



# OECD Reviews of School Resources

## Lithuania

Claire Shewbridge, Katrina Godfrey,  
Zoltán Hermann and Deborah Nusche





# **OECD Reviews of School Resources: Lithuania 2016**

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Zoltán Hermann and Deborah Nusche

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## Foreword

**T**his report for Lithuania forms part of the OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools (also referred to as the School Resources Review, see Annex A for further details). The purpose of the review is to explore how school resources can be governed, distributed, utilised and managed to improve the quality, equity and efficiency of school education. School resources are understood in a broad way, including financial resources (e.g. expenditures on education, school budget), physical resources (e.g. school infrastructure, computers), human resources (e.g. teachers, school leaders) and other resources (e.g. learning time).

Lithuania was one of the education systems which opted to participate in the country review strand and host a visit by an external review team. Members of the OECD review team were Claire Shewbridge (OECD Secretariat), co-ordinator of the review; Katrina Godfrey (Department of Education in Northern Ireland); Deborah Nusche (OECD Secretariat); and Zoltán Hermann (Hungarian Academy of Sciences). The biographies of the members of the OECD review team are provided in Annex C. This publication is the report from the OECD review team. It provides, from an international perspective, an independent analysis of major issues facing the use of school resources in Lithuania, current policy initiatives, and possible future approaches. The report serves three purposes: i) to provide insights and advice to the Lithuanian education authorities; ii) to help OECD countries understand the Lithuanian approach to the use of school resources; and iii) to provide input for the final comparative analysis of the OECD School Resources Review.

The scope for the analysis in this report includes early childhood education and school education. At the request of the Lithuanian authorities, the focus areas of the Review of School Resources in Lithuania are: i) funding of school education; ii) organisation of the school network; and iii) the teaching profession and school leadership (including improving their attractiveness). The analysis presented in the report refers to the situation faced by the education system in December 2014, when the OECD review team visited Lithuania.

The involvement of Lithuania in the OECD review was co-ordinated by Vilma Bačkiūtė, Head of Teacher Activity Division, Department of Lifelong Learning in the Ministry of Education and Science. An important part of the involvement of Lithuania was the preparation of a comprehensive and informative Country Background Report (CBR) on school resource use authored by the National Agency of School Evaluation in Lithuania. The OECD review team is very grateful to the main authors of the CBR and to all those who assisted in providing a high-quality and informative document. The CBR is an important output from the OECD project in its own right as well as an important source for the OECD review team. Unless indicated otherwise, the data for this report are taken from the Lithuanian Country Background Report or updates provided by the Ministry of Education and Science from the Education Management Information System (EMIS). The CBR follows guidelines prepared by the OECD Secretariat and provides extensive information, analysis and discussion in regard to the national context, the organisation of the education system, the use of

school resources and the views of key stakeholders. In this sense, the CBR and this report complement each other and, for a more comprehensive view of the effectiveness of school resource use in Lithuania, should be read in conjunction.

The OECD and the European Commission (EC) have established a partnership for the Project, whereby participation costs of countries which are part of the European Union's Erasmus+ programme are partly covered. The review of Lithuania was organised with the support of the EC in the context of this partnership.\* The EC was part of the planning process of the review of Lithuania (providing comments on Lithuania's draft CBR, participating in the preparatory visit and providing feedback on the planning of the review visit) and offered comments on drafts of this report. This contribution was co-ordinated by Joanna Basztura, Country Desk Officer for Poland, Lithuania, Denmark, working within the "Country Analysis" Unit of the Directorate for "Modernisation of Education I: Europe 2020, country analysis, Erasmus+ co-ordination", which is part of the Directorate General for Education and Culture (DG EAC) of the European Commission. The review team is grateful to Joanna for her contribution to the planning of the review and also for the helpful comments she provided.

The review visit to Lithuania took place on 2-9 December 2014. The itinerary is provided in Annex B. The visit was designed by the OECD (with input from the EC) in collaboration with the Lithuanian authorities. It also involved a preparatory visit by the OECD Secretariat on 9-10 September 2014, with the participation of Joanna Basztura, from the EC. The OECD review team held discussions with a wide range of groups, including at the national level: Dainius Pavalkis, then Minister of Education and Science and Dainius Numgaudis, then Chancellor of the Ministry of Education and Science; other officials of the Ministry of Education and Science; representatives from the Ministry of Finance and the Ministry of Social Security and Labour; quality assurance agencies; teacher associations; representatives of school leaders; representatives of parents and students; organisations representing the interests of students with special educational needs; representatives of teacher educators; and researchers with an interest in the effectiveness of school resource use. At the municipal level, meetings were held with educational and finance authorities of the municipalities of Kėdainiai, Klaipėda, Rietavas, Šiauliai City, Vilnius City and Vilnius District. The team also visited six schools in these municipalities, interacting with school governing bodies, school management, teachers and students. The intention was to provide the review team with a broad cross-section of information and opinions on school resource use and how its effectiveness can be improved.

The OECD review team wishes to record its gratitude to the many people who gave time from their busy schedules to share their views, experiences and knowledge. The meetings were open and provided a wealth of insights. Special words of appreciation are due to the National Co-ordinator, Vilma Bačkūūtė, and Aidan Aldakauskas and their colleagues from the Ministry of Education and Science, for sharing their expertise and responding to the many questions we had during and following the review. The review was extremely well organised and allowed the review team maximum opportunity to benefit from rich discussions with stakeholders. The courtesy and hospitality extended to us throughout our stay in Lithuania made our task as pleasant and enjoyable as it was stimulating and challenging.

The OECD review team is also grateful to colleagues at the OECD, especially to Eleonore Morena for administrative, editorial and layout support and to Yuri Belfali for guidance and support.

\* This document has been produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

*This report is organised in four chapters. Chapter 1 provides the national context, with a brief description of the Lithuanian school system and an overview of evidence on its quality, equity and efficiency. Then Chapters 2 to 4 look into three dimensions of resource use that were defined as priorities by Lithuania in collaboration with the OECD: the governance of schooling and the organisation of the school network, the funding of school education and the teaching workforce. Each chapter presents strengths, challenges and policy recommendations regarding the effectiveness of school resource use.*

*The policy recommendations attempt to build on and strengthen reforms that are already underway in Lithuania, and the strong commitment to further improvement that was evident among those the OECD review team met. The suggestions should take into account the difficulties that face any visiting group, no matter how well briefed, in grasping the complexity of the Lithuanian education system and fully understanding all the issues.*

*This report is the responsibility of the OECD review team. While the team benefited greatly from the Lithuanian CBR and other documents, as well as the many discussions with a wide range of Lithuanian stakeholders, any errors or misinterpretations in this report are its responsibility.*





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## Acronyms and abbreviations

<b>CBR</b>	Country Background Report
<b>EC</b>	European Commission
<b>EDC</b>	Education Development Centre
<b>EMIS</b>	Lithuanian Education Management Information System
<b>EPD</b>	Early Professional Development
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>ICT</b>	Information and Communication Technology
<b>IEA</b>	International Association for the Evaluation of Educational Achievement
<b>ISCED</b>	International Standard Classification of Education
<b>LTL</b>	Lithuanian Litas (currency until 1 January 2015)
<b>NAOL</b>	National Audit Office of Lithuania
<b>NASE</b>	National Agency for School Evaluation
<b>NEC</b>	National Examination Centre
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PISA</b>	OECD Programme for International Student Assessment
<b>SEN</b>	Special Educational Needs
<b>STEM</b>	Science, Technology, Engineering and Mathematics
<b>TALIS</b>	OECD Teaching and Learning International Survey
<b>TIMSS</b>	IEA Trends in International Mathematics and Science Study
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>VET</b>	Vocational Education and Training



## Executive summary

Since regaining independence in 1990, Lithuania has clearly stated the importance of education to societal development. The National Education Strategy 2013-22 includes a focus on education as a foundation for the future and a commitment to increase the level of investment from public funds in education to 6% of Gross Domestic Product (GDP) in 2022. However, the international financial crisis hit the Lithuanian economy harder than on average in OECD economies. A far-reaching convergence programme includes a target reduction for educational expenditure from 6.2% to 4.8% of GDP in 2020. Already, public expenditure per student in Lithuania is one of the lowest among European Union countries. There has also been mass emigration since 1990, with around 20% of the 1990s population leaving Lithuania over the following 20 years. The majority of emigrants are of working age and, increasingly, families. This has presented significant efficiency challenges to the school network. Also, international data reveal considerable concerns with the quality of school education in Lithuania, including significant rural-urban disparities.

Lithuania has developed policies to address these significant challenges. Since 2005, the Education Law places responsibilities on municipalities to have in place an optimal network of schools. This required the development and agreement of initial plans within all 60 municipalities and has seen considerable reorganisation of the school network, with the total number of municipal schools reducing from 1 429 to 1 107 between 2005 and 2015. School consolidation initiatives were supported by a set of national documentation providing a rich array of data, analytics and models that was a key resource in negotiating politically difficult times with different municipalities. Also, home to school transport was recognised as integral to the reform, with the purchase of almost 700 buses between 2000 and 2014. In 2001, Lithuania introduced a central funding formula to allocate resources for teaching costs, known as “the student basket”. The implementation of the new financial arrangement indisputably improved the allocation and use of resources in education in many respects: it allocates funds in a very transparent and predictable way; the formula has a simple logic which can be well understood by stakeholders, in spite of the complexity of the exact calculations; it includes weightings to support smaller, rural schools; and it is, in general, accepted by most municipalities and schools as a fair method of allocation. Collectively, these efforts helped to stem the decline in student-teacher ratios.

However, cost-effectiveness remains low in international comparison. In Europe, Lithuania has the second highest concentration of teachers in the active population. In lower secondary education, national data show a steady and continuing decline in average class size between 2005 and 2015, including a clear decline in urban schools, so this cannot be attributed to a rural, small school phenomenon. The high share of teachers above fifty years of age or already retired stands out in international comparison. In 2015, 7.1% of Lithuanian teachers were at the retirement age. This implies that in the medium or long

term Lithuanian schools may encounter sudden teacher shortages. Unfortunately, the current conditions in the teacher labour market do not attract talented young people: there is a small number of vacancies and new recruits are likely to be at or near the minimum salary, which relative to national income (GDP per capita) is one of the lowest in Europe.

This report analyses the use of resources in the Lithuanian school system, with a particular focus on the organisation of the school network, the funding of school education, and the management of the teaching workforce. The following policy priorities were identified to improve the effectiveness of resource use in the Lithuanian school system.

### **Protect and ensure an adequate level of educational investment**

Mass emigration and low birth rates pose a considerable challenge to Lithuania's future societal and economic development. There is a need to understand the key role that education can play in addressing these demographic challenges. Notably, there are compelling arguments to secure stable central funding for early childhood education and care. The higher emigration of young families, the relatively rigid labour market and the varying offer and participation fees for these services across municipalities suggest that a stronger and more accessible supply of early childhood education and care could prove attractive to young families. The relatively high poverty rates among children and youth also underline the importance of a strong supply of early childhood education and care, as this, if high quality, is an efficient way to mitigate socio-economic inequities at earlier ages. The entrenched disparities in educational outcomes between urban and rural areas also call for an examination of the adequacy of funding to provide quality education in different schools. These factors underline the importance of reaffirming the government's commitment to supporting and improving the quality of education, including with a long-term goal to improve the attractiveness of the teaching profession with, among other aspects, a more competitive salary offer. Substantial improvements in education quality are hardly achievable without increasing educational spending and efficiency in resource use that are both lower than in most European countries.

### **Maintain traction on school network reform and strengthen the focus on quality**

While good progress has been made, there is a need to maintain traction on school network reform, providing a greater central challenge where necessary. This is necessary not merely to achieve efficiencies and ensure that public funding invested in education can have maximum impact; but crucially, school network reform must be about enhancing the quality of provision for students. While municipalities are responsible for decisions on school planning, it will be important for the Ministry of Education and Science and its national agencies to monitor progress and, where appropriate, exercise a challenge function to ensure that students and teachers are not disadvantaged by any lack of willingness at municipality level to embrace reform and provide access to a wide and rich curriculum experience. This includes ensuring a robust and consistent implementation of the accreditation procedure for upper secondary provision and also strengthening and securing a more consistent approach to external school evaluation. An authoritative national definition of school quality and set of indicators to evaluate and promote this would heighten the objectivity of school self-evaluation and its alignment with external evaluation. Some schools will develop self-evaluation capacity more quickly than others and external school evaluation can be designed to recognise this, e.g. with less frequent or



intensive visits to schools with a mature and effective self-evaluation culture. The need for external evaluation can also be judged on a set of central indicators of risks to quality (national comparative data, parental complaints, school leadership turnover, etc.). These different approaches aim to free up central resources for external evaluation to conduct evaluations more frequently or with greater intensity in those schools that would benefit most from external feedback.

### **Regularly evaluate the costs and adequacy of school funding**

Improving the financial arrangements requires regular and detailed analysis of the adequacy of funding and its effects on the quality of teaching, the efficiency of schools and the equity of education. For example, while improving the funding of small rural schools is high on the education policy agenda, a comprehensive analysis of the current situation based on solid empirical evidence is not available. Another example is the higher cost of education for students with special educational needs, migrant students and national minority language students. The funding scheme assigns additional funding to ensure vertical equity (i.e. providing education of similar quality to different students), while there is no systematic evaluation of the actual costs. Though this component of funding is naturally framed by political preferences as well, comprehensive and compelling analysis and empirical evidence on the exact cost differences would strengthen the basis for policy decisions. Currently, there is a pilot of a “class basket” in five municipalities, i.e. allocating funding as a function of the number of classes. It will be essential, in evaluating the impact of the experimental methodology, to consider how effectively this addresses the challenges for small, rural schools and, importantly, what the full costing implications will be if this is introduced system-wide. Schools would unlikely organise classes larger than prescribed by regulation. Lower average class sizes would involve higher per student expenditures and a decreased level of cost-effectiveness at the macro level. This is in a context where an existing challenge for schooling in Lithuania is an internationally low class size. An alternative could be to establish a separate scheme for small rural schools in the current system that would grant exceptional status to these schools according to criteria like settlement size, population density and the remoteness of the location. These schools could be funded more generously either in the form of a class basket or supplementing the student basket with a fixed amount per school, while preserving the benefits of the student basket scheme for the majority of schools. Also, fiscal pressure on schools could be relieved by taking into account to some extent cost differences due to teacher composition in terms of experience and qualification in the funding formula.

### **Manage the teacher supply and secure funding in the short-term to attract new talent into teaching**

Even if there is currently an oversupply of teachers, it is important for the school system to plan ahead and ensure an adequate rate of teacher renewal. In the long term, teacher salaries should be raised considerably in order to make the teaching profession more attractive for talented young people. As this cannot be achieved from one year to the next, in the short term, salaries for new entrants and teachers in the first years of their career should be increased noticeably. For example, by granting additional pedagogical hours for novice teachers to acknowledge the time consuming effort to prepare for lessons, given that currently these teachers earn smaller salaries in part due to the smaller number of teaching hours allocated to them on average. This would be in parallel with securing

funding to offer attractive redundancy packages to teachers who are teaching beyond the retirement age. There are a number of areas in which teachers made redundant by school consolidation could assume new responsibilities. These include engaging them to help mainstream special needs students in regular schools and classes; using them to implement strategies to individually support students who are falling behind; and involving them in advisory roles within or across schools. In addition, the Lithuanian authorities should consider prioritising national funding for teacher students to subject areas in which the school system is facing shortages. The current policy of funding 400 study places in initial teacher education is helpful, but could be made more efficient by focusing further on key priority areas.

## Assessment and recommendations

### Education system context

#### ***Economic vulnerability and extensive emigration have further increased pressure on already tight education budgets***

The international financial crisis hit the Lithuanian economy harder than on average in OECD economies. Its continued vulnerability to adverse developments in the international economy has seen the introduction of a far-reaching convergence programme aiming to reduce public expenditure from 42.2% of GDP in 2010 to 30.9% of GDP in 2020. This includes a target reduction for educational expenditure from 6.2% to 4.8% of GDP. These economic difficulties have had significant social impact: At 10.9%, the unemployment rate remains twice as high as in 2008, with greater risk for youths aged 15-24; and 30.8% of the Lithuanian population is at risk of poverty or social exclusion. There has also been mass emigration since 1990, with around 20% of the 1990s population leaving Lithuania over the following 20 years. Emigration continues and between 2011 and 2014 the population further decreased from 3 to 2.9 million. The majority of emigrants are of working age and, increasingly, families. This has presented significant efficiency challenges to the school network. Lithuania is the fastest ageing population in Europe, which will put further pressure on public budgets. Already, public expenditure per student in Lithuania is one of the lowest among European Union (EU) countries.

#### ***The public school sector dominates and is mainly managed by municipalities***

Compulsory education comprises primary education (ages 7-10) and basic education (first stage: ages 11-14; second stage: ages 15-16). The vast majority of Lithuanian children follow compulsory education in a public school (96.8% of general education students in 2015/16). General education schools are run mainly by the 60 municipalities. The State runs vocational education schools, but only 0.6% of students in compulsory education attend these. Most Lithuanian youths continue on to upper secondary education (only 5.9% chose not to in 2014) and in 2014 16.1% were in vocational education. Municipalities also run 43 of 47 special education schools in Lithuania (attended by 1.1% of the school population in 2015).

#### ***Concerns with the quality of compulsory education and evidence of entrenched rural/urban disparities***

Between 1995 and 2003, Lithuania was one of the countries showing greatest improvement in the International Association for the Evaluation of Educational Achievement (IEA) Trends in International Mathematics and Science Study, but has since stagnated. In OECD Programme for International Student Assessment (PISA), measuring performance near the end of compulsory education, Lithuanian students perform far

below average and less well than students in neighbouring countries. There are quality concerns among both the lower and higher performing students. Both national and international evidence points to deeply entrenched disparities in educational outcomes between children in rural and urban areas. In PISA, the rural/urban performance and average class size differences stand out internationally. Participation rates in early childhood education and care are also much lower in rural areas. Strong points for equity include low rates of school year repetition and one of the lowest rates of early school leavers in Europe (in 2013, 6%, compared to 12% in the European Union).

## Strengths and challenges

### ***Commitment to improve adequacy of resource allocation in several areas, but tight fiscal climate***

There is a clear recognition of the importance of early childhood development, including the plan to introduce a compulsory year of pre-primary education for 6-year-olds in 2016. Pre-primary education is provided free of charge to 6-year-olds in the year before they reach compulsory school age and has a high enrolment rate (93.4% of eligible 6-year-olds in 2014). However, there are persistent inequities in access to early childhood provision between rural and urban areas, with many urban areas over subscribed. The 2015 national budget provided an uplift of 10% in the salaries for pre-school and pre-primary teachers in recognition of the importance of having highly skilled and motivated professionals delivering early years education. Also, there has been considerable investment in support structures for students with special educational needs, notably funding allocated as part of the EU Operational Programme for Promotion of Cohesion 2007-13. In 2013, 4 259 pedagogical support staff were employed in general education schools. However, support structures are not yet universal and in 2014, primary schools in nine municipalities did not have access to specialist support staff despite having students with special educational needs integrated in their schools. A National Audit Office report drew attention to wide-spread inadequacies in material resources and the education environment in non-formal education. Following a pilot in four municipalities, a new funding mechanism was implemented in October 2015 and is expected to support a strengthened supply of non-formal education activities.

### ***Structural reform to the school network has limited the decline in cost-effectiveness***

The OECD review team received numerous examples at national and local level of how shifting demographic changes and the requirement to deliver the best possible quality within constrained financial resources were driving reform of the school network. The number of municipal schools has reduced from 1 429 in 2005 to 1 107 in 2015. In light of the significant demographic challenges with 39% fewer students in 2015 than in 2005, the reform efforts have helped to limit the inefficiencies of running a system with too many empty school places. For example, the relative decline in average class size has been slower than the relative decline in number of students. A set of national documentation provides a rich array of data, analytics and models that support school consolidation initiatives and was a key resource in negotiating politically difficult times with different municipalities and defending the need to stick to the municipal school network reform plans. Also, home to school transport was recognised as integral to the reform. Between 2000 and 2014 a fleet of almost 700 buses was purchased and it was clear that this investment had done much to ease the transitions that result from school network reform and to improve access for young people, not only to school but also to extracurricular activities.

### **Continued pressures to reform the school network, especially lower secondary provision**

Student-teacher ratios were stabilised at a relatively low level and cost-effectiveness remains low in international comparison. In Europe, Lithuania has the second highest concentration of teachers in the active population. In lower secondary education, national data show a steady and continuing decline in average class size between 2005 and 2015, including a clear decline in urban schools, so this cannot be attributed to a rural, small school phenomenon. International data reveal that the student-teacher ratio lags behind other European countries due to the high number of lower secondary teachers per class. Lithuanian schools employ 2.64 lower secondary teachers per class on average (compared to 1.74 on average in the OECD). This implies that there is considerable scope to improve the cost-effectiveness of lower secondary education – this level of education being currently provided in basic schools, pre-gymnasia, gymnasia or secondary schools – and underlines the need to fully implement the school reform. A fundamental challenge moving forward will be to maintain the strategic leadership needed at both national and municipal level and to encourage an appetite for continued rationalisation of the school network. This includes a rigorous system for accreditation to become a *gymnasium*. At the same time, there is a need to improve the attractiveness of vocational education and training (VET) programmes in secondary education: Lithuania is one of four European systems with less than 30% of upper secondary students enrolled in VET programmes – this compares to 50% on average in the European Union.

### **Emerging culture of school evaluation for improvement, but external evaluation is under resourced**

At a strategic level, there is a good understanding of the importance of evaluation in informing improvements in education. The 2011 Education Law makes clear the role of self-evaluation and external evaluation in helping to improve education quality and places particular responsibility on schools to ensure that self-evaluation takes place. Certainly, school leader reports in PISA 2012 indicate that: virtually all participating Lithuanian schools had self-evaluation in place and systematically recorded key data and used this to monitor the school's progress; and classroom observation is a broadly established feature in Lithuanian schools, whether conducted by the school leader or senior staff. The current model of external school evaluation is based on all schools being evaluated on a seven-year cycle with the goal of promoting good quality self-evaluation in schools. Schools receive feedback on both strengths and areas for improvement and are expected to take responsibility for acting on the findings from the evaluation. Importantly, students' interests are protected through the annual follow up that takes place if external evaluation assesses quality in any of the five areas of focus as being less than satisfactory. However, the number of schools benefiting from external evaluation is falling and there is patchy coverage across different municipalities. Over the seven-year period from 2007 to 2013, 459 schools were evaluated. It would, therefore, require a significant increase in central capacity for external school evaluation to meet the ambition to evaluate each school in Lithuania every seven years. Inconsistency in the frequency of, or accessibility to, external evaluation therefore presents a real risk that schools that stand most to benefit from it will not be included in the external evaluation programme.

***A central funding formula supports public debate and transparent resource allocation***

The 2001 education finance reform introduced a central funding formula to allocate resources for teaching costs, known as “the student basket”. Although the reform’s ambitious goals were not met fully, the implementation of the new financial arrangement indisputably improved the allocation and use of resources in education in many respects. The student basket scheme allocates funds in a very transparent and predictable way. The formula has a simple logic which can be well understood by stakeholders, in spite of the complexity of the exact calculations and is in general accepted by most of the municipalities and schools as a fair method of allocation. The transparency of the formula has a beneficial impact on policy debates at the national level providing a clear framework for debates on the sufficiency and proper allocation of funding. While annual changes to the amount in the student basket are driven by changes in average teacher salary, some aspects of the formula can be adjusted as a result of a balance between fiscal considerations, pressure from teachers’ unions, local governments and schools, and policy considerations of the Ministry of Education and Science.

***The funding scheme promotes fiscal discipline and efficiency, but allocation varies among municipalities***

At the national level, once the amount of the student basket is approved, total expenditures cannot increase unpredictably within the fiscal year. Increasing the budget from one year to another requires an explicit and publicly discussed decision. In general there are clear incentives for schools to increase class size and to attract more students and for municipalities to adjust the school network in order to increase school size, and thus exploit economies of scale. These incentives, accompanied by the autonomy and flexibility provided for schools in resource use, played an important role in the adjustment to the dramatic decline in the student population and improved the cost-effectiveness of education. The sharp separation between the student basket funding for teaching costs and the municipal funding for school maintenance is a necessary condition for these incentives to work. In the absence of such separation, municipal funding could mitigate or even overwrite the incentives set by the formula. Maintenance funding for schools with more students could be decreased, forcing the school to use the student basket funding for school maintenance. There appears to be marked differences among municipalities both in the level of funding, the methods used for allocating these funds and in the cost-effectiveness of funding. As local governments have accrued large debts, improving the efficiency of municipal service provision is of prime importance. Also, there is evidence of great variation among municipalities in the amount spent on pedagogical services and in-service teacher training.

***The central funding formula addresses horizontal equity, but does not ensure adequate funding for small rural schools***

Essentially, the central funding formula is designed to ensure horizontal equity of funding across schools, i.e. similar schools receive similar funding. Additionally, the student basket scheme promotes equity in an indirect way by funding average salaries, as this impedes extreme differences in teacher qualification across schools. In particular, it recognises the additional funding needs of small rural schools and in this way aims to enhance equity in the access to education. The funding of small schools is probably the most recurrent debate, which has potentially significant ramifications including weaker

incentives for school consolidation and for school competition and a lower overall level of efficiency. Municipalities and school leaders shared the view that, in general, teaching costs in small schools are more difficult to accommodate to student basket revenues. Data suggest that the student-teacher ratio increases sharply up to the point of 250-300 students in a school (except primary schools) and that the small school problem is not limited to a handful of schools in remote areas. However, rural schools face more difficulty attracting teachers and accommodate, on average, children from less advantaged socio-economic backgrounds – challenges that are compounded by lower levels of student basket funding. Despite this hot debate, there is no empirical evidence on the adequacy of the actual funding level in schools of different size, type and location.

### ***There are serious concerns related to the supply and demography of teachers***

An ageing teaching workforce is more of a concern in Lithuania than in OECD countries on average: 43% of lower secondary education teachers were aged 50 years or older in 2013; compared to an OECD average of 34% in 2012. The ongoing ageing process of the teacher workforce brings a number of challenges to the school system. There is no specific document regulating statutory dismissal of pedagogical staff once they have reached the official retirement age. In 2015, 7.1% of Lithuanian teachers are at the retirement age. At the other end of the age pyramid, there is evidence that a significant proportion of graduates from initial teacher education end up not entering the teaching profession – according to official sources, this concerns a proportion as high as 85% of entrants into initial teacher education. This raises concerns about a potential future undersupply of teachers, as there is likely to be a retirement wave of teachers within the next five to ten years. Shortages are likely to be concentrated in specific subject areas, particularly in mathematics, science and technology. Also, a stagnant professional body is likely to perpetuate teaching traditions that Lithuania may wish to reform, and may hinder the introduction of innovations and other initiatives. The Lithuanian authorities are well aware of this challenge and the OECD review team noted a commitment to policy experimentation in designing strategies to: i) address the current surplus of teachers; and ii) maintain the focus on preparing high-quality teachers for future generations.

