Study of School Organizational Culture

In the rest of the section, we will start with a consideration of spending before looking at these problems in detail.

8.1. Spending on Infrastructure

The easiest way to compare different governments in terms of infrastructure improvements is to look at spending in this area.

Figure 33. Yearly education institution infrastructure development budget, GEL thousand, 2004-2019

Year	Ministry	Infrastructure development of general education institutions	General education institution infrastructure development share in total ministry budget
2006	358 165	73 473	21%
2007	410 829	78 831	19%
2008	457 214	25 333	6%
2009	488 430	8 284	2%
2010	537 844	13 775	3%
2011 plan	561 144	32 030	6%
2012	627 303	60 613	10%
2013	679 861	35 624	5%
2014	741 113	62 820	8%
2015	825 894	52 583	6%
2016	955 729	38 150	4%
2017	1 397 211	67 510	5%
2018	1 461 270	54 712	4%
2019 plan	1 508 500	80 000	5%
2020 plan	1 636 000	80 000	5%

Source: Ministry of Finance of Georgia; ESIDA[102]

Here, we can see that in 2006 and 2007 we really saw a spike in infrastructure spending, which was used to help alleviate some of the most extreme needs following many years of low or non-existent spending. Following that, infrastructure spending has gone up and down.

However, for the last few years, infrastructure spending has been heavily supplemented by supported by the Millennium Challenge Corporation. They have recently completed a project that provided a large grant, out of its USD 140 million education support project, to rehabilitee Georgian general public schools. This component was worth approximately 56.5 million USD. This has affected 91 schools, which include 40 000 school children, or around 8% of the public-school population. This would definitely mean that, in total, spending on infrastructure has been a lot higher in recent years.

In the short term the Improved Learning Environment Infrastructure Activity is expected to:

- Rehabilitate 91 schools across Georgia;
- Introduce science labs in the rehabilitated schools; and
- Improve school infrastructure maintenance practices in Georgia.

[102] 2012-2014 financial data provided by ESIDA, the rest of the amounts retrieved from the yearly state budget assignments available online at the website of the Ministry of Finance of Georgia

Now that the project is over, the government is also upscaling its own infrastructure spending. In addition to the infrastructure spending that is listed in the table above, the government is also financing infrastructure improvements of schools and new school building through other mechanisms. It has been decided that in 2019 and 2020, 40 million GEL per year will be given to the municipal governments to carry out and manage school repair.[103]

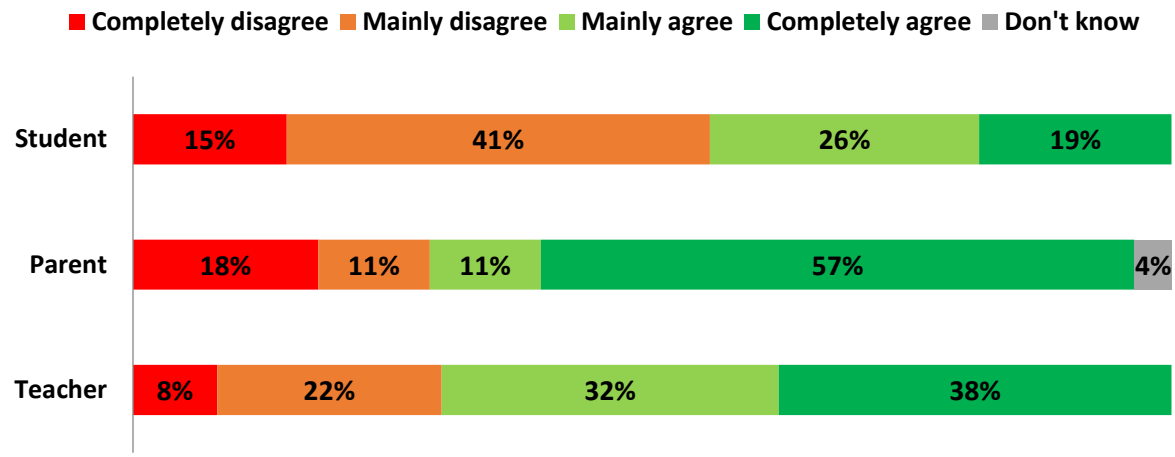
Also, the Municipal Development Fund, which is administered by the Ministry of Regional Development and Infrastructure (MRDI) received GEL 41.5 million in 2019 and will receive GEL 100 million in 2020 to rehabilitate 18 schools and build around 30 new schools.[104]

To provide some of the resources for this expansion, in June 2019 the World Bank signed a 90 million Euro loan, with 70 million Euro committed to facilitate improvement of educational infrastructure, though this will be covering preschool, general education and university.[105]

8.2. Attitudes to Physical Infrastructure

Our focus group discussions presented fairly contradictory results in terms of attitudes towards infrastructure. When we asked students, teachers and parents, now do you feel about the statement 'School infrastructure is adequate for the learning process', about 2/3 either agreed or strongly agreed with the statement, while 1/3 disagreed or strongly disagreed.

Figure 34: Focus Group responses to the statement, 'School infrastructure is adequate for the learning process'



Source: Focus Groups, Conducted by GeoWel in June 2019However, the breakdown was not even, while around 70% of parents had a fairly positive outlook (as they agreed or strongly agreed with the same statement), more than half of students disagreed with the statement.

Curiously, Progress in International Reading Literacy Study, showed varied levels of Georgians teachers concern about poor resources like text-books, supplies, physical infrastructure,

[103] Information provided during interview with MRDI, November 2019
[104] Information provided during interview with MRDI, November 2019
[105] Municipal Development Fund of Georgia (2019), *70 Million EUR Delivered to MDF for Construction and Rehabilitation of Schools*. http://mdf.org.ge/?site-lang=en&site-path=news/&id=3288 (Reviewed 24 July 2019)

heating or technology. While around 1/3 of head teachers said that their students were extremely negatively affected by limited resources, on average, this put them around the median level in terms of their negative assessment on this issue, compared to other countries. This is surprising given that Georgia is objectively poorer than almost all of the other PIRLS countries. For examples, Georgians said that they considered education to be less resource constrained than head-teachers in Russia, Latvia, France or Israel.[106]

Part of this might reflect a general desire not say bad things about their own schools. In terms of general school environment, all three groups that we surveyed (teachers, parents and students) usually think that their school is better than other schools in the area, even compared to private schools.

Another caveat to this perhaps surprisingly positive tone on the subject of infrastructure, is the fact that while parents and teachers may not want to harshly criticize their schools in general terms, many of our focus groups had many complaints when it came to talking about specifics.

There was a strong sense from our focus group discussions that the situation in rural areas is particularly bad in terms of infrastructure. Amongst the complaints we had, toilets are outside the main building and often not in good sanitary condition, walls of the classroom need renovation, there is a lack of biology/chemistry labs and materials, short supply of chalk, maps and other materials, heating system consists of wood stoves, buffets/cafeterias are non-existent and chairs/tables are outdated.

This picture is further confused because, as our focus groups suggested, directors or particular teachers manage to receive grants from the government or external donors. For example, the Russian language school in Gorelovka (Ninotsminda municipality) has a small gym with all necessary equipment; the school in Ikalto has a 'civil education classroom' which has necessary materials and renovated walls thanks to a grant application by the civil education teacher, public school N1 in town Vale (Akhaltsikhe municipality) has a fully equipped chemistry lab.

8.3. Heating and insulation

One of the direst problems that a school can face is proper heating, as students cannot study if they are too cold. Most commentators now accept that having classrooms that are too cold is now a concern that effects relatively few schools, but there are still regular reports in the media about schools without regular heating.

Two problems seem to be prevalent First, rural schools lack central heating system and mostly use firewood stoves in the classrooms.[107] These wood burners are generally sub-optimal as

[106] IEA's Progress in International Reading and Literacy Study – PIRLS 2016: Exhibit 5.4: Instruction Affected by Reading Resource Shortages – Principles' Reports (Downloaded from: http://pirls2016.org/download-center/ March 2019)
[107] Institute of Social Studies and Analysis (2015), *Study of School Organizational Culture*, p30

they only heat small parts of a school and can produce smoke that can be harmful, particularly for young children.[108] This is usually the simple result of lack of gasification, since significant rural areas in Georgia remain unconnected. The second problem is that even where there is gas supply and central heating systems, they do not work or do not work properly and also maybe have to use wood-burners.[109] It is also commonly suggested that the ineffectiveness of the heating system may reflect poor insulation or the school/state's management failings in contracting a private company to maintain the system.[110]

8.4. Water and sanitation

Another theme that comes up in the media and discussions with parents is the dire state of water and sanitation in many schools. Complaints on this issue became so severe that it in 2017 it triggered a Public Defenders Office (PDO) Investigation and general report.

For this the PDO selected a representative sample of public schools using a cluster sampling method, with a special focus on rural and high mountainous schools. As a result, field visits with quantitative and qualitative research instruments were conducted at 108 public schools in 6 regions[111]. In addition, the PDO conducted interviews with school administrations and focus groups with 5-7 graders. They also analyzed international and national laws and assessed the quality of implementation and monitoring of regulations at schools.[112] The PDO's monitoring revealed a wide range of problems.

[108] Access Washington (2012), *Publication #91-br-023: How Wood Smoke Harms Your Health*. https://fortress.wa.gov/ecy/publications/publications/91br023.pdf (Reviewed 19 August 2019)
[109] Radio Free Europe/Radio Liberty (2015), *Schools and Kindergartens Heated by Wood – Danger for Children*. https://www.radiotavisupleba.ge/a/sheshit-gamtbari-skolebi/27318485.html (Reviewed 16 May 2019);
[110] Edu.aris.ge (2017), *Newly Built School Without Heating - Study Process Factually Failed*. https://edu.aris.ge/news/axalashenebuli-skola-gatbobis-gareshe-saswavlo-procesi-faqtobrivad-chashlilia.html (Reviewed 5 June 2019) and Borjomi.tv (2013), *Five Schools of Borjomi Without Heating*. https://borjomi.tv/gadacemebi/dris-qronikna/article/663-borjomis-khuti-skola-gatbobis-gareshe (Reviewed 5 June 2019); Georgian Informational Agency Sakinform, Several Tsalenjikha Municipality Schools Left Without Heating. http://saqinform.ge/news/2578/walenhixis+raionis+ramdenime+soflis+skola+gaTbobis+gareshe+darcha.html (Reviewed 5 June 2019)
Business Media Georgia (2018), *School Heating in Adigeni Municipality.* https://www.bm.ge/ka/video/skolebis-gatboba-adigenis-municipalitetshi/11347 (Reviewed 17 May 2019)
[111] Adjara, Samegrelo-Zemo Svaneti, Kakheti, Samtskhe-Javakheti, Racha-Lechkhumi and Kvemo Svaneti, Kvemo Kartli
[112] Public Defender's Office of Georgia (2018), *Access to Water and Sanitation in Public Schools of Georgia: Special Report*, pp5,6,30

Figure 35. Results of water and sanitation monitoring at public schools, 2018

Problem	%
No drinking water	17%
No non-drinking water	10%
Irregularly or never monitored water and sanitation	71%
No special internal regulations relating to access to water	77%
No canteen	74%
No medical room	68%
No disinfection	8%
No toilet	2%
No central water supply system inside the school building	64%
No central water supply system in the school yard	55%
Sanitary facilities partly or fully dysfunctional, technically ineffective or dirty	83%
No ventilation system	67%
Only natural ventilation	31%
No soap	56%
No hand paper	73%
No flushing system	74%
Hygiene issues not taught at school	11%

Source: Ombudsman's 2018 Report on Access to Water and Sanitation in Public Schools of Georgia

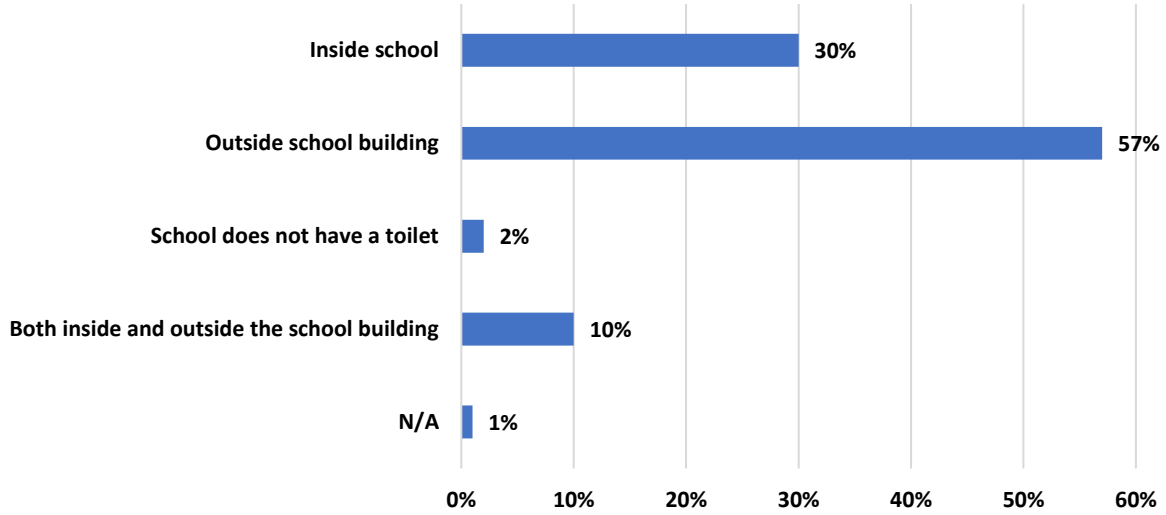
The research identified 17% of schools have no access to drinking water and 10% have no access to non-drinking water, so that students are not even able to wash their hands, or for the cleaning staff to clean properly. In these cases, people would bring water from home or a remote point. [113]

Only 17% of toilets were functional, effective and clean. Often toilets did not have doors and/or windows, and washing sinks, sewage systems and flush systems did not work. Schools also indicated the lack of funds for toilet improvements.[114]

Rural and high mountainous school toilets often were located outside of the school building in a form of small, mostly wooden cabins.

[113] Public Defender's Office of Georgia (2018), *Access to Water and Sanitation in Public Schools of Georgia: Special Report*, pp30-32
[114] Public Defender's Office of Georgia (2018), *Access to Water and Sanitation in Public Schools of Georgia: Special Report*, pp32-35

Figure 36. Location of a toilet booth in public schools of Georgia



Source: Ombudsman's Report on Access to Water and Sanitation in Public Schools of Georgia

In addition, rural schools have garbage collection problems, so that they either burn garbage in the courtyard, throw in the river or collect and store it for a week until the special service come to collect it.[115]

According to the school representatives, at 91% of public schools, toilets were cleaned every day. At 79% of schools they were cleaned by cleaning staff. However, 77% of schools do not maintain any record of this. The study also indicated to the lack of disinfection standards and related knowledge, as 72% of cleaning staff often uses chlorine in toilets, classrooms and even for cleaning student's desks as they have no funds for appropriate cleaning materials.[116]

Monitoring of water safety is problematic because of geographic inaccessibility or financial problems and so differs among regions. Additionally, there is lack of knowledge among school administration on water safety examination methods and responsible agencies. Moreover, pupils' knowledge about hygiene and water safety is general and superficial; and that children are often involved in the cleaning process themselves.[117]

Awareness raising among children and allocation of funding for central water supply system and school items were named as the most needed measures to improve water, sanitation and hygiene norms at public schools. [118]

[115] Public Defender's Office of Georgia (2018), *Access to Water and Sanitation in Public Schools of Georgia: Special Report*
[116] Public Defender's Office of Georgia (2018), *Access to Water and Sanitation in Public Schools of Georgia: Special Report*, pp37-39
[117] Public Defender's Office of Georgia (2018), *Access to Water and Sanitation in Public Schools of Georgia: Special Report*, pp39-40
[118] Public Defender's Office of Georgia (2018), *Access to Water and Sanitation in Public Schools of Georgia: Special Report*, pp40-42

8.5. Nutrition

Another area, already highlighted in the previous section is the problem of nutrition in schools. The first problem is the presence of canteens. As has already been mentioned, around ¾ of schools in Georgia do not have cafeterias. While the ¼ of schools with canteens probably represent a lot more than ¼ of the students, the wide absence of canteens will leave many children in a difficult situation regarding their daytime nutrition.

One student from our focus group, when complaining about the lack of canteens at her child's school said,

> 'There is no cafeteria, but there is a small shop nearby. Sometime kids manage to run down there during a break and buy something, but not always. And they don't really sell normal food there (parent, Mushki public school).

Even where there is a canteen, the food offered is rarely healthy, mostly snacks like chocolate, potato chips, low-quality pastry and soft drinks. Another issue is fast food venues located near the schools where students can easily buy unhealthy food.[119]

In 2015 the Minister of Labour, Health and Social Affairs (MoLHS) approved national recommendation/guideline entitled 'Healthy and Safe Nutrition at School' which outlines school nutrition standards in detail and forbids the sale of snacks at schools. This was formally accepted by Ministry of Education in 2017 who also took responsibility for monitoring the policy.[120] In addition, in 2017 trainings were held for public school food block operators.[121]

However, the school canteens have not really been fulfilling the recommendations. The National Food Agency (NFA) – LEPL of the Ministry of Agriculture - implemented initial visits to 80 school food blocks in 2019. The NFA database does not have information on the type of violations detected at the visited food blocks. However, the NFA database does show that 59 schools had repeat visits, implying that around 74% of the schools needed to make improvements that required verification visit.[122]

[119] Analysis and Consulting Team (2016), *National Study of Nutrition in Georgia*, p51

[120] The Ministry regulation banned the sale of chewing gums, candy, chocolate, aromatized snacks, food with mayonnaise, mushroom, canned products, confectionary with cream, carbonated drinks except mineral water, thermally unprocessed egg

[121] Ministry of Education, Science, Culture and Sport of Georgia (2017), *Persons Responsible for School Nutrition to Be Trained*. http://mes.gov.ge/content.php?id=7434&lang=geo (Reviewed 2 August 2019)

[122] National Food Agency (2019), *State Control Results: State Control if School Food Blocks (Year 2019).* http://nfa.gov.ge/ge/sursatis-uvnebloba/inspeqtireba (Reviewed 19 August 2019)

Figure 37. Food Safety Agency Control Visits to School Food Blocks, 2019

N of visits	N of food blocks
1 visit	21
2 visits	52
3 visits	5
4 visits	2
Total	80

Source: National Food Agency

8.6. High Tech Infrastructure

Beyond looking at the basics of physical infrastructure, there is considerable discussion in the literature about the need for higher-end infrastructure in school teaching. In particular, this tends to focus on the needs for computers and internet access as well as scientific and engineering equipment.

Again, the list of schools provided to us by the ministry of education provided a useful starting point. The list shows that more or less all public schools have at least some computer equipment.

According to the data received from EMIS in January 2019, there are 29 521 computers[123] at 2305 schools in Georgia.

Figure 38. Number of students per computer at public schools in Georgia, January 2019

N of students per computer	N	%
Less than 1	237	10%
From 1 to 2	43	2%
From 2 to 5	226	10%
From 5 to 10	487	21%
From 10 to 20	794	34%
From 20 to 50	471	20%
50 and more	47	2%
Total	**2 305**	**100%**

Source: Education Management Information System (EMIS)

[123] The number reflects those computers for which public schools receive IT service from management sytem for ensuring orderly functioning of the internal network, computer hardware and peripheral equipment, IT support and orderly functioning of provided ICT services

Figure 39. Number of students per computer at public schools in Georgia, by settlement type, January 2019

N of students per computer	Rural		Urban - Capital		Urban - City		Urban - Town	
	N	%	N	%	N	%	N	%
Less than 1	27	2%	115	40%	40	30%	55	20%
From 1 to 2	41	3%		-	1	1%	1	0.4%
From 2 to 5	221	14%	4	1%		-	1	0.4%
From 5 to 10	444	28%	6	2%	8	6%	29	10%
From 10 to 20	594	37%	52	18%	37	28%	111	40%
From 20 to 50	234	15%	114	39%	46	35%	77	28%
50 and more	41	3%		-	1	1%	5	2%
Total	**1 602**	**100%**	**291**	**100%**	**133**	**100%**	**279**	**100%**

Source: Education Management Information System (EMIS)

On top of this, ESIDA has been implementing the "My First Computer" program. This has mostly focused on Givinggiving out computers to first graders.[124]

Figure 40. My First Computer program numbers

Year	N of computers	Budget (mln GEL)
2010	3 000	934 560
2011	52 000	23 398 440
2012	50 000	21 995 000
2013	35 000	14 890 400
2014	46 000	17 848 000
2015	45 000	14 689 350
2016	55 300	18 398 354
2017	55 700	20 719 286
2018	55 050	20 108 664
2019	55 000	29 531 250

Source: ESIDA

Before ESIDA's establishment, the program was implemented by the LEPL Milky Way Fund, disbanded with the establishment of ESIDA. Its aim is to increase study quality and to create learning/working environment for the beneficiaries – first-graders and their teachers, primary

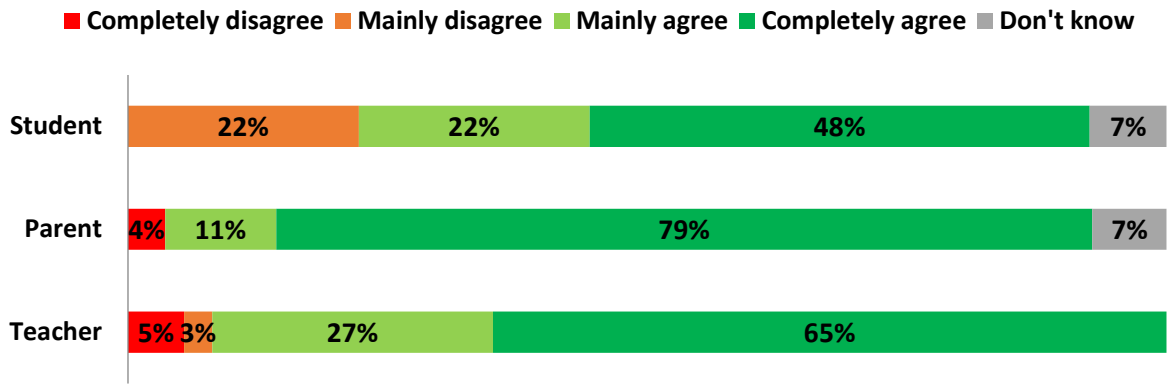
[124] The program did include some computers for later grades, as well as a relatively small number for distinguished teachers and students. Figures presented below were just for the 1st Grader element of the program and were provided by ESIDA directly.

school students, distinguished students.[125] The program is divided into subprograms, largest of which is "computers for first graders and their teachers".[126]

8.7. Security

In assessing security generally, the attitude was fairly positive, both in our focus groups and in our discussion with experts. We simply asked recipients to the focus groups to respond to the statement 'the school environment is safe'.