### ***Low wages, especially for new teachers, but a need to attract new talent into teaching***

The ageing teacher workforce and the difficulties of attracting talent into the teaching profession emerge as a key problem in the medium and long term. Though these are not problems of education finance *per se*, they are deeply rooted in the financial arrangements and should be addressed also by budgetary changes. The high share of teachers above fifty years of age or already retired stands out in international comparison. This implies that in the medium or long term Lithuanian schools may encounter sudden teacher shortages, especially given the low number of new entrants to the profession. Unfortunately, the current conditions in the teacher labour market rather deter than attract talented young people into the teaching profession. Due to the small number of vacancies, employment prospects as a teacher are not reassuring in the short term. New recruits to teaching are likely to be at or near the minimum salary, which relative to national income (GDP per capita) is one of the lowest in Europe. Low wages are aggravated by the uncertainty generated by salaries set on the basis of the actual workload, accompanied by the practice that young teachers are on average allocated fewer contact

and pedagogical hours than their more experienced colleagues. In the short term, the fiscal climate means it is unlikely that the education budget will be increased, which underlines the need to adjust the use of resources in order to reach higher student-teacher ratios.

***A teacher competency framework is being developed, but there is insufficient strategic vision for teaching***

A professional profile or competency framework for teachers can help provide a common basis to organise the key elements of the teaching profession such as initial teacher education, teacher appraisal, certification, professional development and career advancement. The Education Development Centre (EDC) has been working on the development of a new competency framework for teachers that could be more closely embedded with teachers' initial preparation and continuous learning. The competency framework develops the three groups of competencies that are important for teachers' professional development: general (or key) competencies, didactical competencies, and subject-related competencies. A number of positive aspects include that the competency framework is: informed by evidence from international research on key aspects of effective teaching standards; embedded and aligned with other aspects of the teaching profession such as initial teacher education, career development and appraisal; aligned with the Lithuanian Qualification Framework; associating competencies to different levels of performance with gradually increasing demands on teacher competencies; being developed with a public consultation process. At the time of the OECD review visit there appeared to be little debate or common understanding across the system regarding what constitutes "good teaching". While both the National Agency for School Evaluation (NASE) and the EDC were developing initiatives that have a bearing on the teaching profession, there appeared to be a lack of strategic oversight at the level of the Ministry of Education and Science.

***Professional development is valued, but teachers are not adequately prepared***

Teachers are legally obliged to undertake professional development and are entitled to five professional development days annually. For this purpose, schools receive regular funding through the student basket. In 2008, 95.5% of Lithuanian teachers reported that they had undertaken some professional development in the previous 18 months. The importance attached to teacher professional development is also reflected in the professional development requirements that are part of the teacher certification and promotion processes. However, the provision of professional development appears fragmented. The amount of money allocated for teacher qualification development differs by more than a factor of three among Lithuanian municipalities. There is no strategic approach to needs analysis, which would help target the professional development offer to emerging and evolving priority areas nationally. And at the school level, there appears limited co-ordination of individual professional development with the school's strategic priorities. Also, there are concerns that initial teacher education does not sufficiently prepare the next generation for teaching, with the main focus on traditional subject matter and the content of the curriculum, and limited focus on the actual teaching process. It appeared necessary to connect initial teacher education more closely to real-life classrooms and ongoing professional development, which would ensure coherent teacher learning all through their career.



## Policy recommendations

### ***Reaffirm commitment to the strategic importance of education for societal and economic development***

Mass emigration and low birth rates pose a considerable challenge to Lithuania's future societal and economic development. There is a need to understand the key role that education can play in addressing these demographic challenges. Research has pointed to significant challenges for the education system to address the needs of the Lithuanian labour market. Young people aged 20 to 34 years have made up more than half the emigrants over recent years and they have been most impacted by increased unemployment following the financial crisis. Also, the low average probability of a second child in Lithuania may be attributed to institutional barriers, such as policies on parental leave or child care. European survey data indicate that Lithuanian families reported among the lowest usage of formal child care. While the OECD review team notes the complexity of understanding the demand for early childhood and care, the higher emigration of young families, the relatively rigid labour market and the varying offer and participation fees for these services across municipalities suggest that a stronger and more accessible supply could prove attractive to young families. The relatively high poverty rates among children and youth also underline the importance of a strong supply of early childhood education and care, as this, if high quality, is an efficient way to mitigate socio-economic inequities at earlier ages. These factors underline the importance of reaffirming the government's commitment to supporting and improving the quality of education. Within the context of fiscal consolidation in the public sector, there is a need to protect and ensure an adequate level of educational investment.

### ***Provide a greater central challenge to maintain traction on school network reform***

While good progress has been made, the OECD review team underlines the need to maintain traction on school network reform, providing a greater central challenge where necessary. This is necessary not merely to achieve efficiencies and ensure that public funding invested in education can have maximum impact; but crucially, school network reform must be about enhancing the quality of provision for students. While municipalities are responsible for decisions on school planning, it will be important for the Ministry of Education and Science and its national agencies to monitor progress and, where appropriate, exercise a challenge function to ensure that students and teachers are not disadvantaged by any lack of willingness at municipality level to embrace reform and provide access to a wide and rich curriculum experience. At the same time, municipalities should look at the opportunities for collaboration and partnership between schools, including through clustering and joint management arrangements. Particularly in more sparsely populated areas, this should also include collaboration and partnership between municipalities and with vocational and special schools. It is worth noting that 12 of the 60 municipalities have fewer than 10 schools.

This includes ensuring a robust and consistent implementation of the accreditation procedure for upper secondary provision. There are several important indicators that support the importance of the national focus on the quality of the upper secondary curriculum and the associated accreditation procedure. First, evidence on outcomes indicates underlying differences in the quality of upper secondary provision, with on average weaker performance in small and rural schools. Second, student representatives report on the limitations in terms of subject choices, careers education and different

teaching and learning styles in some upper secondary provision. Third, there is an established “shadow education system”, suggesting that private tuition complements or makes up for short falls in the quality or breadth of the teaching and learning students received at school. While there will be an element of private tuition in almost all systems where there are high stakes examinations, it is important that the reasons for its apparent prevalence in Lithuania are explored and the equity issues fully considered.

### ***Strengthen and secure a more consistent approach to external school evaluation***

External school evaluation is a key element in Lithuania’s strategy for quality assurance. The high level of school autonomy also underlines the importance of having a balanced accountability system to ensure the quality of educational experiences for children and the effective use of public investment. It is recognised that external evaluation can be seen as a resource intensive process. However, there is national evidence that external evaluation is effective in helping schools build on strengths and address areas for improvement. There are compelling arguments to secure resources to ensure a regular cycle of external school evaluation. Some schools will develop self-evaluation capacity more quickly than others and external school evaluation can be designed to recognise this. For example, external school evaluators may visit schools with a mature and effective self-evaluation culture less frequently (on a longer cycle) or spend less time at these schools (a lighter evaluation of only key elements of the school quality framework or a validation of the school’s self-evaluation results). The need for external evaluation can also be judged on a set of central indicators of risks to quality (national comparative data, parental complaints, school leadership turnover, etc.). These different approaches aim to free up central resources for external evaluation to conduct evaluations more frequently or with greater intensity in those schools that would benefit most from external feedback.

The OECD underlines the need to ensure a sufficient degree of challenge to school self-evaluation processes, through the use of objective and comparable benchmark data and/or the scrutiny of the procedures and/or results of school self-evaluation by external professionals or peers, for example, other school leaders. One way to heighten the objectivity of self-evaluation is to ensure that the criteria used in both self-evaluation and external evaluation are sufficiently similar. This calls for an authoritative national definition of school quality and set of indicators to evaluate and promote this. Another strategy is for external evaluation to put a strong focus on how the school is undertaking its self-evaluation and using the results to improve students’ learning. External evaluators could also collaborate with schools to validate the results of self-evaluation and also the school plans for improvement and steps to implement these.

### ***Regularly evaluate the costs and adequacy of funding***

Improving the financial arrangements requires regular and detailed analysis of the adequacy of funding and its effects on the quality of teaching, the efficiency of schools and the equity of education. For example, while improving the funding of small rural schools is high on the education policy agenda, a comprehensive analysis of the current situation based on solid empirical evidence is not available. Another example is the higher cost of education for students with special educational needs, migrant students and national minority language students. The funding scheme assigns additional funding to ensure vertical equity (i.e. providing education of similar quality to different students), while there is no systematic evaluation of the actual costs. Though this component of funding is

naturally framed by political preferences as well, comprehensive and compelling analysis and empirical evidence on the exact cost differences would strengthen the basis for policy decisions. Reliable and detailed evidence should be gathered on the costs and adequacy of funding in general. For example, an important feature of the general funding formula is that the overall allocation is based on a regular student in a class of 25 students. In 2015, the average class size in urban schools is 20.6 students and in rural schools is 11.4 students. The last comprehensive report by the National Audit Office was published in 2008 and called attention to inefficiencies in education finance and the need for further optimisation of the school network.

### ***Promote efficiency in municipal funding of school maintenance***

While the central government cannot directly influence the allocation and use of school maintenance costs, more attention should be devoted to improving efficiency in this field. Regular evaluation of resource use and the promotion of best practices in allocating municipal funding would be useful. Also, the National Audit Office has underlined the need for the Ministry of Education and Science in collaboration with municipalities to evaluate and review the implementation of state investment projects. In general, greater oversight of investments is required to ensure a more efficient and effective use of public funds.

### ***Avoid introducing a universal class basket funding scheme***

Subsequent to the OECD review, the government approved, in November 2015, an experimental methodology to calculate and allocate education resources. This pilots a model of a “class basket” in five municipalities, i.e. allocating funding as a function of the number of classes. This approach is appealing since it acknowledges that the cost of teaching is determined much more by the number of classes than by total enrolment and it can smooth the imbalances created by per student funding.

The OECD review team raises a note of caution that the introduction of a class basket scheme could risk reintroducing some of the basic problems that the 2002 education finance reform was intended to solve, including that municipalities used to fund a large number of unnecessarily small classes. While a universal class basket scheme could help smaller schools, it would undermine incentives for efficiency and presumably would result in smaller class size on average. This trade-off should be evaluated thoroughly. It will be essential, in evaluating the impact of the experimental methodology of the class basket, to consider how effectively this addresses the challenges for small, rural schools and, importantly, what the full costing implications will be if this is introduced system-wide. Schools would unlikely organise classes larger than prescribed by regulation. Lower average class sizes would involve higher per student expenditures and a decreased level of cost-effectiveness at the macro level. This is in a context where an existing challenge for schooling in Lithuania is an internationally low class size.

It is important to note that these side effects would be stronger if a class basket scheme were built on the actual as opposed to an expected number of classes. Moreover, funding tied to the actual classes requires a meticulous regulation of class size with a regular monitoring of compliance. These rules could be difficult to enforce and schools could gain substantial extra revenue by small manipulations of the data. Hence, if a class

basket scheme is to be introduced, it should be built on a formula of the expected number of classes as a function of total enrolment per year. Normative class sizes should be set carefully in order to minimise the decrease in average class size.

### ***Manage the teacher supply***

While it is important to ensure the continuous entry of new talent into the teaching profession, there is no need to increase the overall size of the teaching workforce in Lithuania. On the contrary, the continuing decline of the student population is likely to result in further school consolidation and teacher redundancy. This makes it necessary to continue developing strategies for reallocating, redeploying and retiring teachers currently employed in schools which will be affected by school (or class) consolidation. One option to address the current oversupply of teachers would be through legal changes regarding the conditions under which retired teachers can continue to teach. However, any policy which institutionalises incentives or pressure for teachers to leave the profession needs to carefully consider projected demographic fluctuations. Based on current population projections, teacher shortages are likely to occur in the mid-2020s. Hence it might be more effective to focus on developing a short-term incentive policy, making it voluntary and attractive for experienced teachers to plan for their own succession and leave the profession while transmitting their accumulated knowledge and coaching others. In this context, it is important to note that there are a number of areas in which teachers made redundant by school consolidation could assume new responsibilities. These include engaging them to help mainstream special needs students in regular schools and classes; using them to implement strategies to individually support students who are falling behind; and involving them in advisory roles within or across schools.

### ***Secure funding in the short-term to help attract and retain new talent into teaching***

Substantial improvements in education quality are hardly achievable without increasing educational spending and efficiency in resource use that are both lower than in most European countries. In particular, in the long term, teacher salaries should be raised considerably in order to make the teaching profession more attractive for talented young people. As this cannot be achieved from one year to the next, in the short term, salaries for new entrants and teachers in the first years of their career should be increased noticeably. Even if there is currently an oversupply of teachers, it is important for the school system to plan ahead and ensure an adequate rate of teacher renewal. It is also important that newly educated teachers are not lost for the profession by moving into other career pathways. One way to increase salaries could be to grant additional pedagogical hours for novice teachers acknowledging the time consuming effort to prepare for lessons, given that currently these teachers earn smaller salaries in part due to the smaller number of teaching hours allocated to them on average. This would be in parallel with securing funding to offer attractive packages to teachers who are teaching beyond the retirement age. In addition, the Lithuanian authorities should consider prioritising national funding for teacher students to subject areas in which the school system is facing shortages. The current policy of funding 400 study places in initial teacher education is helpful, but could be made more efficient by focusing further on key priority areas.

### ***Create a more coherent teacher career pathway for teachers***

Although career steps exist in Lithuania, there is room to further develop the teacher career in order to recognise and reward teaching excellence and allow teachers to diversify their career pathways. An important policy objective should be to match the career structure for teachers with the different types and levels of expertise described in the draft teacher competency framework. The current draft describes four stages of teacher development, which could be easily matched to the existing career steps of teacher, senior teacher, teacher-methodologist and teacher-expert. This would reinforce the matching between teachers' competencies and the roles that need to be performed in schools to improve student learning. The first two to three years on the job should be seen as an important first career phase, during which new teachers need to be systematically supported to develop their skills. In particular, ensuring that new teachers work in a well-supported environment and receive frequent feedback and mentoring. There could be requirements that graduates from initial teacher education apply to be "provisionally certified" in order to seek employment as a teacher. Provisionally certified teachers could then apply for full certification upon completion of an induction period, based on an appraisal in relation to the teacher competency requirements.

It is a strength of the Lithuanian system that different qualification levels exist in the teaching profession and that access to higher qualification levels is granted through a voluntary application process. However, those teachers who do not apply for a higher qualification level should be required to renew their qualification status after a specific period of time, such as every five to seven years. Teachers at all career levels need to continue to learn and update their practice. Even methodologists and experts will need coaching/mentoring to stay up to date with pedagogical developments. There could be more focus on teacher leadership in whole-school improvement. Experts and methodologists could be designated to support the school leader with specific aspects of leadership such as the co-ordination of professional development for the school, classroom observations, teacher performance evaluations, co-ordination of student assessment approaches, and so forth. The task of mentoring beginning teachers should also be a key responsibility for methodologists and experts.

### ***Develop a strategic approach to teacher education and professional learning***

Initial teacher education should not only provide sound basic training in subject-matter knowledge, pedagogy related to subjects, and general pedagogical knowledge; it also needs to develop the skills for reflective practice and research on the job. The design of initial teacher education needs to be regularly reviewed, taking into consideration the views of current school leaders and teachers. The stages of initial teacher education, induction and professional development need to be better interconnected in order to create a more coherent learning and development experience for teachers. The introduction of more systematic induction and feedback systems for new teachers would support teachers in the transition from initial education to actual work in schools. Mentors will need to be carefully selected, well prepared for their tasks and given adequate time to carry out their mentoring role. A requirement for school leaders to implement regular formative teacher appraisal processes would support continuous improvement of teaching practices. This should be an internal process carried out by line managers, senior peers and the school leader with a focus on teachers' practices in the classroom. It can be low-key and low-cost and include a mix of

methods appropriate to the school. Some of the elements should be individual goal-setting linked to school goals, self-appraisal, peer appraisal, classroom observation, structured conversations with the school principal and peers.

Teacher appraisal can be better linked to professional development and school improvement. At the system level, the offer of professional development should be informed by the competency requirements outlined in the teacher competency framework, and thereby address concerns about the fragmentation of professional development provision. This could be achieved by the Ministry of Education and Science and/or the Education Development Centre by reviewing professional development offers, and, developing guidance documents on the extent to which existing professional development relates to the teacher competency framework. At the school level, teachers' individual choices of professional development should be more strongly influenced by: a) their own appraisal results and identification of areas for improvement; and b) priorities of the school development plan. Effective teacher appraisal should give teachers a choice from a wide range of possible professional learning activities that meet their individual needs in relation to the priorities of the school's overall development plan. Conversely, the appraisal results of individual teachers should also be aggregated to inform school development plans.

## Chapter 1

# School education in Lithuania

*This chapter presents an overview of the economic and demographic context in Lithuania, including the impact of the international financial crisis and mass emigration on the funding and organisation of schooling. It also provides a brief description of the Lithuanian school system for international readers. Finally, it presents evidence on the quality, equity and efficiency of the Lithuanian school system.*

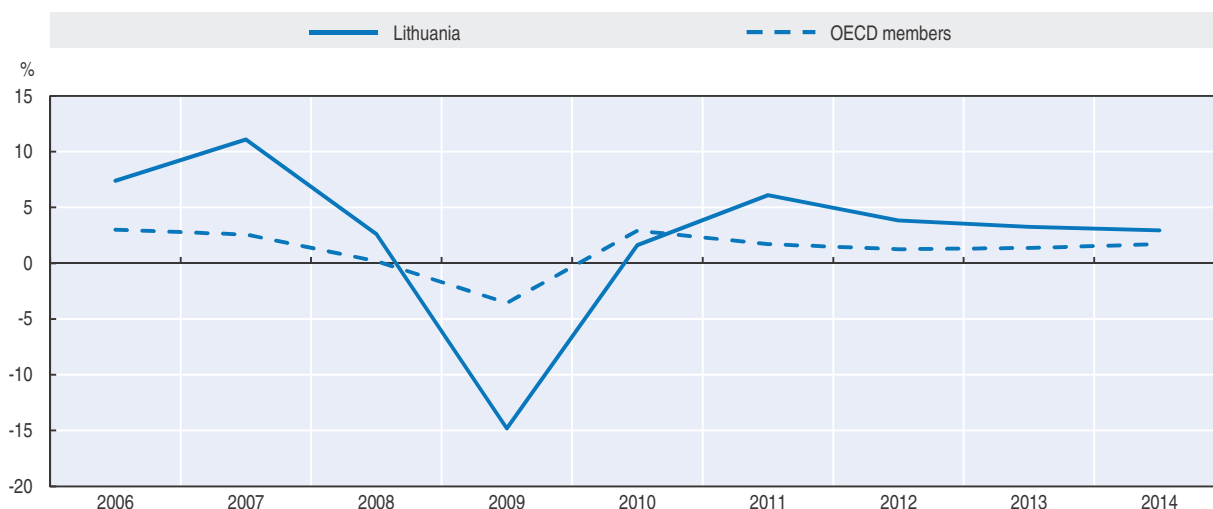
The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## Economic and demographic context

### **Impact of the international financial crisis and the convergence programme**

The Lithuanian economy experienced a major recession during the international financial crisis, much more so than on average in the OECD (Figure 1.1). The decline in real Gross Domestic Product (GDP) was one of the sharpest across the European Union (EU) in 2009, but in recent years it has seen steady growth of around 3% (European Commission, 2015a; Figure 1.1). Still, the European Commission (2015a) points out Lithuania's vulnerability to adverse developments in the international economy and advocates further prudent fiscal policy (the current level of public debt is twice as high as before the financial crisis).

Figure 1.1. **Annual GDP growth (%)**



Source: World Bank (no date), GDP Growth (Annual %), <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/LT-OE?display=graph>.

The Lithuanian government adopted the Convergence Programme of Lithuania for 2014 which envisages a reduction of total public expenditure from 42.2% of GDP in 2010 to 30.9% of GDP in 2020 in an overall budgetary projection for financial sustainability in the public sector (Table 1.1). Within these projections, education costs will be reduced from 6.2% of GDP in 2010 to 4.8% of GDP in 2020 (Table 1.1). Although an initial reduction in pension costs is budgeted to 2020, these will start to rise steadily thereafter through to 2060, with a further decrease to education costs projected for 2040 and 2050. In 2012, total public expenditure was 36.1% of GDP, including educational expenditure equivalent to 5.6% of GDP (Government of the Republic of Lithuania, 2014, Table 13).



Table 1.1. **General government finances: Long-term sustainability**

	2007	2010	2020	2030	2040	2050	2060
<b>Total expenditure</b>	<b>34.6</b>	<b>42.2</b>	<b>30.9</b>	<b>31.7</b>	<b>32.1</b>	<b>33.2</b>	<b>34.7</b>
<i>of which: Age-related costs</i>	17.3	21.1	18.0	18.8	19.3	20.3	21.8
1. Pensions	6.6	8.6	6.4	7.1	8.0	8.7	9.6
Social security pensions	6.6	8.6	6.4	7.1	8.0	8.7	9.6
Old-age pensions	4.8	6.2	4.5	5.3	6.1	6.8	7.8
Other (disability, survivors, orphans)	1.8	2.4	1.8	1.9	1.8	1.9	1.8
Occupational pensions (public sector)	-	-	-	-	-	-	-
2. Health	4.8	4.8	5.2	5.4	5.4	5.3	5.3
Long-term health care	0.6	1.1	1.1	1.2	1.4	1.7	2.0
3. Education costs	5.2	6.2	4.8	4.8	4.3	4.3	4.8
4. Other age-related costs	0.1	0.4	0.5	0.2	0.2	0.2	0.2
5. Interest expenses	0.7	1.8	1.3	1.6	2.1	2.7	3.9

Source: Government of the Republic of Lithuania (2014), *On the Convergence Programme of Lithuania for 2014*, <http://finmin.lrv.lt/lt/es-ir-tarptautinis-bendradarbiavimas/koordinavimas-su-es/stabilumo-programa>.

The financial crisis severely impacted the labour market, with unemployment peaking at 17.8% in 2010. It has since come down to 10.9%, but remains almost twice as high as in 2008 (Table 1.2). Unemployment remains higher than in the OECD area, which stood at 7.5% in 2014 (OECD, 2015a). As in OECD countries, the rise in unemployment was felt more keenly by younger people, with 35.7% of Lithuanian 15-24 year-olds unemployed in 2010. The youth unemployment rate in Lithuania is close to that in other European countries: In 2013, the youth unemployment rate in the OECD area stood at 16.2%, but was 23.4% in OECD members within the European Union and 21.9% in Lithuania. In Lithuania, the youth unemployment rate had come down to 19.3% in 2014, compared to 15.0% in the OECD area (OECD, 2015a).

Table 1.2. **Indicators of social inclusion, 2008-14**

	2008	2009	2010	2011	2012	2013	2014
Unemployment rate (age 15-74)	5.8	13.8	17.8	15.4	13.4	11.8	10.9
Youth unemployment rate (age 15-24)	13.3	29.6	35.7	32.6	26.7	21.9	19.3
People at risk of poverty or social exclusion	27.6	29.6	34.0	33.1	32.5	30.8	..
Children (0-17) at risk of poverty or social exclusion	29.4	30.8	35.8	34.6	31.9	35.4	..

Note: People at risk of poverty or social exclusion comprise individuals who are at risk of poverty (with an equivalised disposable income below 60% of the national equivalised median income) and/or suffering from severe material deprivation and/or living in households with zero or low work intensity (where the adults worked less than 20% of their total work-time potential in the previous 12 months).

Sources: European Commission (2015a), *Commission Staff Working Document: Country Report Lithuania 2015*, [http://ec.europa.eu/europe2020/pdf/csr2015/cr2015\\_lithuania\\_en.pdf](http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_lithuania_en.pdf); for 2014 data: OECD (2015a), *OECD Employment Outlook 2015*, [http://dx.doi.org/10.1787/empl\\_outlook-2015-en](http://dx.doi.org/10.1787/empl_outlook-2015-en), Table D.

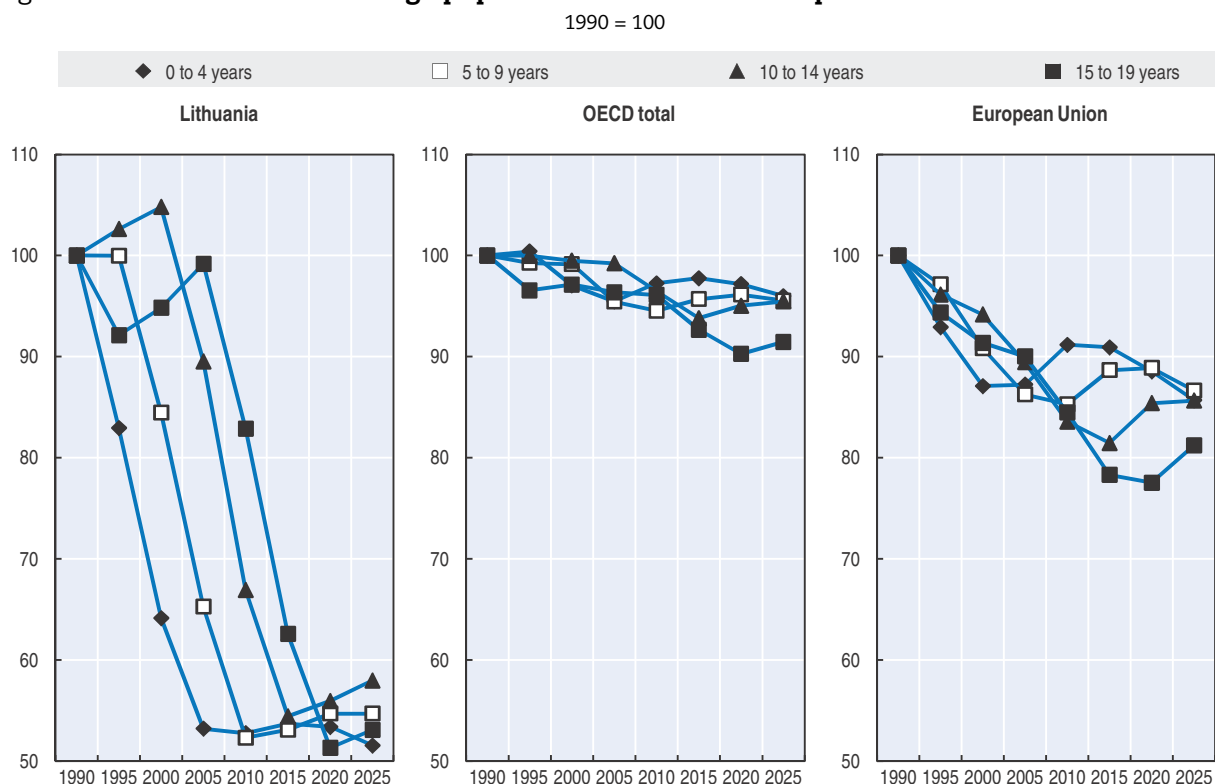
In turn, the proportion of the Lithuanian population deemed at risk of poverty or social exclusion increased between 2008 and 2013 (Table 1.2) and is higher in Lithuania than in the EU on average (24.5% in the EU, compared to 30.8% in Lithuania) (Eurostat, 2015a). The risk of poverty or social exclusion remains particularly high for children aged up to 17 years (35.4% in Lithuania, compared to 27.6% in the EU on average). Relative poverty rates among the young are of growing concern in OECD countries: 2011 data confirmed that relative poverty rates were higher among the young (13.9%) than among the elderly (10.8%) (OECD, 2015b).

### Acute drop in the population and prognosis for this to continue

There has been an acute drop in the total population in Lithuania since it was established as an independent state. In 2014, Lithuania is the EU's fastest ageing country due to both negative natural growth and high and persistent emigration (European Commission, 2015a; OECD, 2015c, Table 1.3). Based on the 2011 census, between 1990 and 2011, 728 700 people emigrated from Lithuania, that is, around 20% of the 1990s population (OECD, 2013a). In 2011, the population was 3 million and it had already fallen to 2.9 million by early 2014 (OECD, 2015c; NASE, 2015). Following the economic crisis, emigration peaked in 2010 with 83 500 leaving Lithuania (OECD, 2015c; Table 1.3).

The majority of emigrants are of working age and, increasingly, families – a profile that is more likely to remain away for the longer term (OECD, 2013a). In 2011, 55% of emigrants from Lithuania were aged 20 to 34 years (OECD, 2013a) and the pattern was very similar in 2014 (OECD, 2015c). Younger people were impacted more by unemployment after the economic crisis (Table 1.2) and this would have been an additional push factor for emigration (OECD, 2013a). The decline in the school-age population since 1990 has been dramatic and far more pronounced than in the EU or in the OECD area (Figure 1.2).

Figure 1.2. **Variation in school age population in Lithuania compared to in the OECD and the EU**



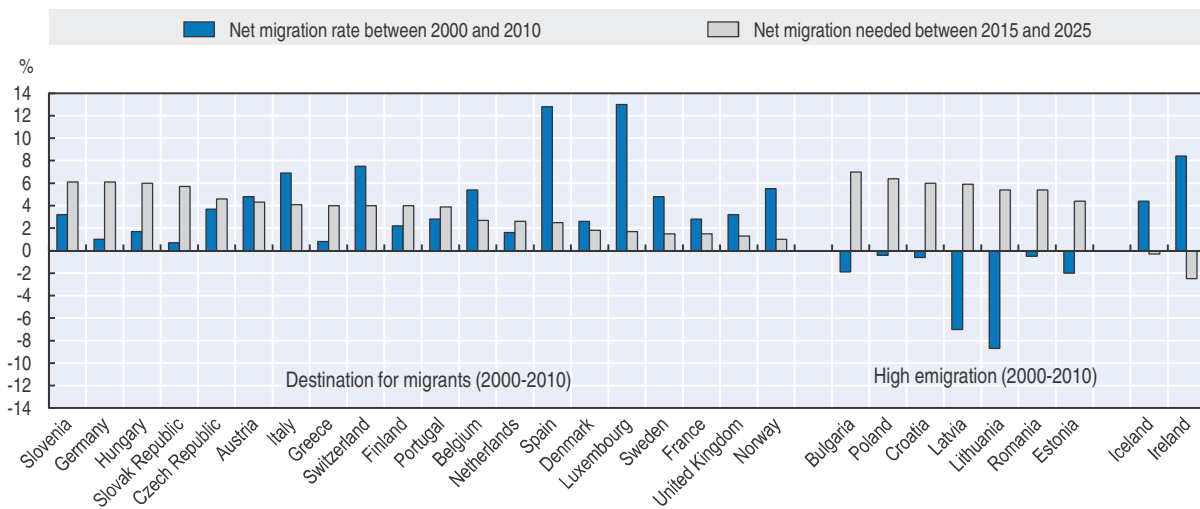
Source: OECD (no date), *Historical population data and projections (1950-2050)* statistical database, <http://stats.oecd.org/>.

While net migration remains negative, 2013 data indicate a slowdown (Table 1.3). However, according to Eurostat projections for the population in 2060, Lithuania will experience the sharpest population decline among EU member states (-38%) (population decline is projected in around half the EU member states) (European Commission, 2015b, Table 1.1.7). UN statistical analysis indicates that migration is unlikely to meet the replacement rate (Figure 1.3).

Table 1.3. **Components of population growth in Lithuania**

	Growth per 1 000 inhabitants					Level (thousands)	
	2005	2010	2012	2013	Average		2013
					2003-07	2008-12	
<b>Total</b>	<b>-6.5</b>	<b>-25.7</b>	<b>-10.6</b>	<b>-9.6</b>	<b>-5.6</b>	<b>-15.6</b>	<b>-28</b>
Natural increase	-3.9	-2.0	-3.5	-3.9	-3.6	-3.5	-12
Net migration	-2.6	-23.7	-7.1	-5.7	-2.0	-12.0	-17

Source: OECD (2015c), *International Migration Outlook 2015*, [http://dx.doi.org/10.1787/migr\\_outlook-2015-en](http://dx.doi.org/10.1787/migr_outlook-2015-en).

Figure 1.3. **Estimates of net migration needed to keep the working-age population constant between 2015 and 2025**

Note: The figure presents cumulative change over the stated time period as a percentage of the total population. Estimates for the natural decline in the working-age population between 2015 and 2025 are derived from the United Nations' Population Division (2013) and assumes migrants are in the 15 to 64 age group. For Iceland and Ireland, estimates show a natural increase in the working age population between 2015 and 2025.

Source: Bussolo, M., J. Koettl and E. Sinnott (2015), *Golden Aging: Prospects for Healthy, Active, and Prosperous Aging in Europe and Central Asia*, <https://openknowledge.worldbank.org/handle/10986/22018>, based on Figure 1.18.

### **Ageing of the population and related pressures on public expenditure**

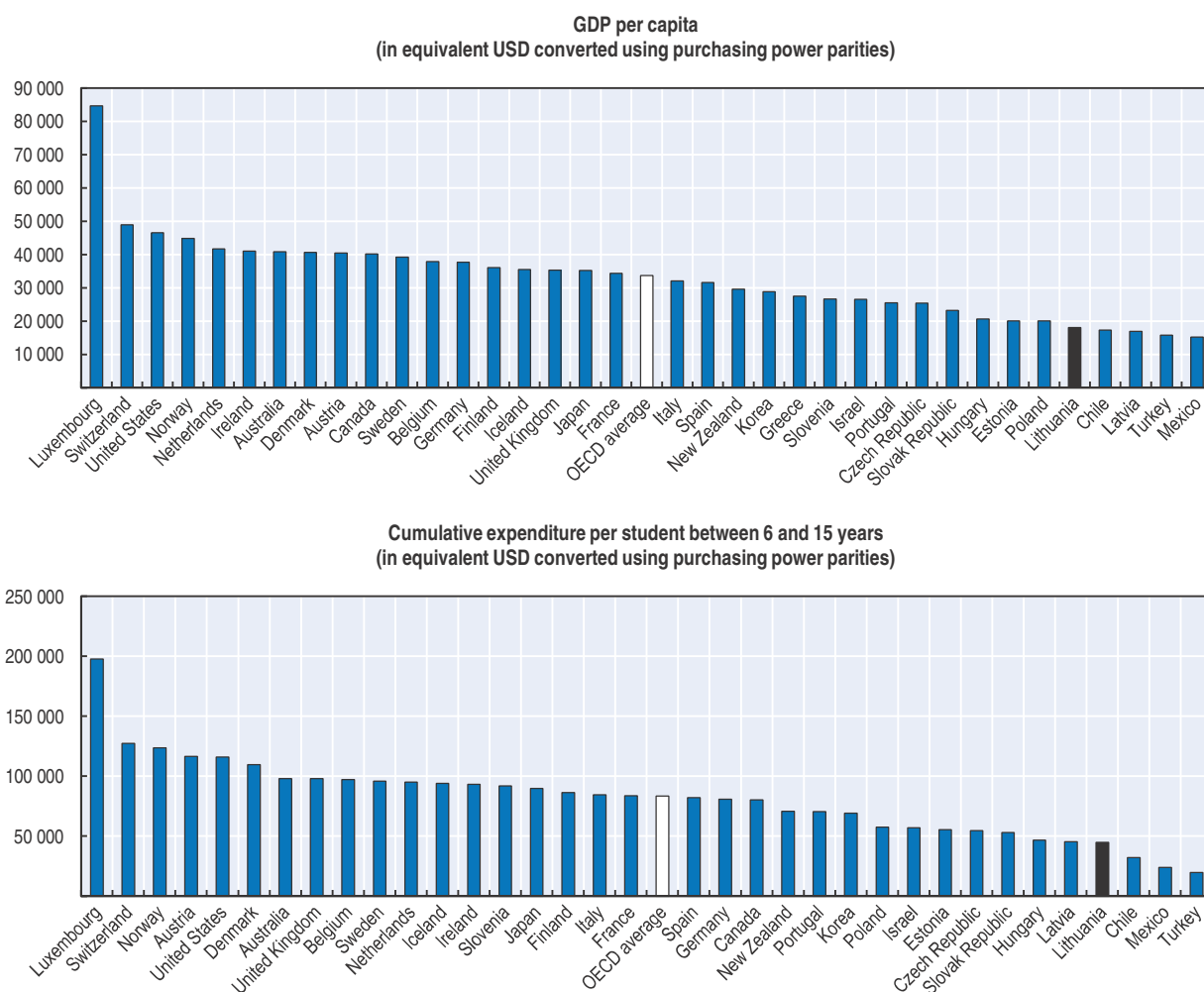
By 2030, the old-age dependency ratio (65 years or older/population aged 15 to 64) is predicted to be 48, that is 21 percentage points higher than the 2013 ratio (European Commission, 2015b, Table 1.1.14). While Lithuania is currently at the EU average level, its old-age dependency ratio will be significantly higher than the EU average in 2030.

These population projections indicate significant pressures on securing funding for education in the future, given increased needs for pension funding. Current budgetary projections estimate that in 2060 28% of total public expenditure will be allocated to pensions (Table 1.1), however, Bogetic et al., 2014 (in Bussolo, Koettl and Sinnott, 2015) estimate this will be as high as 34%. Aware of these pending challenges, Lithuania, like many other EU countries, introduced reforms to increase the retirement age: by 2026 the retirement age will be 65 years for both men and women.<sup>1</sup> Also, all workers must contribute 30 years of work to qualify for a full pension. Individuals who have contributed for 30 years may retire 5 years earlier than the statutory retirement age.

### Public expenditure on education is already low in international comparison

Compared to OECD countries, Lithuania has comparatively low national income (as measured by per capita GDP) which is an initial indicator of the potential resources available for education (USD 18 022 compared to USD 33 732 on average) (Figure 1.4). Spending per student (aged 6-15) is also extremely low in international comparison and indicates a comparatively low level of resources actually invested in education (USD 44 963 compared to USD 83 382 on average). Hypothetically, allowing for an adjustment of per capita GDP and educational expenditure per student to OECD average levels would increase Lithuanian average performance in PISA to near the OECD average.<sup>2</sup>

Figure 1.4. **Comparatively low national income and investment in schooling**



Source: OECD (2014a), PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science, <http://dx.doi.org/10.1787/9789264208780-en>, Table 1.2.27.

Public expenditure per student in Lithuania is one of the lowest among EU countries (Table 1.4). Since 2008, annual expenditure per student in primary and lower secondary education has increased, although has not kept pace with increases in the EU on average. Lithuania follows the EU pattern of a decrease in expenditure per student in upper

Table 1.4. **Expenditure per student compared to EU average**

	ISCED level	Lithuania		EU average		Ratio: Lithuania/EU average	
		2010	2011	2010	2011	2010	2011
Annual expenditure per student (in EUR Purchasing Power Standards)	1 and 2	3 328.94	3 385.05	6 063.74	6 297.16	0.55	0.54
	3 and 4	3 324.74	3 448.57	7 022.35	6 650.87	0.47	0.52
	5 and 6	5 065.20	6 532.70	9 707.12	9 635.57	0.52	0.68
Change in annual expenditure per student (2008 = 100)	1 and 2	105.4	107.2	106.5	110.6	..	..
	3 and 4	94.1	97.7	102.1	96.7	..	..
	5 and 6	106.8	137.8	103.8	103.0	..	..

Source: European Commission (2014), *Education and Training Monitor 2014 – Volume 1*, [http://ec.europa.eu/education/library/publications/monitor14\\_en.pdf](http://ec.europa.eu/education/library/publications/monitor14_en.pdf).

secondary and post-secondary non-tertiary education. However, there has been a stark increase in Lithuania on expenditure per student in tertiary education, which has not been the case in the EU on average (Table 1.4).

### The school system in Lithuania

In Lithuania, compulsory schooling starts at age 7 and ends at age 16 – compulsory education ends at age 16 in 16 OECD countries (OECD, 2014b, Table C1.1a). A year of non-compulsory pre-primary education is offered free of charge to children aged 6. In 2014, around 93% of 6-year-olds were enrolled in pre-primary education (Statistics Lithuania, 2015, Figure 4.3). Compulsory education is organised into two main stages: primary education curriculum (children aged 7 to 10 in Years 1 to 4); basic education curriculum (first stage for 11-14 year-olds in Years 5 to 8; second stage for 15-16 year-olds in Years 9 and 10 or *gymnasium* Years 1 and 2). After compulsory education and upon successful completion of basic education, students may follow two-years of upper secondary education curriculum (17-19 year-olds). Only a minority (5.9% in 2014) choose not to continue to upper secondary education; most (78% in 2014) follow upper secondary education in general schools (16.1% in vocational schools) (Lithuanian Education Management Information System – EMIS).

The major school types are shown in Table 1.5. Primary schools (*Pradinė mokykla*) offer the primary education curriculum. Basic schools (*Pagrindinė mokykla*) offer the basic education curriculum or primary and basic education curricula. Pre-*gymnasia* (*Progimnazija*) are a new school type created in 2011 and offer the first part of the basic education curriculum or the primary and the first part of the basic education curricula. *Gymnasia* (*Gimnazija*) offer the second part of the basic education curriculum and the secondary education curriculum accredited in accordance with the procedure laid down by the Ministry of Education and Science. Secondary schools (*Vidurinė mokykla*) offer the secondary education curriculum, or the secondary and basic education curricula, or the secondary, basic and primary education curricula. The Ministry of Education and Science implemented a strategy to phase out secondary schools by 2015/16 (see Chapter 2). Subsequent to the OECD review visit, the Law on Education was amended to extend the deadline for the reorganisation of secondary schooling until 1 September 2017. Vocational training schools offer the second stage of the basic curriculum and secondary curriculum. Only a minority of students (0.6% in 2013) complete basic education in a vocational training school (NASE, 2015).

Table 1.5. **Number and distribution of students by school type, regular and specialised provision, 2015**

	Number of students	Distribution of students (%)
Primary school	16 514	4.5
Basic school	79 549	21.6
<i>Pre-gymnasium</i>	64 086	17.4
Secondary school	3 281	0.9
<i>Gymnasium</i>	151 236	41.0
Vocational training school	46 463	12.6
Arts <i>gymnasium</i> and conservatory	3 192	0.9
Youth school and child socialisation centre	999	0.3
Special school	3 595	1.0
<b>Total</b>	<b>368 915</b>	<b>100.0</b>

Source: Data from the Lithuanian Education Management Information System (EMIS).

The vast majority of Lithuanian students attend public schools: in 2015/16, 96.8% of general education students and 99.4% of vocational training students (EMIS). Among the different school types, the percentages of students attending private schools are: 1.7% in a private primary school; 1.1% in a private basic school; 0.1% in a private *pre-gymnasium*; 12.5% in a private secondary school; and 5.7% in a private *gymnasium* (Table 1.6). In the public sector, the State manages all vocational training schools, while the municipalities manage the majority of schools offering general education, including all public primary schools and *pre-gymnasias*. The Law stipulates that the State will provide education in Lithuanian where it is not provided by municipalities, but there is demand from local communities. As such, a minority of students attend a state-run basic school (0.4%) or *gymnasium* (2.0%). (As of 2015, there are no state-run secondary schools).

Table 1.6. **Distribution of students across the Lithuanian school network, 2015**

	Number of schools				Number of students			
	Total	Municipal	State	Private	Total	Municipal	State	Private
School-kindergarten	82	78		4	6 330	6 285		45
Primary school	83	73		10	16 514	16 231		283
<i>of which: Multifunction centre</i>	12	11		1	214	166		48
Basic school	438	427	4	7	79 549	78 318	334	897
<i>of which: Multifunction centre</i>	40	40			4 686	4 686		
<i>Pre-gymnasium</i>	113	111		2	64 086	63 994		92
Secondary school	14	10		4	3 281	2 872		409
<i>Gymnasium</i>	359	331	9	19	151 236	139 511	3 094	8 631
<b>Schools providing specialised education</b>								
Arts <i>gymnasium</i>	6		6		2 747		2 747	
Conservatory	3		3		445		445	
Child socialisation centre	6		6		111		111	
Youth school	12	12			888	888		
Special school	47	43	3	1	3 595	3 354	194	47
Vocational training school	75		73	2	46 463		46 199	264
College (repeat vocational training programmes)	1		1		70		70	
Adult school (centre)	22	22			6 378	6 378		
<b>Total</b>	<b>1 261</b>	<b>1 107</b>	<b>105</b>	<b>49</b>	<b>381 693</b>	<b>317 831</b>	<b>53 194</b>	<b>10 668</b>

Source: Data from the Lithuanian Education Management Information System (EMIS).

In 2015, 1.1% of Lithuanian students were enrolled in schools providing specialised education (Table 1.6). The State manages some schools with specialised provision, including arts *gymnasia* and conservatories that provide specialised training in the arts for talented children. Municipalities run 43 of the 47 “special schools” (*Specialioji mokykla*), those providing education for students with major and severe special educational needs. There are also eleven municipally managed “Youth schools” (*Jaunimo mokykla*), which provide the basic education curriculum with practical activities and social rehabilitation assistance to students aged 12 to 16 who have learning difficulties and lack motivation and social skills.

## Evidence on the quality, equity and efficiency of the Lithuanian school system

### **Significant improvement in student performance in core skills between 1995 and 2003**

According to data from the IEA Trends in International Mathematics and Science Study (TIMSS), Lithuania was one of the participating countries that saw the greatest performance improvement in the Year 8 mathematics and science tests over the period 1995 to 2011 (Mullis et al., 2012, Exhibits 1.8 and 2.20; Martin et al., 2012, Exhibits 1.8 and 2.19). The biggest improvement was between 1999 and 2003 and across the entire performance distribution. Student performance since 2003 has been relatively stable, although with a statistically insignificant decline between 2007 and 2011. Evidence from the OECD Programme for International Student Assessment (PISA) is broadly in line with this, showing that between 2006 and 2012, the performance of Lithuanian 15-year-olds in mathematics declined steadily (-2.2 score points per year since 2006; compared to -1.0 per year in the OECD on average); and remained stable in both reading (compared to -0.5 per year in the OECD on average) and science (also the case in the OECD on average) (OECD, 2014a, Tables 1.2.4, 1.4.4 and 1.5.4).

### **Near the end of compulsory education student performance is significantly below the OECD average**

In primary education, Lithuanian students demonstrate comparatively strong skills in mathematics and around the average in science, as measured in the international assessment TIMSS (Table 1.A1.1). However, near the end of compulsory education (at age 15), Lithuanian students demonstrate weaker knowledge and skills in core areas compared to their counterparts in OECD countries on average. In 2012, the average performance of Lithuanian students on the PISA reading assessment was significantly below the OECD average and also low compared to neighbouring countries (Table 1.7a and b).

Only 3% of Lithuanian students were able to perform the most challenging tasks on the reading assessment, compared to 9% on average in the OECD, indicating that there is room to improve the quality of education even among the top performing students (Table 1.7b). Lithuanian students found tasks that assessed students’ ability to reflect and evaluate most difficult (Table 1.7a). Such tasks require students to draw on knowledge, ideas or values external to the text presented in the test. Conversely, tasks that required students to find, select and collect information within the text were relatively easier for Lithuanian students.

The results indicate that Lithuanian students also struggled with the more challenging tasks in the PISA mathematics and science assessments, with lower proportions of students among the top performers (Table 1.7a). At the same time there

Table 1.7. **Selected indicators of quality and equity in Lithuania, based on PISA 2012**

<b>a) Student performance on the reading assessment (PISA 2012)</b>				
	Average reading score	Relative performance in different areas of the reading assessment (compared to average reading score)		
		Access and retrieve	Integrate and interpret	Reflect and evaluate
Maximum OECD (Korea)	539	2	1	3
Finland	536	-4	2	0
Estonia	501	2	-1	2
Poland	500	0	2	-3
<b>OECD average</b>	<b>493</b>	<b>2</b>	<b>0</b>	<b>1</b>
Latvia	484	-8	0	8
<b>Lithuania</b>	<b>468</b>	<b>8</b>	<b>0</b>	<b>-5</b>
Minimum OECD (Mexico)	425	7	-7	7

<b>b) Indicators of equity in student performance (PISA 2012)</b>			
Indicator		Lithuania	OECD average
Percentage of top performers (%)	Mathematics	8	13
	Reading	3	9
	Science	5	8
Percentage of low performers (%)	Mathematics	26	23
	Reading	21	18
	Science	16	18
Gender performance difference (girls minus boys)	Mathematics	0	-11
	Reading	55	38
	Science	14	-1
Percentage of students who repeated a grade (%)		2	12
Percentage of variance in mathematics performance explained by socio-economic status (%)		14	15

Notes: Top performers = students performing at PISA Level 5 and above; low performers = students performing below PISA Level 2.

Sources: OECD (2014a), PISA 2012 Results: *What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science*, <http://dx.doi.org/10.1787/9789264208780-en>; OECD (2013b), PISA 2012 Results: *Excellence through Equity (Volume II): Giving Every Student the Chance to Succeed*, <http://dx.doi.org/10.1787/9789264201132-en>; OECD (2013c), PISA 2012 Results: *What Makes a School Successful (Volume IV): Resources, Policies and Practices*, <http://dx.doi.org/10.1787/9789264201156-en>.

were slightly larger proportions of Lithuanian students among the low performers on the PISA mathematics and reading assessments. This indicates a need to focus on quality improvement throughout the performance distribution.

### **Concerns about relatively weaker core skills for Lithuanian boys on average**

In the context of gender performance differences observed in international assessments, Lithuanian boys perform relatively weaker on core skills. Results from TIMSS indicates that while there were no performance differences between girls and boys in mathematics or science in Year 4, by Year 8 girls significantly outperformed boys (Table 1.A1.1). The only OECD country where girls outperformed boys in Year 8 was Turkey (boys outperformed girls on the mathematics test in Chile, Italy, Korea and New Zealand and on the science test in Australia, Chile, Hungary, Italy, Japan, New Zealand and the United States) (Mullis et al., 2012, Exhibit 1.11; Martin et al., 2012, Exhibit 1.11).



Similarly, PISA 2012 results reveal that Lithuanian boys demonstrate relatively weaker performance in core skills toward the end of compulsory education. In the reading and science assessments, girls have a clear performance advantage – on average in the OECD there was no observed performance difference between girls and boys in the science assessment. Whereas internationally boys outperformed girls on the mathematics assessment, in Lithuania there was no observed performance difference (Table 1.7b). In turn, the performance advantage demonstrated by Lithuanian girls on the reading assessment was much more pronounced than girls enjoyed on average in the OECD.

### **Evidence of pronounced performance differences between rural and urban areas**

In Lithuania, the proportion of the adult population educated to the tertiary level is around the OECD average, which is an important contextual indicator given the strong influence that parental education has on student outcomes (OECD, 2014a). However, in urban areas this is much higher than in rural areas (35% compared to 14% in 2014) (Statistics Lithuania, 2015). At the same time, compared to on average in the OECD, the socio-economic context in Lithuania is more challenging, and in particular in rural areas (in PISA 2012, 21.5% of 15-year-olds were from less advantaged socio-economic backgrounds, compared to 15.4% on average) (OECD, 2014a, Table 1.2.27; Table 1.8). Around 35% of children aged up to 17 years are in families that are at risk of poverty (Table 1.2).

**Table 1.8. Performance disadvantage of students in rural areas in international comparison, 2012**

	OECD average			Lithuania		
	Rural area	Town	City	Rural area	Town	City
Percentage of students (%)	9.4	55.9	34.7	20.0	42.7	37.4
Average socio-economic and cultural status	-0.33	-0.04	0.15	-0.67	-0.15	0.18
	Rural area compared to city	Town compared to rural area	City compared to town	Rural area compared to city	Town compared to rural area	City compared to town
Performance difference	-31	20	11	-57	37	20
Adjusted performance difference	-13	11	4	-31	20	10

Source: OECD (2013b), PISA 2012 Results: Excellence through Equity (Volume II): Giving Every Student the Chance to Succeed, <http://dx.doi.org/10.1787/9789264201132-en>, Table II.3.3a.

National education statistics present much information comparing rural areas to urban areas. These reveal significant differences among schools, with, on average, schools in rural areas having lower outcomes on national measures (NASE, 2015). Results from PISA 2012 indicate that compared to on average in the OECD, this urban-rural performance divide is much greater in Lithuania. Internationally, students in rural areas, on average, come from less advantaged socio-economic backgrounds and show a performance disadvantage compared to their peers in cities (Table 1.8). However, according to the PISA 2012 sample, a greater proportion of Lithuanian students are in rural areas, compared to on average in the OECD, and their relative socio-economic disadvantage to those students in cities is much greater (Table 1.8). But even after accounting for these socio-economic differences, Lithuanian students in rural areas showed a pronounced performance disadvantage; much greater than in the OECD on average (Table 1.8).

### **Grade repetition and drop-out rates are comparatively low**

Through compulsory education, only a negligible proportion of Lithuanian students repeat a school year. In 2013, the repetition rate in Year 1 was 0.8%, for Years 2 to 6 it was 0.3% and it peaked at 1.4% at the end of compulsory education in Year 10 (or *Gymnasium* Year 2) (EMIS). Two per cent of 15-year-old students participating in PISA 2012 reported that they had repeated a year – a much lower rate than reported internationally (12% on average) (Table 1.7b).