Figure 41: Focus group survey response to the statement: 'the school environment is safe'



Source: Source: Focus Groups, Conducted June 2019

It is certainly concerning that 1 in 5 students we spoke to disagreed with the statement that 'the school environment is safe', however, they only disagreed 'mainly'. A small minorities of parents and teachers also disagreed, but the overwhelming majority agreed.

That said, in our focus groups with parents and teachers there was a consensus that bullying is still quite prevalent in Georgian schools. Unlike some private schools, public schools cannot afford to have a psychologist who could work on bullying issues. However, there are sometimes visits from NGOs who talk to parents and students on the issue of bullying.

> 'Before we didn't even realize how big of a problem bullying is. We didn't even know the word. Some parents and even teachers still don't get it. Once we had guests from

[125] Education and Science Infrastructure Development Agency, *"My First Computer" Program*. http://esida.gov.ge/%e1%83%9e%e1%83%a0%e1%83%9d%e1%83%92%e1%83%a0%e1%83%90%e1%83%9b%e1%83%90-%e1%83%a9%e1%83%94%e1%83%9b%e1%83%98-%e1%83%9e%e1%83%98%e1%83%a0%e1%83%95%e1%83%94%e1%83%9a%e1%83%98-%e1%83%99%e1%83%9d/ (Reviewed 2 September 2019)

[126] Education and Science Infrastructure Development Agency, *Annual Report on Agency's Activity Implementation*: *2014 Report*. http://esida.gov.ge/%e1%83%a1%e1%83%90%e1%83%90%e1%83%92%e1%83%94%e1%83%9c%e1%83%a2%e1%83%9d%e1%83%a1-%e1%83%a1%e1%83%90%e1%83%a5%e1%83%9b%e1%83%98%e1%83%90%e1%83%9c%e1%83%9d%e1%83%91%e1%83%98%e1%83%a1-%e1%83%a8%e1%83%94/ (Reviewed 2 September 2019)

an NGO and a psychologist talked about bullying. It was such an eye-opener!' (parent, Ikalto public school)

However, the issue of bullying didn't come up during the focus group discussions among the students. For them, the issues of verbal abuse from teachers was usually was more important.

9. School consolidation

As has already been suggested, the number of public schools has gone down by around 30% since about 2005[127] However, it seems clear that this consolidation process had not gone far enough. It is hard to definitively correlate school result with school size. We know that rural schools perform at a far lower level than urban schools, and that rural schools are much smaller. But we also know that rural communities are poorer, and there are many other factors at play, so it is hard to disentangle these elements.

Nonetheless, there are 500 or so very small rural schools, with fewer than 50 students (or 4 and fewer students per academic year). On top of this, the teachers are a lot older, more part-time and have far lower levels of qualification.

Consolidation may be most compelling, however, when thinking of infrastructure upgrade. On a cost-per-student basis, it is often hard to justify large-scale infrastructure renovation or maintenance of existing very small schools. But, worse than that, these schools were built with poor materials, poor insulation and poor heating and sanitation. Upgrading all of this in very small, very old schools would probably not make sense and, instead, Georgia should probably look to build new and modern facilities which simultaneously bring multiple schools together.

In most discussions that we have engaged-in regarding the pros and cons of consolidation, the practicality of busing students has loomed large. The argument, of course, is that village schools are necessary in order to make sure that students don't have to travel unreasonable distances. Therefore, in order to get a sense of how this might work, we made two efforts to assess proximity of schools to one another. With the first, we took a random sample of 87 of the schools with fewer than 100 students and looked at how far away (according to Google maps) they were from their nearest school and from the nearest school with greater than 200 students.

[127] Data provided by the Education Management Information Center of the Ministry of Education, Science, Culture and Sport of Georgia in January 2019

Figure 42: Distance of sampled schools to nearest school and nearest larger school[128]

Distance range in minutes by car to school	No of schools that are given distance to nearest school	No of schools that are given distance to nearest school with at least 200 students
0-5	20	6
5-10	30	16
10-20	28	28
20-40	7	21
>40	2	16
Total N of sampled schools	**87**	**87**

Source: Education Management Information System (EMIS)

Our sample size was very small, giving us a 10% margin of error, but our quick review showed that 50 of the 87 samples schools are less than 10 mins away from a neighboring school. This seems to suggest, that with bussing, there is huge scope for school consolidation.

Second, we looked at three regions that have significant mountainous areas and simply randomly sampled all schools. With the sampled schools, we then reviewed how far away they are from one another.[129]

Figure 43: Distance of sampled mountain schools to nearest school

Distance to nearest school	Samegrelo-Zemo Svaneti	Samtskhe-Javakheti	Mskheta-Mtianeti
0-5	20	13	5
5-10	13	18	16
10-20	27	21	15
20-40	10	11	8
>40	0	3	2
Total N of sampled schools	**70**	**66**	**46**

Source: Education Management Information System (EMIS)

Sample sizes were again selected to also allow a 10% margin of error, based on the different school population sizes. But, again, this seems to suggest that, in each instance, around half of the schools are less than 10 mins away from a neighboring school. Again, this suggests that purely from a geographic point of view, considerable consolidation should be possible.

Of course, distance is not the only hurdle. Local schools are often the heart of a community and attending the school, which your siblings, parents or even grandparents attended, may be familiar and comfortable to all concerned.

[128] Distances to nearest schools were calculated using a list of the schools provided by Ministry of Education Education Management Information System and Google Maps.
[129] We selected mountainous regions as it was assumed that they would represent the extreme case – with probably longer distances between them

Travelling to a distant school in a new community can also be a challenge. Not only distance, but type of travel, security and payment for travel are issues. Also, rural students may face challenges integrating into urban schools.

As a result, closing local schools is unpopular in the communities where the closure takes place. This can be made worse if one village-school is closed, and students have to then travel to a neighboring village, as people can legitimately ask, why is my village school being closed rather than the neighbor? Teachers in a village, who may see their livelihood end with the closure of a school are also likely to fight against it. This is why, keeping schools open, has often been a plank of local, particularly majoritarian, MPs.[130]

Closing schools is not the only answer. Local schools can be kept open, with the support of technology and with the potential support of regional schools providing services in key areas. Also, maybe the renaissance that is currently on-going in some of Georgia's more secluded mountainous areas, will see a reversal of some of the demographic shifts which has depopulated rural schools. But this is unlikely to be the whole of the solution and a frank discussion about school consolidation will probably be a necessary part of any reform agenda.

10. Governance of General Education

It is often considered that the Georgian educational system underwent a wave of 'decentralization' under Minister Lomaia from 2004-2007 and then a wave of 'recentralisation' under Minister Shashkin from 2010-2012.

In the current system, the Ministry takes responsibility for finance, oversight, policy, curricula development, training development, infrastructure maintenance and upgrade, institutional accreditation, text book selection and much more.[131]

However, schools have considerable autonomy. Head teachers, in particular, have considerable independence in determining methods of evaluation of teachers and students and have more flexibility in hiring and firing teachers than many other systems. They also have formal independence over their budgets, though this does not relate to a great deal of practical independence, as the schools rarely have much budgetary space for independent decision making. Nonetheless according to OECD this makes them fairly decentralized compared to other countries.

Another way of looking at it, is that they are fairly autonomous as they are subject to relatively few centrally administered mechanisms for oversight. There is little or no centralized evaluation of teachers, testing of students or evaluation of schools more generally.

[130] Interview with Ghia Nodia, 9th August, 2019

[131] This may seem strange since in discussion of educational reform in Georgia one routinely hears discussion of 'decentralization' (particularly associated Lomaia's ministry from 2004-2007) and 'recentralization' (under Minister Shashkin 2009-2012) but the centralization of school financing has really subsumed most general policy direction to the Ministry.

This autonomy, without oversight creates challenges, as the OECD report suggests,

> 'Giving schools autonomy can be an effective method of tailoring education to the needs of different communities. Nevertheless, without systematic oversight and accountability, schools that are struggling to provide adequate services do not receive the support they need to improve student learning'.[132]

One of the biggest challenges for the education system in Georgia is that there tends to be a lot of change in the ministry of education. In its most obvious form, this can be seen in the turnover of the Ministers. In the last 15 years, there have been 11 government ministers (one of them twice). Only two ministers have lasted more than three years, Kakha Lomaia, Dimitri Shashkin and Tamar Sanakidze. A change of ministers is problematic as it brings significant other changes, since different ministers seem to have considerable differences in policy-orientation.

Even beyond that, however, the lack of a policy process in Georgia, has resulted in new policies often being implemented too quickly, or without proper oversight. Again, the OECD report gives a nice example,

> 'While intended to positively impact the system, many of Georgia's recent reforms have not been made based upon a rigorous evaluation of long-term evidence. This not only results in potentially less effective policies, but also creates an unstable environment where policies are quickly created or eliminated. For example, the SGE was abruptly eliminated and the structure of the Unified Entrance Examination (UEE) revised based upon a short and limited review of data'.[133]

Similarly, when the Ministry rolls-out large changes to policy it rarely pilots them in any meaningful way. The word 'pilot' is often used, but this is usually just a reference to the fact that the policy does not come in effect everywhere at the same time. What the government calls 'pilots' are usually just early adopters, and are not used to test the efficacy of the project before national roll-out.

For example, when a new 'Teacher Recruitment, Evaluation, Professional Development and Career Advancement Scheme' (usually just called 'the Scheme'), was adopted in 2015, the World Bank points out,

> It was piloted at first but piloting did not imply testing the new Scheme out in randomly or deliberately selected group of schools, or geographical areas. Instead, the Scheme was nationally implemented at all schools in a testing mode throughout the academic year 2015-2016.[134]

[132] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p24
[133] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p24
[134] World Bank (2017), A review of teacher policy reforms in Georgia: a Case Study, p38

In other places there has been some effort to do 'pilots'. In the roll-out of the 'New School Model', through which a school support group is supposed to be rolling-out a new curricula and methodology in different schools, there has been some efforts to assess the success of the programs. But the assessment is done by the people carrying out the reform, has no testing for student skills and no baseline comparative.[135]

In the structure of governance, the issue of how much to decentralize also continues to be a major question in education in Georgia. In discussions with Simon Janashia, he highlighted the importance of decentralizing the teacher training function, and allowing for training from civil society, university and even companies. He argues that this was in place in reforms in 2005/2006 but was reversed in 2010.[136] Gigi Tevzadze, conversely, argues that decentralization of authority to schools is the key to education reform generally.[137]

Institutionally, it is worth reviewing the different institutions related to education. In 2018 the Ministry of Education and Science (MoES) of Georgia merged with the Ministry of Culture and Sport and became the Ministry of Education, Science, Culture and Sport (MoESCS). The Ministry has 7 Departments, including two that are particularly relevant to general education, the 'General Education Management and Development Department' and 'National Curricula Department'. [138]

The General Education Management and Development Department has 3 divisions. These are:

- Monitoring and Coordination Division
- Policy and Programs Division
- Division for School Textbooks Approval and Evaluation of Learning Resources. [139]

In addition to these divisions, the Ministry includes a range of quasi-independent entities that have particular responsibilities. Of relevance to general education are the National Center for Educational Quality Enhancement (NCEQE), the National Assessment and Examination Center (NAEC), the Education and Science Infrastructure Development Agency (ESIDA), the National Curriculum and Assessment Center (NCAC), the National Center for Teacher Professional Development (TPDC) and the Education Management Information System (EMIS). All of these entities have particular baring on General Education Reform in Georgia.

National Center for Educational Quality Enhancement (NCEQE) (est. 2010) provides assessment and accreditation of educational institutions at all levels. [140] In principle, the

[135] Discussion with the National Curriculum Division of the Ministry of Education, Sept 2019
[136] Interview with Simon Janashia, April 2019
[137] Interview with Gigi Tevzadze, April 2019
[138] Ministry of Education, Science, Culture and Sport of Georgia, *Structural Subdivision of the Ministry*. http://mes.gov.ge/content.php?id=6159&lang=geo (Reviewed 28 July 2019)
[139] Ministry of Education, Science, Culture and Sport of Georgia, *General Education Management and Development Department*. http://mes.gov.ge/content.php?id=6532&lang=geo (Reviewed 28 July 2019)
[140] National Center for Educational Quality Enhancement, *About Us*. https://eqe.ge/geo/static/5/about-us (Reviewed 16 July 2019)

accreditation process should include assessment of curriculum, human resources and material infrastructure.

For public schools, its role has been extremely limited in recent times. The current authorization process was brought into effect in 2010, and the first authorization should have been undertaken in 2013, but this has been delayed and now is only expected to take place in 2022. Therefore, in spite of having rules for accreditation, these rules have not been applied to public education in recent times. Therefore, there is currently no central system for oversight of the quality of education in Georgian schools.

Until 2017 public schools were submitting self-evaluation reports, which were processed by NCEQE, but these were deemed to provide little useful information, and so were abolished. Private school authorization is done every 6yrs and involves a site visit, formal reporting and a feed-back process and includes extensive assessment of staff and facilities.

It seems clear from preliminary discussions with NCEQE that when the assessments are supposed to start evaluating schools in 2022, the current staffing levels will not come close to being enough to undertake what will be a huge task with a very significant backlog.

National Assessment and Examination Center (NAEC), (est. 2002) is responsible for educational assessment and provides a wide range of tests to evaluate academic skills and competencies of various target groups, including final year high school pupils (until 2019), university entrants, master's degree seekers and teachers. NAEC also organizes and conducts the international standard evaluation assessment tests in Georgia.[141] As such, NAEC are currently deeply involved in the reforms of both student and teacher evaluation. These will be discussed in the section on evaluation.

Education and Science Infrastructure Development Agency (ESIDA) The Agency is responsible for the purchase and maintenance of physical infrastructure and equipment in Georgia.[142] However, this has become more complicated recently. Since 2018, ESIDA has given up some of its responsibilities to the Ministry of Regional Development and Infrastructure (MRDI), who have further deferred responsibility and funds to the Millennium Development Fund and the Municipalities. The rough division is that ESIDA is still responsible for big infrastructure changes in Tbilisi and Batumi, while outside of these two cities, the funds/oversight is managed by municipalities and MDF under the MRDI.

ESIDA publishes annual activity reports online, listing the number of schools rehabilitated and constructed, the number of schools financed for various rehabilitation or inventory purchasing purposes, the number of personal computers purchased, the number of handbooks purchased, etc. However, the reports are done in narrative form and do not provide an overview of the problems.

[141] National Assessment and Examination Center. https://naec.ge/#/ge/index (Reviewed 16 July 2019)
[142] Education and Science Infrastructure Development Agency, *About Us*. http://esida.gov.ge/v2/about-us/ (Reviewed 7 December 2017)

ESIDA was also recently responsible for carrying out two large surveys of physical buildings (for MCC) and equipment, for all the schools in Georgia. This information was shared with us, but has not been made public in a digestible form.

Education Resource Centers (ERCs) (est. 2006) were created as the substitute of regional educational centers. They are subordinated to the ministry and are responsible for research, monitoring and support of schools in their region. There are 68 Resource centers across the country, although that does not allow one per municipality. That does mean that, on average, one resource center covers around 30 schools. Each resource center has 3 or 4 staff, who support schools on legal and financial matters, as well as advising and distributing information. They also act as middlemen for the schools when engaging with students who have not registered and on school transportation, as well as collecting statistical information from theschools for the Education Management Information System (EMIS).[143]

National Center for Teacher Professional Development (TPDC) (est. 2007) is primarily responsible for in-school teacher training, however, they are also involved with the universities that conduct MA Education courses, and conversion courses (60 credit courses to allow non-Education graduates to teach). Connected to the training, they also oversee some elements of the teacher evaluation, though the design and administration of the teacher competency exam is the responsibility of NAEC. TPDC has also, in 2019, taken over the responsibility for recruiting teachers, in the first instance, with the large recruitment that occurred over the summer of 2019, of teachers to fill the space of teacher who retired as a result of the program 'Monetary Award for Teacher Practitioners of Retirement Age Employed at Public Schools'.[144]

Education Management Information System (EMIS) (est. 2012) is responsible for collection, maintenance and administration of electronic data in the education system, including development and administration of general education, vocational and higher education institution information systems. EMIS also maintains data on the number of pupils, their parents, higher and vocational education institution students, graduates and education institution staff.[145]

10.1. School boards

As mentioned above, self-governance of individual schools is driven by the School Boards of Trustees. This consists of parents, teachers, student body representative, and a member appointed by the Ministry of Education. The term of the Board is three years. They are responsible for approval of schools' internal regulations, school curricula, textbooks, budget

[143] Ordinance of the Minister of Education and Science N31 of 17 January 2006 on Approval of Typical Decree of Educational Resource Centers of the Territorial Bodies of the Ministry of Education and Science of Georgia
[144] National Center for Teacher Professional Development, *About the Center*. http://tpdc.ge/index.php?action=page&p_id=1204&lang=geo (Reviewed 8 December 2017)
[145] Education Management Information System, *About Us: Goals*. http://emis.ge/about/goals/ (Reviewed 16 July 2019)

and administrative changes, including selecting a principle and submitting request for teacher dismissal.[146]

The creation and empowerment of school boards, along with voucherization, are often considered to be the two key elements of the 'decentralization' of power that took place in the early reforms of the UNM government.

10.2. Resource officers

Introduced in 2010 with a view to increasing school safety, resource officers, have wide powers and, consistent with their image as 'school police' gain training from the Ministry of Internal Affairs. They area also seen as a tool of control of the Ministry of Education inside the schools. The introduction of resource officers, as well as stronger control from the Ministry of Education generally, were seen as the key elements of the 'recentralization' that are often seen as the main direction of the second half of the UNM government.

10.3. Financing of General Education

The most obvious signal that the government has set education as a key priority is the often-stated government plan to increase spending on education to the point where it is 25% of government spending, or 6% of GDP.[147] This plan would see significant increases in spending on teacher salaries and infrastructure. This would certainly be a dramatic increase in spending from historic levels.

[146] Law of Georgia on General Education, *Article 38. Functions of the Board of Trustees*; Georgian Institute of Public Affairs & Policy and Management Consulting Group (2010), *Analysis of Georgia's State General Education System Situation and Management*

[147] Government of Georgia (2019), *PM's Initiative to Spend A Quarter of Country's Budget on Education Will Be Supported on a Legislative Level*. http://gov.ge/index.php?lang_id=GEO&sec_id=520&info_id=71005 (Reviewed 16 August 2019) Note, that in some places, the Prime Minister has cited 10% of GDP as the long-term goal for spending, but the more often mentioned short-term goal is 6%.

Figure 44: Education spending compared to total government spending, 2006-2019 (GEL million)[148]

	2006	2007	2009	2011 plan	2013	2015	2017	2019 plan	2020 plan
Nominal GDP at current market prices[149]	13 790	16 994	17 986	25 479	28 593	33 935	40 762	49 077	53 081
Total Gov spending	3 823	5 237	6 754	7 570	8 104	9 703	11 765	13 313	14 433
Min Edu spending (excl culture & sport)	358	411	488	561	680	826	1 184	1 387	1 394
Financing General Education	187	201	300	321	410	430	576	712	782
Edu as % of GDP	2.6%	2.4%	2.7%	2.2%	2.4%	2.4%	2.9%	2.8%	2.6%
Edu as % of Gov Spending	9.4%	7.8%	7.2%	7.4%	8.4%	8.5%	10.1%	10.4	9.7%

Source: Ministry of Finance of Georgia; GeoStat

As one can see Government spending has increased dramatically over the last 13 years in nominal terms. From 2006 to 2017, spending has increased more than 3.5x in nominal terms from GEL 358m to GEL 1 267m.[150] This number has represented a fairly consistent percentage of GDP, at between 2% and 3%. As a proportion of government spending it went down from 2006-2011, but gone up since then, from 7% of government spending to around 10%.