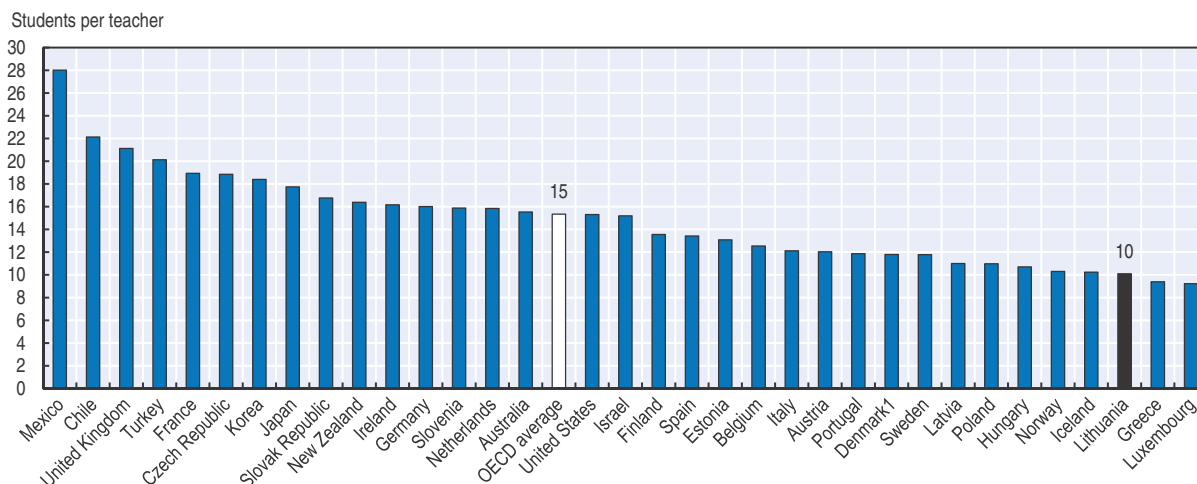
Lithuania has one of the lowest rates of early school leavers among European countries. On average in the European Union, 11.1% of students in 2014 had left education and training early, but this was 5.9% in Lithuania (European Commission, 2015c).

### **Sharp drop in number of children has presented huge efficiency challenges to the school network**

Since 1995, there have been dramatic decreases in the school-age population in Lithuania and thus the number of children attending school. In comparison to trends in the school-age population overall in OECD countries, the drop in number of children is particularly stark in Lithuania (Figure 1.2). This decline initially impacted primary schooling with a reduction in the number of children aged 5 to 9, followed by the first stage of basic education in 2000 (children aged 10 to 14) and finally the second stage of basic education and/or *gymnasium* in 2005 (children aged 15 to 19). The number of children aged 4 years or younger has remained low, but stable since 2005 and projections through 2020 indicate a slight increase in the number of children aged 5 to 9, but a continued decrease in the number of children in the second stage of basic education and/or *gymnasium*. From 2015, the number of children in basic education is projected to increase slightly. However, Eurostat estimates predict that between 2020 and 2060 the population aged 14 or under will shrink further by 20% (European Commission, 2015b, Table 1.1.9).

There have been considerable adjustments to the organisation of the school network to address these efficiency challenges (see Chapter 3). However, the average student-teacher ratio remains exceptionally low in Lithuania in international comparison at each level of public education (Figure 1.5 and Table 1.A1.2 in Annex 1.A1). According to official European data, the student-teacher ratio is the third and second lowest among European countries at the primary and lower and upper secondary levels respectively. While student-teacher ratios vary enormously among European countries, the typical values range between 12 and 16 in primary education, but in Lithuania the average number of students per teacher is 10 (Figure 1.5). The OECD average is 15 students per teacher in primary education. At the secondary level there are 8 students or fewer per teacher in Lithuania; in neighbouring countries the student-teacher ratio at upper secondary level is more efficient than at lower secondary level, especially in Estonia and Finland (Table 1.A1.2). However, Lithuanian, Estonian and Finnish school leaders in PISA 2012 reported similar student-teacher ratios towards the end of compulsory education and in Lithuania this was higher than the official European data (11.4 students per teacher) (Figure 1.6).

National data on student-teacher ratios show that vocational training schools, on average, have become more efficient on this indicator over recent years (around 9.6 students per teacher from 2000/01 to 2007/08, but steady improvement thereafter to 15.6 students per teacher in 2015/16); this has not been the pattern in general education (student-teacher ratios fluctuated from 11.6 in 2000/01, to 10.4 in 2012/13 and 11.5 in 2015/16) (EMIS).

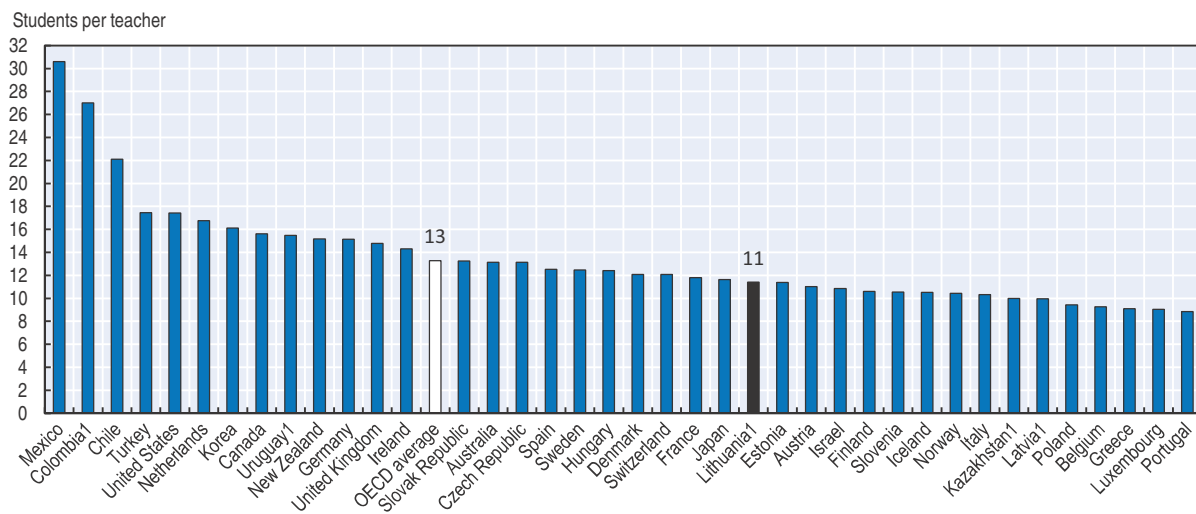
Figure 1.5. **Student-teacher ratios in primary education, 2012**

1. Data are for 2011.

Sources: OECD (2014b), *Education at a Glance 2014: OECD Indicators*, <http://dx.doi.org/10.1787/eag-2014-en>, Table D2.2; Eurostat (2015b), *School Enrolment and Early Leavers from Education and Training*, Eurostat statistics explained online database, [http://ec.europa.eu/eurostat/statistics-explained/index.php/School\\_enrolment\\_and\\_early\\_leavers\\_from\\_education\\_and\\_training#Further\\_Eurostat\\_information](http://ec.europa.eu/eurostat/statistics-explained/index.php/School_enrolment_and_early_leavers_from_education_and_training#Further_Eurostat_information).

Figure 1.6. **Student-teacher ratios near the end of compulsory education, 2012**

As reported by school principals in PISA 2012

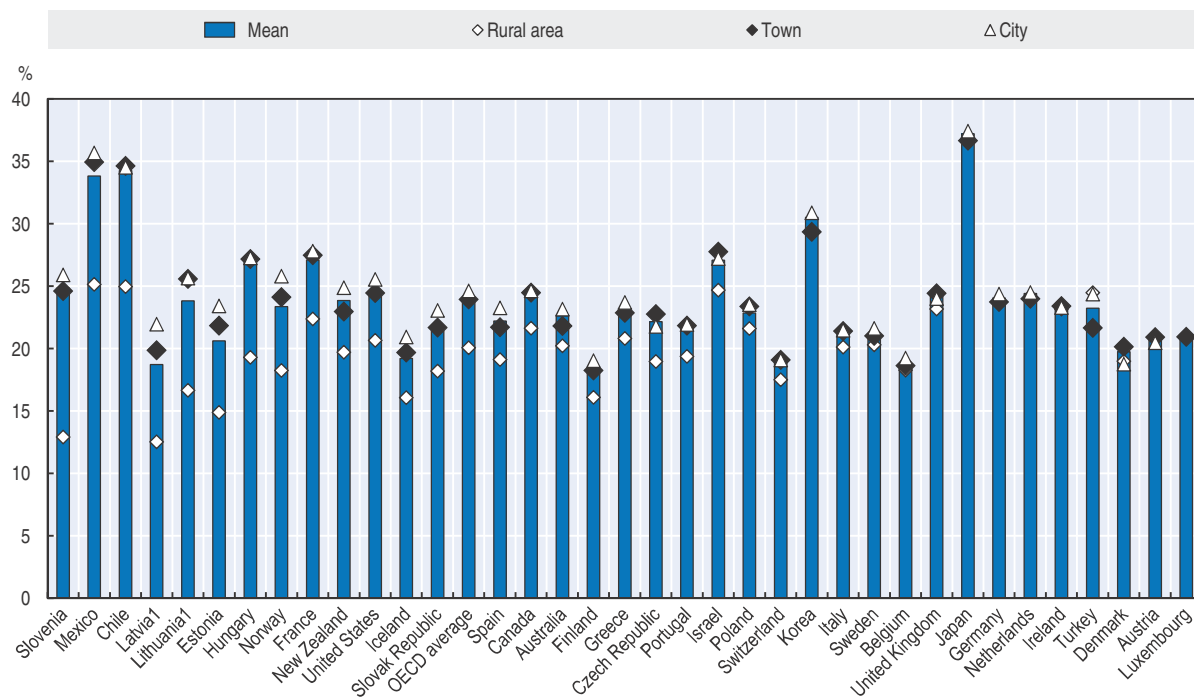


1. Country is not a member of the OECD.

Source: OECD (2013c), *PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices*, <http://dx.doi.org/10.1787/9789264201156-en>, Tables IV.3.8 and IV.3.9.

Compared to other participating countries in the OECD 2008 Teaching and Learning International Survey, Lithuania had one of the smallest average class sizes in lower secondary education (one of five systems where this was fewer than 20 students) (Box D2.1 Chart A, OECD, 2013d). Class sizes in small communities (15 000 people or fewer) were particularly low and comparatively lower than in any other participating country (Box D2.1 Chart B, OECD, 2013d). There are significant variations reported by school leaders in rural areas compared to in towns and cities – these rural-urban class size differences are among the biggest reported in PISA 2012 countries (Figure 1.7). National data show that class sizes

**Figure 1.7. Variations in reported class size in rural and urban areas, 2012**  
Class size of language-of-instruction lessons, as reported by 15-year-old students in PISA 2012



Note: Countries are presented in descending order of difference in class size between schools in cities and schools in a rural area.

1. Country is not a member of the OECD.

Source: OECD (2013c), PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices, <http://dx.doi.org/10.1787/9789264201156-en>, Table IV.3.24.

in rural areas have remained steady between 2005 and 2013 (around 13 students per class), but have dropped to 11.4 students per class in 2015; class sizes in urban areas have steadily dropped over the same period (23.3 students in 2005; 21.2 students in 2013; 20.6 students in 2015) (NASE, 2015, Figure 5.2).

## Notes

1. The June 2011 law gradually increases the statutory retirement age from 62.5 to 65 years for men and from 60 to 65 years for women. From 2012 until 2026, each year the retirement age increases by two months for men and by four months for women (European Commission, 2015b).
2. On the PISA 2012 mathematics assessment, Lithuanian students' mean performance was 479 points, significantly below the OECD average (494). However, an adjustment for per capita GDP and for expenditure per students would bring this to 491 points and 492 points respectively (OECD, 2014a, Table 1.2.27).

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## ANNEX 1.A1

*Data for Chapter 1*Table 1.A1.1. **Lithuanian student performance in international comparison, Years 4 and 8, 2011**

Results from the Trends in Mathematics and Science Study (TIMSS 2011)

Indicator	Area tested	Lithuania	International average
Percentage of students at the High benchmark	Mathematics (Year 4)	43	28
	Science (Year 4)	31	32
	Mathematics (Year 8)	29	17
	Science (Year 8)	33	21
Percentage of students at the Advanced benchmark	Mathematics (Year 4)	10	4
	Science (Year 4)	4	5
	Mathematics (Year 8)	5	3
	Science (Year 8)	6	4
Gender performance difference (girls minus boys)	Mathematics (Year 4)	1	1
	Science (Year 4)	1	2
	Mathematics (Year 8)	9	4
	Science (Year 8)	8	6

Sources: Martin, M.O. et al. (2012), *TIMSS 2011 International Results in Science*, [http://timssandpirls.bc.edu/timss2011/downloads/T11\\_IR\\_Science\\_FullBook.pdf](http://timssandpirls.bc.edu/timss2011/downloads/T11_IR_Science_FullBook.pdf); and Mullis, I.V.S. et al. (2012), *TIMSS 2011 International Results in Mathematics*, [http://timssandpirls.bc.edu/timss2011/downloads/T11\\_IR\\_Mathematics\\_FullBook.pdf](http://timssandpirls.bc.edu/timss2011/downloads/T11_IR_Mathematics_FullBook.pdf).

Table 1.A1.2. **Student teacher ratios in international comparison, 2013**

Lower secondary education		Upper secondary education	
Turkey	19.3	United Kingdom	18.5
United Kingdom	18.5	Finland	16.0
France	15.4	Turkey	15.6
United States	15.4	United States	15.4
Japan	13.9	Ireland	13.9
Germany	13.6	Slovak Republic	13.6
Slovak Republic	12.5	Slovenia	13.5
Sweden	12.0	Germany	13.2
Italy	11.7	Sweden	12.8
Spain	11.6	Italy	12.6
Czech Republic	11.2	Hungary	12.0
Luxembourg	11.2	Japan	11.7
Iceland	10.5	Estonia	11.3
Hungary	10.4	Czech Republic	11.1
Portugal	10.4	Poland	11.0
Poland	9.9	Spain	11.0
Estonia	9.8	Norway	10.3
Norway	9.8	Latvia	10.2
Belgium	9.3	France	10.1
Austria	9.0	Austria	9.9
Finland	9.0	Belgium	9.9
Slovenia	8.2	Portugal	8.4
Latvia	7.8	Greece	8.1
<b>Lithuania</b>	<b>7.6</b>	<b>Lithuania</b>	<b>8.0</b>
Greece	7.3	Luxembourg	7.1
Denmark	..	Denmark	..
Ireland	..	Iceland	..
Netherlands	..	Netherlands	..

Source: Eurostat (2015a), *People at Risk of Poverty or Social Exclusion*, Eurostat statistics explained online database, [http://ec.europa.eu/eurostat/statistics-explained/index.php/People\\_at\\_risk\\_of\\_poverty\\_or\\_social\\_exclusion](http://ec.europa.eu/eurostat/statistics-explained/index.php/People_at_risk_of_poverty_or_social_exclusion).





## Chapter 2

# Governance of schooling and the school network in Lithuania

*This chapter focuses on the framework of governance applied to schooling in Lithuania and on how the school network is organised. It looks at the oversight and management of the schooling system at government, municipality and school level and considers how the network of schools is configured and, importantly, how that network is reviewed and reorganised to respond to demographic changes. It considers the strengths and challenges inherent in the current system and makes policy recommendations designed to improve the governance of how resources are used effectively.*

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## Context and features

This section considers the following aspects: the strategic importance of education; the governance of schooling; the impact of the economic crisis on funding for education; the demographic context; the changing shape of the school network.

### **Strategic importance of education**

Legislation governing the provision of education in Lithuania was amended in 2011<sup>1</sup> and contains, in its opening article, an updated and unambiguous statement of the importance of education to Lithuanian societal development (see Box 2.1).

#### **Box 2.1. Republic of Lithuania Law on Education: Article 1**

Education is an activity intended to provide an individual with a basis for a worthy, independent life and to assist the individual in the continuous cultivation of abilities. Every person has an inherent right to learn. Education is a means of shaping the future of an individual, the society and the State, based on the acknowledgement of the indisputable value of the individual, his right of free choice and moral responsibility, as well as on democratic relationships and the country's cultural traditions. Education protects and creates national identity, guarantees continuity of the values that make a person's life meaningful, grant social life coherence and solidarity, and promote development and security of the State. Education serves its purpose best when its advancement leads the overall development of society. Education is a priority area of societal development that receives State support.

### **A National Strategy for Education**

The new Law on Education and supporting national strategic documents set clear goals for Lithuania's schooling system and ensure the provision of pre-primary, primary and secondary education that is free of charge and universally available to all children. The Law also requires the development of a National Education Strategy by the Ministry of Education which covers a period of ten years. The strategy must be presented by the government to the *Seimas* (the Lithuanian Parliament) for confirmation and must be reviewed at least every four years.

The current National Strategy covers the period from 2013-22. As well as including a commitment to increase the level of investment from public funds in education, it focuses on education as a foundation for the future.

### **Governance of schooling**

The structure of governance in Lithuania is discharged at three key levels: by the Ministry of Education and Science; through the 60 municipalities; and at the level of the individual school.

### **Ministry of Education and Science**

The role of the Ministry of Education and Science can be described as shaping public policy in the schooling system and organising, co-ordinating and controlling its implementation. It approves national education documents including the general education plan and curricula and the school leaving (*Matura*) examination programmes. It is also responsible for the accreditation of the secondary education curriculum and for ensuring that schools comply with the requirements for this.

Under legislation, the Ministry carries responsibility and accountability at system level for the quality of education and for the supervision of the system to ensure accessibility, external evaluation, promotion of education improvement and provision of advice and sanctions. The Education Minister reports to the Prime Minister and is accountable to the *Seimas* on the effectiveness of the Lithuanian schooling system.

The Ministry of Education and Science also receives and is accountable for distributing the funding determined for schooling from the overall state budget and funding provided from EU Structural Funds for school-level education.

### **Municipalities**

The sixty municipalities in Lithuania play a key role in overseeing the provision of education within their areas. As well as implementing national education policy, they must develop and approve complementary strategic education plans for their municipality and ensure the provision of a network of schools that meets the educational needs of their area. Municipalities also carry specific responsibility for the education of children with special education needs and for the provision of other education-related services including transport, catering, informal education and professional development and other support for teachers. Municipalities may set up education councils to promote participation in the development of the municipality education policy and to oversee the implementation of the policy.

### **Schools**

While most schools are subordinate to municipal governments, they too carry their own governance responsibilities. The new Education Law makes clear that “the quality of education shall be the responsibility of the education provider” (i.e. the school). The new law also promotes very clearly the importance of self-governance at school level and the particular role of the school council as the highest self-governance body at school level. The school council is an elected body representing the interests of learners, teachers, parents and the local community and is required to account for its activity to the members of the school community who have elected the council.

### **National agencies**

There are other national agencies that play an important role in education in Lithuania. These include two with particularly important contributions to the governance of schooling:

- The National Agency for School Evaluation (NASE) oversees a national programme of self-evaluation of school performance quality; organises and co-ordinates the process of school performance external evaluation; provides data for education monitoring;

conducts the selection, training and certification of external experts to conduct external evaluation of school performance quality; performs works of education policy analysis to support political decision-making.

- The National Examination Centre (NEC) organises final examinations on completion of basic and secondary education curricula, credit passes, examinations of knowledge of the official language and fundamentals of the Lithuanian Constitution, conducts national and international comparative research on student achievements and provides information on such research findings. After completion of the secondary education programme, students take the *Matura* examinations and must pass two: a compulsory examination in the Lithuanian Language and Literature and an elective examination, but students can choose to take up to five different subjects. Examinations are recognised as the primary entrance examinations for higher education.

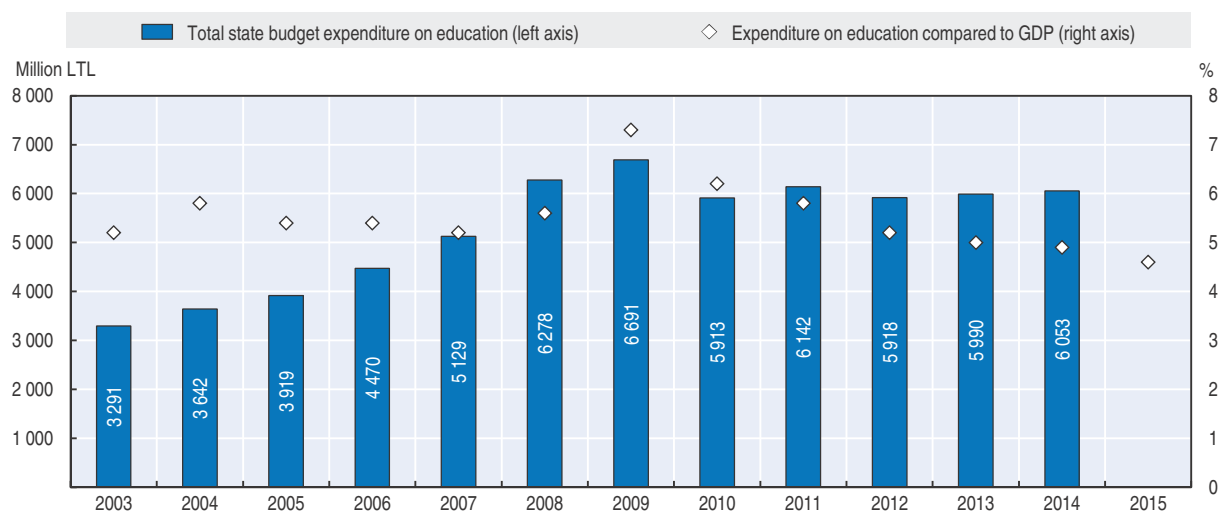
Additionally, the National Audit Office provides occasional independent scrutiny of the Ministry's activities through its performance audits.

### **The economic crisis had significant impact on funding for education**

Funding for school-level education in Lithuania (excluding funding provided by external organisations such as the European Union) comes from two main sources: appropriations from the state budget and amounts made available from municipal budgets. The total amount of funds allocated to education in Lithuania increased year-on-year in cash terms until 2009. In 2009 the allocation to education and science was the largest during the overall history of the independent state (LTL 6.691 million) and the largest amount in comparison to GDP (7.3%).

However, in 2010, with the economic downturn and an associated and challenging public expenditure climate, the overall budget for education decreased. From 2010 to 2014, the overall allocation has remained reasonably stable; however, as the economy recovers, the relationship between state education expenditure and GDP decreases every year (Figure 2.1). The current figure proportionate to GDP is more in line with the target of 4.8%

Figure 2.1. **Financing of education in 2003 to 2015**



Note: In 2015, Lithuania adopted the euro as currency.

Source: NASE (2015), *OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for Lithuania*, National Agency for School Evaluation, [www.oecd.org/edu/school/schoolresourcesreview.htm](http://www.oecd.org/edu/school/schoolresourcesreview.htm).

set in the government's programme to ensure financial sustainability of the public sector in 2020 (see Chapter 1, Table 1.1). These wider policies for financial sustainability are at odds with the higher targets set within the National Education Strategy 2013-22 (to equal at least 5.8% of GDP in 2017 and 6% of GDP in 2022) (NASE, 2015).

While it is important to note that, because of the significant decreases in the school-age population (see below), education funding per student is actually growing, it is also relevant to consider that public expenditure per student remains one of the lowest among EU countries and cumulative expenditure per student up to age 15 is lower than in almost all OECD countries (Figure 1.4 and Table 1.4).

In 2014, the overall allocation from the state budget for education was EUR 1.75 billion (4.9% of GDP). In 2014, school-level education (ISCED (International Standard Classification of Education) Levels 1 to 4) received EUR 819 000 (46.7% of the total national budget on education). This breakdown is provided in Table 2.1. Chapter 3 deals in more depth with how this level of funding is allocated and accounted for at municipality and school level.

Table 2.1. **Expenditure of Lithuanian national budget on education, by level of education, 2014**

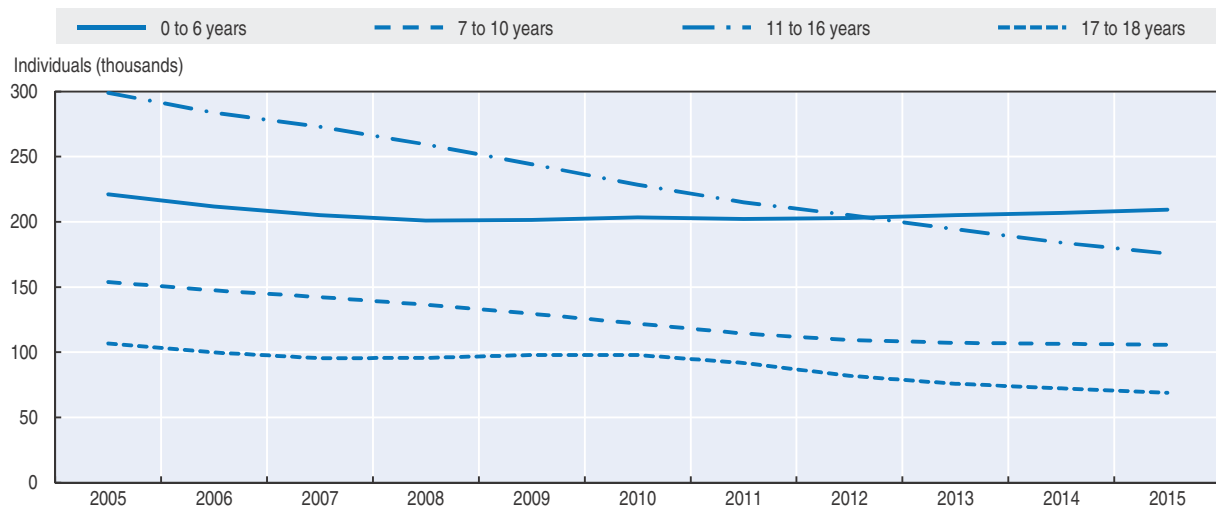
Level of education	Expenditure (EUR, thousands)	Percentage of total expenditure
Pre-school education (ISCED 0)	225.7	12.9
General education (ISCED 1, 2, 3)	729.6	41.6
Vocational education (ISCED 2, 3, 4)	89.6	5.1
Tertiary education (ISCED 5 and 6)	226.2	12.9
Other (non-formal education, etc.)	482.0	27.5
<b>Total</b>	<b>1 753.1</b>	<b>100.0</b>

Source: Statistics Lithuania (2015), *Švietimas 2014 (Education 2014)*, <http://osp.stat.gov.lt/services-portlet/pub-edition-file?id=18138>.

### **Demographic changes have presented considerable challenges to the school network**

As noted in Chapter 1, Lithuania has experienced a very significant level of demographic decline over the past 20 years. During its visit, the review team heard countless examples of the impact of demographic decline at state, municipality and individual school level. These examples are borne out by official statistics – for example, a decline of 12.6% in the overall population of Lithuania during the period between the 2001 census and the 2011 census. In comparison with trends in the school population overall in OECD and EU countries, the drop in the number of children is particularly stark in Lithuania (Figure 1.2).

As can be seen in Figure 2.2 and Table 2.2, the population decline has been across all school-age groups and has impacted the numbers of students in all school years from primary through to upper secondary education. Over the past 10 years, the drop in the population aged 11 to 16 has been particularly acute (Figure 2.2) and this has presented significant challenges to schools providing lower secondary education, notably, basic schools and secondary schools. There are half as many students in Years 6, 7 and 8 in 2015/16 compared to in 2004/05 (Table 2.2). Furthermore, a steady decline in the primary education age group (7 to 10 years) indicates that the pressure on lower secondary provision will continue (Figure 2.2). Overall, the dramatic decline in school-age population has presented significant governance challenges for those charged with planning, funding and providing quality school-level education.

Figure 2.2. **Evolution of the school-age population, 2005-15**

Source: Statistics Lithuania (2015), *Švietimas 2014 (Education 2014)*, <http://osp.stat.gov.lt/services-portlet/pub-edition-file?id=18138>.

Table 2.2. **Change in number of students in Years 1 to 12 from 2004/05 to 2015/16**

	Students in 2004/05	Students in 2015/16	Change in number of students	2015/16 numbers as a proportion of 2004/05 numbers
Year 1	38 190	29 438	-8 752	0.77
Year 2	41 604	27 409	-14 195	0.66
Year 3	42 322	26 688	-15 634	0.63
Year 4	43 653	26 659	-16 994	0.61
Year 5	47 234	26 601	-20 633	0.56
Year 6	52 854	26 919	-25 935	0.51
Year 7	54 040	26 675	-27 365	0.49
Year 8	55 616	28 152	-27 464	0.51
Year 9	54 226	29 624	-24 602	0.55
Year 10	56 073	32 161	-23 912	0.57
Year 11	45 268	26 793	-18 475	0.59
Year 12	43 112	27 453	-15 659	0.64

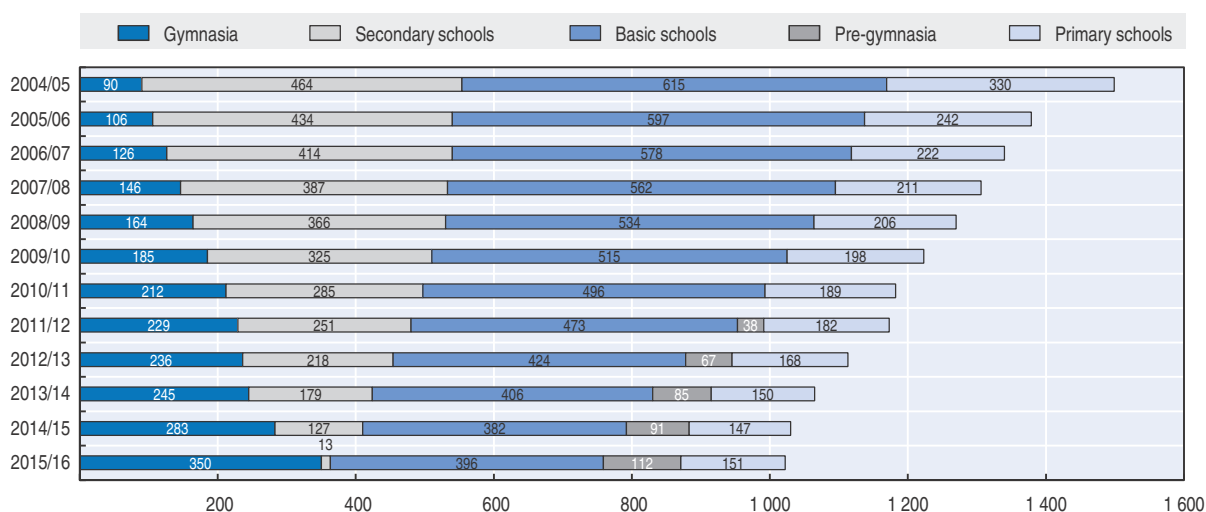
Source: Data from the Lithuanian Education Management Information System (EMIS).

### **Initiatives to reform the school network**

One of the consequences of the decline in the school-age population in Lithuania has been the need to reorganise the pattern of school provision to ensure that all children can have access to quality education in reasonable proximity to their homes and in a manner that delivers value for money.

Reorganisation of the school network at local level has become a significant challenge for many municipalities in a context where public expenditure is constrained. The new Education Law places responsibilities on municipalities to have in place an optimal network of schools. This ensures the continuation of a process that was initially piloted in six municipalities and then taken forward in earnest in 2005 and that has required the development and agreement of initial plans within all 60 municipalities. Since 2004/05, there has been considerable reorganisation of general education schools within the school network (Figure 2.3).

Figure 2.3. Changes to the school network from 2004/05 to 2015/16



Source: Ministry of Education and Science (2015), *Lietuva Svetimas Regionuose Mokykla 2015 (Lithuanian Regional School System 2015)*, Svetimo Aprūpinimo Centras, Lietuvos Respublikos švietimo ir mokslo ministerija, Figure 1.

At a strategic level, the Ministry of Education and Science determined in 2011 that the structure of general education should be reformed with a focus on four types of school: primary school; pre-gymnasium; basic school; and gymnasium. The intention was that the “secondary school” category would cease to exist from September 2015; however, this was delayed until 1 September 2017. There has been significant progress toward this goal (the reorganisation of 272 secondary schools over the last 6 years), including 114 secondary schools in 2014/15 (Figure 2.3). In 2015/16, 13 secondary schools remain in operation. Among the municipalities visited by the OECD review team in 2014, Vilnius City operated 22 secondary schools, Vilnius District operated 16 secondary schools, Šiauliai City operated 2 secondary schools and Klaipėda and Rietavas each operated 1 secondary school.

As part of the reorganisation of “secondary schools”, there has been an expansion of the school type “Gymnasium” (260 new *gymnasia*) and the creation in 2011/12 of a new school type “Pre-gymnasium” (these numbered 112 in 2015/16). Since 2004/05, 451 secondary schools were reorganised into *gymnasia*, basic schools or pre-gymnasium. At the same time there has been significant reorganisation of primary schools and basic schools: 219 basic schools were reorganised into pre-gymnasium, gymnasium or a basic or primary education unit within a secondary school; 179 primary schools were either reorganised as a gymnasium, basic school or a primary unit within a pre-gymnasium or closed (Ministry of Education and Science, 2015). As a result, the total number of general education schools has dropped from 1 499 in 2004/05 to 1 022 in 2015/16 (Figure 2.3).

The reorganisation of the school network takes place within a set of Rules for establishing a network of schools implementing formal education programmes (see NASE, 2015, Appendix 5 for more details). These rules set the parameters within which municipalities are expected to advance reform of their school networks. To deal with the particular challenges experienced in rural areas, the government has set out priority measures that address the preservation of small primary schools in rural areas and concerns about safe transportation to school. These priorities also seek to ensure that an overriding factor in advancing school network reform must be quality of service and that decisions should not be influenced by purely economic factors.

As part of the proposal to phase out “secondary schools”, an accreditation process has been put in place to determine whether existing secondary schools that wish to transform to become *gymnasia* can meet the more rigorous requirements of the curriculum at Years 11 and 12. Conditions are set for the average number of students studying in secondary education programmes and the number of classes at Years 11 and 12. Thresholds vary, however, depending on the population that a school is serving (for example rural or urban; border area; language of instruction). Schools must meet these requirements before they can be designated as a *gymnasium*.

In summary, significant progress has been made, but the challenge of delivering further rationalisation of school provision remains and is explored in more detail below.

### **Commitment to support educational provision in minority languages**

A notable feature of the school network in Lithuania is a commitment to support an offer of instruction in a minority language. Eleven per cent of general education schools offer instruction in a minority language. The two largest national minorities (Polish and Russian) form the lion’s share of minority-language instruction schools (Table 2.3). All minority-language schools must teach the Lithuanian language as a subject, as well as offering History and Geography instruction in Lithuanian.

Table 2.3. **General education schools offering instruction in a minority language, 2013/14**

Language of instruction	Number of schools
Polish	54
Russian	33
Lithuanian and Russian	13
Lithuanian and Polish	10
Russian and Polish	9
Lithuanian, Russian and Polish	6
Lithuanian and English	4
English	2
Belarusian	1
French	1

Source: Statistics Lithuania (2015), *Švietimas 2014 (Education 2014)*, <http://osp.stat.gov.lt/services-portlet/pub-edition-file?id=18138>, Table 5.7.

### **Provision of education for students with special educational needs**

Parents are free to decide on how to educate their child and whether to enrol their child in a mainstream school, in a special school (e.g. providing adapted education for children with physical disabilities or cognitive impairment) or in a school providing specialised education (e.g. for children with talents for arts or sports). One of the government’s basic conditions for establishing a school network is to create conditions for students with special needs to attend a school which is close to their place of residence. The Law on Education includes four categories of special educational needs according to the nature and duration of educational difficulties: minor, moderate, major and severe.

In Lithuania, a special school (*Specialioji mokykla*) is defined as one that caters to students with major and severe special educational needs. Students attending special schools do not generally attend classes in mainstream schools. Mirroring the rationalisation in the school network, the number of special schools has dropped from 61



in 2005 to 47 in 2015 (Lithuanian Education Management Information System – EMIS) and between 2010 and 2015 the average number of students in a special school has increased by 12 students (Ministry of Education and Science, 2015). Twenty-six of the 47 special schools are for students with intellectual disabilities (Ministry of Education and Science, 2015, Table 19). There is great diversity in the type of provision in special schools. While the average number of class sets in a special school is 11, this varies from 4 or 5 class sets in five schools, to over 20 class sets in three schools (Ministry of Education and Science, 2015, Figure 17). In 2014, the expenditure per student in special schools was EUR 4 024.6.

Since 2011, general education schools are obliged to provide the necessary educational assistance for a variety of student learning needs. All mainstream schools providing compulsory general education are expected to offer education to children with special educational needs. Schools use adapted curricula and may employ special educational needs teachers, psychologists and social pedagogues. Municipal psychological pedagogical services provide assistance to general education schools and teachers, including informing and training school staff and providing consultation services. Schools also organise transportation for students in specially adapted buses. Where appropriate, the educational environment is adapted and special learning and technical assistance tools are provided. In the per capita funding system (the student basket), additional funding is provided for a child with special educational needs to help the school organise the necessary provision (see Chapter 3). National rules set limits on the number of students with “major or severe” special educational needs in general education classes to no more than three. Also, each student with special educational needs is counted as two students, so for example, one student with special educational needs would mean that there could be at most 22 other students in a primary education class in order to respect the maximum number of 24.

Since 2011, the overall number of students with special educational needs has decreased, but the proportion enrolled in special schools has increased slightly (from 8.3% in 2011 to 9.4% in 2015) (EMIS).

## Strengths

### ***At national level the strategic importance of education is recognised***

Official documentation, notably the Education Law and the Education Strategy 2013-22, recognises the strategic importance of education for the future wellbeing and prosperity of individual citizens and of the nation as a whole (see also Box 2.1). During the review visit, interviews with stakeholders also underlined the key importance of education to Lithuania’s future development. There is clear recognition of the value of primary and secondary education and of the need to ensure that the curricula followed at all stages of compulsory education are relevant in the 21st century. In common with many other EU nations, the curricular requirements for primary and basic education and for secondary education have been revised in recent years to ensure a focus not solely on knowledge acquisition but on the development of competencies and attitudes and on thinking skills and creativity. Pathways are being developed for young people; these include options in vocational training which are increasingly recognised as being important for the future economic wellbeing of the nation.

***There is distributed responsibility for governance, with a role for all principal actors***

One of the characteristics of the education system in Lithuania is the existence of a model of distributive governance. While it is clear that the Ministry of Education and Science carries overall accountability for developing strategy and overseeing policy and for the performance of the education system, responsibility and accountability for the quality of schooling in an area and for the outcomes that students achieve also rest with municipalities and with schools themselves.

As a result, municipalities and individual schools also carry a significant degree of autonomy – they can take decisions at local and school level in order to deliver improvement. This is an important strength and can help ensure that there is an understanding of how schooling contributes to the wider social and economic wellbeing of communities, families and individuals. Compared internationally, Lithuanian school leaders report higher levels of autonomy in school resource allocation and in assessment and curriculum policies (Annex 2.A1, Tables 2.A1.1 and 2.A1.2). Notably, compared to in the OECD on average, Lithuanian school leaders have much greater autonomy over selecting and firing teachers and play a greater role in determining teachers' salaries (four out of five reported having some responsibility for this, compared to only one out of four internationally) (Table 2.A1.1b).

In the meetings it had with schools, the OECD review team noted the value that school communities placed on local decision-making in areas such as expenditure, staffing and curriculum delivery, self-evaluation and on matters such as the nature of professional development for teachers. It also noted the model of governance represented by the school council and the inclusive nature of this model which includes representatives from the school staff, parents, the local community and, importantly, the students themselves.

The school council representatives that the OECD review team met talked passionately and knowledgeably about their role and responsibilities, highlighting the importance of ensuring connections between the school and the community it served and the value there was in ensuring that different perspectives were articulated before final decisions were made on how best to deploy available resources.

***Commitment to equity and evidence of some core efficiencies within the school system***

A notable feature of the strategic vision for education in Lithuania is its focus on inclusion and access. The education legislation passed in 2011 makes specific provision to ensure that students from socially disadvantaged backgrounds and those with special educational needs can access education and also contains protections for those from national minority-language backgrounds that are designed to ensure that they can receive instruction both in Lithuanian and in their native language. A comparatively low proportion of Lithuanian students are educated in segregated settings, as the provision in special schools is only for students with major and severe special educational needs. Given the significantly higher costs of segregated education, this is an important efficiency challenge in many countries. Siewecke (forthcoming) finds that, although there are few studies and mainly in the United States, evidence on integration reveals slight positive effects both academically and socially for students with mild special educational needs and no adverse effects on other students – although there is some variation among schools, so wider school organisational aspects play an important role.

Some characteristics that research (OECD, 2012) shows militate against equity are not notable features of the school system in Lithuania. The Ministry's data (NASE, 2015, Table 2.7) points to low levels of school year repetition (see also Chapter 1). Policies to make students repeat a school year are very costly and play against equity. Assuming that repeaters would obtain a maximum of lower secondary education, analysis of PISA 2012 results indicates that costs in systems with higher rates of repetition could amount to around 10% of the annual national expenditure on primary and secondary school education (OECD, 2013a, Figure IV.1.5). Additionally, only a minority of students did not successfully complete secondary education (Ministry of Education and Science, 2015). The share of early leavers from education and training in Lithuania (6.3% in 2013) compares favourably with the benchmark of "less than 10%" set by the EU in Education and Training 2020 (ET2020) and with the EU average in 2013 of 12.0% (European Commission, 2014). While policy makers in Lithuania remain committed to reduce this further, this is a positive indicator of relatively high efficiency, with respect to limited waste of the educational opportunities offered to and the instructional investments made in students.

Another encouraging trend indicating greater equity is that the percentage of young people aged between 18 and 24 without upper secondary education and not studying is falling – from 8.7% in 2009 to 5.9% in 2014 (Statistics Lithuania, 2015).

### ***Emerging culture of school evaluation for improvement***

At a strategic level, there is a good understanding of the importance of evaluation in informing improvements in education.

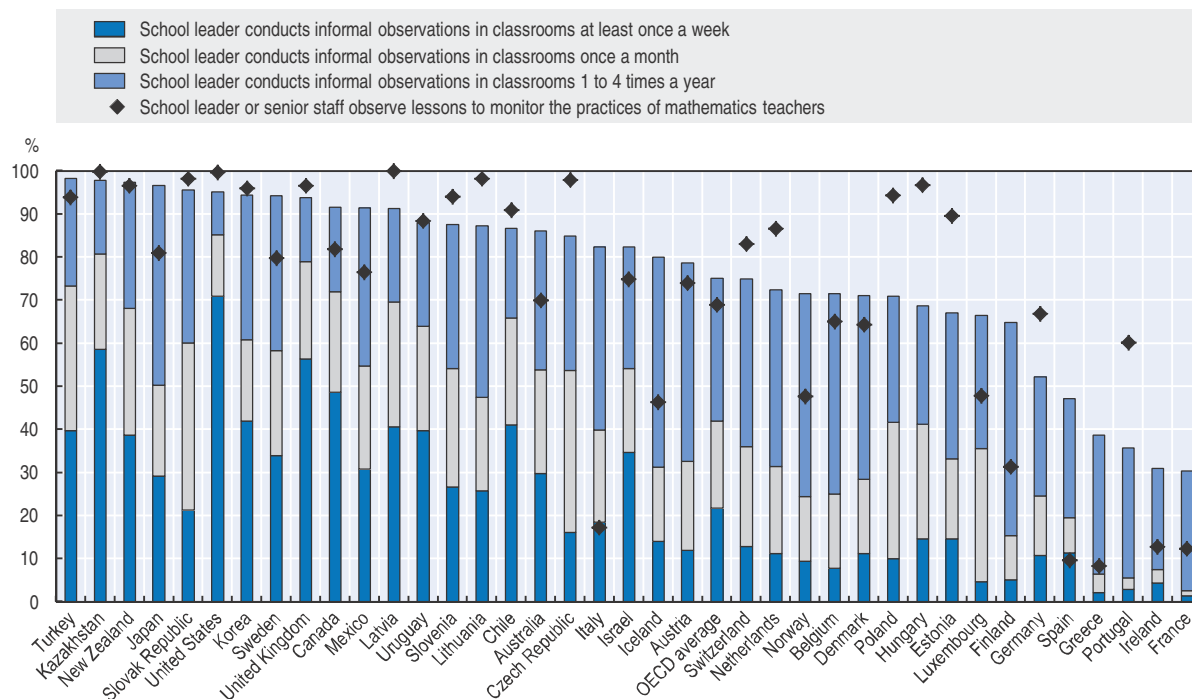
The relationship between evaluation and improvement is highlighted in Education Law – the 2011 law makes clear the role of self-evaluation and external evaluation in helping to improve education quality and places particular responsibility on schools to ensure that self-evaluation takes place. This reflects a broad trend in European countries to introduce requirements for self-evaluation at the school level (OECD, 2013b). Certainly, school leader reports in PISA 2012 indicate that virtually all participating Lithuanian schools had self-evaluation in place and systematically recorded key data on teacher and student attendance, student test results and graduation rates and teachers' professional development (Annex Table 2.A1.3). Similarly, school leader reports indicate a relatively intense use of student assessment data for many purposes, including notably, monitoring the school's progress from year to year (Annex Table 2.A1.4).

Also, there is evidence from PISA 2012 that classroom observation is a broadly established feature in Lithuanian schools, whether conducted by the school leader or senior staff (Figure 2.4). Classroom observations that focus on providing constructive feedback to teachers on how to improve the quality of teaching and learning are a critical element of an effective self-evaluation culture (OECD, 2013b).

In its meetings with the Ministry and with the National Agency for School Evaluation, the OECD review team identified a clear and nuanced understanding of the particular role of external evaluation in supporting school-led self-evaluation for improvement. The model of external evaluation that has been developed starts with a goal of promoting good quality self-evaluation that builds on a school's own self-evaluation and leads to improved outcomes for students. It also recognises the importance of recording success stories and sharing good practice.

Figure 2.4. **School leader reports on classroom observation (PISA 2012)**

Percentage of students in schools where the school leader reported the following:



Source: OECD (2013a), PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices, <http://dx.doi.org/10.1787/9789264201156-en>, Table IV.4.34 and PISA 2012 Student Compendium, Question ID SC34Q19, <https://pisa2012.acer.edu.au/downloads.php>.

The current model of operation (NASE, no date) is based on all schools being externally evaluated on a 7-year cycle and against a framework which has five key areas of focus (see Table 2.4), each supported by a number of key themes and supporting indicators.

Table 2.4. **Framework of general school evaluation methodology, 2009**

Evaluation area	School culture	Teaching and learning	Achievements	Support for students	School strategic management
22 evaluation themes, for example:	1.1. Ethos	2.3. Quality of teaching	3.1. Progress	4.2. Pedagogical, psychological and social support	5.1. School strategy
67 indicators, for example:	1.1.1. Values, standards of conduct, principles 1.1.2. Traditions and rituals	2.3.1. Teaching approach and techniques 2.3.2. Relation between teaching and living	3.1.1. Individual students' progress 3.1.2. School progress	4.2.1. Learning support 4.2.2. Psychological support	5.1.1. School vision, mission and objectives 5.1.2. Planning procedures

Note: The table presents a random selection of evaluation themes and indicators.

Source: NASE (no date), *Basic Information and Data*, National Agency for School Evaluation, Vilnius.

The OECD review team was encouraged to note that, when schools are evaluated as part of these arrangements, they receive feedback on both strengths and areas for improvement and that, after the evaluation is completed, the expectation is that the school itself will take responsibility for acting on the findings from the evaluation. Importantly, however, students' interests are protected through the annual follow up that takes place if external evaluation assesses quality in any of the five areas of focus as being less than

satisfactory and through the follow up evaluation that should take place after three years if only a “satisfactory” assessment is received in any of the areas of “teaching and learning”, “achievements” or “school management”.

Subsequent to the OECD review, the Minister of Education and Science approved an Action Plan for Quality Culture Development which should be fully implemented by 2022. This goes further in strengthening the accountability of the school community and strengthening evaluation and monitoring.

### ***Increased national recognition and support for pre-primary education***

There is a clear recognition of the importance of early childhood development and a corresponding commitment to providing opportunities for learning from the earliest years – pre-school education, while not compulsory, is widely available for children from birth to six years of age and is provided in settings including state and private kindergartens and according to dedicated pre-school and pre-primary curricula. A compulsory year of pre-primary education for 6-year-olds will be introduced in 2016. Parents also receive information on early childhood development and can access special educational or psychological assistance from the earliest stages. Pre-primary education is provided free of charge to 6-year-olds in the year before they reach compulsory school age and has a high enrolment rate (93.4% of eligible 6-year-olds in 2014 [EMIS]).

The OECD review team was advised that plans are in place to extend the availability of pre-school education, particularly in areas where there is a shortage of places to meet demand, and consideration is also being given to funding extended duration of pre-school and pre-primary education (from four hours per day to eight hours). Additionally, the 2015 national budget provided an uplift of 10% in the salaries for pre-school and pre-primary teachers in recognition of the importance of having highly skilled and motivated professionals delivering early years education. The budget provides additional funding from September 2016 to fund a compulsory year for pre-primary education (EUR 1.448 million) and for renovating and adapting early childhood education premises (EUR 1.738 million). Also, new funding will be provided for transporting children to school and pre-school, with both European Structural Fund investment (EUR 1.248 million) and a state budget allocation (EUR 1.7 million). This aims to address one of the key findings in an EU funded research project carried out by the Education Supply Center in 2012-13 that a lack of appropriate transportation services was one of the main reasons for low participation rates in pre-primary education in rural areas.

### ***Investment to support the greater integration of students with special educational needs***

During the country visit, the OECD review team saw evidence at national, municipal and school level of the particular commitment to ensuring the inclusion of students with special educational needs. The Ministry explained that, in 2015, 91% of students with special educational needs were enrolled in general education schools and the municipalities visited provided additional information on how those students, and the students in special classes in mainstream schools (8%) and in special schools (1%), were supported by schools and by dedicated pedagogical psychologists, speech and language therapists and other professionals. The number of special education schools fell from 67 in 2008/09, to 60 in 2012/13, and stood at 47 schools in 2015/16 (NASE, 2015, Appendix 5, Table 1 and EMIS).

There has been considerable investment in support structures for students with special educational needs, notably funding allocated as part of the EU Operational Programme for Promotion of Cohesion 2007-13. Over that period, LTL 34.3 million was spent on upgrading the facilities of municipal pedagogical psychological services and the working environment for specialist support staff within schools (NASE, 2015, Table 4.5). In 2013, 4 259 pedagogical support staff were employed in general education schools (NASE, 2015, Figure 4.8).

There is also evidence of progress in adapting early childhood education and care provision to better fit the special educational needs of some children. For example, 88% of municipalities report that they organise integrated support for children with special educational needs – this is 2.5 times more than reported in 2012.

### **Action for structural reform to the school network has helped to limit the decline in cost-effectiveness**

The need for reform of the school network in Lithuania is clearly recognised and action to deliver structural reform is well underway. The demographic changes outlined above and in Chapter 1, coupled with the aspirations of the government to deliver improvements in the quality of school-based education in Lithuania and the need for there to be a clear focus on affordability and value for money, present a compelling case for change to how the pattern of school provision across the country is planned and delivered.

Throughout its visit, the OECD review team received numerous examples at national and local level of how shifting demographic changes and the requirement to deliver the best possible quality within constrained financial resources were driving reform of the school network. It was clear to the team that the case for reform was well understood at all levels within the education system.

It was equally clear that this need for reform was being translated into action. Statistics provided by the Ministry of Education and Science to the review team (see Table 2.5) show that the number of municipal schools has reduced from 1 429 in 2005 to 1 107 in 2015. In light of the significant demographic challenges with 39% fewer students in 2015 than in 2005, the reform efforts over the past ten years have helped to limit the inefficiencies of running a system with too many empty school places. While the student/teacher ratio stood at 11.6 in 2015, without structural reforms to the municipal school networks this would have been as low as 8.4 (assuming the 2005 number of teachers remained constant). The impact of the school network reform is also illustrated by the fact that the relative decline in average class size has been slower than the relative decline in number of students over the period 2004/05 to 2014/15 (Ministry of Education and Science, 2015, Figure 4).

Table 2.5. **Municipal schools and population data**

	Number of schools		Number of students		Number of teachers		Student/teacher ratio	
	2005	2015	2005	2015	2005	2015	2005	2015
Numbers	1 429	1 107	523 939	317 831	37 668	27 140	13.9	11.6
Index of change 2015 (2005 = 100)		0.77		0.61		0.72		0.84

Source: Data from the Lithuanian Education Management Information System (EMIS).

### **Clear national documentation with data, models and analytics to support school network reform**

The OECD review team consulted a set of national documentation with a rich array of data, analytics and models that had been prepared to support school consolidation initiatives. The Ministry of Education and Science prepared “Recommendations for Establishing a Network of Schools” which was a large volume including national guidelines for municipalities. An important supporting document was the “Workbook for municipalities” that the Ministry piloted initially with six municipalities and then incorporated examples from the pilot municipalities into an official publication. The guidelines and workbook, once finalised, formed an important pillar of the school network reform. The Ministry also prepared sample plans for school network reform that municipalities could use as a basis for their planning.

In developing these publications, the Ministry collected a rich set of data, with a notable initial challenge being to pull together comparable data on student achievement. The outcomes data is now enriched with results of standardised tests run by the National Examination Centre, which are used to compile different indicators for municipality and school comparison. These data-rich publications were a key resource in negotiating politically difficult times with different municipalities and defending the need to stick to the municipal school network reform plans. Reliable and sufficient data were critical to inform public consultation and to communicate the key principles of the school network reform.