According to the World Bank, as a proportion of GDP, this is low compared to several regional comparatives.

[148] In 2017 the Ministry of Education and Science was merged with the Ministry of Culture, Youth and Sport. We have extracted these budget numbers from the Ministry of Education to allow for reasonable comparison.
[149] GeoStat provides the GDP numbers until the year of 2010 only with a 1993 System of National Accounts GDP methodology (accessible at https://www.geostat.ge/en/modules/categories/624/system-of-national-accounts-1993-sna-1993). We took the GDP numbers for the year of 2010 and forward calculated with the current methodology (accessible at https://www.geostat.ge/en/modules/categories/23/gross-domestic-product-gdp). 2019-2020 GDP numbers were taken from the 3rd draft of the 2020 State Budget (Basic Country Data and Direction Document for 2020-2023 (revised version), Basic Macroeconomic Indicators. p39 https://mof.ge/5261)
[150] Ministry of Finance of Georgia, *Budget: State Budget*. https://www.mof.ge/GovBudget (Reviewed 22 July 2019)

Figure 45: Education Spending as a percentage of GDP in 2016

Country/Group	Share of total education funding in GDP, percent
Georgia	2.7
Compared to:	
Armenia	2.7
Albania	3.5
Moldova	7.5
Serbia	4.5
ECA average	4
EU-21 average	4.7
OECD average	4.8

Source: World Bank (2017), A review of teacher policy reforms in Georgia: a Case Study, p13[151]

Spending on general education has increased in a similar profile to education spending as a whole, and is around half of the overall ministry budget.

One can see from all of these figures that the budget is currently quite a long way from the stated '6% of GDP and 25% of Government spending target'. The budget assigned to education is 10% of the entire government budget, the overall budget of the Ministry is now 12%, since it now includes youth, culture and sport. In addition, the government is spending a further 140 million GEL on educational infrastructure improvements in 2020, to be managed by the Ministry of Regional Development and Infrastructure and Municipal Governments.

Nonetheless, even if one adds all of this together, it is still only around 13% of government spending. That means that the pledge to increase spending to the point where it is 25% of government spending would still need the overall budget more or less double.

Such an increase would be an enormous opportunity for change. However, it also brings with it the possibility of huge waste, or even the creation of incentive structures that could work in exactly the wrong direction. The IMF made the generally agreed point in a recent press-release.

> 'Regarding education spending, salary increases can only be effective if accompanied by other steps to boost education quality, which requires further work on a comprehensive education reform'.[152]

The two biggest likely spending line-items are teacher salaries and infrastructure. As will be discussed below, the government are generally taking the right approach to teacher salaries, requiring that teachers gain qualifications before they gain any pay-rise. Now, the most important issue, is to make sure that the qualification is generating the right result in terms of student outcomes. This will be discussed in more detail below. On infrastructure, the main

[151] This compares 2014 averages according to UNESCO with the 2016 numbers for Georgia
[152] IMF Press Release No. 19/227 (2019), *IMF Executive Board Completes the Fourth Review of the Extended Arrangement under the Extended Fund Facility for Georgia*

problems seems to be the strategic vision and consolidation. It is clear from student numbers that some of the schools ought to be consolidated and spending money to renovate old schools in geographies where viable student bodies are unlikely to exist, seems like a poor strategy.

10.4. School funding

Most general education funding comes from the central state, with self-government providing less than 1% of school budgets.[153] Schools are also eligible to acquire additional funding via leasing and educational services. Almost 80% of urban schools and only 19% of rural schools receive income from leasing. Additional income sources are donations and grants although all of these represent less than 2% of total school funding.[154]

Around 80% of general education budget is allocated to schools, 67% of which is spent on teachers' remuneration, 18% - on administrative personnel remuneration and 15% on other expenses (mostly utilities). [155]

Public schools with more than 170 kids receive financing which combines a fixed amount and a voucher per student. The value of the voucher and the fixed amount differ based upon if they are high mountainous and Georgian language or not.

[153] Coalition Education for All – Georgia (2015), *General Education Funding in Georgia*, p3
[154] Coalition Education for All – Georgia (2015), *General Education Funding in Georgia*, pp11-12
[155] Coalition Education for All – Georgia (2015), *General Education Funding in Georgi,* p27

Figure 46. Amount of standard voucher per student and base school funding for Georgian, non-Georgian and high mountainous schools, by the number of students in school, GEL

Grades	N of students in school	Standard voucher amount	High mountainous base voucher amount	Non-Georgian sector/school standard voucher amount	High mountainous non-Georgian sector/school standard voucher amount	Base funding (besides voucher) (GEL)	Base funding if high mountainous (besides voucher) (GEL)	Non-Georgian sector/school base funding (besides voucher) (GEL)	Non-Georgian sector/school base funding if high mountainous (besides voucher) (GEL)
1-8	170-205	510	684	498	675	68 000	87 000	66 500	85 000
	206-299	504	681	492	672	64 500	80 500	63 000	78 000
	300-530	501	672	489	663	58 000	72 500	56 500	70 000
	531-735	489	660	474	651	49 000	64 500	47 500	62 000
	736-1269	480	648	465	639	44 000	56 500	41 500	54 000
	1270 and more	474	639	459	630	36 000	48 500	33 500	46 000
9-12	170-205	606	813	591	792	68 000	87 000	66 500	85 000
	206-299	600	810	585	789	64 500	80 500	63 000	78 000
	300-530	597	798	579	777	58 000	72 500	56 500	70 000
	531-735	585	780	570	759	49 000	64 500	47 500	62 000
	736-1269	570	771	558	750	44 000	56 500	41 500	54 000
	1270 and more	558	759	546	738	36 000	48 500	33 500	46 000

Source: Resolution of the Government of Georgia

Public schools with under 170 students have a somewhat different scheme of financing, that is based on student numbers and hours in the national curriculum, multiplied by a fixed amount. For the smallest schools, a commission exists to discuss supplementary budgets for utilities and teachers.

Additional income is also provided on the basis of a number of other factors. In particular, schools receive a supplementary payment based on the number of teachers they have at different grades, they also receive additional finance based on the number of students with disabilities and the number of non-Georgian speakers.

In aggregate the system allocates more money to larger schools, but more money per student to smaller schools. However, there is a strong sense that this leaves the smaller schools in more difficult financial situations. All schools, of course, spend most of their resources on teacher salaries and the increase in general funding for schools has mostly reflected increased salaries and an increase in student numbers in recent years. On top of that, some of the larger schools may keep 5% or so of their salaries for small maintenance costs. However, talking to Mariam Tabatadze, the Head of the Economic Department of the Ministry of Economy and Sustainable Development, she explained that

> 'larger schools maintain higher resources allowing for small maintenance, while smaller schools tend to spend any non-staffing finance on utilities and have nothing left'.[156]

Altogether, this would seem to suggest prioritizing additional financing for smaller schools, since this is needed to give them the same functional autonomy as the larger schools, and because, as we know that smaller (largely rural) schools have students from poorer backgrounds. However, it is also clear that there needs to be some calculation of spending per student and some threshold below which a school is considered non-viable. This would, undoubtedly, lead to some school consolidation, which we know is very unpopular (discussed below).

At the very least, it is clear that greater transparency is needed. As the OECD report highlights, at the lower end of the spectrum, the governments resource flexibility seems to create some inequities, with some schools with the same number of students getting 3x the resources.[157]

Private schools get a 300 GEL voucher from the state, per student and no base funding. This means that private school students receive only about 1/3-1/4 the level of public support that is provided to public school students (if you take into account the different ways that the state supports public schools). The fact that the state provides ANY support to private schools is generally a surprise to most people. It may, in fact, save the state money, by encouraging

[156] Interview with Mariam Tabatadze, October 2019

[157] Shalva Tabatadze & Natia Gorgadze (2017), *School Voucher Funding System of Post-Soviet Georgia: From Lack of Funding to Lack of Deliverables*, p14. Journal of School Choice International Research and Reform, Vol. 12/2, pp. 271-302, http://dx.doi.org/10.1080/15582159.2017.1408000.

parents to move their children into private education. On the other hand, encouraging the growth of private education is generally agreed to be bad for the student body in total.

10.5. Evaluation of the Georgian Educational System; students, teachers, schools and the system as a whole.

Perhaps one of the biggest weaknesses of the Governance of the Georgian educational system is its almost wholesale lack of systems for evaluation. This has been acknowledged by the Georgian Government, who invited the OECD to conduct an analysis and to publish a report on methods of evaluation and assessment in Georgia. This highlights some improvements in required evaluations, with the introduction of the University Entrance Exam (the Unified National Exam) and the Teacher Competency Exam, however it highlights many flaws in evaluation and assessment at the levels of students, teachers, schools or the educational system generally.

At the level of the students, there is only one centrally administered system for assessing student results, and that is the University Entrance Exam, the Unified National Exam (or UNE). For all other students, one can complete 12 years of general education with no record or certificate that reliably ensures competency. This not only fails students who lack a metric for success or a target towards which to strive, but it makes evaluating reforms incredibly difficult and makes it very much more difficult to identify or help failing students.

To correct this, the OECD calls for standardized report cards, to be integrated into the Educational Management Information System (EMIS), the introduction of a certificate exam at year 9 and the merger of a college graduation and university entrance exam in year 12.

Assessments of teachers, which will be discussed below, are similarly problematic. Through the Professional Development Scheme (the so called 'Schema') teachers are required to have evaluation, particularly through the competency exam, if they want to qualify from one category of teacher to another. However, apart from that, there is no centralized system for assessing teachers. As the OECD report says

> 'if a teacher does not apply for promotion there is no central mechanism to assess or address their underperformance. The ultimate sanction – teacher dismissal – is the responsibility of school principals.'[158]

For most senior teachers, who remain senior teachers, there is no external evaluation. Assessment is done annually by the school and according to the Teacher Professional Development Center, very bad evaluations can often result in sanctions against individual teachers, but there is no central oversight of this process.

At the school level, the situation is even worse, as there is no system in place for externally evaluating schools. The National Center for Educational Quality Enhancement is responsible for 'authorizing' schools, however, as the OECD report points out,

[158] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p134

> 'Authorization has now been applied to the country's 200 private schools and Georgia's original intent was to extend authorization to public schools. According to the Law, all public schools should be authorized by 2021. However, this means authorizing some 2000 schools and the NCEQE has the capacity to authorize between 50 and 100 annually, making this objective unfeasible'.[159]

Of course, there are some metrics that currently could be used for assessing schools. While ESIDA was not providing a regular and systematic evaluation of the infrastructure in Georgian schools, MCC conducted an evaluation of the infrastructure of all of the schools in the country and we received this information towards the end of the production of this report. It clearly provides a metric for evaluating what work is needed in terms of physical infrastructure, and even distinguishes between the level of urgency of the work to be undertaken.

Unfortunately, there is currently not good enough data available to allow for the evaluation of schools in terms of student outcomes. Due to the cancellation of the graduation exam, there is only one test that could be considered a test of teaching outcomes. The University Entrance Exam is the one centrally administered test in Georgia, that is standardized and covers a bulk of the students in Georgia. There are many problems and complaints about the test, relating to how effectively it tracks with general education or with results at university. Both are valid concerns, but as the only standardized metric of student results that we have, it should probably be made public, at least at a school level.

Altogether, this means that at the current time, neither the public, parents NOR the Ministry of Education have a system in place for tracking school standards, or performance, in a systematic way. Particular issues are brought to the attention of the Ministry, particularly as relates to infrastructure or problems in certain resource provision, but this is not systematic. This is not only clearly one of the biggest holes in current school governance in Georgia, but it also makes it impossible for parents, potential teachers or the general population to assess the situation in schools.

Evaluation of the entire system, of course, does continue to take place, through Georgia's involvement in the various international testing systems. The fact that Georgia is even able to engage in the test is already an achievement and a positive testament to Georgian transparency. One of the reasons why poorer countries do not participate in the international tests is that they often lack the governmental capacity to administer it. It is also clear that since poorer countries generally do worse, many may feel that it opens them up to criticism that they would rather avoid.

However, the problem with the lack of centralized testing has recently been illuminated by the December 2015 result that seemed to show a precipitous drop-off in standards. PISA's assessment may be right, or there may be methodological flaws that have led to this decline. The problem is that there is no way to know which is the case. The government are currently

[159] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p175

conducting an assessment, but without a trusted system for assessing student skills, it seems likely that there will be no way to know for sure, and the governments assessments is unlikely to be considered impartial.

The lack of centralized assessment of students, teachers or schools is particularly problematic at the current time, since there are so many innovations being introduced into the system, and there is now way to know what is working and what is not.

It seems extremely likely that there are schools in Georgia that are massively failing their students. This will almost certainly remain true, even if we make great improvements to the system as a whole. Unfortunately, at the current time, there is no way for any stakeholders to identify which ones are doing well and which are doing badly, and without knowing this, there is no way for the government to intervene and help.

11. Teachers

The Georgian Government strategy suggests three main problems with teachers and teacher quality. First, that in spite of high levels of training, a minority of teachers have taken and passed the student qualification exam. Second, the lack of teachers who are adopting modern teaching methodologies. Third, the relatively low attractiveness of teaching generally. As the reports says,

> 'In Georgia, teaching is not a popular profession. Most of the school leavers, who choose teacher training programs in higher education institutions, get the lowest scores on the unified national exams. Increasing the prestige of the teacher's profession will facilitate the inflow of knowledgeable and skilled personnel into the profession'.[160]

While this is true, it is mostly focused on recruitment, while a discussion of teachers, of course, also needs to consider the structure of the existing teachers. In this section, therefore, while we review recruitment, we also look at qualification levels of existing teachers, demographics training, evaluation and remuneration.

Attitudes towards teachers are extremely polarized. On the one hand, many experts consider Georgian teachers to be almost unredeemable. This is based on the results in schools, which experts generally assess as bad, the aging population of teachers (and the assumption that this must mean out of date methodology), the consistent failure of most teachers to pass the qualifying exam, even though there is a big incentive to do so, and the low quality of recruits into the teaching profession (judged by the Unified National Exam results required to enter teacher training).

[160] Ministry of Education and Science (2017), *Unified Strategy for Education and Science for 2017-2021*, p15

On the other hand, teachers and parents are fairly positive in their assessment of the teachers. And teachers themselves assess their own competence at one of the highest levels for the region.

There are also structural challenges relating to recruitment of new teachers and our analysis suggests that there may be a big difference between the problems faced by rural and urban areas. In urban areas the problem would seem to be a matter of attracting smart students to become teachers, when the salaries remain relatively uncompetitive, compared to other available work.

In rural areas, the salaries are more competitive, since teaching is one of the very few regular and reliable sources of income. However, for the same reason, people have been particularly slow to retire and so the teaching body is very much older, less qualified and more likely to be made up of part time teachers. In this situation, the main problem is that there are simply too many teachers, so that even if a bright and educated student wanted to be a teacher, it would be hard for them to find employment.

In the analysis below, in addition to considering datasets on teaching from international studies already mentioned and the focus groups, we have also considered the results of TEDS-M. Georgia joined the Teacher Education and Development Study in Mathematics (TEDS-M), in 2008. That analysis studies the preparation of primary and lower-secondary teachers in teaching mathematics in terms of national policy, institutions and programs and results. While the data is still 10 years old, it is worth considering how the study assessed the Georgian system for attracting and training teachers, compared to the other countries in the study. In some instances it highlights problems that persist to this day, in other places it is useful for highlighting changes that have occurred in the last 10 years.

Finally, a fairly recent evaluation of 'teacher policy reforms' was carried out by the World Bank in 2016/17. This also provides many insights on every aspect of the teacher recruitment, training, appraisal, etc. and offer comprehensive insights and recommendations on reforms.

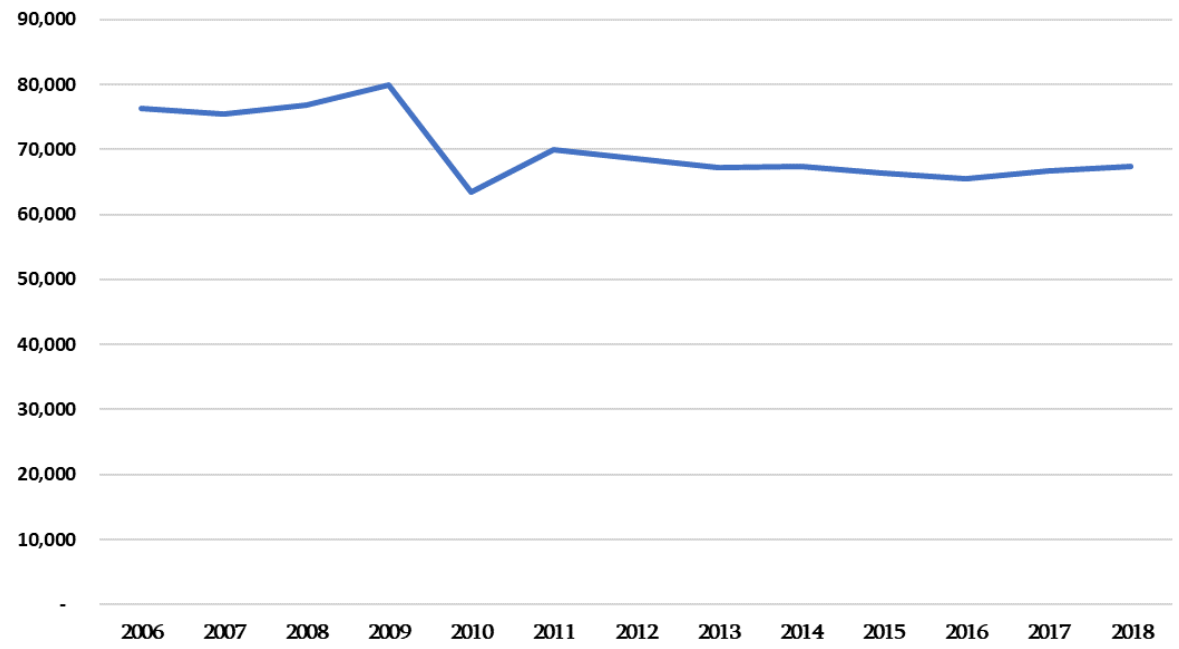
11.1. The structure of the teaching body

11.1.1. Teacher demographics

There are 67 000 teachers in Georgia currently.[161] Due to recent policy, the exact current composition is in a state of flux, as the government has offered 'Golden Parachutes' to teachers of retirement age. It is also worth noting, that this number is already a fairly significant decline compared to a decade ago.

[161] National Statistics Office of Georgia, *General Education: Number of General Education School Teachers*. https://www.geostat.ge/en/modules/categories/59/general-education (Reviewed 12 July 2019)

Figure 47: Number of teachers in Georgia (2006-2018)



Source: National Statistics Office of Georgia (GeoStat)

With 67 000 teachers, that is one teacher for every 8.6 students. That is a LOT more teachers than the TALIS average of one teacher per 12 students[162].

This may sound like a good thing, as it might seem to imply small class sizes, but that is not generally the case. There is a huge variation in the student/teacher ratio depending on the size of the school.

Figure 48: Student teacher ration based on school size

School size	N of teachers	N of students	N of teachers per student
0 – 50	7 486	13 872	2
50 -100	9 961	35 306	4
100 - 200	13 492	76 537	6
200 - 500	15 228	135 947	9
500 - 1000	11 722	159 312	14
1000 - 2000	8 558	143 700	17
>2000	1 089	18 721	17
Total	**67 536**	**583 395**	**9**

Source: Education Management Information System (EMIS)

[162] National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS), National Report*, p11

Students in larger urban schools are generally in schools where there are averages of 14 to 17 students per teacher, or higher than the TALIS country average., while students in classes with fewer than 200 students, have about 3x as many teachers per student.

A higher number of teachers per student may sound like a good thing, but generally simply reflects that the schools are very small and there are very few teachers. This can create severe problems. Most obviously, very small schools do not have enough teachers to have specialists for particular subjects.[163]

The reason why there are so many teachers, compared to students is the high-level of small rural schools (with very small class sizes) and the fact that more than half of the teachers teach part-time, with 17% teaching fewer than 9hrs, or less than 50% of full-time.[164] According to the 2014 TALIS Survey, 88% of part-time teachers are only part-time because of limited work opportunities, rather than choice.[165]

Figure 49: Break-down of part-time teachers and level of qualification

Number of hours	No of teachers	% of total teachers	Total qualified	% qualified
1-2 hours (10% and less)	1 078	2%	146	14%
3-9 hours (10%-50% - incl.50%)	10 241	15%	2 339	23%
10-17 hours (50%-100% - not incl. 100%)	27 659	42%	11 122	40%
18 hours and more (100% and more)	27 377	41%	13 152	48%
Total	66 355	100%	26 759	40%

Source: MoESCS, spreadsheet provided by email, August 2019

In terms of demographics of teachers, the government provided the GeoWel team with detailed data on age and qualifications of teachers, in August 2019. This showed 1200 teachers fewer than in January. However, if we compare the numbers provided with TALIS country averages, we can see that the average age of a teacher in Georgia is 51, which is 8 years higher than the average age in the TALIS countries.[166] The share of teachers under 30 years of age in Georgia is 4%, which only 1/3 the TALIS average.[167] Around 27% of Georgian

[163] World Bank (2017), A review of teacher policy reforms in Georgia: a Case Study, p7
[164] Data provided to us by MoESCS August 2019
[165] Teaching and Learning International Survey (TALIS) (2015), Final Report, p266
[166] Average age calculated based on full list of teachers, compared to TALS average provided in National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS)*, *National Report*, pp12,14
[167] Average age calculated based on full list of teachers, compared to TALS average provided in National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS)*, *National Report*, pp10,265

teachers, at the time, are over 60.[168] This is quite a bit worse than the situation as described by the TALIS report in 2015, with an even smaller percentage of young teaching staff and a significantly higher percentage over 60. We also know from TALIS that women were almost three times as likely to be qualified as men, and that the very young and the very old were also less likely to be qualified.[169]

One part of any fix for the Georgian education system will obviously involve encouraging the 'best and the brightest' to want to be school teachers. However, until recently, not only was pay very low and conditions (particularly in rural schools) fairly/extremely difficult, but there have simply been no places for new teachers. As a result, in many parts of the country, even if many existing teachers were to leave, there would be part-time teachers, eager to take over their positions.