### **Home to school transport arrangements are recognised as integral to school network reform**

A further strength in relation to structural reform in Lithuania is the level of understanding of the need for assurance to parents and communities about the safety and wellbeing of students who may, as a result of rationalisation, have to travel further to reach their nearest school. This is a fundamental factor that is typically overlooked in considering the costs and benefits of school consolidation (Ares Abalde, 2014) and it is a considerable strength that the Ministry of Education and Science has recognised the importance of safe and reliable transport in these circumstances. It is worth noting that the Programme of Government (December 2012) also contains (paragraph 173) a specific commitment to “guarantee safe transportation for every child living in a village which is more than 3 km away from the nearest school, as well as every child with special education needs, who has difficulties getting to school”.

Supported through EU Structural Funds, the Ministry has invested significantly in increasing the size of the school bus fleet across Lithuania. The review team was told that the Ministry has been purchasing school buses for municipalities since 2000 and that, between 2000 and 2014, almost 700 buses have been purchased with a further 150 bus purchases planned in the next three years.

During the OECD review, in conversations with municipalities and, particularly with school leaders and students themselves, it was clear that this investment has done much to ease the transitions that result from school network reform and to improve access for young people, not only to school but in relation to extracurricular activities.

**There is some evidence, at municipality level, of clear and decisive strategic leadership**

The role of the sixty municipalities in delivering education is explained above. It is clear that the particular and complex challenges that demographic change places on municipalities requires strong, strategic leadership to ensure that the pattern of school provision is capable of delivering a high quality learning experience for all students.

During its visit, the OECD review team met with several municipalities and noted the different approaches being taken. Kėdainai District runs a network of general education schools with three main school types: primary schools, basic schools and *gymnasia*. In 2010/11, it operated 30 general education schools for 7 803 students. While the number of students had decreased to 6 187 students in 2014/15, Kėdainai District had reorganised its network to include 20 general education schools. The average school size, therefore, had increased from 260 students in 2010/11 to 309 students in 2014/15. Perhaps not surprisingly, the team observed that the most effective progress was being made in areas where there was a clear vision for education and a corresponding focus on quality; an understanding of the local dynamic and of the needs and aspirations of the community; a clear plan of action; and a determination to ensure that the best educational interests of children and young people were put to the fore. This combination of features is effectively illustrated in the example of Šiauliai City (see Box 2.2).

**There is evidence of innovative thinking in relation to some aspects of school network reform**

The OECD review team was impressed to see some examples of innovative and collaborative thinking in responding to the challenges presented by the need to rationalise school provision. One example was the investment in multi-function centres (*daugiafunkcis centras*) in isolated rural areas by some municipalities. These multi-function centres bring together kindergarten/day care with pre-primary and primary education and a community facility under a single management structure. Funding has been provided from EU Structural Funds to assist in the development of these centres. In 2015, 11 municipal primary schools and 40 municipal basic schools were operating as part of a multi-function centre (Chapter 1, Table 1.6).

The primary purpose is often to address issues of quality and accessibility of public services and reduce exclusion and rural isolation. This integrated approach allows for the benefits from economies of scale and collaboration which a small, isolated primary school could not, on its own, provide. It also provides the opportunity to better align pre-primary and primary education – a concern that had been picked up in an EU funded research project in 2012. The example below captures some interesting features.

**Revised funding mechanism to support non-formal education provision**

The current approach to provision of non-formal education in Lithuania is a mix of activities offered by students' regular school and activities offered by specialised non-formal education schools (e.g. sports, music or fine arts). Typically, students can attend non-formal education activities at their schools free of charge. Both regular schools and specialised non-formal education schools receive public funding to subsidise the provision of different activities and classes. However, the budget for non-formal education was negatively impacted by the financial crisis with cuts over recent years, but with some additional funding included in the 2015 Budget. An audit of non-formal education during



### Box 2.2. Šiauliai City Municipality's school network reform

The OECD review team had the opportunity to visit and receive evidence from the mayor and officials from Šiauliai City Municipality. It was clear that the municipality attached considerable political importance to ensuring that students across the city had access to high quality education at all levels. In fact, Šiauliai invests more than any other municipality in teacher professional development (EUR 90.8 per teacher, compared to EUR 58.3 per teacher on average) (Ministry of Education and Science, 2015, Figure 13).

School network reform has been underway in the city since 2003 and the review team was told that the situation had changed radically over the past decade. Ministry of Education and Science statistics show the network has been reorganised to include three major school types providing mainstream education. This was a key starting point: Šiauliai City opted for a school network structure that would see younger children educated in primary schools and pre-*gymnasia* and progressing to *gymnasia*. In 2013, Šiauliai City operated 3 primary schools (with an average student-teacher ratio of 10.4), 14 pre-*gymnasia* (with an average student-teacher ratio of 11.2) and 9 *gymnasia* (with an average student-teacher ratio of 10.1). Also, two secondary schools remained in operation (with an average student-teacher ratio of 7.5) (although subsequent to the OECD review visit there are no longer any secondary schools). In addition to these 28 schools offering regular educational provision, Šiauliai City operates six schools providing specialised education (two youth schools, two basic schools providing special education, one basic school for children with speech impairment and one basic school for children with hearing impairment).

Considerable work was also undertaken to determine the “optimal school” and to develop a corresponding “optimum school plan” supported by success criteria used to determine quality of provision. The review team was told that schools are measured against these criteria and that there is both support and challenge to ensure that the quality of education can be safeguarded.

Key features in the city were the level of political leadership demonstrated and the recognition of the need for community engagement. There appeared to be flexibility, that is, reform was not pushed through in the absence of community buy-in but there was a clear focus on leading conversations with local communities from the perspective of ensuring quality educational experiences for young people. In fact, the review team was told of one school which was allowed to continue and which has, in recent times, reached its own decision to seek a merger with a neighbouring school following a school-led self-evaluation that identified that this would be in the best interests of its students.

It is of note, also, that Šiauliai City has a transparent funding formula to allocate its school maintenance funds, mirroring the national approach to allocation of funding for teaching expenses (student basket funds) (see Chapter 3).

the period 2011-13 finds that provision varied enormously throughout Lithuania with limited access to activities for children and youth in rural areas (National Audit Office, 2015). The report drew attention to wide-spread inadequacies in material resources and the education environment in non-formal education.

The National Audit Office (2015) also found that during 2011-13 part of the funds allocated for non-formal education were used by municipalities for other activities. During 2013/14, four municipalities had tested a new financing method of non-formal education through a student education voucher. Results of the pilot of the “non-formal education student basket” showed that it helped to increase the supply and use of

### Box 2.3. Example of a multifunctional centre in Klaipėda

The multi-functional centre *Slengiu mokykla-daugiafunkcis centras* opened in 2012. It serves a small community of 5 800 local residents, responding to a desire among families in the area that children should learn close to their homes without the quality of their education being compromised and to a desire to bring young and old together.

The centre provides education for 106 children from pre-primary to Year 4 and incorporates a kindergarten which provides day care for younger babies and children. Children are transported from surrounding villages by a new school bus, recently purchased for the municipality. School meals are transported from a central meals kitchen 9 km away.

A key feature of provision is the variety of non-formal programmes that the centre offers – these include singing, drama, art, theatre and national music. These activities often run alongside activities for older people, allowing inter-generational connections and opportunities to celebrate together.

non-formal education services (NASE, 2015). This new funding mechanism was implemented by all municipalities in October 2015. Based on the evaluation of the pilot, it is expected that this new funding approach will support a strengthened supply of non-formal education activities.

Non-formal education is recognised as having an important role alongside formal education in helping children and young people reach their full potential. The OECD Thematic Review of Recognition of Non-formal and Informal Learning (OECD, 2010) recognised that learning that takes place outside formal education institutions can be a rich source of human capital and can help young people to complete their formal education while developing skills that can help enhance their employability. The support of non-formal education is particularly important in the context that Lithuanian students have one of the longest summer school holidays in Europe (Eurydice, 2014). The provision of non-formal education and activities during the summer can be particularly beneficial for students from less advantaged socio-economic backgrounds (Gromada and Shewbridge, 2016).

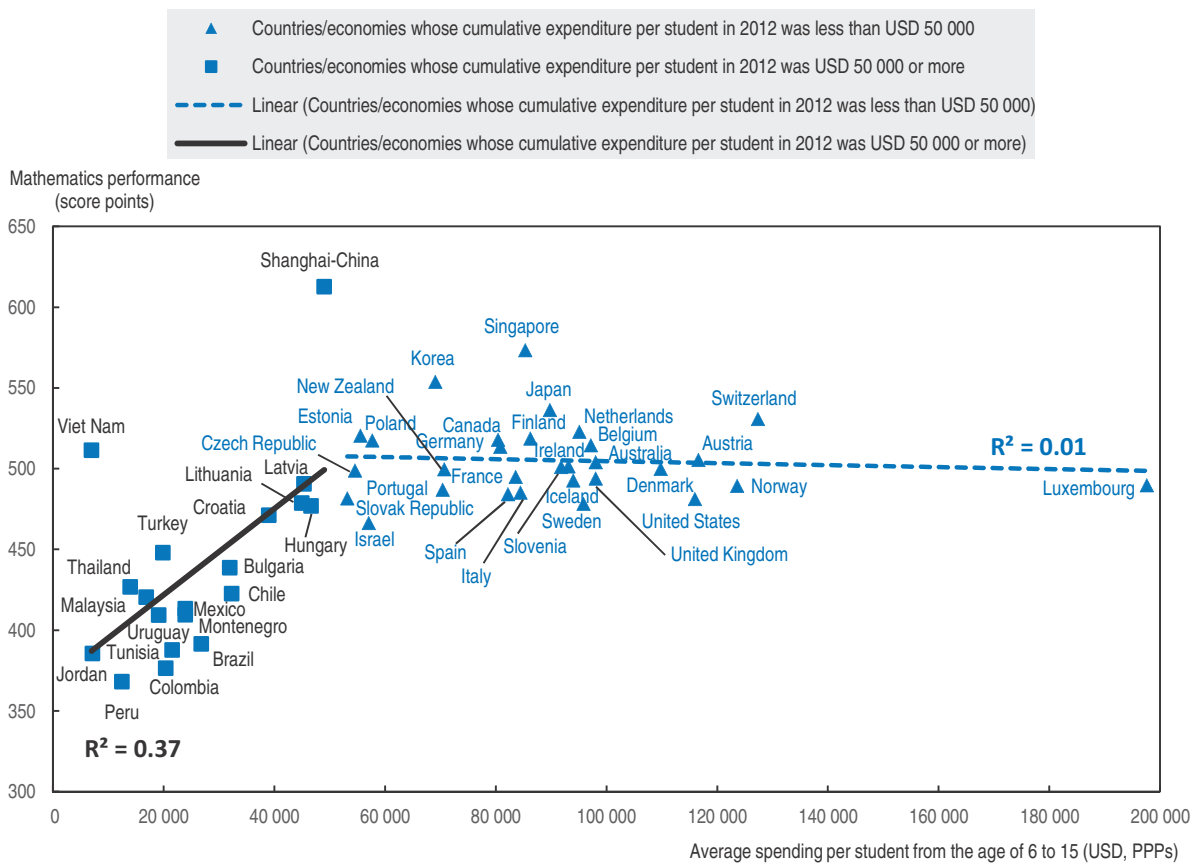
## Challenges

### **Maintaining adequate investment in education**

A recurring debate during the OECD review team's visit was about the level of funding provided by government for education. This was clearly influenced by the fact that despite the commitment to greater investment with the targets set in the National Education Strategy 2012-22, there are considerable constraints imposed as part of the convergence programme to ensure sustainability of public sector finances (Chapter 1). The convergence programme includes investment targets that contradict those in the National Education Strategy and that are considerably lower. As Figure 2.1 shows, national budget allocations for education and science, when measured as a percentage of GDP, have been in decline since reaching a high point of 7.3% in 2009 and, in 2015, the figure stands at 4.6%. Available international data show, however, that this is not an uncommon trend: while GDP rose (in real terms) in most countries between 2009 and 2010, public expenditure on educational institutions fell in one-third of OECD countries during that period, probably as a consequence of fiscal consolidation policies (OECD, 2013c).

Lithuania, therefore, is not alone in the challenge that broader consolidation policies have posed to the school education budget. However, the observed relationship between the level of national investment in school education (spending per student from age 6 to 15) and how 15-year-old students performed in the PISA mathematics assessment underline the importance of ensuring an adequate level of investment (Figure 2.5). In countries with internationally low levels of spending per student, there is a clear relationship with expenditure and educational outcomes (countries shown in black in Figure 2.5): those investing more resources see better outcomes.

Figure 2.5. **Spending per student from the age of 6 to 15 and mathematics performance in PISA 2012**



Source: OECD (2013a), PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices, <http://dx.doi.org/10.1787/9789264201156-en>.

A short-term strategy for the Ministry has been to diversify funding, by drawing on European funding (NASE, 2015). The reliance on European funding has supported continued investment while limiting national expenditures. However, these initial investments need to be maintained. A National Audit Office of Lithuania (2014) report showed considerable concerns about levels of debt in several municipalities. Over the period 2003-13, municipal debt increased by a factor of five and around 50% of the total municipal debt was attributed to co-financing of EU-funded projects. Many municipalities are close to their borrowing limits and 25 municipalities had debts representing over 45% of their revenue and, therefore, no longer have the right to borrow for investment projects (National Audit Office of Lithuania, 2014, Annex 3).

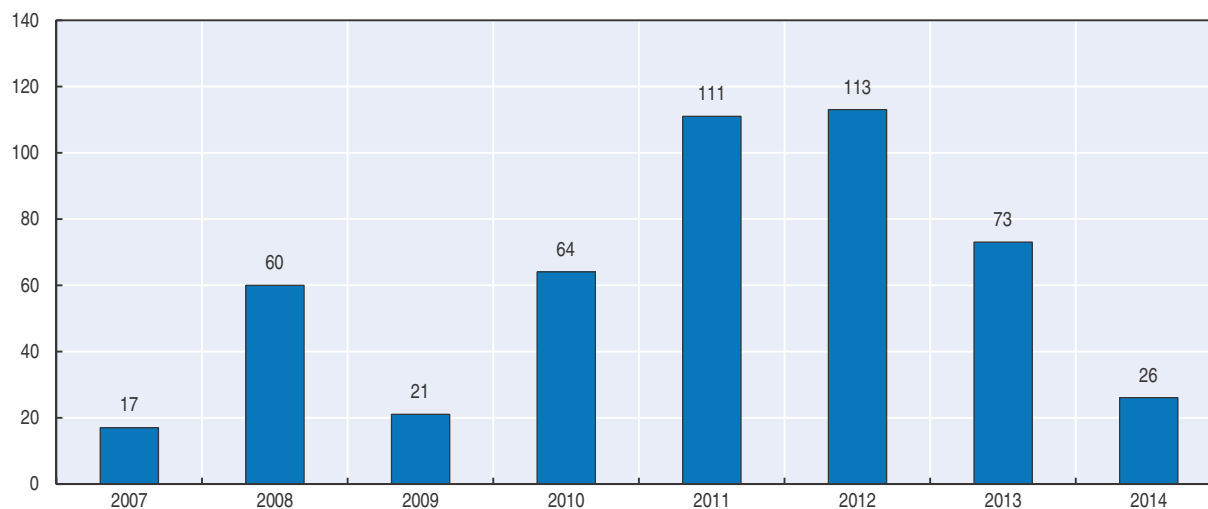
### ***Inadequate focus on how educational investment is targeted and what it delivers***

As noted above, during the OECD review the debate on funding was primarily focused on the *quantum* of resource available for education. A key challenge will be to ensure that the focus of government, and of education stakeholders, is also placed on how effectively this resource is used and the extent to which it delivers the best possible outcomes for all students. This was a point also made by Lithuania's National Audit Office during the review team's visit – it told the team that it wanted to see a more focused approach not merely on accounting for expenditure but on demonstrating its effectiveness. Subsequent to the OECD review visit, the National Audit Office (2015) published an audit of non-formal education that points out a lack of quality assurance in this area, including incomplete and inaccurate data to monitor, analyse and evaluate the impact of funding changes.

### ***Regularity and coverage of external school evaluation***

The number of schools benefiting from external evaluation is falling (Figure 2.6) and there is patchy coverage across different municipalities (Table 2.A1.5). Lithuania's National Agency for School Evaluation (NASE) promotes the benefit of evaluation (both self-evaluation and external evaluation) in delivering improvement and operates a transparent model of external evaluation. It aims to evaluate every school at least once in a seven-year cycle. Over the seven year period from 2007 to 2013, 459 schools were evaluated (Figure 2.6). It would, therefore, require a significant increase in central capacity for external school evaluation to meet the ambition to evaluate each school in Lithuania every seven years. The number of schools evaluated in recent years has fluctuated considerably and, despite a short period of increase, fell again in 2013. Additionally, accessibility to external evaluation varies considerably among municipalities. The data from NASE demonstrates that external evaluation helps drive improvement. It also provides a rich seam of evidence to affirm good practice, challenge less good performance and inform teacher professional development. Inconsistency in the frequency of, or accessibility to, external evaluation therefore presents a real risk that schools that stand most to benefit from it will not be included in the external evaluation programme.

Figure 2.6. **Number of schools externally evaluated from 2007-14**



Note: Since 2014, external evaluations have been conducted in fifteen vocational training schools.

Source: NASE (no date), *Basic Information and Data*, National Agency for School Evaluation, Vilnius.

### **Persistent inequities in access to early childhood education and care for urban and rural families**

According to student reports in PISA 2012, around 2003 (when they were six years old) there were stark differences in access to pre-primary education for children in big cities versus children in a village or rural areas (among participating 15-year-old students, 27% of those in rural areas reported having followed at least one year of pre-primary, compared to 74% in big cities; such differences are much more pronounced than on average in the OECD – 67% and 76% respectively) (Table IV.3.34, OECD, 2013a). UNESCO (2015) points out that in 2003, Lithuania, as in other Eastern European countries, was faced with the challenge of poor accessibility of pre-school education for poor, particularly rural, families. Within the former Soviet Union, early childhood provision was centrally organised, but this was decentralised thereafter and there were significant inequities across regions and districts in the organisation of provision (Zafeirakou, 2006). Consequently, in Lithuania the National Education Strategy 2003-12 included the following goals (UNESCO, 2015): all children, especially from socially deprived families, should have the conditions to prepare them for school and start attending it; all children (over three years of age) from socially deprived families should have a guaranteed access to free pre-school education; pre-primary education should become universal.

The introduction of the partial “pre-primary basket” helped to address this in part (improved enrolment figures overall). However, national statistics show persistent inequities in participation rates for children aged three to six years (Table 2.6), although of course, the data for rural areas will in fact be higher as some families enrol their children in pre-primary provision in urban areas. In 2014, pre-school establishments in six municipalities were oversubscribed: 88 places per 100 children attending pre-school in Šilalės Region, 94 places in Zarasu Region, 96 places in Marijampolės District and Vilnius City, 95 places in Vilnius City, 99 places in Traku Region and Šiauliai City (Statistics Lithuania, 2015, Table 3.15). Access to pre-primary education is, therefore, problematic in some areas. However, national data show that in the majority of other Lithuanian municipalities there is an oversupply of pre-school places, that is, there exists capacity for increased enrolment in pre-school establishments. In rural areas on average, there are 121 places per 100 children attending pre-school establishments (Table 2.6). At the same time, there are only sufficient places on offer for 33% of the current population of children at pre-school age in rural areas (Table 2.6).

**Table 2.6. Early childhood and care participation and provision**

		Urban areas		Rural areas	
		2010	2014	2010	2014
Enrolment rates (%)	Under 3 years	34.1	42.1	7.5	11.7
	3 to 6 years	82.8	97.4	38.3	44.5
Number of places	Per 100 children attending pre-school establishments	97	102	97	121
	Per 1 000 children of pre-school age	597	802	156	325

Source: Statistics Lithuania (2015), *Švietimas 2014 (Education 2014)*, <http://osp.stat.gov.lt/services-portlet/pub-edition-file?id=18138>, Table 3.5.

This indicates that the issue of supply and demand is quite complex and among other things may relate to proximity of the pre-school establishment, participation fees and different values. Among European countries, social norms in Lithuania place a comparatively high expectation on women to take care of children: analysis by Levin et al., 2015 (in Bussolo, Koettl and Sinnott, 2015) of data from the Generations and Gender Survey 2004-12 showed that around 70% of respondents aged 50 years or older and 55% of respondents aged 49 or younger agreed with the statement “A pre-school child is likely to suffer if his/her mother works”. According to NASE (2015), the government’s decision to implement a year of compulsory pre-school education lacks the support of parents. They perceive pre-school education as providing only the traditional function of childcare and not educational services, and would prefer to take care of their children at home. This echoes a finding from the Education Supply Center’s research project “the development of pre-school and pre-primary education” in 2012-13.

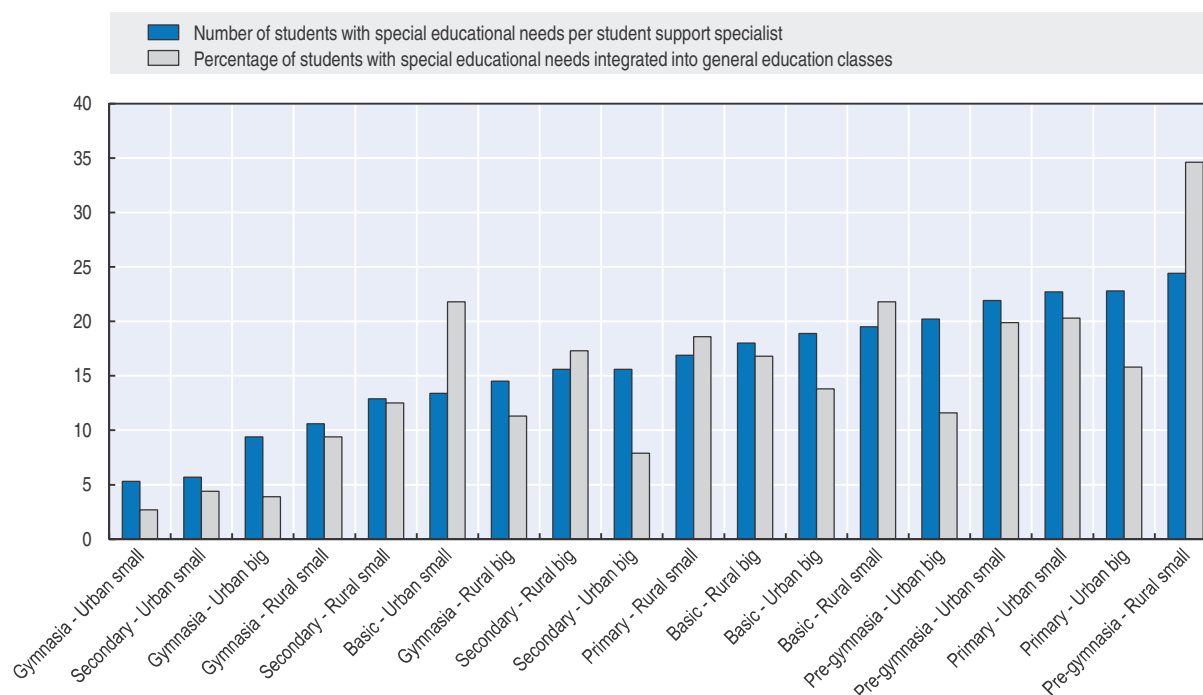
### ***A need to better allocate and use support systems for students with special educational needs***

Despite considerable investment in support structures for students with special educational needs (see above), these are not yet universal and capacities vary among municipalities. In 2014, primary schools in nine municipalities did not have access to specialist support staff despite having students with special educational needs integrated in their schools (Ministry of Education and Science, 2015).<sup>2</sup> On average, there is significant variation in the allocation of student support specialists to students with special educational needs according to the type, size and location of the school (Figure 2.7). In pre-*gymnasia* and in big urban primary schools there are at least 20 students with special educational needs per student support specialist.

While there has been a European-funded commitment to reform special schools and to establish methodological centres, the OECD review team notes that only 26% of the LTL 5 million allocated for this purpose was absorbed (NASE, 2015, Table 4.5). Nonetheless, these investments aimed to better support the education of children with special educational needs in mainstream general education schools. The proportion of special educational needs students integrated into general education classes varies enormously by school type, size and location (Figure 2.7). Among the secondary schools still operating in 2014, those in urban areas have less than 10% of special educational needs students integrated (small schools 4%; big schools 8%).

Students with special educational needs can access a wide range of specialist support in Lithuania, including from educational psychologists, speech therapists, social pedagogues and other professionals. They can also have their needs met within a mainstream school setting. Evidence presented to the OECD review team, however, suggests that schools often do not use effectively the resources they already have at their disposal and that there can be a dependency upon external professional input. This point would appear to be borne out by local research. Results from a survey carried out in Lithuania by academics from Šiauliai University (as reported in the Proceeding of the International Scientific Conference in May 2013) acknowledge the inclusive nature of education for students with special educational needs, but drew conclusions that traditional forms of pedagogical support in schools still dominated (Ališauskas et al., 2009).

Figure 2.7. **Integration of students with special educational needs in different general education schools, 2014**



Source: Ministry of Education and Science (2015), *Lietuva Svietimas Regionuose Mokykla 2015 (Lithuanian Regional School System 2015)*, Svietimo Aprupinimo Centras, Lietuvos Respublikos svietimo ir mokslo ministerija, Tables 26 and 27.

Additionally, more could be done to encourage collaboration between teachers and professionals, including through increased opportunities for joint professional development and, particularly, to extend specialist professional support to early years' providers to ensure that needs are identified and supported at the earliest possible stage in a child's education. This reflects research findings (e.g. Mendez et al., 2011) that clearly highlight the benefits of identifying developmental disorders at the earliest possible stage and reflects the evidence that early intervention significantly improves the chances of overcoming difficulties.

The OECD review team also received feedback that the bureaucracy and paperwork related to seeking additional educational assistance for students with special educational needs could be streamlined, with more being done to help teachers identify and support difficulties more quickly. A further point was made in relation to social, emotional and behavioural difficulties and the need for teachers to be supported to deploy a wider range of strategies for managing behaviour in the classroom.