We saw this in the focus group discussions we had relating to the 'retirement pension' package offered by the government. Focus group participants generally welcomed the initiative, although there were cases when they gave examples that a highly professional teacher would leave the school as a result. In the villages, one parent focus group member especially liked the idea of new vacancies as they could apply themselves (paid jobs are very rare in the villages and schools are usually the largest employers).

However, the hours of work that are made available by the teachers leaving are often reassigned to the existing teacher personnel. For example, in the Duisi village, 8 teachers plan to leave school to receive the pension, but only one new vacancy will be created as a result.

This highlights the fact that the scale of 'too many teachers' in rural Georgia is so great, that early retirement packages are unlikely to fix the problem. Even if one can make teaching as a profession more attractive, new teachers would overwhelmingly go to urban and private schools, thus exacerbating the wide and widening performance between these groups that we already see.

This situation is changing fast. In 2019 the government introduced a program to encourage teachers passed retirement age to retire, in exchange for financial compensation. Many did so, creating the largest recruitment effort that the Georgian Government has ever had for new teachers, with 5000 teaching positions advertised.

This will sudden demand for new teachers will be further increased at the end of this academic year, since the law will require schools to advertise the positions of teachers who have not passed teacher competency exams, or on one of the tracks to do so. Since, at the

[168] Average age calculated based on full list of teachers, compared to TALS average provided in National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS)*, *National Report*, pp10,265

[169] National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS), National Report*, p269

current time, more than 50% of the teachers, fit into this category, unless something drastic changes, there could be up to 30 000 vacancies.

11.1.2. Level of qualification of Teachers

From the TALIS survey, 95% of teachers have university degrees. The majority of Georgian teachers teach one subject only. [170] In 2010 a 'Professional Development Scheme' was introduced for teachers that provided for different categories of teachers and the qualifying requirements for each. Most teachers were immediately classified as at least 'practitioner' teachers, but the Schema also introduces 'Senior', 'Leading' and 'Mentor' teachers. In recent years, these distinctions have become one of the biggest dividers between difference in status and the bonus that comes with it is the biggest divider between teachers in terms of salary.

Figure 50: Breakdown of teachers by category

Category	N	%
Practitioner	37 172	55.0%
Senior	26 212	38.8%
Lead	535	0.8%
Mentor	41	0.1%
Teacher without status	3 576	5.3%

Source: Ministry of Education EMIS January 2019

As one can see, when looking at the teaching body of Georgia – 'lead' and 'mentor' together make up less than 1%. The other three groups can actually be divided into two, 'those who do not have status' and 'practitioner' teachers have not passed the teacher competence exams and senior teachers who have.

The story of the qualifying exam is usually presented in pretty stark terms. In 2010, the Georgian government first initiated the 'Competence Confirmation Exam'. Only around 6000 teachers took the competence and the subject-based exams and, of that 6000, only 1147 passed. Although it is 19% of those who took the exam, it is only around 2% of teachers. The story is more complicated than that, since according to the Ministry of Education website, only 20 000 teachers could have taken the exam, and an additional 4000 teachers partially took and partially passed the exam. This story also does not give us any real context for the exam and the preparation that teachers were allowed.

However, in the 9 years since, even though the bonus for passing the qualifying exam has increased, the number of qualified teachers has remained slightly below 40% at the beginning of this year. This may have increased due to the retirements, and a recent round of teachers taking the tests, but the most optimistic current projections still expect it to stay below 50%.

This is important, because international tests seem to suggest that student scores in reading maths and science can shift significantly, depending on level of qualification. As mentioned

[170] Teaching and Learning International Survey (TALIS) (2015), Final Report, p266

earlier, we know that PISA scores suggest a 9-point improvement for every 10% increase in levels of teacher qualification.

The situation is also made worse by the fact that smaller schools and rural schools have a far lower level of qualified teachers.[171]

Figure 51: Percentage of qualified teachers based on school size

Size of school range	Sum of Total number of teachers	Qualification level	Percentage qualified
0 – 50	7 486	1 657	22%
50 -100	9 961	2 973	30%
100 – 200	13 492	4 853	36%
200 – 500	15 228	6 120	40%
500 – 1000	11 722	5 871	50%
1000 – 2000	8 558	4 678	55%
>2000	1 089	636	58%
Total	**67 536**	**26 788**	**40%**

Source: Education Management Information System (EMIS)

As we can see, the very smallest schools have only slightly more than 1/3 of the number of qualified teachers as the largest schools. These are predominantly in rural areas.

As one might expect many teachers disagree with the competency test as a metric for assessing teachers. One teacher told us that 'there is no difference in the quality of class management or teaching given by a non-certified and certified teacher' (teacher, Muskhi public school).

However, one problem for assessing this claim is that we don't really have any other criteria for assessing individual teachers. As we will see later, practically speaking, all of the assessment of teachers is done by the schools where the teachers have worked for many years, and not only is there no consideration of student results in the assessment of teachers, but there is no objective tests, at the moment, which could be used to make this assessment. In this situation, the competency exam is the only metric that we have.

Another problem is whether the schools have people teaching classes where they have particular competency. One expert that we spoke to said that one of the biggest problems is a mismatch of professional competency, with a particular absence of Science, Technology, Engineering and Maths teachers, so that 'history and biology teachers are now teaching physics and mathematics'.[172]

[171] Data provided by the Education Management Information Center of the Ministry of Education, Science, Culture and Sport of Georgia in January 2019
[172] Interview with education expert (who did not want to be acknowledged), April 2019

11.2. The teacher development system in Georgia

Clearly, the ability to attract and retain great teachers depends on every element of the educational system in Georgia, however, there is also a particular system in place which trains and recruits new teachers, a system for professional development of existing teachers, a system for evaluating teachers for the purposes of professional advancement and for quality control as well as a structure of remuneration. In the consideration of how to improve the teaching system, it is important to consider each of these elements in turn.

11.2.1. Remuneration

Teacher remuneration has been one of the big discussion points of educational reform. Most people accept that teacher's salaries are very low and the government has committed to increase teacher salaries substantially. People generally express concerns about the low teacher wages either because they simply think it is unfair, not reflecting their level of work and importance to society or, more practically, because low wages make recruitment difficult.

On the question of salaries and recruitment, the obvious question is 'how to salaries compare to other jobs that the same people could get?' On the face of it, a simple review of average earnings in the sector would seem to confirm that education is not very attractive – as education is literally at the bottom of the list of monthly salary per sector in GeoStat data.[173]

[173] National Statistics Office of Georgia, Wages: Average Monthly Nominal Earnings of Employees by Economic Activity. https://www.geostat.ge/en/modules/categories/39/wages (Reviewed 5 August 2019)

Figure 52: Monthly average salary by sector, 2018

Sector	GEL
Cross sectoral average	**1 124**
Financial intermediation	2 241
Construction	1 744
Real estate, renting and business activities	1 501
Transport and communication	1 442
Mining and quarrying	1 344
Production and distribution of electricity, gas and water	1 325
Public administration	1 268
Fishing	1 260
Wholesale and retail trade; repair of motor vehicles and personal and household goods	1 043
Health and social work	1 000
Manufacturing	963
Other community, social and personal service activities	923
Hotels and restaurants	886
Agriculture, hunting and forestry	715
Education	605

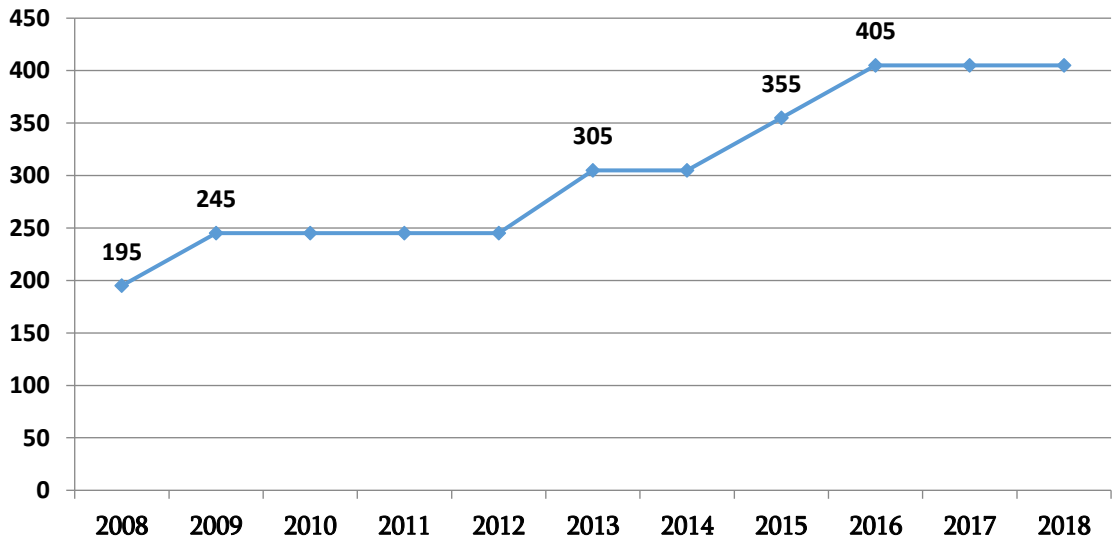
Source: National Statistics Office of Georgia (GeoStat) [174]

However, these numbers may not be a useful way of looking at the problem. For a start, teachers make more than the salaries suggested here, because these numbers include part-time teachers and low paid preschool teachers.

To calculate real public general-education teacher salaries, one needs to look at the government formula. Monthly salaries are calculated using an equation that starts from a 'baseline salary'[175] of GEL 405 and then is adjusted based on the education level of the teacher, the years the teacher has been teaching, and certain 'bonuses'.[176] Both of these have gone up dramatically in the last decade.

[174] Preliminary GeoStat data. Revised data will be available on 8 October 2019
[175] This is not really a 'baseline', in that nobody makes that salary, but it is a basis of the calculations – and most regular teachers only make about 20% higher than the baseline.
[176] Ordinance of the Minister of Education and Science N126/N of 28 September 2015 on Setting the Minimum Amount and Terms of Public School Teacher Compensation

Figure 53: Changes in base salaries for teachers 2008-2018



Source: Ordinances of the Minister of Education and Science on the minimum amount and the terms of compensation of public school teachers

The two main variables that make a difference to a lot of teachers are the bonuses related to 'category of teacher' and whether a teacher works in a school designated as 'high mountainous'. There are a range of categories of teacher, but for our purpose, 'practicing teacher' and 'senior teacher' are the most important two. Other teacher categories exist, but they are less than 1% of the teacher body, so not worth considering here.[177]

Below are indicative teacher incomes calculated on the basis of education and experience, and also divided into 'practitioner' and 'senior' teacher.

Figure 54: Range of salaries based on education, experience and exam, GEL

Experience	Qualifying exam	
	Not passed 'Practitioner'	Passed 'Senior'
High school level of education and less than 5 years of experience	385	705
Bachelor's degree and 5 years of experience	496	816
Master's degree and 10 years of experience	549	869

Source: Ordinance of the Minister of Education and Science

We will focus on teachers with a bachelor's degree. This means that the 40-50% who have qualified are now making between 800 and 900 GEL and the 60% who are not make between 400 GEL and 600 GEL.

[177] Leading teachers' get a bonus of 700 and 'mentor' teachers get a bonus of GEL 1000. However, since 'Lead' teachers are less than 1% of the teachers in the country and mentor teachers are fewer than 1 in 1000, we can safely ignore these groups as irrelevant for considering teacher remuneration generally.

Another supplement is that provided to people living in 'high mountainous areas'. We were able to classify and code all the schools that fit into this category, and found that 575 schools, or around ¼ of all schools.[178] However, because these schools are almost entirely in rural areas and are very much smaller, these schools represent around 7% of students and 11 000, or 17%, of teachers. For this 17%, there is a supplement of 142 GEL (for full-time)[179], the full-time equivalent salary for this group is 540-700 for unqualified teachers and 950-1000 for qualified teachers.

According to the Government strategy document, this is about double where it was in 2012.[180]

Additional teaching and bonuses include supplements for teachers – including the work in the categories below.

Figure 55. Other types pf teacher salary 'bonuses'

Salary supplement	GEL
Who teach class complexes at small schools, which is a combination of two or more small-size different grade classes (most primary grades), mainly due to lack of resources or geographical location[181]	40.5
Teachers of Georgian language, Georgian history or Georgian Geography at non-Georgian schools	40.5
Class tutor/mentor students	101.25
Provision of Professional orientation and career planning courses for students	32.4 + 6*h

Source: Ordinance of the Minister of Education and Science[182]

Finally, many teachers also provide private tutoring to students. Given that the school day usually finishes around 2pm, this does provide considerable opportunity for this kind of work.

The second factor that one needs to keep in mind when considering the appropriateness of current teacher salaries is how attractive it makes teaching relative to other jobs, particularly in rural areas, and particularly for women. This is hard to estimate, as government data on earning is not disaggregated by rural/urban divisions. However, a brief comparison of the difference between rural and urban cash income can give us some indications of how teacher salaries might be judged.

[178] Parliament of Georgia (2015), *Law of Georgia on the Development of High Mountainous Regions*
[179] Introduced in Sept 2016 by Ordinance of the Minister of Education and Science N130/N https://matsne.gov.ge/ka/document/view/3405993?publication=0

[180] Ministry of Education and Science (2017), *Unified Strategy for Education and Science for 2017-2021*, p28
[181] Mastsavlebeli.ge (2017), *Learning and Teaching in Class Complex*. http://mastsavlebeli.ge/?p=13744 (Reviewed 3 September 2019)
[182] Ordinance of the Minister of Education and Science N126/N of 28 September 2015 on Definition of Minimal Amount and Terms of Public School Teacher Work Remuneration; Ordinance of the Minister of Education and Science N28/N of 18 April 2018 on Amending the Ordinance on Minimal Amount and Terms of Public School Teacher Work Remuneration;

Figure 56: Average total cash income and transfers per household, GEL, 2017

Source	Urban	Rural
Wages	572	244
Pension and benefits	147	181
Self-employment	131	51
Money gifted	111	70
Remittances	43	22
Property income	17	3
Sale of agricultural products	9	106
Total	**1 029**	**677**

Source: GeoStat (2018), Statistical Yearbook of Georgia 2018, p52

The difference in these numbers probably represents, more than anything, that rural underemployment in Georgia is incredibly high.[183] Official statistics show low rural unemployment because those statistics count subsistence farming as being 'employed'. But from various projects looking at Georgian rural communities over the years, we would suggest that maybe 30% of people of employable age, work in full-time salaried employment, and teaching, government jobs and the police would be high on that list.

In this context, if for some reason one does not want to move to a big city, a teaching job is definitely seen as a good job and one that many people would be interested to take.

It is important to be clear that this is not to argue that teachers should not be higher paid. But rather, to point out that, particularly in rural areas, teaching offers a relatively attractive work opportunity already, not just because the salaries are OK relatively speaking, but because once the job is obtained, it is reliable source of income and a fairly high-status position.

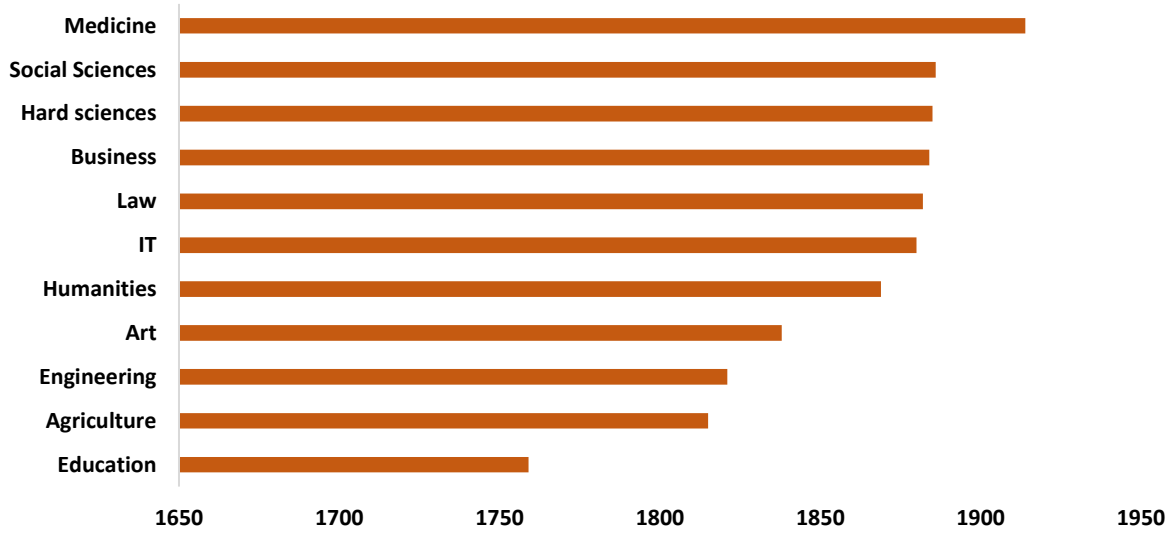
11.2.2. Recruitment

How one recruits and trains teachers is also considered extremely important on the shape of the ultimate teacher body. Most of the commonly cited educational success stories are characterized by very competitive recruitment processes and very rigorous and demanding training.

In Georgia, one of the standard complaints about teachers and teaching is to highlight that the profession has been unable to attract very good students. The World Bank study cites NAEC figures from 2014.

[183] National Statistics Office of Georgia (2018), *Statistical Yearbook of Georgia*, p52

Figure 57: Student Average University Admission Test Scores by Field of Study in 2014



Source: World Bank (2017), A review of teacher policy reforms in Georgia: a Case Study, p23

One is allowed to start teaching in a school in Georgia following a teaching degree or an undergraduate degree followed by a teaching conversion degree.[184] The standard teaching degree has been changed many times and the current formulation of a teaching degree was started in 2018 and is a 300-credit integrated master's degree that includes subject studies and practical teaching. Since the new 5-year course has only just completed its first year, it will be another four years or so until this new program starts to enter the teaching system.

The alternative route to becoming a teacher is that a person can start studying another undergraduate degree and then do an additional year of teacher training. Acceptance as a teacher will require tests of subject competence as well as completion of the 60-credit teaching-training course.

We have not so far been able to get exact numbers from the Ministry of Education about the number of people who have been applying for different training programs, their scores on the unified national exam, the number of graduates from these programs or the number who have been entering teaching following the completion of their courses. However, the OECD Report says that in 2014 'entrants to the four-year teacher education programme had the lowest average scores in the UNE of all tertiary entrants'.[185]

However, we have been able to talk to all nine universities that are providing the new combined undergraduate/masters course (though there are more institutions than this

[184] Apart from PhDs who can start teaching without a teaching degree. Laid out in 'Ordinance of the Government of Georgia N68 of 20 February 2015 on the Approval of Scheme of Initiation of Teaching Activity, Professional Development and Career Advancement'
[185] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p128

providing the one-year conversion course). These are all providing a Combined undergraduate and Masters of Education in Primary Education.

Almost all of the universities we spoke to about the current courses, suggested that demand had been high. The only two exceptions were Caucasus university, which had problems because of delayed accreditation and Gori, which was exceptional in simply not having a lot of applicants.

Figure 58: Summary of interviews with 9 universities providing combined Bachelor/Master's degree in Primary Education (2019)

University	City	N of spots	N of current students	Brief note
Ivane Javakhishvili Tbilisi State University	Tbilisi	50	50	Very high entrance score requirements for the course.
Akaki Tsereteli State University	Kutaisi	200	200	Demand was very high
Ilia State University	Tbilisi	50	50	Full in both 2018 and 2019
Sokhumi State University	Tbilisi	80	80	80 were accepted but only 74 stayed because the rest could not pay the 2250 tuition. 6 were transferred in and filled the remaining positions.
Samtskhe-Javakheti State University	Akhaltsikhe	50	37	50 were accepted but only 37 stayed
Iakob Gogebashvili Telavi State University	Telavi	35	22	Demand was high but some could not pass
Batumi Shota Rustaveli State University	Batumi	80	80	Fairly high scores for entry suggesting high demand
Caucasus University	Tbilisi	30	3	Accreditation and advertising was late
Gori State Teaching University	Gori	45	20	Not many applicants
Total		**620**	**536**	

Source: Interviews with universities conducted by GeoWel in November 2019

We also carried out slightly more detailed conversation with TSU, Ilia State University, Batumi State University, Samtskhe-Javakheti State University to discuss how teacher training had evolved and the profile and professional results of teacher-trainees. This suggested significant

growth in demand for teacher training in recent years. In 2019 TSU had seen all of its teacher trainees financed by the state, suggesting higher UNE scores, than in 2018. Batumi required entrance scores are high and they have around 1200 people listing them as a choice, with over 100 putting them as the first priority for its 80 places. Samtskhe-Javakheti said demand had gone up, and said it might be because people prefer the master's degree. Ilia has also increased its number of places, since starting the course.

In relation to the conversion courses, these also seem to be booming, though largely supported by the state. TSU has doubled the number of conversion places it offers since 2016, and they are always full. For the 80 places they had in 2019 there were 360 applications. Samtskhe-Javakheti also said that demand is high. Ilia said its 120 places are always easily filled. Many, if not most of the applicants are existing teachers, rather than new people entering the profession.

On the conversion, though demand has gone up, strangely, the budget for teaching conversion courses seems to have gone down since the course was started in 2016.

Figure 59. Annual volume of teacher training state grant, 2016-2018, GEL

Academic year	Budget (GEL)
2016-2017	2 133 000
2017-2018	2 054 250
2018-2019	1 498 500

Source: Ordinances of the Government of Georgia[186]

Given that the grant is around 2000 GEL per course (with slight variation depending on the course), this suggests about 1000 people took advantage of this course in the 2016/2017 year and in the 2017/2018 year, but only around 750 in the 2018/2019 year.

We also asked the four universities who had the more in-depth interviews, what teacher-trainees had generally done in the past. There was huge variation across institutions. TSU and Samtskhe-Javakheti said that more or less everyone went into teaching, in TSU they said mostly in private schools but Samtskhe-Javakheti suggested that there was employment in state schools too. Batumi said that about half went into different kinds of teaching jobs, not just in schools as regular teachers, but as assistants, at pre-school, as class mentors and in private schools. However, these were not generally positions in public schools. Ilia university suggested that the employment situation had actually been difficult until now.

Altogether, this underscores an interesting and perhaps fast changing dynamic in the level of interest in teaching and the opportunities that it might represent. It may well be that demand

[186] Ordinance of the Government of Georgia N415 of 24 August 2016 on Approval of Volume and Amount of Funding Persons Enrolled in Teachers Training Program; Ordinance of the Government of Georgia N269 of 1 June 2017 on Approval of Volume and Amount of Funding Persons Enrolled in Teachers Training Program for Academic Year of 2017-2018; Ordinance of the Government of Georgia N412 of 9 August 2018 on Approval of Volume and Amount of Funding Persons Enrolled in Teachers Training Program for Academic Year of 2018-2019

from students to become teachers, at least in some disciplines, is finally going up, as a reflection of the recognition that salaries are higher, that many schools are becoming physically better and because jobs are becoming available.

This could be an important shift, and is one that needs to be further encouraged, particularly if there are thousands more places becoming available in the near future. One historic characteristic that is worth keeping in mind is when thinking about the structure of the education system is the control exerted on the recruitment system by central government.[187] According to TEDS-M the Georgia Government has (at least in the past) exerted fairly 'weak control' on the teaching training programs.

Figure 60: The nature of the control exerted by the Government over the Training Programs

Level of control	Country
Strong control	Botswana, Taiwan, Malaysia, Oman, Russia, Singapore
Combined	Germany, Poland, Thailand
Weak control	Chile, **Georgia**, Norway, Philippines, Spain, Switzerland, USA

Source: TEDS-M 2010 report

This 'weakness in control' can be seen to have two elements. First, the system was not particularly selective of the people who are training to be teachers, and second, they are not particularly prescriptive over the training program that different universities provide. This is a significant characteristic, as the Mackenzie report (discussed in relation to 'International Comparatives' above) highlighted that one of the common characteristics of almost all of the high-scoring school systems is that they are selective at the point of entry into teaching-training systems, rather than allowing anyone to be trained as a teacher and being selective at the point of recruitment. The report argues that this ensures greater prestige for the courses, but by having only the best students in the courses, it ensures that the courses are taught at a higher level.

As they say, in courses that allow anyone to train to be a teacher, the training can become less attractive,

> 'Upon graduation, because of over-supply, they struggle to find jobs as teachers, making the courses less appealing to the more able students. In such conditions teacher training became an option for students who had few other options available to them'. [188]

They also argue that the quality of training can go down because

[187] National Assessment and Examination Center (2010), *Teacher Education and Development Study in Mathematics TEDS-M*, p53
[188] McKinsey and Company (2007), How the World's Best Performing School Systems Come Out on Top, p17

> 'As the quality of the people on the courses begins to drop, so does the quality of the courses themselves, because the quality of the classroom experience is highly dependent on the quality of the people in the classroom'.[189]

The Mackenzie report, therefore argues that it is important to have high levels of selection onto the training programs, rather than high levels of selection at the level of the school.

However, this characterization slightly mis-aligns with the problem that Georgia historically faced. In the past, relatively few people were training to be teachers, because it was not a very appealing profession, with low salary and status and difficult work conditions. But it was OK that relatively few people trained as there were also relatively few places in public schools to hire them into.

Now the number of people being trained seems to be increasing and, with it, the academic credentials of students entering programs. With a bit of luck, this will create a virtuous circle where teaching students with higher academic credentials, create a better course environment. It is certainly too soon to say if that is happening. Certainly, with the positions made available by the retirements before the start of the 2019/2020 academic year, as well as the expectation of more places being made available as unqualified teachers are replaced, there should be far higher demand for teachers.

However, it will be difficult to increase the supply of new teachers, while also ensuring that the academic credentials of people getting on to teacher training programs increases. For this to happen there will have to be a real and sustained increase in the number of people who want to train as teachers. This requires a continued improvement in the situation of teachers, as well as great PR and marketing to ensure that people understand how important teaching is.

One very clear support that is needed, is that there need to be inducements to encourage more people to go into teaching, so that it is not just attractive, but highly competitive. As a starting point, it seems clear that anyone who completes a degree in teaching and teaches for some minimum time in a state school, following graduation, should not pay anything for their education. Going further, I would even suggest that student-teachers from certain backgrounds and geographies, and with certain highly demanded specialisms, should gain a stipend. If all of the 2500 teaching students who will start the MA program were to be supported to the value of 5000 GEL (half for tuition and half for living allowance), this would cost 12.5 million GEL per year. This would seem to be a bargain, as it could help to facilitate a huge shift in the cohort of teachers.

11.2.3. Teacher Professional Development: Training and Evaluation

Teacher development in Georgia operates under a 'Teacher Development and Advancement Scheme' (usually just called the 'Schema'). This was introduced in 2010 and updated in 2015.

[189] McKinsey and Company (2007), How the World's Best Performing School Systems Come Out on Top, p17

Until 2015, the system was largely based on the qualification exam, but according to a WB assessment, this was too focused on one metric,

> most teachers and education experts agreed that the certification exam on its own was not an effective tool for evaluating teacher performance. In fact, compared to various ways of evaluating performance, such as student outcomes, classroom observation, evaluation by principal, self-evaluation etc. examinations were ranked as least important by teachers. Experts have also largely agreed that certification should be supplemented by other evaluation instruments.[190]

Under the 2015 version, it provides a system through which teachers can be trained and evaluated to progress through the different levels of teaching, by acquiring credits for the completion of competency exams, carrying out trainings and producing certain outputs like 'model-lessons'.

The 'schema' and the credit collection it implies, is a requirement for those who want to upgrade in the professional ladder from 'practitioner', to 'senior', to 'leading' to 'mentor'. However, since almost all teachers are either 'practitioner' or 'senior', and since becoming a 'senior' teacher is supposed to be a requirement to stay in teaching, the biggest training motivation is in the attainment from 'practitioner' to 'senior' teacher. There are 3 paths a teacher practitioner can take to becoming a Senior

Path 1

Accumulate 19 credit scores: 4 by an assessment team evaluating 2 lessons conducted by the teacher practitioner, and 15 – by subject and professional competence confirmation (exam). If the teacher can't collect all 15 credit scores by the latter (Exam) they can accumulate extra credit scores by the following activities:

Subject discipline	Credit score	Professional orientation	Credit score
Participation in subject and methodology trainings	1 (25 hours)	Participating in professional skills trainings	1 (25 hours)
Participation in workshops with colleagues	0.5	Managing the club work during the year	1
Preparation of student(s) for competitions, Olympics, (sports, arts, etc.)	0.5	Working with the students with special education needs during the year	1-2
Managing extracurricular activities during the semester	0.5	Social projects	0.5
Utilization of ICT in teaching process during semester	0.5	Facilitating activities during the semester	1.5

[190] World Bank (2017), A review of teacher policy reforms in Georgia: a Case Study, p34

Membership in teacher assessment team during semester (excluding facilitator)	0.5	Participating in the state language course, confirmed by a language certificate	2 (one level)

Source: Teacher Development and Career Advancement Scheme 2019

It is recommended to accumulate the scores via various activities.

Path 2: If they accumulate 10 credit scores in each of the two – subject and competence - confirmation exams.

% of maximum score of subject and professional competence confirmation test	Credit score
61 and higher	10
51 – 60	7
41 – 50	4
31 – 40	1

Source: Teacher Development and Career Advancement Scheme

Path 3: Teacher practitioner status will be upgraded to Senior if after the schema's entry into force:

a) Receives a doctorate or equivalent academic degree in education sciences, or in the field/specialty they teach
b) Receives a certificate upon completion of teacher preparation educational program

These 'schema' was obviously originally conceived, in 2010, and developed further in 2015, to encourage teachers to engage in professional development and can be most obviously criticized because they has still left around half of the teachers as 'practitioners', a category that was originally supposed to be phased out entirely by 2014.

It is also worth noting that while the original version of the teacher competency exam required teachers to pass both the pedagogy exam and the subject competency exam, the current variation does not, allowing other credit values to substitute for this. According to the OECD, this is problematic. As they say, under the new system,

> 'teachers are able to reach senior level by doing well in only one examination. Since both pedagogical and content knowledge are essential for teaching, the ministry should revert to requiring that teachers pass both examinations'.[191]

One very clear effect of this is that a fairly small pool of teachers have decided to undertake university master's degrees in order to gain qualification. As mentioned earlier, many of the 60 credit conversion courses have been taken up by existing teachers. Nonetheless, based on the national totals for this, it cannot be more than 400-500 per year.

[191] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p135

It has failed to create a dramatic increase in the quality of training or a change in attitude towards professional development. The most recent comprehensive government strategy document says:

> 'More than 25 thousand teachers each year participate in state-funded trainings such as general pedagogical skills, subject modules, interactive learning, varied strategies for assessment and teaching, information technology, inclusive education and so on'.[192]

Note that, for a start, this suggests that almost 2/3 of teachers undertook no state funded teacher training in 2017. Also, government spending on professional development has actually seen a decline over the last 7 years.

Figure 61: Spending on 'Promoting Teachers' Professional Development' (thsd. GEL)

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
Amount	18 482	14 551	15 118	12 535	12 974	12 491	12 619	11 755	11 640

Source: Ministry of Finance of Georgia

At the levels of 2019, this spending translates into about 470 GEL for each of the 25 000 teachers that were trained in the government strategy, or 175 GEL per teacher.

Perhaps even more concerning than the fact that so many teachers still cannot pass the required qualifications to be senior teachers, and the relatively modest amount of teaching taking place generally, is the fact that the training being undertaken does not take place within the context of a mechanism to establish need.

As a recent OECD/UNICEF report on educational evaluation in Georgia stated,

> 'The design of the current teacher professional development scheme is not always rewarding good teaching practice nor motivating teachers to develop. A central issue is the requirement to accumulate credits for promotion. This involves burdensome reporting, encourages teachers to undertake activities that might contribute little to improving their teaching and pays little real attention to the quality of teaching practice'.[193]

The broader concern is the lack of teacher evaluation, except that required for the 'schema' and promotion more generally. There is no external assessment of teachers in Georgia, unless teachers want to move up to the next grade, and this rarely happens above 'senior' level. And even within that move, there is no assessment to identify which teachers may be in need of attention, or in which areas teachers may need training.

This aligns with our assessment of 'training' in our focus groups, since while people are generally fairly positive about trainings they have taken, there is concern about 'professional

[192] Ministry of Education and Science (2017), *Unified Strategy for Education and Science for 2017-2021*, p13
[193] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p137

development' as a box-ticking exercise. At the focus groups, we asked the teachers about their experience of the training and professional development system. Around 2/3 answered the survey question in a way that suggested that they found some part of the training useful, while around 1/3 did not think it was useful.

As a 2017 World Bank report said,

> **'There is no comprehensive framework in place to measure the teacher reform success.** The ultimate goal of teacher reforms is to improve student learning. Given that this goal cannot be achieved in the short run, it would be essential for the Scheme to incorporate a set of measurable short and medium-term goals which would track the progress towards overarching goal for improving student performance'.[194]

All teachers had at least one training that they considered useful, but these could be subject-related trainings or conducted by NGOs (MCC; School, Family, Society).

Some teachers were simply skeptical of a lot of teacher training content.

> 'Most trainings are about things like "don't shout at children," "don't punish them," "don't do this, don't do that." You know, we also live in the 21st century. We have not gotten stuck in the last century. We don't do that kind of stuff anymore.' (teacher, Arsha public school).

Some teachers point out that their colleagues are not keen on change, and this limits the impact of the training.

> 'I went through this intensive course on the new ways of teaching methods. When I came back to school and shared my experience with the colleagues on how to organize classes, how to engage students and so on, I was met with enmity. Most teachers are not ready or willing to change the ways they are used to.' (Teacher, Ikalto public school).

Many teachers also do not like the idea of accumulating credits trainings and 'model lessons' that they are supposed to organize for their classes. Lesson evaluation requirement are also often considered as unnecessary and redundant.

> 'This has become a game of documents. These credit scores separate teacher further away from school. Teachers are now more concerned with collecting and uploading credits, and there is hardly any time for students.' (Teacher, Tbilisi public school N213)

> 'Such model lessons are a spectacle and have little to do with reality. Not only time is wasted, but teachers and students have hard time emotionally as well.' (teacher, Tbilisi public school N213)

[194] World Bank (2017), A review of teacher policy reforms in Georgia: a Case Study, p9

To enhance access to teacher training TPDC has undergone a range of initiatives. With the help and support of the Millennium Challenge Corporation Project, Zaldastanishvili American Academy in Tbilisi and the TPDC are piloting an electronic training program.[195] In total 11 courses are offered. There are three methodology courses, including teacher professional development, student motivation, teaching resources/method utilization, student-oriented teaching process, student assessment. There are six subject courses: three natural science courses, and mathematics, geography and English language. Teachers are able to engage in online discussion, do online quizzes, and have communication with the moderator. There are also courses for online facilitators and online course designers.[196]

TPDC also offers training on subjects like inclusive education or ICT. For inclusive education, in 2009-2010 the TPDC developed and approved a special-teacher professional standard and developed introductory course for special teacher professional development. The course is recommended for all special teachers, psychologists and inclusive education coordinators employed at schools. In addition, study tours to Tbilisi are organized for special teachers of regional schools; training modules on various inclusive education topics are offered. Individual consultations for teachers, principals or school administration staff are available at the TPDC. Additionally, the TPDC provides trainings for teachers who have blind, partially sighted, deaf or hard of hearing students.[197]

Teach for Georgia programs aims at increasing education quality in distant villages and high mountainous villages where there is a lack of qualified teacher, and, sometimes lack of certain subject teachers. Consultant-teachers selected through a competition are employed at public schools of distant or high mountainous villages. They are to use and promote the use of modern teaching methods and innovations and informal education. In addition, the teachers are given specifically designed trainings.[198]

The program was launched in 2016 and it unites the ministry's past programs 'Teach Georgian as a Second Language' (2009-2015) and 'Georgian Language for Future Success' (2011-2015). The aim of the program is to promote professional development of non-Georgian school/sector teachers and improvement of teaching/learning quality through strengthening state language teaching. Georgian language courses, professional skills trainings for teachers with A+ level Georgian language and informational resources, such as teaching schema

[195] http://liberali.ge/articles/view/34787/mastsavlebelta-profesiuli-ganvitarebis-eleqtronuli-kursebi--ras-itvalistsinebs-proeqti
[196] https://batumelebi.netgazeti.ge/news/126716/
[197] National Center for Teacher Professional Development (2017), *Programs: Inclusive Education*. http://www.tpdc.ge/geo/program-for-facilitation-of-inclusive-education/201 (Reviewed 16 July 2019)
[198] National Center for Teacher Professional Development (2017), *Programs: Teach for Georgia*. http://www.tpdc.ge/geo/teach-for-georgia/255 (Reviewed 16 July 2019)

guideline, self-assessment questionnaire and other schema-related and training materials in Russian, Armenian and Azerbaijani languages were disseminated.[199]

The ICT Training Program was launched in 2009. By the end of 2016 every public school of Georgia had participated in this program. The participants include public school teachers, librarians and principals. Besides increasing the capacities of the staff, this program aims at creating Georgian-language learning resources and popularization of its use during teaching process.[200]

The Promoting Democratic Culture and Human Rights Program which aims to promote establishment of democratic culture competences at school and teaching process oriented towards teaching human rights, prevention of discrimination and safe, tolerant environment, and to equip teachers and school society members with relevant knowledge, skills and resources. Within the program partnerships with various local and international organizations are formed and maintained.[201]

In addition, there are a fairly wide range of programs that are run, and have been developed with the support of outside and international input. The EU provides opportunities for teachers to twin with EU colleagues through the eTwinning plus scheme[202] and the Pestalozzi program[203], multiple programs under MCC and USAID. It also includes training for teacher practitioners to help them prepare for certification exams, trainings on healthy lifestyle (NNLP Healthy Gen & Nestle Georgia)[204], training on gender equality in school sports and physical

[199] National Center for Teacher Professional Development (2017), *Programs: Professional Development of Teachers of Non-Georgian Schools*. http://www.tpdc.ge/geo/non-georgian-teachers/68 (Reviewed 16 July 2019)
[200] National Center for Teacher Professional Development (2017), *Programs: Information-Communication Technologies*. http://www.tpdc.ge/geo/information-communication-technologies-1/ (Reviewed 16 July 2019)
[201] National Center for Teacher Professional Development (2018), *Programs: Promoting Democratic Culture and Human Rights Program*. http://www.tpdc.ge/geo/democratic-culture-and-human-rights-education-prog/323 (Reviewed 16 July 2019)
[202] National Center for Teacher Professional Development (2017), *Programs: School Teachers Engagement in Online System and Cooperating with European Countries' Teachers (eTwinning Plus)*. http://www.tpdc.ge/geo/etwinning-plus-1/254 (Reviewed 16 July 2019)
[203] National Center for Teacher Professional Development (2017), *Programs: Pestalozzi*. http://www.tpdc.ge/geo/pestalozzi/262 (Reviewed 16 July 2019)
[204] https://www.mes.gov.ge/content.php?t=srch&search=%E1%83%A2%E1%83%A0%E1%83%94%E1%83%9C%E1%83%98%E1%83%9C%E1%83%92%E1%83%94%E1%83%91%E1%83%98&id=7996&lang=geo

activity (UNESCO)[205], national curricula introduction trainings (Georgia-Estonia project)[206], prevention of bullying[207]. Some of these recent training programs are listed below.

> In cases when a teacher applies for promotion and the Teacher Assessment Group determines that they have not satisfied the credit requirements for maintaining their position, the teacher can be demoted (except for practitioner teachers). However, if a teacher does not apply for promotion there is no central mechanism to assess or address their underperformance. The ultimate sanction – teacher dismissal – is the responsibility of school principals'.[208]

However, while this sanction is left with the principal, there are reasons to think that they are ill equipped to take this responsibility, as they lack the support to be evaluators. They also may have major structural disadvantages, through being embedded in local communities.

> 'Principals in Georgia also have far more autonomy over teacher dismissal than in many OECD countries. Making principals solely responsible for dismissals can put them in a difficult position. A principal works with the teachers in their school every day, and in rural areas may have close relationships with a teacher outside the school. This is one of the reasons why, in OECD countries, around half of students attend schools in which regional or national education authorities are responsible for teacher dismissal'.[209]

11.3. Teacher Assessment of their own Profession.

In spite of some generally troubling scores, both for students and a relatively low level of teacher qualification, on the face of it teachers have an extremely high assessment of their own competency, and in spite of commonly expressed concerns to the contrary, seem to have fairly high levels of satisfaction.