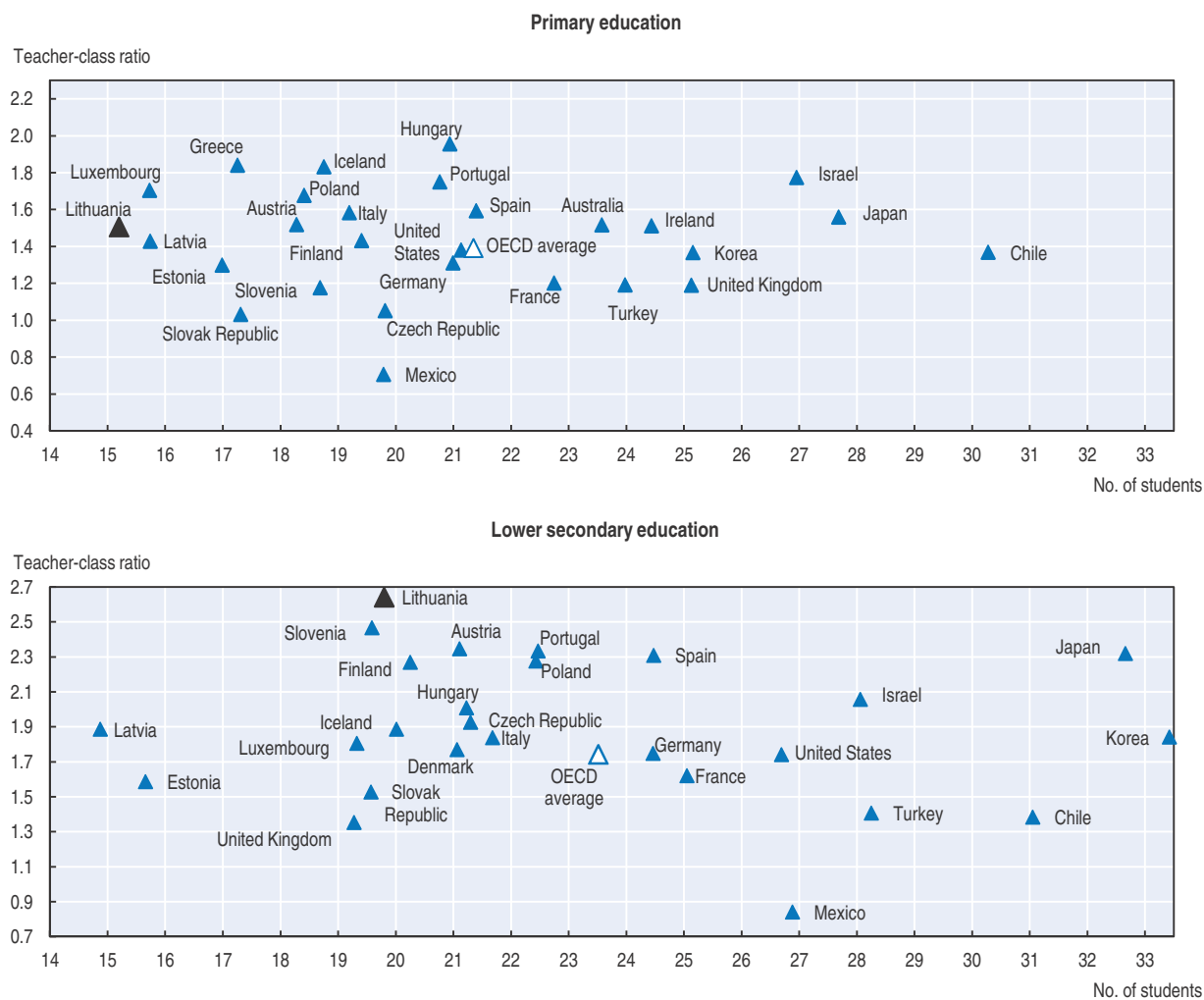
### **Continued pressure on the efficiency of the school network, especially secondary provision**

Despite the evidence of considerable reform to the school network, this is not yet fully complete. The magnitude of the demographic challenge means that there is continued pressure on schools and a need for constant review and adjustment of the school network. Although central governmental efforts to negotiate school network optimisation with municipalities, coupled with the per capita funding approach introduced in 2001 (see Chapter 3) were successful in avoiding a continuing decline of cost-effectiveness,

student-teacher ratios were stabilised at a relatively low level and cost-effectiveness remains low in international comparison (see Chapter 1). This suggests that, in theory, there is considerable scope to tap into further efficiency gains by increasing the student-teacher ratio. Indeed, in Europe, Lithuania has the second highest concentration of teachers in the active population and the ministry recognises the need to address the oversupply of teachers (see Chapter 4).

A more detailed international comparison reveals that small class sizes in small schools are unlikely to be exclusively responsible for the low student-teacher ratio. Figure 2.8 presents the two key components of the student-teacher ratio: class size and teacher-class ratio. Note that the student-teacher ratio can be arithmetically decomposed into these two factors, as it can be written as the product of class size and the inverse of the teacher-class ratio. While the average class size in primary education is lower in Lithuania than in any OECD country or Latvia, the number of primary teachers per class is only

Figure 2.8. **Teacher-class ratio and average class size in European countries, 2012**



Note: Calculations based on number of students and number of classes.

Sources: Derived from OECD (2014), *Education at a Glance 2014: OECD Indicators*, <http://dx.doi.org/10.1787/eag-2014-en>, Tables D2.1 and D2.2; and Eurostat (no date), "Pupil/Student – teacher ratio and average class size (ISCED 1-3)", Eurostat online database, last update 15/04/2015, [http://ec.europa.eu/eurostat/en/web/products-datasets/-/EDUC\\_ISTE](http://ec.europa.eu/eurostat/en/web/products-datasets/-/EDUC_ISTE).



slightly above the OECD average (1.50 in Lithuania, compared to 1.39 in the OECD on average). National data show that the average class size in primary education has stabilised and slightly increased over recent years (14.5 students per class in 2005; 15.7 students per class in 2015) (NASE, 2015, Figure 5.1 and EMIS).

Average class size is also comparatively low in lower secondary education and national data show a steady and continuing decline (in Grades 5 to 10 and *Gymnasium* Grades 1 and 2) between 2005 and 2015 from 21.1 to 18.1 students per class (NASE, 2015, Figure 5.2 and EMIS). Notably, the decline is clear in urban schools (23.3 students per class in 2005; 20.7 students per class in 2015) and cannot be attributed to a rural, small school phenomenon. International data reveal that the student-teacher ratio lags further behind other European countries due to the high number of lower secondary teachers per class. (This is higher than in any of the OECD countries or Latvia.) While Lithuanian schools employ 2.64 lower secondary teachers per class on average (compared to 1.74 on average in the OECD), the majority of European countries fall in the range between 1.60 and 2.34. This implies that there is considerable scope to improve the cost-effectiveness of lower secondary education – this level of education being currently provided in basic schools, *pre-gymnasia*, *gymnasia* or secondary schools – and underlines the need to fully implement the school reform.

A fundamental challenge moving forward will be to maintain the strategic leadership needed at both national and municipal level and to encourage an appetite for continued rationalisation of the school network. Linked to this is a need to ensure there is a clear and unambiguous focus on the breadth of curricular and other opportunities provided to students and indeed to teachers and other school staff (see below). In this regard, the delegated model of governance and responsibility can present challenges: if the appetite for change and reform is greater in some areas than in others, then there is a corresponding risk of inequity for students.

### ***Perception that the accreditation programme for designation as a gymnasium risks becoming less robust***

The concept of ensuring that only those secondary schools capable of offering high quality teaching and learning through a broad and balanced upper secondary curriculum are designated as *gymnasia* is sound. Such a step ensures that the quality of education is put to the forefront, with students' needs appropriately prioritised. However, as the date for phasing out secondary schools approaches, caution is needed to ensure that this focus on quality and depth of the educational provision is not lost. The review team heard some observations that the accreditation process had in recent times become less rigorous, possibly due to the pressure to reach decisions on the future of some secondary schools.

It is very important for the future of students and of societal and economic development in Lithuania that a strong focus is maintained on quality and breadth of provision at upper secondary level, ensuring that students have the opportunity to study economically-relevant STEM (science, technology, engineering and mathematics) and other subjects. A network of *gymnasia* offering a broad range of courses delivered by teachers with appropriate subject specialisms, supported by good quality careers education, is critical and it will be important to resist any calls to dilute the accreditation programme for designation as a *gymnasium*.

**Vocational pathways lack the parity they deserve to have with other pathways**

Across Europe, the importance of having access to a range of pathways that can lead to employment opportunities is well recognised. In Lithuania, students can access vocational education from Year 10: they can complete their basic education in a two-year training programme at a vocational school that, at the same time, allows them to develop their knowledge and skills in a vocationally relevant area. Alternatively, they can complete their basic education at school and then move, in Years 11 and 12, to a vocational educational school to specialise in a chosen area. However, in Lithuania the proportion of students following vocational education and training (VET) programmes in secondary education remains comparatively low. Lithuania is one of four European systems with less than 30% of upper secondary students enrolled in VET programmes – this compares to 50% on average in the EU (European Commission, 2014, Figure 3.5.1).

The European Commission (2014) underlines the important role that high quality VET can play in lowering youth unemployment and facilitating the transition to the labour market. While the youth unemployment rate in Lithuania has come down from 35.7% in 2010, following the impact of the financial crisis, in 2014 it remains nearly twice as high as the overall unemployment rate (19.3% versus 10.9%) (Table 1.2). The need to further invest in improving the attractiveness of vocational education is an area that the Council of the European Union (EU) has highlighted in its country-specific recommendations. In 2015, the Council of the EU acknowledged that Lithuania is taking action to improve and extend apprenticeships and work-based learning, but reiterates that the number and quality of such programmes is still insufficient.<sup>3</sup> The lack of prestige of the vocational education system is a challenge that Lithuania shares with many other countries. This is a challenge that needs to be addressed, including through greater partnership working between general and vocational schools and through the provision of up-to-date and economically relevant careers education, information, advice and guidance not merely at the point at which students begin to make choices but from the earliest stages of compulsory education.

Additionally, building on good practice that is already evident in vocational education schools, more needs to be done in conjunction with employers and their representatives to showcase the high quality provision that is clearly present in many vocational schools and to highlight the successes of students, not just as they leave school but over the longer term.

**Policy recommendations**

This section presents policy options and recommendations designed to build on the strengths in the governance of the education system in Lithuania and to address some of the challenges identified above. The OECD review team argues for the need to secure an adequate level of national funding for education, in parallel with continuing to improve the efficiency of the school network. To this end, a general point is to strengthen the capacity for resource management, in particular, for monitoring systems with a stronger focus on outcomes (both via student assessment and the evaluation of the quality of teaching and learning at schools). This will further strengthen the focus in policies for school network reform from solely an efficiency issue to a matter of improving educational quality.

### **Reaffirm commitment to the strategic importance of education for societal and economic development**

Mass emigration and low birth rates pose a considerable challenge to Lithuania's future societal and economic development. Total fertility, as in many European and Central Asian countries, is lower than the replacement rate: in 2012, there was an average of 1.6 children per woman in Lithuania and this would need to be 2.1 children (Bussolo, Koettl and Sinnott, 2015, Figure 1.1). These two demographic factors have immediately impacted the school-age population and posed significant challenges to the efficiency of the school network. Reforming the school network remains, therefore, high on the policy agenda. However, there is also a need to understand the key role that education can play in addressing these demographic challenges.

Sipavičienė and Stankūnienė in OECD (2013) point out that emigration is an established tradition in Lithuania and claim that due to the widely held assumption that Lithuanian emigrants would eventually return to Lithuania, there has been little attention paid to analysing and understanding the underlying reasons for emigration. Among other things, they identify significant challenges for the education system to address the needs of the Lithuanian labour market, identifying a high correlation between unemployment and increased emigration. The OECD review team presents analysis that supports this claim. Young people aged 20 to 34 years have made up more than half the emigrants over recent years (OECD, 2015) and they have been most impacted by increased unemployment following the financial crisis (Table 1.2). In July 2015, the Council of the EU recommended that Lithuania address the challenge of a shrinking working-age population by improving the labour-market relevance of education and increasing attainment in basic skills.

Along with Latvia, the Slovak Republic and Slovenia, Bussolo, Koettl and Sinnott (2015) find that the low average probability of a second child in Lithuania may be attributed to institutional barriers, such as policies on parental leave or childcare. European survey data indicate that Lithuanian families reported among the lowest usage of formal childcare (Table 2.7, Bussolo, Koettl and Sinnott, 2015). Many OECD countries have given more priority to early childhood education and care as a support to increase the participation of women in the labour market, which is linked to demographic challenges of falling fertility and the need to increase employment (OECD, 2006). While the overall employment rate for Lithuanian women aged 20 to 64 (70.6% in 2014) compares favourably with the European Union average (63.5%), this is much lower for younger women (Table 2.7). European survey data reveal that those Lithuanian children in formal childcare

**Table 2.7. Employment rates for women and use of formal childcare**

	Lithuania	European Union (28 countries)
<b>Employment rates for women (2014)</b>		
55 to 64 years	54.3	45.2
25 to 54 years	80.9	71.7
15 to 24 years	24.1	30.6
<b>Percentage of children in formal care arrangements (2012)</b>		
Children up to three years (%)	8	27
Children from three years to compulsory school age (%)	72	81

Source: Eurostat (no date), "Employment rates by sex and age", Eurostat online database, last update 16/02/16, [http://ec.europa.eu/eurostat/web/products-datasets/-/mare\\_lfe3emprt](http://ec.europa.eu/eurostat/web/products-datasets/-/mare_lfe3emprt).

arrangements are most likely to be in for 30 hours or more per week – this reflects a low degree of flexibility in working arrangements with 10% of Lithuanian women working part-time (European Commission, no date).

While the OECD review team notes the complexity of understanding the demand for early childhood and care, the higher emigration of young families (OECD, 2015), the relatively rigid labour market and the varying offer and participation fees for these services across municipalities suggest that a stronger and more accessible supply could prove attractive to young families. The relatively high poverty rates among children and youth also underline the importance of a strong supply of early childhood education and care, as this, if high quality, is an efficient way to mitigate socio-economic inequities at earlier ages (see below). A review of research shows that well-funded, integrated, socio-educational programmes improve the cognitive and social functioning of children at risk (OECD, 2006).

These factors underline the importance of reaffirming the government’s commitment to supporting and improving the quality of education. Within the context of fiscal consolidation in the public sector, there is a need to protect and ensure an adequate level of educational investment. There is also a need to invest in the future teaching workforce and to make room for new teachers (see Chapters 3 and 4). The OECD review team sees these as critical points in working toward the improvement of educational provision, and importantly, educational experiences and outcomes for young Lithuanians.

### ***Recognise the need for both adequate funding and efficiency gains to improve education quality***

In parallel with the need to continue reforms to the school network (see below), the OECD review team’s analysis underlines the need to maintain an adequate level of funding for education. In international comparison, Lithuania invests low levels of resources in compulsory education. Although the economy started to recover, nominal education spending did not change significantly and the share of total education spending in the GDP has shrunk from 5.8% in 2011 to 4.9% in 2014 and 4.6% in 2015 (Figure 2.1). However, in the context of internationally low investment in education, the declining number of students presents an opportunity to secure the school education budget and to invest additional funds in quality improvements. In particular, expenditure per student in secondary education compared to GDP per capita is amongst the lowest in Europe: in 2011, 20% in Lithuania, compared to 26% in the European Union (Figure 2.A1.6). This low level of educational investment could not allow for any substantial increase in teacher salaries, even with improvements in the efficiency of spending (notably, the challenge to increase the student-teacher ratio in lower secondary education).

### ***Continue to invest in and to promote the quality of early years’ education***

Early childhood education is increasingly becoming a policy priority for governments across Europe and beyond. A growing body of research recognises that good quality, accessible early years’ provision helps build firm foundations for lifelong learning. However, the Lithuanian families who may stand to benefit most from access to high quality early childhood provision are less likely to have access to this: as noted above, there are still persistent inequities in provision between rural and urban areas.

Even at the earliest stages in a child’s life, good quality education and care makes sense. In a report by the Wave Trust (2013) for the Department for Education in England, the authors conclude, following a review of nine approaches from across the world to

evaluating the outcomes of early years' investment, that "there is general expert consensus that it is somewhere between economically worthwhile and imperative to invest more heavily, as a proportion of both local and national spend, in the very earliest months and years of life".

Investment in quality early years' provision also makes sense from an equity perspective: the Independent Review on Poverty and Life Chances carried out in the UK, indicated that there was "overwhelming evidence that children's life chances are most heavily predicated on their development in the first five years of life" (UK Government, 2010). It is family background, parental education, good parenting and the opportunities for learning and development in those crucial years that together matter more to children than money, in determining whether their potential is realised in adult life.

This evidence suggests that Lithuania is right to seek to invest more in making early childhood education and care more accessible. However, there is a need to ensure that there is a clear focus on ensuring the quality of provision. This distinction is an important one: research by the OECD (2011) makes that merely expanding access to services without attention to quality will not deliver good outcomes for children or the long-term productivity benefits for society. Furthermore, research has shown that if quality is low, it can have long-lasting detrimental effects on child development, instead of bringing positive effects.

Recognising the importance of early diagnosis and early intervention, there should also be a focus on supporting early years' professionals to identify special educational needs and to develop strategies for assisting children with additional learning needs.

### ***Consider different ways to monitor progress on the commitment to increase investment in education***

The OECD review team notes and commends the government's commitment to increase the level of investment in education. However, some reflection should be undertaken with regard to the most suitable metric for measuring education investment. While the approach of using a GDP-related indicator allows for assessment of the relative priority being attached by a government to education, it can, by its nature, be impacted on by other economic factors. Equally, setting an investment target related to GDP may be unrealistic. The Ministry of Education and Science may therefore wish to consider gathering and publishing other indicators that allow monitoring of the investment in education – for example the extent to which the "buying power" of the level of investment is maintained (i.e. whether public funding keeps pace with or exceeds inflation). This might be a more realistic measure of commitment to invest in education.

### ***Strengthen and secure a more consistent approach to external school evaluation***

As noted above, much has been done to promote and embed in schools a culture of self-evaluation that can be supported with external evaluation. However, the reach of external evaluation is not what it could be: data clearly show that there is not currently enough capacity for external school evaluations. External school evaluation is a key element in Lithuania's strategy for quality assurance. The high level of school autonomy also underlines the importance of having a balanced accountability system to ensure the quality of educational experiences for children and the effective use of public investment. It is recognised that external evaluation can be seen as a resource intensive process. However, there is evidence from the NASE that external evaluation is effective in helping

schools build on strengths and address areas for improvement and the findings of external evaluation represent an important means of helping schools account for the quality of their provision.

This is consistent with a key finding in the OECD Reviews of Evaluation and Assessment in Education (OECD, 2013b): there is a need to ensure a sufficient degree of “externality” in school evaluation. Essentially, this refers to a degree of challenge, through the use of objective and comparable benchmark data and/or the scrutiny of the procedures and/or results of school self-evaluation by external professionals or peers, for example, other school leaders. Self-evaluation is integral to continuous improvement, but can be subject to self-delusion where assumptions are not challenged and power relationships in the school community have an undue influence on what is evaluated and the nature of the judgements made. One way to heighten the objectivity of self-evaluation is to ensure that the criteria used in both self-evaluation and external evaluation are sufficiently similar (see below). Another strategy is for external evaluation to put a strong focus on how the school is undertaking its self-evaluation and using the results to improve students’ learning. External evaluators could also collaborate with schools to validate the results of self-evaluation and also the school plans for improvement and steps to implement these.

The OECD review team, therefore, recommends a more consistent approach to external evaluation in Lithuania. There are compelling arguments to secure resources to ensure a regular cycle of external school evaluation. School self-evaluation has been strongly promoted via different legal requirements in the majority of OECD countries over the past 10 to 15 years, but in all countries there is evidence of significant variation in schools’ capacity to undertake this effectively (OECD, 2013b). This is a familiar pattern across countries with hugely varied cultural contexts and underlines the need to nurture an evaluation culture. Some schools will develop self-evaluation capacity more quickly than others and external school evaluation can be designed to recognise this. For example, external school evaluators may visit schools with a mature and effective self-evaluation culture less frequently (on a longer cycle) or spend less time at these schools (a lighter evaluation of only key elements of the school quality framework or a validation of the school’s self-evaluation results). New Zealand and England offer examples of different approaches to make external evaluation more proportionate to the assessed need (OECD, 2013b). The need for external evaluation can also be judged on a set of central indicators of risks to quality (national comparative data, parental complaints, school leadership turnover, etc.). The Netherlands offers an example of a “risk-based” school inspection approach (OECD, 2013b).

These different approaches aim to free up central resources for external evaluation to conduct evaluations more frequently or with greater intensity in those schools that would benefit most from external feedback. However, it is important that those carrying out external evaluation have the opportunity to see and affirm the very best practice as well as provision that needs to improve. The identification and sharing of best practices for school self-evaluation and improvement plans is an important resource for overall school system improvement (OECD, 2013b).

### ***Establish an authoritative national view of what constitutes quality school education***

The commitment to ensuring that young Lithuanians receive a quality education is a clear and shared objective among those involved in leading the schooling system in Lithuania and the review team was able to identify a shared understanding that high

quality education is essential to providing young people with the knowledge, skills and attitudes that they need to succeed and that are fundamental to the health of the economy and society.

However, there appears to be less of a shared understanding among those involved in delivering education in Lithuania of what actually constitutes a high quality educational experience and a consequent absence of agreement on how quality might be defined and measured. In order to address the challenge of focusing on how effectively resources are used, there is also a corresponding need to develop a shared understanding of quality. The use of a set of clear, authoritative criteria on school quality can support a more effective and efficient school evaluation culture, as it would increase the objectivity of self-evaluation in Lithuanian schools and strengthen the alignment with external school evaluation (OECD, 2013b).

During its visit, the OECD review team heard views on the importance of many factors that contribute to delivering a quality educational experience but these were often presented individually. For example, municipalities often defined quality by measuring their progress in right-sizing the network of schools to meet need or by reference to the size of schools. Schools referenced delivery of the required curriculum, experience of teachers and measures such as rates of success in school leaving examinations and (frequently) the numbers of pupils performing well in Olympiads. Many of those we met, from students and parents to researchers and teacher educators spoke of a very clear focus on “teaching” which sometimes appeared to be at the expense of “learning”. In general, discussions on quality focused more on inputs and activities and much less on outcomes and experiences from the perspective of the student.

Definitions of quality schooling of course vary widely from country to country and can be challenging to agree and even more challenging to measure in a meaningful and sophisticated manner. The World Education Forum, in the Dakar Framework for Action (Dakar – 2000) affirmed that quality could be described as “a fundamental determinant of enrolment, retention and achievement”. Its expanded definition of quality set out the desirable characteristics of:

- learners (healthy, motivated students)
- processes (competent teachers using active pedagogies)
- content (relevant curricula)
- systems (good governance and equitable resource allocation).

In Lithuania, the framework for external school evaluation provides a definition of quality as noted above, with 67 individual indicators. However, the review team noted that these were rarely (if ever) mentioned in conversations with schools and municipalities or with teachers and teacher educators.

Other countries across Europe and beyond offer different examples. In Northern Ireland, for example, the government’s school improvement policy (DENI, 2009) sets out the core characteristics of a successful school and provides indicators (27 in total) of effective performance linked to each of these four characteristics:

- child-centred provision
- high quality teaching and learning
- effective leadership
- a school connected to its local community.

These indicators are also reflected in the framework for school inspection and in frameworks for school self-evaluation, thus ensuring coherence between policy and planning.

### ***Ensure monitoring at the national level of quality and equity of student outcomes***

The OECD (2012) defines equity in education as meaning that personal or social circumstances such as gender, ethnic origin or family background, are not obstacles to achieving educational potential (fairness) and that all individuals reach at least a basic minimum level of skills (inclusion). A further challenge for Lithuania is to ensure that its focus on improving quality is not at the expense of improving equity. A key feature of the highest performing systems, internationally, is that the vast majority of students have the opportunity to attain high level skills, regardless of their own personal and socio-economic circumstances.

While there are clear policies to support the education of students in minority-language groups and with special educational needs, it was perhaps surprising, given the strong correlation between poverty and educational under-attainment that is a feature of systems across the world that the review team did not find the same focus in national monitoring on students from poorer backgrounds.

The European Commission (2013) reports that one-third of the Lithuanian population remains at risk of poverty or social exclusion. Indeed, national data (NASE, 2015) suggests that about 30% of Lithuanian children are growing up in families at risk of poverty. For these students, a commitment to provide support was evident to the review team – but the focus was often on providing inputs (for example social assistance measures such as access to free pre-school education or free school meals) rather than on monitoring the outcomes of this group of students in order to determine the extent to which the education system serves their needs. The contribution of education in helping to overcome poverty and social disadvantage is well documented: it would therefore seem important, moving forward, that the focus of the education system shifts from measuring inputs to considering how effectively resources are being targeted and whether they are having an impact on improving outcomes for students from disadvantaged backgrounds.

Equally there did not appear to the review team to be a sufficiently strong focus at system level on ensuring equity in terms of gender. Information presented in the Country Background Report (NASE, 2015) did not disaggregate performance by gender. However, evidence from international student assessments (see Chapter 1) shows a clear performance disadvantage for Lithuanian boys in core skills. The difference between boys and girls in reading and in science performance is one of the largest among PISA-participating countries and economies, in favour of girls (OECD, 2014; see also Table 1.7).

### ***Ensure the effective use of performance and other data to monitor progress***

There is a need to ensure effective use of performance and other data to monitor progress in improving outcomes for all students. The OECD review team received information on the Education Management Information System (EMIS) which collects key data on various areas of education including human and material resources. The OECD review team was told that the system enables decision-makers to analyse the current state of human and material resources at the national, municipal or school level and to adopt data-driven decisions.



It is clear that there has been significant investment in Information and Communication Technology (ICT) systems within education in Lithuania. The focus now should be on how to ensure that this investment contributes to delivering improvements. First, it is important to review whether the EMIS captures all relevant data and can present and disaggregate it at a number of levels in order to inform decisions with the aim of improving the quality of the educational experience for groups of students, particularly those at risk of underachievement. This could include use of assessment data at school level in a way that can directly inform teaching and learning as well as use at municipality or system level as a means of determining the effectiveness of policy decisions or identifying opportunities for intervention and support. At all levels there is a need to ensure that leaders have the capacity and the confidence to interrogate the EMIS system and that it can present accessible, easily analysed information at that can be used to effect positive change.

### ***Promote an environment of inclusion and aspiration for students with special educational needs***

While the vast majority of students with special educational needs receive their education in mainstream school settings, there remains a need to ensure that inclusion is not defined merely in relation to the type of institution but also in relation to the educational experience. As Lithuania continues to roll out its reform programme, society and schools alike must have high expectations for all students, including those with special educational needs, and encourage students who face barriers to learning to achieve to their full potential.

Evidence presented to the review team from specialists in the field of Special Educational Needs pointed up the significant level of support available but also highlighted the need for greater differentiation in teaching and learning within the classroom, citing the frequency with which special needs students were taken out of the classroom to receive additional support and the need to address this through more diverse strategies that allowed these students to learn in the classroom alongside their peers. This evidence also highlighted the need to ensure that students with special educational needs, and their parents, were encouraged to have high aspirations and supported to realise these.

### ***Provide a greater central challenge to maintain traction on school network reform at the municipal level***

While good progress has been made, the OECD review team underlines the need to maintain traction on school network reform, providing a greater central challenge where necessary. This is necessary not merely to achieve efficiencies and ensure that public funding invested in education can have maximum impact; but crucially, school network reform must be about enhancing the quality of provision for students (see also below).