The Teaching and Learning International Survey (TALIS) Georgia joined TALIS, the Teaching and Learning International Survey, an OECD study in 2013 and was carried out in Georgia in 2014. The survey asks question in issues including professional development, teacher appraisal and feedback, self-efficacy and job satisfaction, learning environment, teaching practices and classroom environment, teachers' instructional beliefs and values. The purpose

205 https://www.mes.gov.ge/content.php?t=srch&search=%E1%83%A2%E1%83%A0%E1%83%94%E1%83%9C%E1%83%98%E1%83%9C%E1%83%92%E1%83%94%E1%83%91%E1%83%98&id=8012&lang=geo

206 https://www.mes.gov.ge/content.php?t=srch&search=%E1%83%A2%E1%83%A0%E1%83%94%E1%83%9C%E1%83%98%E1%83%9C%E1%83%92%E1%83%94%E1%83%91%E1%83%98&id=7658&lang=geo

207 https://www.mes.gov.ge/content.php?t=srch&search=%E1%83%A2%E1%83%A0%E1%83%94%E1%83%9C%E1%83%98%E1%83%9C%E1%83%92%E1%83%94%E1%83%91%E1%83%98&id=7156&lang=geo

208 OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p134

209 OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p127

of the survey is to help participating countries to develop an efficient policy for teacher professional development.

This was carried out in 35 countries in 2013 (though Georgia's survey was 2014). In Georgia, it included a survey of 440 school principals and 6000 teachers across the country.

Overwhelmingly, the TALIS survey shows that Georgian teachers are very confident in their teaching ability, compared to other teachers in the TALIS study. Half of basic and secondary school teachers consider themselves 'very well prepared' on their subject and 46% 'well prepared'. 39% consider themselves 'very well prepared' in terms of their methodology of teaching, 46% believe themselves 'well prepared'.[210]

This leaves only between 4% feeling less than well prepared on subject and 15% on methodology. This is a higher level of confidence than teachers in other TALIS countries, even though other TALIS countries are richer and have significantly higher performing students. This profile of confidence, according to the TALIS reports, is commonplace in Eastern European countries.

Similarly, TALIS 2015 teachers self-assessing their teacher methodology extremely positively. 63% of Georgian teachers reported that they use 'frequently' or 'at nearly all lessons':

- differentiated instruction (47%)
- applying ICT in teaching (47%)
- working in small groups (67%)
- connecting new knowledge and its meaning to real life experience (58%).
- allow students to self-assess their progress (71%).

The share of teachers in Georgia reporting the above listed teaching methods is higher than the share of teachers who reported using the same techniques in other TALIS countries.[211]

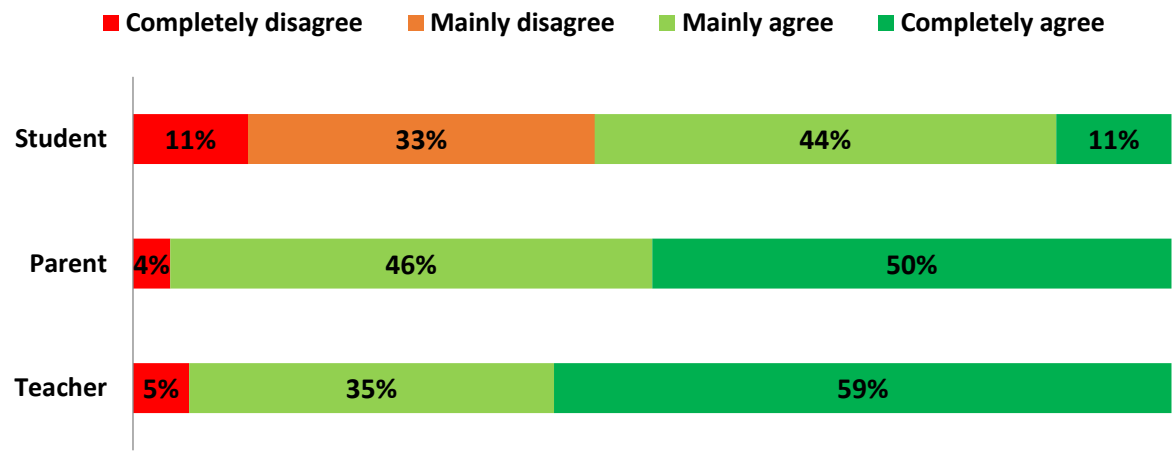
It is unclear whether these survey results reflect genuine over-confidence and lack of reflectiveness, or just a desire not to criticize. School principals, within the survey, certainly show a determination not to criticize their teachers which borders on the pathological. In the TALIS survey, 99% or more of principles argue that their school teachers are never or very rarely late for work, miss school or discriminate against students by any trait. The principals think that the vast majority of Georgia's teachers work in schools with a very positive professional atmosphere. In this regard Georgian schools rank THE HIGHEST of all the TALIS participant country.[212]

[210] National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS)*, National Report, pp10,266
[211] National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS), National Report*, pp156,210
[212] National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS), National Report*, pp11,266-267

Nonetheless, 61% of the school principals, cite the lack of qualified teachers as 'very detrimental' or 'somewhat detrimental' to their school. This is higher than the 40% level found on average in other survey respondent countries and seems to directly contradict the previous statements about the level of qualification of students.[213]

In our focus groups, there was a very noticeable split between the attitudes of parents and teachers and that of students in terms of the quality and dedication of teachers. We asked each group whether they agreed or disagreed with the statement, 'Teachers are mostly good and hard-working'.

Figure 62: Response to the statement 'School teachers are mainly good and hardworking'



Source: Focus Groups, Conducted by GeoWel in June 2019

Half of parents and more than half of teachers 'completely agree' with a total of around 95% either 'completely' or 'mainly' agreeing. For students, one can see that only 11% 'completely agree' and a total of 44% either completely or mainly disagree.

Therefore, while parents usually are quite positive about the teachers, the students we focus-grouped were not shy to point out problems. One of the problems that students identified is that some of the older generation teachers tend to be strict to the point of being verbally abusive to students. Students want a teacher who knows how to approach a student, to form a good communication and a relationship that is friendly and understanding. According to our (admittedly small) group of students focus grouped, there are few teachers who meet such criteria.

> 'Usually we are not close with the teachers. We don't understand each other. It is as if a bridge is broken between us.' (Student, Sioni public school)

[213] National Assessment and Examination Center (2015), *Teaching and Learning International Survey (TALIS), National Report*, pp11,266

> 'Every school has weak and strong teachers. There are also teachers who don't know how to approach children. Teachers should be an exemplary person, not someone who invokes fear and aggression. Sometimes they say things that can morally devastate children.' (Student, Tbilisi public schools N213)

> 'Teacher should come to the classes with joy and motivation. They always blame us that we don't have motivation, but it's the teachers who should have the motivation in the first place.' (Vale public school)

Teachers are also assessed as having very varied skill sets by students. In one of the schools, for example, parents and students said that the English teacher does not actually know English, but is a teacher nevertheless because there is no one else in the village.

11.3.1. Teacher satisfaction

One of the commonly cited criticisms of the existing situation in Georgia is that, teaching is a relatively low status and low-satisfaction job so that, as a result, generally only lower scoring university graduates are considering it as a career path. Certainly, in the 2008 TEDS-M survey, when they divide countries into high, mid and low status, Georgia is in the bottom group.[214]

Figure 63: Attractiveness and Status of Primary and Basic Level Teacher Profession

Level of attractiveness	Country
Strong	Canada, Taiwan, Singapore
Medium	Botswana, Germany, Malaysia, Oman, Poland, Russia, Spain, Switzerland, USA (basic)
Weak	Chile, Georgia, Norway, Philippines, Thailand, USA (primary)

Source: TEDS-M 2010 Georgian report

Interestingly, in terms of professional regard, the TIMSS survey showed that Georgian teachers scored extremely highly in the 'teacher satisfaction' index. This high level of satisfaction was constant across the two different surveys conducted in 2007 and 2015. In fact, in 2015, Georgia scored in the top four countries in terms of teacher labor satisfaction.[215]

It is hard to know what to make of this, as various other sources suggest that teacher status and satisfaction levels are fairly low. It may simply suggest that teacher surveys are not to be trusted since teachers themselves do not trust surveys. Most of the international testing systems are carried out by the National Assessment and Examination Center (NAEC), a government agency. If people are not trusting of the government, their responses in these surveys may not be reliable.

We certainly found that, amongst teachers there was something of a split on attitudes to the profession. On the one hand, teachers felt that they were not as respected as they used to be

[214] National Assessment and Examination Center (2010), *Teacher Education and Development Study in Mathematics TEDS-M*, p55
[215] Mathematics Study and Teaching Capacities and Results: TIMSS 2007-2015, p372

and are confused with new curricula and methodologies. On the other hand, they are obviously happy about the better remuneration.

One reason for the perceived lack of status is that teachers who felt like they used to have complete authority in the classroom, now do not feel that way. In the past, they say, the roles and responsibilities were clear and straightforward. With the new, often changing directions from the government, many teachers do not feel they understand the system anymore. There are many competing paradigms (like 'old' and 'new' or 'student-oriented approach' vs 'lecturing') that many teachers find hard time to fit in. The teachers' examinations and failure of the majority of teachers (in 2010) also contributed to a further decrease of the teacher's prestige.

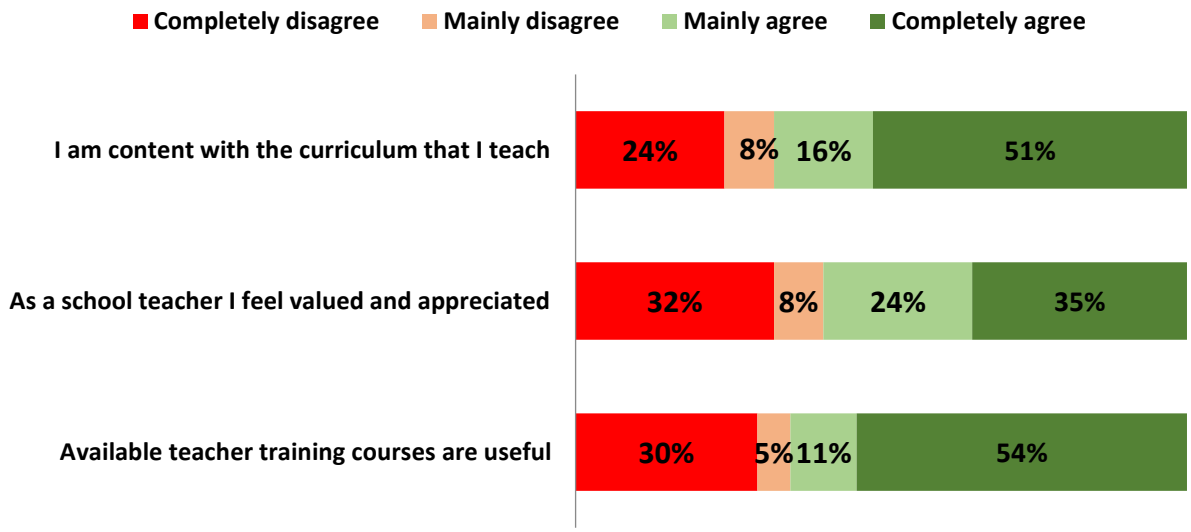
> *'We no longer have the authority. We have been stripped off from all kinds of rights and powers. You can't even voice your concerns to a child or a parent.' (teacher, Tbilisi public school N213*)

> *'We must be the most "uneducated" people in the country. They give so many trainings to us.' (teacher, Tbilisi public school N213)*

This feeling is particularly pronounced in Tbilisi and in urban areas, but the situation in the regions is slightly different as the communities are small and the respect to for both teachers, and the older population generally, is stronger.

From our focus groups, the views of teachers on a range of issues was extremely mixed.

Figure 64: Questions asked to teachers during focus groups

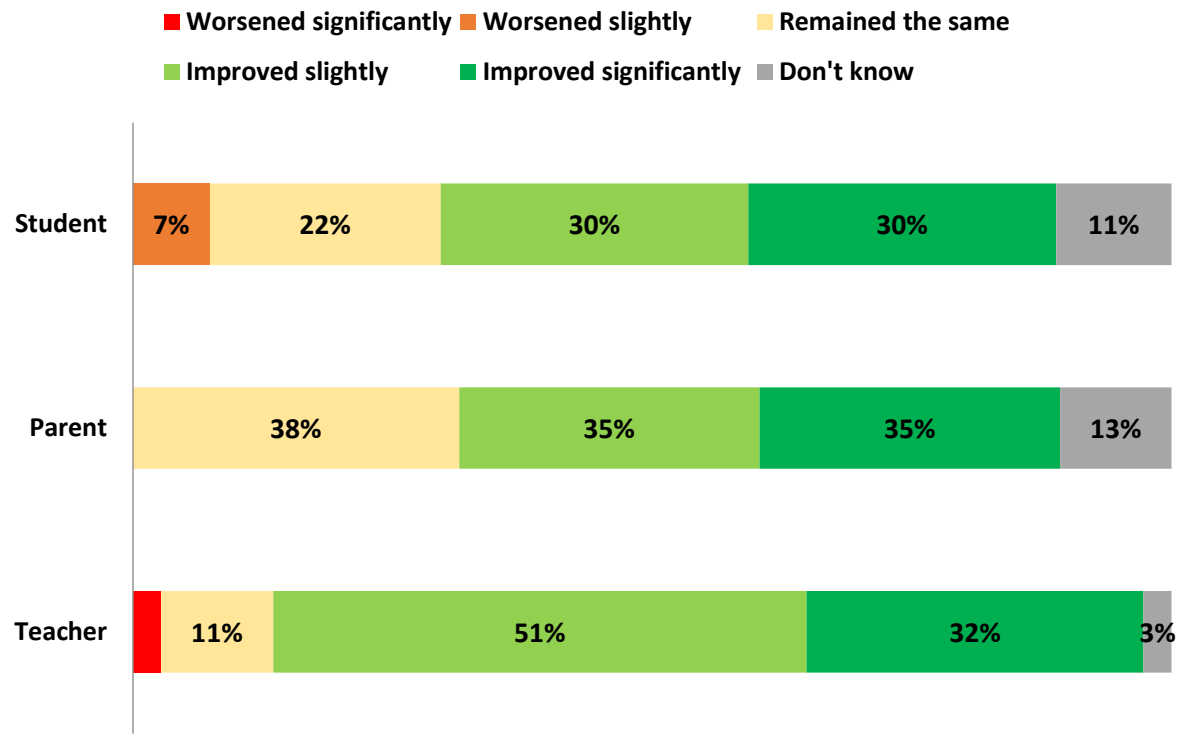


Source: Focus Groups, Conducted by GeoWel in June 2019

Notably, while about 1/3 of the teachers are negative and 2/3 positive on the curricula and training courses, the negatives increase on the issue of 'feel valued and appreciated' with 40% negative and 50% positive.

However, when asked about changes in the immediate past, almost all of the teachers, parents and students accept that things have generally improved. In our survey, we asked the different groups to assess improvements.

Figure 65: Responses from Focus Groups to the question, 'In the last 5 years have teacher situations gotten better or worse'



Source: Focus Groups, Conducted by GeoWel in June 2019

As we can see, a clear majority of all three groups think that the situation facing teachers have improved, with only 7% of students thinking they have slightly worsened and 3% of teachers, but no parents thinking they are worse – and around 1/3 of each group thinking that they are a lot better.

12. School curriculum and textbooks

Schools develop their own curricula every year, which have to align with the National Curriculum. This outlines the required and elective classes for any given year, as well as the list of allowable textbooks.

The school commences work on the new school curriculum right after the end of the academic/school year and approves it no later than a week before the start of the new academic/school year. The approved school curriculum is public.

The school curriculum should include:

- School mission
- Hourly schedule of lessons/classes

- List of stamped/approved textbooks according to classes/levels and subjects
- Rules of student assessment
- List and description of additional educational services envisaged by the National Curriculum
- List of additional educational services (in case of additional subject not included in the National Curriculum, subject curriculum should be provided
- List of educational resources
- Schedule for conducting the professional orientation and career planning program in grades 9 (8 lessons/classes) and 11 (4 lessons/classes). Also, schedule of other activities envisaged by the program: schedule of meetings with educational institutions and representatives of different professions and excursions.

A school does not have a right to remove any mandatory subject defined in the National Curriculum. But schools with a status of intensive subject teaching and private schools have a right to teach the mandatory subjects according to a scheme different from that defined in the National Curriculum, provided that it covers all criteria set by the National Curriculum. The list of 24 mandatory and 38 elective subjects is given in a figure below.

Figure 66. Mandatory and elective school subjects, by subject group

Subject group	Mandatory Subject	Taught in grades	Elective Subject	Taught in grades	N of semesters
State language	Georgian language and literature	1-12	Folklore and mythology	10-12	2
	Abkhazian language and literature (in AR of Abkhazia)	1-12	XIX-XX cc western literature	10-12	2
	Georgian as a second language (at non-Georgian schools/sectors)	1-12	Ethnic minority languages	2 hours per week	
Mathematics	Mathematics	1-12	Technical drawing	10-12	1 or 2
			Chess (Special Electronic Program)	2-3 grades	
			Robotics	9	2
			Coding	9	2
Foreign languages	First foreign language	1-12	Third foreign language	10-12 grades	
			American studies	10-12	2

	Second foreign language	5-12	XIX-XX cc western literature	10-12	2
			Ethnic minority languages	2 hours per week	
Public sciences	Me and the society	3-4	American studies	10-12	2
	Our Georgia	5-6	Geographic research	10-12	2
	History of Georgia and the World history	7-12	Economics and the state	11-12	2
	Geography	7-8	Principles of entrepreneurship	10-12	2
	Geography of Georgia	12	World culture	10-12	2
	Geography of the world	10	The state and the law	11-12	2
			Observation of nature's monuments	10-12	2
	Geography of global problems	11	Ethnography of Georgia	10-12	2
			Military history and national security	10-12	2
	Civic education	7-10	Environment and sustainable development	9-12	1 or 2
Natural sciences	Natural sciences	1-6	Principles of conservational biology	10-12	1
	Principles of natural sciences	7 (until the academic year of 2019-2020)	Medical biology and health	10-12 and/or 11-12	1 or 2
			Chemical technologies	11-12	1 or 2
	Biology	7-11	Introduction to modern physics	11-12 and/or 12	1 or 2
			Astronomy	11-12	1 or 2
	Physics	7-11	Environment and sustainable development	9-12	1 or 2

			Integrated laboratory research of natural sciences	9	1
	Chemistry	8-11	Robotics	9	2
			Coding	9	2
Technologies	ICT	Primary and base levels	Computer science	10-12	2
			Robotics	9	2
			Coding	9	2
			Modern technologies in music	9	1
			Multimedia and design	10-12	2
			Practical course in musical computer programs	10-12	1 or 2
			Chess (Special Electronic Program)	2-3 grades	
Aesthetic upbringing	Fine and applied arts	1-12	Specific field of applied arts (felt, woodwork, tapestry, etc.)	9	1
			Specific field of fine arts (drawing, painting, sculpting)	9	1
			Modern technologies in music	9	1
			Multimedia and music	9	1
			Choir	9	1
			Drama	9	1
			Theatre arts	10-12	2
	Music	1-12	Theoretical and practical course of fine and applied arts	10-12	2
			Art history	10-12	2
			Folk ensemble	10-12	2
			Practical course in musical computer programs	10-12	1 or 2
			Multimedia and design	10-12	2

			Cinema art	10-12	1 or 2
Sports	Physical education	1-6	Chess (Special Electronic Program)	2-3 grades	
	Physical education and sport	7-12			

Source: National Curriculum 2018-2024

While the variety and the number of elective subjects looks promising, our focus groups suggested that students were skeptical of having so many elective courses. On the one side, students would often complain that classes which required activity, were only text based,

> 'We had a music subject but we were not learning anything, there were no educational materials, no musical notes, nothing… We did not learn anything; we were just talking during the classes.' – Sioni focus group, student

> 'No one does anything during sports [subject], we don't even have a ball.' – Sioni focus group, student

> 'Last year we did not have art textbook and we taught with our own program. In music we had only old books.' – Tabakhmela focus group, teacher

In some cases, teachers particularly suggested that elective courses might start too late

> 'The introduced art and music in six to nine grades. No one is interested in studying these in ninth grade. Before we had it until sixth grade and it was good. You need to find your talent early.' – Arsha focus group, teacher

In others, a lack of materials generally,

> 'We studied road signs, we did not have any book there too, while it was a separate subject' – Sioni focus group, student

> '[We had] world culture, an elective subject. There is no literature in elective subjects. We did not even elect it, they just wrote it in schedule. It is an obstacle too. Because of that subject we can't go to [private] studies.' – Sioni focus group, student

> 'There was cinema art, an elective subject, but we did not have it. What was the one that we studied and we don't know the name of? Folklore and mythology. It is taught in higher grades and teachers of other subjects teach these [elective] subjects too.' – Sioni focus group, student

> 'Some books never arrive, music and art didn't arrive for the entire year.' – Muskhi focus group, teacher

Outside of discussion of elective, generally text-books were a common source of complaint. These were criticized for a range of reasons. First, for being too dense.

> 'Books are pretty dense. The history book for the 8th grade, for example, has 10 historic dates and 20 names on one page. This makes it very hard to follow' (Tbilisi public school N213)

Many participants across teachers, parents and students complained that the material in the textbooks do not cover the topic which are then tested at the exam. Students noted that sometimes the teachers leave the final parts of the textbooks, which they might encounter during the exams. Since there are no additional materials, exercises and questions after each chapter in the textbooks are important. So, a lot depends on a teacher who can explain the exercises and solutions and expand on the limited information provided in the textbooks. In some subjects, such as music and arts, it seems that the textbooks might never arrive.

> 'We only depend on the books, which can be very boring. There is no additional material. For example, in physics and chemistry we do not see how things happen, we only study theory from the books. That's why there is little interest in such subjects among students.' (students, Duisi public school).

> 'The study process and the textbooks are not focused on the most important thing: logical thinking.' (student, Sioni public school).

12.1. Textbooks

Before 2010, textbooks in Georgia were largely left to a combination of market forces and teacher decisions. In 2011, new rule for approving textbooks touched only primary stage of general education, and from 2012 basic and secondary stages[216]. The most noticeable impact of this change was that the government distributed textbooks in schools throughout Georgia, free of charge.

The disadvantage for this change was the small amount of time given for the authors for preparing new textbook series, that was not enough for providing high quality textbooks. Moreover, it was step back to the centralization as schools were restricted in their choice too – the number of approved textbooks declined. According to the new rule of approving textbooks, the government became co-owner of approved textbooks and it was granted the right to purchase and publish them. This change in the law generated complaints from some publishing houses that their intellectual property rights were being infringed.

In our focus groups, we asked about materials. The state provides secondhand books to students, so usually this is not a problem. However, some books might be missing pages or have handwritten notes inside them, making them difficult to use. One of the problems that we encountered was that a math book for a Russian language schools was partly in Georgian, thus making it difficult for students to follow the book.

[216] Ministry of Education and Science of Georgia (2010), *Textbook Approval Regulation Changing According to the New National Curriculum*. http://www.mes.gov.ge/content.php?id=%201603&lang=geo (Reviewed 31 July 2019)

In theory, teachers have a say in what books are adopted. The Ministry sometimes organizes meetings with the authors of the books, so that they can learn firsthand about the books and make decisions:

> 'They take us to those meetings with the authors, we chose specific books, but still send the books they want to send. I don't understand why they bother to take us to these authors, if our voices don't count anyway.' (teacher, Tbilisi public school N213)

There are rarely any supporting resources, such as video or audio materials, maps, additional books. Libraries usually only have very old books, and just distribute the textbooks.

> 'Thanks to the teacher of civic education, our library was able to purchase sixty new books, including fiction. This was made possible due to the grant that the teacher applied to. But such things are very rare.' (Ikalto public school).

Need to add some stuff on the 'New School Model'

12.2. New School Model

Launched in 2019, the New School Model is a subprogram of the General Education Reform Support Program and one of its most important parts. The basis of the new vision for education of this reform program, is constructivist approach – it is person- and internal motivation-oriented and focuses on active teaching and learning, knowledge making based on previous knowledge, learning to learn, interconnecting and organizing knowledge, focus on thinking instead of memorizing. The goal is to develop school culture and improve the quality of teaching and learning. For this, 4 objectives are set:

1. Development and establishment of school curriculum based on constructivist education principles
2. Development of effective school management approaches
3. Integration of digital technologies in teaching and learning process
4. Creation of progress and development support system.

One of the key objectives of the program is to increase the school autonomy and this is envisaged by developing of individual school curricula based on new, third-generation national curriculum which was developed in 2014-2016 and introduced in 2018. Up to now, with a few exceptions, the school curricula were of formal character and reiterated the national curriculum. The was no school culture of curriculum development. Based on the New School Model, the new school curriculums will be based on the constructivist principles, to enhance the students' desire to investigate and discover new things based on previous experience and knowledge of everyday life contexts, and to develop their complex, critical and creative thinking skills.[217]

[217] The Ministry of Education, Science, Culture and Sports, *Program Concept – "General Education Reform Support"*. https://www.mes.gov.ge/uploads/files/zogadi-ganatlebis-xelshecyoba.pdf (Reviewed 25 December 2019)

The key element of this model are the support groups. One support group per school is introduced in order to help the administration to identify problems and to support them in improving the school environment and the quality of the educational process. The support group consists of 4 specialists, selected and prepared by the Preschool and General Education Development Department of the Ministry of Education with the help of TPDC:

1. School curriculum development expert – helps teachers to create curriculum independently. The New School Model gives the teachers more freedom of action - while they are obliged to take into account the principles included in the national educational curriculum, they are free to draw up lesson plans and choose the teaching methods.
2. Assistant to the school curriculum development expert – these are mainly the university students that will be able to become experts after completing the relevant work.
3. Technology expert – helps teachers to use and implement digital technology in the studying process.
4. Educational leadership expert – works with the school administration in order to create a healthy school environment.[218]

School curriculum development expert works with teachers and employs coaching principle. Finding curriculum experts proves difficult firstly because of the high number of experts required for each pilot school, secondly, because of the inexperience in the field of individual curriculum development. Currently, these experts are manly teachers who still have teaching jobs. They were trained by the Ministry as curriculum experts.[219]

Within the project, an electronic database has been set up where the teachers from different schools and regions will be able to upload their curricula – to share it with one other and to work together for its improvement.[220]

Currently, the New School Model program covers a little over 100 pilot public schools and includes students of primary school (1-4 grades). Inclusion of all schools in Georgia is expected by 2023.[221] In January 2020 two Armenian and three Azerbaijanian schools/sectors will

[218] TV Pirveli (2019), TV Interview with Sandro Asatiani, New Technology Expert at the Ministry of Education, Science, Culture and Sports. https://www.youtube.com/watch?v=xwxf5hiKo0Q&t=537s (Reviewed December 24, 2019)
[219] Interview with Mariam Chikobava, Head of National Curriculum Division at Ministry of Education, 27 September 2019
[220] TV Pirveli (2019), TV Interview with Sandro Asatiani, New Technology Expert at the Ministry of Education, Science, Culture and Sports. https://www.youtube.com/watch?v=xwxf5hiKo0Q&t=537s (Reviewed December 24, 2019)
[221] Ministry of Education, Science, Culture and Sports (2019), *Mikheil Chkhenkeli: "It is Necessary to Create a Peron-Oriented Educational School Environment, Giving Opportunity to Every Adolescent to Realize their Potential".*
https://www.mes.gov.ge/content.php?t=srch&search=%E1%83%90%E1%83%AE%E1%83%90%E1%83%9A%E1%83%98%20%E1%83%A1%E1%83%99%E1%83%9D%E1%83%9A%E1%83%98%E1%83%A1%20%E1%83%9B%E

engage in the New School Model program. However, implementing the constructivist approach at non-Georgian schools/sectors is a double challenge due the already existing challenges further discussed in the document, such as lack of Georgian language knowledge and Armenian- and Azerbaijanian-speaking professionals.

The monitoring mechanism of the New School Model program activities is envisaged by two main means:

1) keeping a reflection diary by the support groups - the reflection diary includes questions such as finding of the day, emerged problem, and additional comment. Diary information will be analyzed twice a semester or additionally, if requested by the expert.
2) Conducting semi-structured interviews with the teachers and students twice a semester

In addition, the New School Model implementing team from the Ministry of Education will visit the schools.

In total the 2019 budget for the New School Model subprogram was 19 mln GEL.[222]

Figure 67. New School Model Budget, 2019

Activity	GEL
Staff salaries and administrative cost	330 325
Purchase of digital technology, Wi-Fi installation, development of electronic resources	14 881 100
Creation and administration of test measuring students' achievement dynamics and progress	168 140
Training of the support group	396 185
Salaries of the support group	3 578 250
Total	19 354 000

Source: Ministry of Education, Science, Culture and Sport

The New School Model is an extremely ambitious program, that aims to change the approach to teaching in Georgian schools, root and branch, giving schools more independence, trying to create greater flexibility and creativity in curricula. It faces obvious challenges of how to create this kind of change, quickly and at scale, with relatively few people who can carry-out the program implementation.

However, the deeper concern is that this reform has not really carried out a proper monitoring and evaluation and lacks any system in place to track its success or failure. The M+E that is carried out for the project is carried out by the same people who are instituting the reform, and lacks any external

1%83%9D%E1%83%93%E1%83%94%E1%83%9A%E1%83%98%E1%83%A1&id=9782&lang=geo (Reviewed December 24, 2019)

[222] The Ministry of Education, Science, Culture and Sports, *Program Concept – "General Education Reform Support"*. https://www.mes.gov.ge/uploads/files/zogadi-ganatlebis-xelshecyoba.pdf (Reviewed 25 December 2019)

metric of results for comparison, as there are no national exams taken by all students and used as a metric for comparison. Therefore, the only people to adjudicate the success of the program, and the value of rolling it out to all schools, are the people who decided on the policy in the first place.

13. School Grading, Examination and Testing

A subject that has been a significant focus of attention in Georgia recently is the question of what exams/tests it is useful for general education students to take, when, and for what purpose. Exams are, of course, supposed to be a mechanism for gauging how well a student is doing or has done; their level of knowledge and skills in particular areas. This can be used just to test if their education is progressing, or to provide some kind of selection filters.

In terms of simply testing progress, grading, tests and exams, can be used as an evaluation mechanism by teachers, for assessing students and modifying teaching, by students to self-examine and identify weaknesses to work on or strengths to prioritize. Tests can also be used by schools as part of an evaluation of teachers and by government administration or by parents (if data is available), as part of the evaluation of schools.

According to the OECD report on evaluation, one can generally divide between 'summative assessment', the purpose of which is to simply provide the evaluator with a summary of the knowledge that a student has absorbed, and formative assessment, which can be used by educators to direct the educational process. One of their most consistent complaints is that what evaluation takes place is summative rather than formative.

Qualifications/grades are also useful as selection filters. Businesses obviously use results from school and university exams as one criterion for selecting employees, but qualifications or entrance tests can also be used as selection filters for further education, to ensure that students are capable to start a given course, or to select the brightest students if there are more students than places.

In Georgia, the system of grading in schools has involved very little centralized testing. Even though students can leave high-school at year 9, there has been no centrally administered test to check their progress and skill level at that point. Until that age, tests and grades, though a requirement, are designed and administered by each teacher, so that it is hard to say that scores are comparable across classes and schools.

The national curriculum did have a section that outlines principles that teachers are supposed to subscribe to in evaluation and grading. In September 2017, this section was annulled for 6 years. Nonetheless, it currently seems as though most teachers are proceeding as before, though the national curriculum does not require them to do so.

Before the change in the national curriculum, at the end of a semester, teachers would grade students according to the guidelines in the national curriculum. During the semester the students were assessed according to three components of equal weight: homework, classwork and accumulated project work. It was mandatory to examine students at the end of the semester, and this had to form part of the evaluation, though the content of the exam

was not unified/centralized. Schools did also have the right to require cross-school testing on a subject-basis at the end of the year. But there was no requirement to do this and no national administration or oversight of the process.

Students grading, therefore, was always almost entirely teacher-driven. Since 2017, as there is no required system at all, it is now even more so. In years 1-4, students don't receive a grade, but instead, simply receive a written assessment which includes information on student strengths and weakness as well as level of achievement. In years 5-12, students are assessed using a 10-point grading system for all major subjects. 5.0 is considered a 'passing' grade. Students who fail the year, can be held-back, but they are given an opportunity to make up their score through an autumn pre-school exam. Holding back students rarely happens.

The government did carry-out international testing, like PISA, TIMSS, PIRLs etc. and also conducted a 2016 National Assessment in Physics, Chemistry and Biology, as well as a 2017 National Assessment of Mathematics, both for 9th Grade. However, none of these impacted on the students, or affected their grades.

The two exams that have been centrally administered in recent times are the graduation exams and the university entrance exams. Both have come under scrutiny in recent years, with the graduation exam being scrapped and the university entrance exam modified. We will consider these two exams in turn.

At no point have any of these exams been used, in recent times, to identify and either reward or punish teachers, to assess and intervene failing schools, and none of these results are made public, to allow parents to see how different schools compare.

The OECD report on assessment and evaluation, highlights three main problems with student evaluation system, in the years prior to graduation. First, is the fact that teachers over-evaluate in a summative way, without integrating results into the development of teaching. Second, they point out that there is no standardized formulation for regular teacher feed-back to students. To correct for this, they suggest the development of a standardized student feed-back form, that can be filled by students and then inputted into the EMIS, to allow for better tracking of student progress.

On the issue of the lack of standardized external exams, prior to graduation, they point out that this leaves both students, schools and the government in the dark regarding how students may be developing. Due to a lack of outside assessment, they point out that 'teacher bias has an outsized effect on student assessment with no moderating measure'.[223]

As a result, they not only suggest that, 'the OECD recommends that Georgia administer standardized, full-cohort assessments at key stages in a student's education to help assess student performance'.[224] Going even further, they suggest that the year 9 (or year 10 if that

[223] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p95
[224] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p95

is made compulsory) test should be a certification examination. Therefore, one which would be on the public record of the student, and which would be used to help inform future decisions. Their explanation for this is worth considering at length,

> 'Administering an examination later in a student's education (as opposed to during primary grades) helps to mitigate the risk of labelling young students while generating positive effects, such as incentivizing students to apply themselves and helping students identify their interests. Some teachers told the OECD review team that they would welcome a national examination at this stage to alleviate the pressure of determining student pathways solely via their marks'.[225]

13.1. School Graduation Exams

In 2011 the first High School graduation exams were held. This was intended to increase school attendance and to increase schools' accountability. They were also intended to be part of a change to higher education entrance. The idea was that students should pass graduation exams, plus general skills exam to enter university. However, in 2013 the new Minister abandoned this reform, and kept both the graduation and the university entrance exam.

NAEC is responsible for the content, administrative and technical preparation and implementation of the graduation exams. Important novelty in graduation exams was their digitization with GCAT - Georgian Common Admission Test.[226]

From 2013 until they were abolished in 2018, graduation exams were conducted in 8 school subjects, out of which 4– chemistry, physics, biology and geography were conducted at the end of grade 11, while the other 4 - Georgian language and literature, foreign language, mathematics and history – at the end of grade 12. In 2011, the cut-off score for passing the exams was 5.5 points (out of 10). This assessment system was changed in 2018 and instead of a cut-off score, a fail/pass system was introduced.

In 2019 the government announced the abolition of graduation exams which initially was announced to enter into force from 2020, as the students graduating in 2019 had already passed half of the 8 CAT exams in grade 11.[227] However, in the end, every final grade student got school graduation certificate without exams.

A range of concerns were expressed about the test. In particular, it was highlighted that the combination of graduation and university entrance exam, was overly burdensome. The increase in drop out rate in 2011 also suggest that in order to keep their failure rate low, the schools were forcing students to drop out, rather than taking the test and failing.

[225] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p95-96
[226] National Assessment and Examination Center, *School Graduation Exams – General Information*. https://naec.ge/#/ge/post/1481 (Reviewed 29 July 2019)
[227] Edu.aris.ge (2019), 12th Grade Graduation Exams To Be Abolished in 2020 – What Will the Attestation Issuance Principle Look Like. https://edu.aris.ge/news/me-12-klasshi-gamosashvebi-gamocdebi-2020-wels-gauqmdeba-rogori-iqneba-atestatis-gacemis-principi.html (Reviewed 29 July 2019)

It is hard to see the reasons for not having SOME KIND of centralized test, to at least form some component of a graduation grade, in Georgia. Such a test should not only motivate students to attend/study, but also do provide the parents, teachers and the government administration with an objective metric for evaluating individual student performance, the performance of schools and the performance of the system as a whole.

The OECD report, offers this concern about the abolition of the Standardized Graduation Exam (SGE),

> In Georgia, without the SGE, students graduate from upper secondary school solely based upon the grades they receive. This situation is problematic because… the marks that teachers confer to students are not necessarily aligned with national learning standards [and] is not a reliable method of ensuring that students are graduating with basic minimum competencies. For these reasons, school-based student assessment methods tend to have less signaling value beyond the individual school, and less of a positive backwash effect in terms of ensuring rigor and motivating students'.[228]

However, that does not mean that this test was working. Clearly efforts need to be made to ensure that any national test is fit for purpose. Unfortunately, the arguments surrounding the test have tended not to focus on the various ways in which the test created uncomfortable results, or perhaps, highlighted broader problems in the educational system, rather than its inherent value.

One argument for cancelling the graduation exam is that it did not have unquestionable positive impact on attendance that was suggested. For a start, it might have encouraged an increase in tutoring, as students were more motivated to do well. However, since tutoring generally takes place during the work-day, this could have created a negative incentive to attend school. This is further supported because Georgia has an incredibly relaxed attitude to school attendance.[229] Students are allowed to miss 30% of classes per subject and some principals have a soft approach and let the students miss more classes which often becomes a tiebreaker for parents when it comes to choosing a school.

On the other side, the introduction of a graduation exam may have encouraged more students to leave school earlier. In the academic year of 2011-2012 (a year following the first graduation exams round) the number of students in 10-11-12 grades drastically decreased. The reason for this could have been students' decision to quit school after introduction of exams, or the school's encouragement of weak students not to take graduation tests in order to have high overall school scores.

Another concern was that the test may simply not be very good. The test was a computer-based using only multiple-choice questions and it has been suggested that this is too crude to

[228] OECD (2019), OECD Reviews of Evaluation and Assessment in Education, Georgia, p105
[229] Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report,* p41. https://naec.ge/#/ge/post/1863 (Reviewed 15 February 2019)

assess cognition and competences or requirements set by the national curriculum. NAEC believes the new tests that it is developing for earlier years can be better at competence-assessment. Some also think that the test should be conducted at the end of basic level AND secondary level should be focused on developing competences required for higher education.[230]

For teachers, there has also been lack of trust in the test, because the results of the test, often don't align with the scoring that teachers have been given throughout the year.

Both of these questions about the fairness of the test also combine with questions about equity, particularly when the tests are used to assess teacher performance. In the beginning of the reform several school principals and/or teachers (depending on various sources, but around 200 people in total) were dismissed after the first round of school graduation exam results. A lot of people criticized punishment of principals as test results are influenced by variety of factors. The main determining factors for failure, as we have identified, are the wealth and ethnicity of the student body.[231]

Amongst the wider community, there is also a lack trust towards test administration as the tests are conducted at schools. Students noted that they observed violations during tests, that it is very easy to copy from each other and that observers often turn a blind eye to such cases. Also, often test questions are repeated therefore students are able to know the answers in advance.[232]

Another area of concern is the increase in the failure rate. However, it is hard to draw conclusions about education quality in this regard as students who fail register for the next year's tests and thus affect the total failure rate as their probability of failure is bigger.[233]

However, these arguments seem very weak. In terms of attendance, clearly it is bad that parents feel that they have to take students out of regular school in order to have tuition, because they do not think that the students gain enough value from their school attendance. And it is also unacceptable that schools should encourage weak students to leave. But that is not the fault of the test, and both actually support the idea that it is working as a means to incentivize behavior.

The rest of the problems simply suggest potential problems with the test, rather than the idea of a test, and can be changed by correcting the test over time.

[230] Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report*. https://naec.ge/#/ge/post/1863 (Reviewed 15 February 2019)
[231] Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report,* p43. https://naec.ge/#/ge/post/1863 (Reviewed 15 February 2019)
[232] Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report,* p49. https://naec.ge/#/ge/post/1863 (Reviewed 15 February 2019)
[233] Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report,* p44. https://naec.ge/#/ge/post/1863 (Reviewed 15 February 2019)

In the absence of this test, we run the risk that after 12yrs of education, students may leave a school with no objective criteria assessing their performance. If they do not go to university, this will leave employers with a diminished ability to assess their skills and will certainly have an impact on motivation. It will also make it very difficult for the government to keep track on which schools are succeeding or failing.

NAEC is working on designing and developing a new type of computer-based school exams, possibly at the end of grades 4, 6 and 10 with the aim of providing recommendations on continuing education to higher or vocational education institutions. As currently envisioned, these exams won't have impact on student grades. With 10 grades becoming base education, at the end of it base education certificate could be issued, allowing for quitting school and applying for VET. There are no official decisions on this yet.[234]

In an interview with the Deputy Head of the NAEC, Mr Kakha Jamburia, he explained that the logic behind this was to use examinations to try and help guide teachers in areas to work-on with students, and to help the government to give objective advice to students about likely future educational paths.[235]

However, this may also bring problems. Testing is important, for assessing students and the education system as a whole. But for it to work, it needs to be seen as unbiased, as a fair assessment of student abilities AND most crucially, it needs to be seen as important to the students future prospects. Without this last component, it potentially has little motivational impact on the students.

13.2. University Entrance Exams / Unified National Exams

The centrally administered university entrance exam is often considered, along with police reforms, to have been one of the most successful of the post-2004 reforms in Georgia. Called the 'Unified National Exams (UNE)', the exam substituted university-organized enrolment exams, and were first conducted in Georgia in 2005 with the aim of eradicating deep-rooted corruption in higher education institutions.

The UNEs define both whether an applicant gets into a given educational program and whether he/she obtains state funding for those studies. These principles remain unchanged throughout the years despite many changes to the exam rules.

How were they first received and what was the response and impact

Transparency International study of 2005, 80% of school-leavers (final year school students) and their parents and 80-90% of the university administration staff trusted then new examination system - UNE. 78% of respondents named national exams as the most fair and

[234] Interview with Kakhaber Jamburia, Deputy Head of National Assessment & Examinations Center (NAEC) (25 July 2019)
[235] Interview with Kakha Jumburia, Deputy Head of NAEC, 26th July 2019

transparent system. However, many other changes to the structure of the exam have been made since 2005.[236]

Figure 68. Changes to the Unified National Exams rules since 2005 (NAEC.ge)

Year	Change to UNEs
2005	3+1 exam system introduced with 3 subjects - Georgian language and literature, foreign language, and general skills – mandatory for all, plus mathematics as 4th exam for educational programs requiring extra mathematical knowledge
2006	4th elective subject list widened with social sciences, history of Georgia, natural sciences, and literature added to mathematics; copies of applicant-filled tests published online; state grant allocation only based on general skills exam results (instead of all subject exams)
2007	Student applications published online
2008	General skills exam translated to Azerbaijanian and Armenian; Digital test scoring system successfully established
2009	Minimal competence score increased; Test scorers selected through competition
2010	State grant allocation based on all 4 exam test scores
2011	Online registration of application established
2012	Registration possible solely online; Application allows for selection of up to 20 desired educational programs, instead of 7; Minimal competence score for law and medical faculties increased
2013	Application allows for selection of all educational programs matching the selected 4th exam subject, thus secondary enrolment round eradicated (before, if an applicant had passed all selected exams but had not gotten in any of the selected faculties/programs due to competition, secondary round of enrolment was held. For this such applicant had to select another list of desired faculties/programs out of those who had left free slots after the primary enrolment round); State grant budget increased; 30% grant financing abolished; 50%, 70% and 100% state grant funding available for all educational programs
2014	New minimal competence project developed; Listening competence test added to foreign language exam; Fine and applied arts added as one of the 4th elective subjects
2015	Civil education added as one of the 4th elective subjects; General skills, chemistry and mathematics exams available also in English
2016	Exams partially electronic – tests given on computer screen, answer sheet still paper-based

[236] National Assessment and Examination Center, Unified National *Exams – General Information*. https://naec.ge/#/ge/post/1493 (Reviewed 26 July 2019); Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report*, p48. https://naec.ge/#/ge/post/1863 (Reviewed February 15, 2019)

2018	4th elective subject exams only in Georgian language (general skills exam still in Georgian, Abkhazian, Ossetian, Russian, Armenian and Azerbaijanian languages); Information on number of applications per educational programs available online
2020	General skills subject elective, instead of mandatory (general skills exam remains mandatory and the sole allocator of state grants for master's program applicants); Three mandatory exams: Georgian language and literature, foreign language and mathematics or history, depending on the educational program faculty Application allows for selection of both technical and humanitarian educational programs

Source: National Assessment and Examination Center (NAEC)

In 2019 a bachelor's program enrolment seeker had to pass 4 exams: Georgian language and literature, foreign language, general skills and a fourth subject selected by the university program he/she applies to, depending on the study field. Based on a list of all applicants ranked according to the scaled scores of all exams and the applicants' list of desired educational programs, they are allocated to educational programs.

In 2019 the government announced the upcoming changes to the UNEs entering into force in 2020. As given in the figure above, the general skills exam part of the UNE is going to become elective by the bachelor's programs, instead of mandatory. One reason given for this change is that it makes the exam better align with the school curriculum[237] Also, according to a NAEC study of Ilia University students in 2015, 2016 and 2017, the general skills exam results, when compared to other components of the UNE, was the least predictive of future success. Georgian Language and Literature exam seem to have the strongest predictive power.[238]

Put another way, in a discussion with NAEC Deputy, Kakhaber Jamburia, he suggested that the general skills exam had simply not proven to be a good metric for evaluating many professions and it was the only subject not taught at school.[239]

As a result, in 2020 there will be three mandatory exams: Georgian language and literature, foreign language, and mathematics or history, depending on the educational program type.[240]

[237] Edu.aris.ge (2019), *Entrants Required to Pass Only 3 Mandatory Exams – General Kills Not Mandatory Anymore*. https://edu.aris.ge/news/umaglesshi-mosaxvedrad-abiturientebs-mxolod-3-savaldebulo-gamocdis-chabareba-mouwevt-zogadi-unarebi-savaldebulo-agar-iqneba.html (Reviewed 29 July 2019)
[238] Response from Sophio Gorgodze, Director of NAEC, to the Question of MP Sergi Kapanadze, 25 April 2019. https://info.parliament.ge/#mpqs (Reviewed 19 August 2019)
[239] Interview with Kakhaber Jamburia, Deputy Head of National Assessment & Examinations Center (NAEC) (25 July 2019)
[240] History for humanitarian programs, mathematics for technical programs, and history or mathematics chosen by social science programs

Universities also will be able to add a fourth elective exam.[241] State study grants will be allocated based on the three main/mandatory subjects.[242]

A qualitative study for NAEC published in 2019 discusses the advantages and possible drawbacks of these exams. For a start, the NAEC study confirmed that the UNE continues to hold a high level of trust. Many teachers, parents and university representatives believe this system is the only means for avoiding return of the former corrupt system. [243]

Critics of the system argue that while it may have been necessary in 2005 it is not needed any longer. Some experts think the lack of university involvement in enrolment process limits the universities' autonomy, as it does not allow for taking into account other criteria during student selection process such as success in international contests, English language certificates and extracurricular activities. As a result, they argue, students are less motivated to engage in these activities. [244]

However, universities often do not use the autonomy that they already have. Only TSU and medical university determine their own minimal thresholds in the University Entrance Exams. Also, what autonomy already exists may encourage universities to try and game the system to get students. We were told about one university that nominated geography or history instead of physics for enrolment at the engineering faculty, as many students decide against programs which require exam in physics. [245]

Also, in a poll of university administration staff in 2019, the majority said that they don't want more autonomy because of the increased work-load and risk of corruption.[246]

The OECD argues that the best solution to the problems of over-examination, connected to running the two years of graduating exams and the UNE, as well as the problems of selective tutoring 'to the test' for the UNE, would be the merge the two tests into one set of graduation tests, that would simultaneously act as a graduation exam and a university entrance exam (at least in part). They further argue that by shortening the test, one could make it less resource intensive, by merging the UNE and the Graduation exam, you remove the divergence between 'teaching for the test' and 'teaching the national curriculum' and by allowing for different

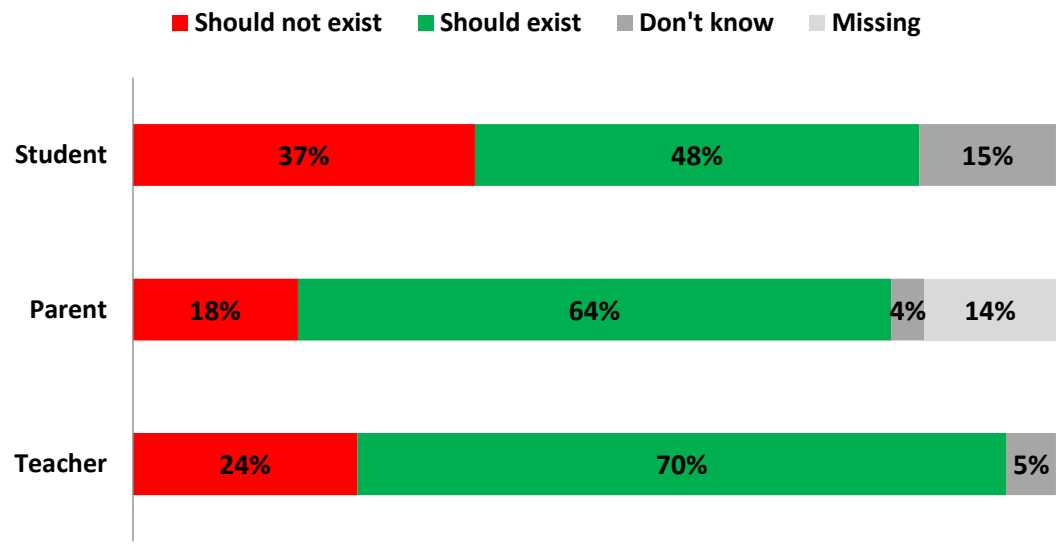
[241] They will be able to choose from the following: biology, chemistry, physics, general skills, geography, literature, fine and applied arts, and civil education. Medical faculties will require passing four exams: Georgian language and literature, foreign language, biology, and one from the three: mathematics/chemistry/physics.
[242] Ministry of Education, Science, Culture and Sport (2019), *Unified National Exams to be Conducted in 2020 According to a New Model*. https://www.mes.gov.ge/content.php?id=9310&lang=geo (Reviewed 7 August 2019)
[243] Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report*, p10. https://naec.ge/#/ge/post/1863 (Reviewed 15 February 2019)
[244] Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report*, pp10-11. https://naec.ge/#/ge/post/1863 (Reviewed 15 February 2019)
[245] Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report*, pp10-11. https://naec.ge/#/ge/post/1863 (Reviewed 15 February 2019)
[246] Lela Chakhaia (2019), *School Graduation and Unified National Exams in Georgia: Research Report*, p12. https://naec.ge/#/ge/post/1863 (Reviewed 15 February 2019)

levels of difficulty in the test, you allow one test to act as a test of minimum standards, and as a mechanism for selection amongst some of the best national students.

13.3. Attitudes towards exams in our Focus groups

In our focus groups, we found that the majority of all three groups were in favor of keeping both exams, though support for the university entrance exam was biggest. The majority of the teachers thought that abolishing the graduation exams was a bad idea, as they argue that the students no longer have a motivation to learn those subjects. The views among the parents and students are a bit more divided with some thinking that the extra time allows focusing on subjects that they need and are interested in, while others think that students now won't learn basic education.

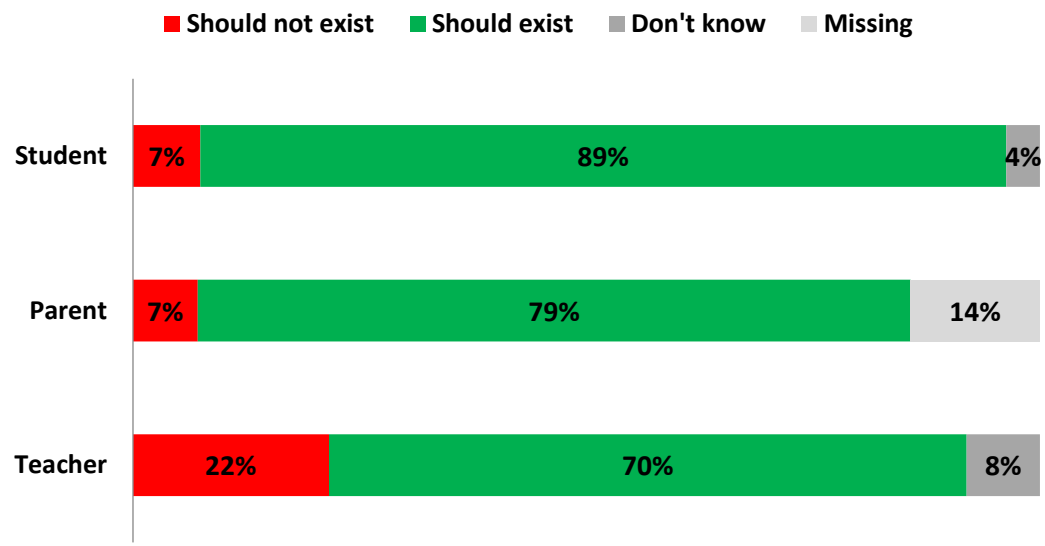
Figure 69: Focus Group Views about the Graduation Exam



Source: Focus Groups, Conducted by GeoWel in June 2019

On the university entrance exams, there is more unity.

Figure 70: Views about the Unified National Exam (University Entrance Exam)



Source: Focus Groups, Conducted by GeoWel in June 2019

University entrance exams (Unified National Exams) are generally perceived as more important and useful. However, during the focus group discussions there have been many ideas about changing the format.

13.4. Tutoring

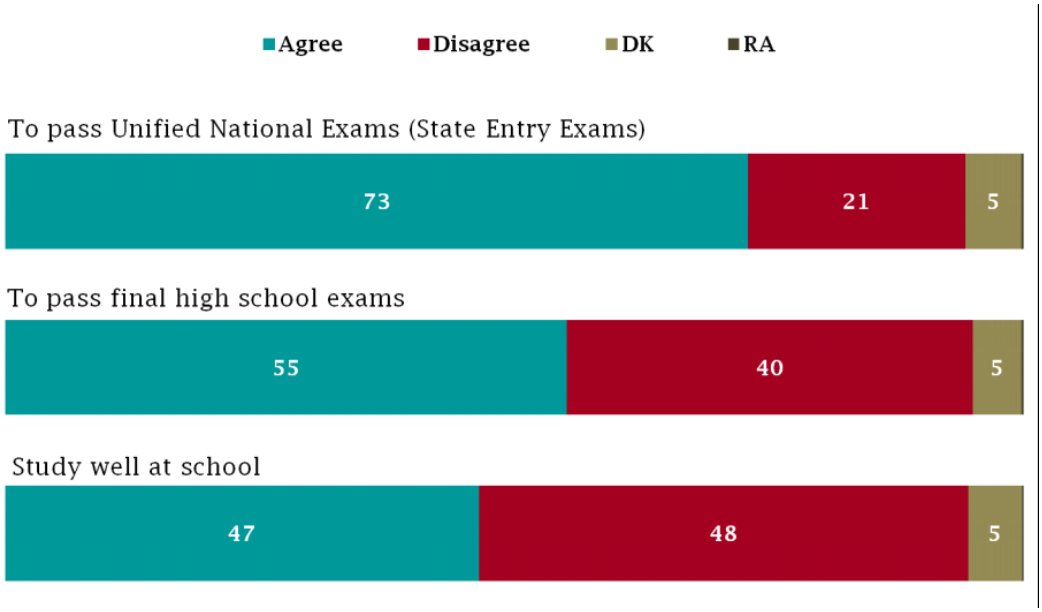
Tutoring is a huge phenomenon in Georgia's general education system. For a long time, it has been common place, for parents to spend considerable amounts of money on having their children privately tutored. There is a strong sense that growth in tutoring was one of the unintended consequences of the introduction of the Unified National Exam (for University Entrance).

According to former Minister of Education, Ghia Nodia, one of the reasons for the introduction of the Unified National Exams was a hope that once one had a meritocratic system for university entrance, this would create pressure for improvements in General Education. However, instead of that, many parents simply started increasing their spending on tutoring.[247] In many instances, we know that people even take their children out of regular school, for significant periods of time in the final two years, in order to prepare for these exams. One education expert we spoke to suggested that 'schools are used to support tutoring and not the other way around'[248]

The National Democratic Institute Poll asked about attitudes to private tutoring:

[247] Interview with Ghia Nodia, 9th August 2019
[248] Interview with educational expert, February 2019

Figure 71: Agree or disagree that having a private tutor is essential to…?



Source: NDI (2018), Public Attitudes in Georgia: Results of December 2018 Poll, p39

It is fairly remarkable that around ¾ of parents saying that extra tutoring is essential to pass the unified national exam, while more than 90% are fairly positive about schools and teachers.

Also, interestingly, they ask the groups who say that tutoring is essential, what they think of the skills and knowledge of public school teachers and while they do find that there is higher levels of criticism of public school teachers in this group, the difference is small. While 7% of the national surveyed population say that they negatively assess the skills and knowledge of public school teachers, only 9-10% of those who consider tutoring to be vital negatively assess public school teachers.

Therefore, one is left with an apparent paradox. As in the case of private schooling, parents seem to be demonstrating with their expenditure that they do not think that the schools are achieving the results that they should. It certainly *seems* like a strong implied criticism of the system for almost ¾ of parents to say that you cannot pass the Unified National Exam without tutoring. But most of this same group, when asked directly, do not have an overly negative view of the system.

In our focus group, it was also highlighted that tutoring is widespread both in Tbilisi and in the regions. There is almost like a 'social pressure' for parents to take their child to a tutor.

> 'It has become like a fashion. If one parent takes a child to a tutor, then others follow the suit. I understand that good students would benefit from a tutor to cover more material, beyond the school program. But taking students who are not good at school doesn't make much sense.' (Teacher, Duisi public school).

Annex 1: List of Interviews & Focus Groups

Face-to-Face Interviews

#	Name	Title	Date
1	Tamar Kamushadze	Psychologist, MAC Georgia	
2	Education expert	Did not want to be acknowledged	February 2019
3	Simon Janashia	Education Expert	April 22, 2019
4	Gigi Tevzadze	Education Expert	April 30, 2019
5	Tamar Malazonia	Head of Regional Coordination Division, Ministry of Education, Science, Culture and Sport of Georgia (MoESCS)	July 25, 2019
6	Kakhaber Jamburia	Deputy Head, National Assessment and Examinations Center (NAEC)	July 25, 2019
7	George Vashakidze	Director, National Center for Educational Quality Enhancement (NCEQE)	July 25, 2019
8	Kakhaber Eradze	Head of Service, VET Quality Assurance Service, National Center for Educational Quality Enhancement (NCEQE)	July 25, 2019
9	Ghia Nodia	Education Expert	August 9, 2019
4	Zviad Rostomashvili	Director, Education and Science Infrastructure Development Agency (ESIDA)	September 27, 2019
5	Giorgi Tinadze	Deputy Director, Education and Science Infrastructure Development Agency (ESIDA)	September 27, 2019
6	Mamia Moralishvili	Deputy Director, Education and Science Infrastructure Development Agency (ESIDA)	September 27, 2019
9	Mariam Chikobava	Head of National Curriculum Division, Ministry of Education, Science, Culture and Sport of Georgia (MoESCS)	September 27, 2019
1	Dimitri Beridze	Director, Education Management Information System (EMIS)	October 1, 2019
2	Maia Simonidze	Deputy Director, Education Management Information System (EMIS)	October 1, 2019
3	Davit Saghinadze	Head of Statistics Division, Education Management Information System (EMIS)	October 1, 2019
7	Mariam Tabatadze	Head of Economic Department, Ministry of Education, Science, Culture and Sport of Georgia (MoESCS)	November 1, 2019
10	Mzia Giorgobiani	Deputy Minister, Ministry of Regional Development and Infrastructure (MRDI)	November 5, 2019
14	Nino Berikashvili	Direction Manager, Teacher Seeker Program, Teacher Professional Development Center (TPDC)	November 6, 2019
15	Tamta Khutsishvili	Training Program Assistant, Teacher Professional Development Center (TPDC)	November 6, 2019

Focus Groups

#	Target group	School	N of participants	Date
1	Parents	Akhaltsikhe Municipality Village Muskhi Public School	4	June 27, 2019
2	Parents	Akhmeta Municipality Village Duisi Public School	2	June 21, 2019
3	Parents	Kazbegi Municipality Townlet Stepantsminda Public School N1	1	June 26, 2019
4	Parents	Ninotsminda Municipality Village Gorelovka Public School N1	4	June 25, 2019
5	Parents	Tbilisi Public School N213	6	June 25, 2019
6	Parents	Tbilisi Public School N74	6	June 26, 2019
7	Parents	Telavi Municipality Village Ikalto Public School	5	July 5, 2019
8	Students	Akhaltsikhe Municipality Town Vale Public School N1; Akhaltsikhe Municipality Town Vale Public School N2	6	June 27, 2019
9	Students	Akhmeta Municipality Village Duisi Public School	9	June 21, 2019
10	Students	Kazbegi Municipality Village Sioni Public School	4	June 26, 2019
11	Students	Tbilisi Public School N213	4	June 25, 2019
12	Students	Telavi Municipality Village Ikalto Public School	4	July 5, 2019
13	Teachers	Akhaltsikhe Municipality Village Muskhi Public School	4	June 27, 2019
14	Teachers	Akhmeta Municipality Village Duisi Public School	7	June 21, 2019
15	Teachers	Kazbegi Municipality Village Arsha Public School	3	June 26, 2019
16	Teachers	Ninotsminda Municipality Village Gorelovka Public School N1	7	June 25, 2019
17	Teachers	Tbilisi Public School N213	6	June 25, 2019
18	Teachers	Tbilisi Public School N55	5	June 21, 2019
19	Teachers	Telavi Municipality Village Ikalto Public School	5	July 5, 2019

Phone Interviews with Teachers

#	Subject	School	Date
1	Civil education	Telavi Municipality Village Ikalto Public School	December 2, 2019
2	Georgian language	Kazbegi Municipality Village Sioni Public School	December 2, 2019
3	Georgian language	Kazbegi Municipality Townlet Stepantsminda Public School N1	December 2, 2019
4	Georgian language	Akhaltsikhe Municipality Village Muskhi Public School	December 2, 2019
5	Mathematics	Kazbegi Municipality Village Arsha Public School	December 2, 2019
6	Mathematics	Tbilisi Public School N55	December 2, 2019

Phone Interviews with Universities

#	University	Date	Follow-up date
1	Ivane Javakhishvili Tbilisi State University	November 13, 2019	November 26, 2019
2	Akaki Tsereteli State University	November 14, 2019	-
3	Ilia State University	November 13, 2019	November 28, 2019
4	Sokhumi State University	November 15, 2019	-
5	Samtskhe-Javakheti State University	November 14, 2019	November 28, 2019
6	Iakob Gogebashvili Telavi State University	November 13, 2019	-
7	Batumi Shota Rustaveli State University	November 13, 2019	November 26, 2019
8	Caucasus University	November 13, 2019	-
9	Gori State Teaching University	November 14, 2019	-