The government's focus in advancing school network reform needs to continue to emphasise that the overriding factor should be quality of service and that decisions should not be influenced by purely economic factors. The OECD review team gained the impression that this had not fully permeated the system – and data on the number of different school types in each of the 60 municipalities show that the reform has been implemented with varying success. The OECD review team's engagement at school and municipality level suggested that in some cases the focus was more about logistical factors – numbers of schools; types of schools; distance to be travelled – than about the

opportunities that school network reform presented to improve the educational experience for students, and indeed for teachers. There are cases where priority is given to accessibility (and popularity), rather than to quality.

While decisions on school planning are delegated to municipality level, it will be important for the Ministry of Education and Science and its national agencies to monitor progress and, where appropriate, exercise a challenge function to ensure that students and teachers are not disadvantaged by any lack of willingness at municipality level to embrace reform and provide access to a wide and rich curriculum experience.

At the same time, municipalities should look at the opportunities for collaboration and partnership between schools, including through clustering and joint management arrangements. Particularly in more sparsely populated areas, this should also include collaboration and partnership between municipalities and with vocational and special schools. It is worth noting that 12 of the 60 municipalities have fewer than 10 schools.

### **Ensure consistency of the upper secondary accreditation procedure as a matter of quality and equity**

The OECD review team underlines the importance of ensuring a robust and consistent implementation of the accreditation procedure for upper secondary provision. There are several important indicators that support the importance of the national focus on the quality of the upper secondary curriculum and the associated accreditation procedure.

First, evidence on outcomes indicates underlying differences in the quality of upper secondary provision. Near the end of compulsory education, students in rural schools, on average, demonstrate a clear performance disadvantage compared to students in urban schools. National statistics on the *Matura* results show clear differences on average, although these do not allow for socio-economic differences between students in rural and urban schools (Table 2.8). However, a statistical adjustment for socio-economic background can be made for student performance on OECD PISA and this shows that a strong disadvantage remains for students in rural schools (Table 1.8). Such evidence raises significant concerns on the quality of educational opportunities that secondary students have access to in rural locations and calls for a more in-depth analysis of national results that also indicate comparatively weaker outcomes for students in small schools – regardless of their location (Table 2.8).

Table 2.8. **National evidence on performance differences by school location and size, 2015**

		Students taking the examination		
		Number	Proportion	Average score (in points)
Overall in Lithuania		29 204		50.58
School location	Urban	25 574	87.6	51.70
	Rural	3 630	12.4	42.37
School size	Up to 400	6 816	23.3	43.22
	401 to 600	9 848	33.7	49.00
	601 to 800	8 895	30.5	55.40
	801 or more	3 645	12.5	54.22

Source: Data provided to the OECD review team by the National Examinations Centre.

Second, during the OECD review, representatives from schools' students' unions articulated very clearly the limitations in terms of subject choices, careers education and different teaching and learning styles in some upper secondary provision. These criticisms were made for schools in both urban and rural areas. In a review of research literature on school size, Ares Abalde (2014) finds that larger schools are likely to be able to offer a broader curriculum, more specialised teachers and courses, a broader range of extracurricular activities and a higher share of administrative staff and para-professionals offering support to teachers and school leaders. While there are diminishing returns, that is, quality does not improve beyond a certain total school size, there are clear and strong arguments that medium and larger sized schools can provide higher quality secondary education. For older students, therefore, the potential benefits of attending a larger school appear to outweigh the potential negative effects of increased transportation time and fewer links to parents and the local community (Ares Abalde, 2014).

Third, there are indications that not all students have equal access to quality upper secondary provision due to the presence of an established "shadow education system": private tuition that can help students secure a higher level of attainment in the important *Matura* examinations. The OECD review team was referred to an international tutoring survey carried out by the Education Policy Centre at Vilnius University in 2004/05 which suggested that over 50% of first year university students surveyed had hired private tutors in Year 12. Feedback from student representatives who met the OECD review team suggested that, in 2014, this practice was still common. Students reported a very clear perception that, in many cases, the teaching and learning they received at school was too narrow to allow them to reach their full attainment potential. This feedback was tested with, and corroborated by, representatives from the universities who also expressed concern about the level of independent thinking that was being demonstrated by many students entering higher education.

While there will be an element of private tuition in almost all systems where there are high stakes examinations, it is important that the reasons for its apparent prevalence in Lithuania are explored and the equity issues fully considered. There are also risks that the higher outcomes of students paying for private tuition could mask important indicators of the quality of teaching and learning, thereby preventing support from being provided where it is needed to effect improvement. The focus at school and municipality level needs to be on ensuring that all students at this level are receiving the highest quality teaching and learning while at school, thus reducing the risk that those who cannot afford to pay for private tuition do not have equal opportunity to access different types of further education.

### ***Develop a strategy to improve access to quality education for students in rural areas***

The OECD review team notes the evidence, both national and international, of substantial performance differences on average between students in rural and urban schools. As noted above, there are strong arguments to increase investment in early childhood and care provision, particularly in rural areas. Innovative solutions that are already being rolled out, notably the multifunction centres and the combining of pre-primary education and primary education, should be reviewed for impact and scaled up accordingly and where feasible. A priority for educational investment should remain to provide access for younger children to high quality education near their home. As such, the OECD review team argues for targeted funding to support small schools in rural areas offering the primary and basic curricula where it is clear that consolidation is not practicable (see Chapter 3).

However, innovative solutions should also be sought at the secondary level. A consistent implementation of the accreditation of upper secondary programmes should ensure access for all students to high quality education. Part of this process will see the further consolidation of both urban and rural schools providing upper secondary programmes. The Lithuanian National Reform Programme for 2014 (Republic of Lithuania, 2014) identifies early school leaving as a particular issue within rural communities. While it reports that the percentage of early school leavers aged 18 to 24 is falling (from 7.9% in 2010 to 6.3% in 2013), it highlights large gaps between urban and rural areas (3.6% and 11.4% respectively in 2013)<sup>4</sup> and comments that “the main causes for such increasing regional differences are believed to be inadequate school network, underdeveloped infrastructure of educational support, and insufficient qualifications and competences of teachers”. These are compelling arguments to invest in ensuring students in rural areas have access to high quality secondary education.

In an overview of school size literature, Ares Abalde (2014) presents an overview of rural school policy development in Korea that illustrates the complexity of addressing the considerable challenges to efficiency and quality of the school network that internal migration posed (Youn in Ares Abalde, 2014). In Korea, during the 1980s and 1990s, changes in employment structures saw the mass migration from rural to urban areas. As such, educational policies gave strong focus to maximising the efficiency of schools in rural areas and put considerable pressures on schools to merge or, for schools with fewer than 180 students, close. Frequently schools opted to be organised into “hub schools”, where two to four schools would be grouped and one would take the lead in managing educational programmes and facilities. However, from 2004 there was a shift in focus of policies to improving the quality of education in rural areas. This involved national support to develop a set of excellent “high schools” in rural areas (providing secondary education), providing financial support and facilitating public boarding schools. In parallel, the Korean government pursued policies to promote co-operation and support among schools and to provide funding support to improve the provision of early childhood education and care in rural areas. Significant national investments were made to modernise school facilities in rural areas. This involved tough decisions to prioritise the quality of educational provision in certain rural locations. The government’s approach was to focus mainly on schools that had merged and were in a “strategic region”. The choice of “strategic regions”, of course, would remain a largely political issue, and critics of the Korean government’s policy point to the inevitable losses in areas that were not chosen.

### ***Build the relationship between general and vocational schools***

While the planning and oversight of mainstream secondary schools rests with municipalities, vocational schools are funded directly by, and accountable directly to, the Ministry of Education and Science. This separation of functions is likely to contribute to the lower esteem attached to vocational education and to the perception that vocational education is only a pathway for the less academically able.

In Lithuania, vocational education schools are being encouraged to become self-governing institutions and to forge stronger links with business and industry. This presents a real opportunity for vocational schools to foster increased collaboration with general lower and upper secondary provision in order to provide a broader range of curricular opportunities for students and to allow students to experience at first hand the high-quality facilities that exist in many vocational education centres. Increased

opportunities for students and teachers in general and vocational settings to learn together and to engage with employers and businesses could represent an important step in breaking down the perceptions that exist about the validity of vocational pathways for young people. Showcasing the successes of vocational education and identifying role models who can enthuse and inspire young people to take an interest in vocational pathways would also be a positive next step.

### **Promote further the identification and sharing of good practice**

The OECD review team heard evidence at school, municipality and national level of a readiness to share and learn from best practice and of arrangements that allow for the celebration of excellence. An example of this was the awarding of a “best municipality” title annually to reflect progress in achieving national strategic objectives. The National Agency for School Evaluation also publishes good practice reports and filmed examples of good practice.

Sharing best practice has some particular benefits. It acknowledges and celebrates the good practice itself and affirms the work of those responsible for it, thus encouraging them to embed and to improve further. Importantly, it shows others what is possible and gives them encouragement to innovate or change their practice. Finally, it challenges those who do not believe that improvement is possible by demonstrating that, in similar circumstances, other people can effect positive change. Sharing best practice does not need to be restricted to an individual phase or type of education – strategies and practices that work in special education or vocational education may be highly relevant to those involved in basic education.

With this in mind, the Ministry should consider structures and arrangements that identify best practice in a range of areas and encourage those responsible for the governance of education at all levels in Lithuania not only to share this but also to consider how it informs and is reflected in teacher professional development, including initial teacher education.

### **Notes**

1. Republic of Lithuania – Law Amending The Law On Education: 17 March 2011 No. XI-1281.
2. This concerned primary schools in Akmenes District, Alytaus District, Jonavos District (rural areas), Jonisko District, Kaisiadoriu District (urban area), Pakruojo District, Pasvalio District, Plunges District (rural areas) and Rokiskio District.
3. See Council of the European Union recommendations: [http://ec.europa.eu/europe2020/pdf/csr2015/csr2015\\_council\\_lithuania\\_en.pdf](http://ec.europa.eu/europe2020/pdf/csr2015/csr2015_council_lithuania_en.pdf).
4. In 2014, the overall percentage of early school leavers has fallen further to 5.9%, while the urban (4.2%)/rural (8.7%) gap has narrowed.

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## ANNEX 2.A1

*Data for Chapter 2*Table 2.A1.1. **PISA 2012 index of school responsibility for resource allocation**

a) Average index and teacher employment												
	Average index	Selecting teachers for hire			Firing teachers							
		1	2	3	1	2	3					
Maximum (Netherlands)	1.26	92	8	0	54	46	0					
<b>Lithuania</b>	<b>0.78</b>	<b>82</b>	<b>18</b>	<b>0</b>	<b>84</b>	<b>16</b>	<b>0</b>					
Latvia	0.60	92	8	0	88	12	0					
Estonia	0.14	84	16	0	90	10	0					
<b>OECD average</b>	<b>-0.05</b>	<b>49</b>	<b>27</b>	<b>24</b>	<b>36</b>	<b>30</b>	<b>34</b>					
Finland	-0.28	41	45	14	23	36	41					
Poland	-0.34	80	18	2	76	21	3					
Minimum (Turkey)	-0.72	1	6	93	1	5	94					

b) Teacher salaries and budget												
	Establishing teachers' starting salaries			Determining teachers' salary increases			Formulating the school budget			Deciding on budget allocations within the school		
	1	2	3	1	2	3	1	2	3	1	2	3
Maximum (Netherlands)	35	53	12	43	40	17	55	45	0	73	27	0
<b>Lithuania</b>	<b>38</b>	<b>39</b>	<b>22</b>	<b>33</b>	<b>45</b>	<b>21</b>	<b>15</b>	<b>64</b>	<b>21</b>	<b>30</b>	<b>57</b>	<b>13</b>
Latvia	29	27	44	33	33	34	34	61	5	31	66	4
Estonia	11	14	74	14	30	55	34	54	11	61	35	4
<b>OECD average</b>	<b>11</b>	<b>15</b>	<b>73</b>	<b>12</b>	<b>19</b>	<b>69</b>	<b>24</b>	<b>48</b>	<b>28</b>	<b>45</b>	<b>49</b>	<b>6</b>
Finland	7	8	85	7	15	78	31	39	30	87	12	1
Poland	7	12	81	5	14	81	4	44	52	25	47	28
Minimum (Turkey)	0	2	98	0	2	98	6	73	21	7	79	14

1 = Only "school principals and/or teachers"; 2 = Both "school principals and/or teachers" and "regional and/or national education authority", or "school governing board"; 3 = Only "regional and/or national education authority".  
Source: OECD (2013a), PISA 2012 Results: *What Makes a School Successful (Volume IV): Resources, Policies and Practices*, <http://dx.doi.org/10.1787/9789264201156-en>, Figure IV.4.2.



Table 2.A1.2. **PISA 2012 index of school responsibility for curriculum and assessment**

a) Average index, student assessment and textbooks							
	Average index	Establishing student assessment policies			Choosing which textbooks are used		
		1	2	3	1	2	3
Maximum (Japan)	1.15	98	2	0	89	7	4
<b>Lithuania</b>	<b>0.66</b>	<b>34</b>	<b>65</b>	<b>1</b>	<b>54</b>	<b>46</b>	<b>0</b>
Estonia	0.49	39	61	1	70	30	0
Poland	0.37	57	43	0	82	18	0
<b>OECD average</b>	<b>-0.04</b>	<b>47</b>	<b>41</b>	<b>13</b>	<b>65</b>	<b>27</b>	<b>8</b>
Finland	-0.05	50	40	10	89	11	0
Latvia	-0.19	44	52	5	61	38	1
Minimum (Greece)	-1.15	29	10	61	5	6	89

b) Courses						
	Determining course content			Deciding which courses are offered		
	1	2	3	1	2	3
Maximum (Japan)	89	7	4	90	6	4
<b>Lithuania</b>	<b>54</b>	<b>36</b>	<b>10</b>	<b>48</b>	<b>51</b>	<b>1</b>
Estonia	35	62	2	48	52	0
Poland	83	17	0	36	33	31
<b>OECD average</b>	<b>40</b>	<b>36</b>	<b>24</b>	<b>36</b>	<b>46</b>	<b>18</b>
Finland	34	42	24	49	41	10
Latvia	22	40	38	33	54	14
Minimum (Greece)	2	3	95	4	3	93

1 = Only “school principals and/or teachers”; 2 = Both “school principals and/or teachers” and “regional and/or national education authority”, or “school governing board”; 3 = Only “regional and/or national education authority”. Source: OECD (2013a), *PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices*, <http://dx.doi.org/10.1787/9789264201156-en>, Figure IV.4.3.

Table 2.A1.3. **PISA 2012 index of assessment practices**

<b>a) Average index and frequency of use for different purposes</b>				
	PISA 2012 index of assessment practices	Percentage of students in schools whose principal reported that assessments of students in the national modal grade for 15-year-olds are used:		
		For four of the eight purposes	For five of the eight purposes	For six or more of the eight purposes
Maximum (New Zealand)	5.5	0.0	30.6	63.6
Latvia	5.5	2.4	39.7	56.7
Poland	5.0	23.0	35.4	36.9
<b>Lithuania</b>	<b>5.0</b>	<b>13.7</b>	<b>33.5</b>	<b>42.4</b>
<b>OECD average</b>	<b>4.6</b>	<b>20.0</b>	<b>26.4</b>	<b>32.6</b>
Estonia	4.4	12.5	25.3	30.4
Finland	3.9	24.2	19.9	13.2
Minimum (Greece)	3.4	19.6	12.1	8.8

<b>b) Percentage of students in schools whose principal reported that assessments of students in the national modal grade for 15-year-olds are used for the following eight purposes:</b>				
	To inform parents about their child's progress	To make decisions about students' retention or promotion	To group students for instructional purposes	To compare the school to district or national performance
Maximum (New Zealand)	100.0	76.7	93.6	92.8
Latvia	100.0	96.9	38.1	92.5
Poland	99.2	97.7	55.0	58.2
<b>Lithuania</b>	<b>99.5</b>	<b>84.6</b>	<b>53.1</b>	<b>61.4</b>
<b>OECD average</b>	<b>98.1</b>	<b>76.5</b>	<b>50.5</b>	<b>62.6</b>
Estonia	99.5	82.0	20.7	64.7
Finland	98.7	93.3	17.0	45.8
Minimum (Greece)	100.0	98.2	8.1	17.0

	To monitor the school's progress from year to year	To make judgements about teachers' effectiveness	To identify aspects of instruction or the curriculum that could be improved	To compare the school with other schools
Maximum (New Zealand)	100.0	67.7	99.4	87.5
Latvia	99.8	92.5	99.6	85.5
Poland	96.3	78.9	95.4	59.4
<b>Lithuania</b>	<b>94.1</b>	<b>73.9</b>	<b>82.1</b>	<b>59.7</b>
<b>OECD average</b>	<b>81.2</b>	<b>50.4</b>	<b>80.3</b>	<b>52.9</b>
Estonia	78.0	65.5	83.1	58.9
Finland	59.5	15.5	60.5	21.1
Minimum (Greece)	55.9	14.0	49.4	21.9

Source: OECD (2013a), PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices, <http://dx.doi.org/10.1787/9789264201156-en>, Table IV.4.30.

**Table 2.A1.4. PISA 2012 indicators on quality assurance and school improvement**  
 Percentage of students in schools whose principal reported that their schools have the following measures aimed at quality assurance and improvement:

	Internal evaluation/ self-evaluation	Written specification of the school's curriculum and educational goals	Systematic recording of data, including teacher and student attendance and graduation rates, test results and professional development of teachers	Written specification of student-performance standards	Teacher mentoring
Estonia	99.4	92.5	95.5	88.3	79.9
Finland	95.9	94.1	74.0	75.3	55.2
Poland	97.4	67.6	99.2	82.8	86.6
<b>OECD average</b>	<b>87.1</b>	<b>86.2</b>	<b>85.5</b>	<b>73.6</b>	<b>71.5</b>
Latvia	100.0	96.4	99.8	87.7	71.9
<b>Lithuania</b>	<b>95.0</b>	<b>72.7</b>	<b>98.0</b>	<b>78.6</b>	<b>53.5</b>

	External evaluation	Implementation of a standardised policy for mathematics (i.e. school curriculum with shared instructional materials accompanied by staff development and training)	Seeking written feed-back from students (e.g. regarding lessons, teachers or resources)	Regular consultation with one or more experts over a period of at least six months with the aim of improving the school
Estonia	77.1	88.0	83.4	39.2
Finland	51.4	63.2	74.4	10.3
Poland	78.6	81.8	69.6	39.4
<b>OECD average</b>	<b>63.2</b>	<b>62.2</b>	<b>60.5</b>	<b>43.4</b>
Latvia	84.2	51.7	76.5	23.5
<b>Lithuania</b>	<b>56.5</b>	<b>30.3</b>	<b>75.2</b>	<b>40.2</b>

Source: OECD (2013a), PISA 2012 Results: *What Makes a School Successful (Volume IV): Resources, Policies and Practices*, <http://dx.doi.org/10.1787/9789264201156-en>, Table IV.4.32.

Table 2.A1.5. **Total number of municipality schools evaluated, 2007-14**

School governance	School number in total	Evaluated schools	Percentage of evaluated schools
Rietavo sav.	3	0	0.0
Širvintų r. sav.	11	0	0.0
Visagino sav.	5	0	0.0
Trakų r. sav.	17	1	5.9
Pasvalio r. sav.	13	1	7.7
Molėtų r. sav.	11	1	9.1
Kelmės r. sav.	18	2	11.1
Zarasų r. sav.	8	1	12.5
Ignalinos r. sav.	7	1	14.3
Pagėgių sav.	7	1	14.3
Plungės r. sav.	20	3	15.0
Jurbarko r. sav.	18	3	16.7
Šiaulių r. sav.	24	4	16.7
Mažeikių r. sav.	29	5	17.2
Vilniaus r. sav.	45	8	17.8
Šalčininkų r. sav.	21	4	19.0
Telšių r. sav.	26	6	23.1
Kauno r. sav.	27	7	25.9
Šilutės r. sav.	23	6	26.1
Utenos r. sav.	19	5	26.3
Radviliškio r. sav.	18	5	27.8
Biržų r. sav.	14	4	28.6
Šilalės r. sav.	14	4	28.6
Elektrėnų sav.	10	3	30.0
Šiaulių m. sav.	34	11	32.4
Kazlų Rūdos sav.	9	3	33.3
Rokiškio r. sav.	15	5	33.3
Skuodo r. sav.	9	3	33.3
Raseinių r. sav.	14	5	35.7
Kalvarijos sav.	8	3	37.5
Klaipėdos m. sav.	40	15	37.5
Anykščių r. sav.	10	4	40.0
Klaipėdos r. sav.	20	8	40.0
Palangos m. sav.	5	2	40.0
Panevėžio r. sav.	22	9	40.9
Joniškio r. sav.	12	5	41.7
Akmenės r. sav.	9	4	44.4
Vilkaviškio r. sav.	22	10	45.5
Vilniaus m. sav.	120	56	46.7
Ukmergės r. sav.	17	8	47.1
Marijampolės sav.	24	13	54.2
Prienų r. sav.	12	7	58.3
Panevėžio m. sav.	25	15	60.0
Varėnos r. sav.	15	9	60.0
Alytaus r. sav.	12	8	66.7
Kaišiadorių r. sav.	15	10	66.7
Švenčionių r. sav.	9	6	66.7
Tauragės r. sav.	18	12	66.7
Pakruojo r. sav.	13	9	69.2
Kauno m. sav.	66	48	72.7
Kėdainių r. sav.	19	14	73.7
Šakių r. sav.	16	12	75.0
Jonavos r. sav.	21	17	81.0
Kretingos r. sav.	16	13	81.3

Table 2.A1.5. **Total number of municipality schools evaluated, 2007-14** (cont.)

School governance	School number in total	Evaluated schools	Percentage of evaluated schools
Druskininkų sav.	6	5	83.3
Lazdijų r. sav.	13	11	84.6
Kupiškio r. sav.	14	13	92.9
Alytaus m. sav.	17	17	100.0
Birštono sav.	2	2	100.0
Neringos sav.	1	1	100.0
MUNICIPAL SCHOOLS	1 108	468	42.2
PRIVATE SCHOOLS	40	5	12.5
STATE SCHOOLS	24	3	12.5
<b>Total</b>	<b>1 172</b>	<b>476</b>	<b>40.6</b>

Note: Municipalities are presented in descending order of percentage of municipal schools evaluated.

Source: NASE (no date), *Basic Information and Data*, National Agency for School Evaluation, Vilnius.

Table 2.A1.6. **European countries' expenditure per student relative to GDP per capita, 2012**

Primary education		Lower secondary education	
Latvia	15.9	Latvia	16.1
Czech Republic	17.2	<b>Lithuania</b>	<b>18.2</b>
Germany	18.8	Hungary	19.9
Netherlands	19.1	Norway	20.4
France	19.3	Luxembourg	22.9
Norway	19.4	Germany	23.1
Hungary	19.5	United States	23.5
<b>Lithuania</b>	<b>19.8</b>	Italy	25.4
Ireland	20.1	Ireland	25.6
Slovak Republic	21.2	Sweden	25.9
Finland	21.5	France	26.4
United States	21.8	Estonia	27.4
Austria	22.0	Poland	28.1
Italy	22.1	Netherlands	28.6
Spain	22.3	Spain	28.6
Luxembourg	22.7	Czech Republic	28.8
Estonia	23.0	Belgium	28.9
Belgium	23.8	Japan	28.9
Sweden	24.4	United Kingdom	29.7
Japan	24.9	Austria	31.3
Switzerland	28.5	Finland	33.4
Poland	28.6	Switzerland	33.5
United Kingdom	29.0	Slovenia	35.2
Slovenia	32.4	Slovak Republic	..

Source: Eurostat (no date), "Annual expenditure on educational institutions per pupil/student based on FTE, by education level and programme orientation", last update 24/02/16, [http://ec.europa.eu/eurostat/web/products-datasets/-/educ\\_uoe\\_fini04](http://ec.europa.eu/eurostat/web/products-datasets/-/educ_uoe_fini04).



## Chapter 3

# School funding in Lithuania

*This chapter presents an overview of how the school system in Lithuania is funded, including a detailed presentation of the central funding formula used to allocate funding for teaching costs (the student basket). This was a major element of a funding reform introduced in 2001, which saw the separation of teaching costs (central funding) and school maintenance costs (municipal funding). It considers the strengths and challenges inherent in the current system and makes policy recommendations designed to build on and strengthen the approach to school funding, including the need to regularly review and evaluate the adequacy and costs of funding.*

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## Context and features

### **Overview of main funding channels for schools**

The central government budget is the main source of funding for public education in Lithuania. However, local governments also play an important role both in providing additional funding and influencing the distribution and use of school resources. An education finance reform was enacted in 2001 and introduced in 2002, setting up an arrangement that is a unique combination of a centralised formula funding scheme and a decentralised model of financing schools. Resources are provided for and distributed among schools using three different channels: a central formula-funding scheme for teaching costs, local government funding for school maintenance and specific grants for the development of educational facilities.

#### **Box 3.1. Aims of the 2001 education finance reform**

In general, the 2001 education finance reform aimed to increase the efficiency of resource use in education and improve education quality. The following specific goals were explicitly defined (Herczyński, 2011):

- to create a transparent and fair scheme for allocating resources, with a particular emphasis on eliminating rural-urban disparities
- to strengthen the financial independence of schools and increase the responsibility of school leaders
- to promote the optimisation of local school networks and constant adjustment to the decreasing number of students
- to enhance parental school choice, school competition and the development of the non-governmental school sector
- to reduce the number of children who are not attending school.

*Source:* Herczyński, J. (2011), “Student basket reform in Lithuania: Fine-tuning central and local financing of education”, in J.D. Alonso and A. Sánchez (eds.), *Reforming Education Finance in Transition Countries: Six Case Studies in Per Capita Financing Systems*, <http://elibrary.worldbank.org/doi/abs/10.1596/978-0-8213-8783-2>.

Funding is built on a sharp distinction between “teaching costs”, i.e. resources directly related to the teaching process and “school maintenance costs”, that is to say, the organisation and management of the teaching environment. This distinction is critical, as teaching costs and school maintenance costs are funded by different methods and resources allocated to each category are dedicated for that use exclusively.



### ***Central funding for “teaching costs”***

The dominant share of teaching costs is comprised of teacher salaries, but also includes salaries for the school management, administration and professional support staff (e.g. librarians), textbooks for students and some school materials, teacher in-service training and pedagogical and psychological services provided by the local governments.

Teaching costs are funded from the central government budget in the form of a specific formula grant, namely the “student basket” scheme. This scheme was elaborated and introduced as the core of the education finance reform of 2001. This grant is made available to the local governments (or other school owners), not directly to the schools. It is calculated for each school separately and allows local governments to redistribute a set percentage of the funds allocated by the funding formula. It is worth noting that the funding of kindergarten education is to some extent an exception. While teaching in schools is fully covered by the student basket scheme, in the case of kindergartens it has to be supplemented by local government funding (see below).

### ***Local funding for “school maintenance costs”***

School maintenance covers salaries of the maintenance staff, communal and communication expenses (heating, electricity, telephone and Internet), student transportation (school buses) and expenditures of materials and repair works used for the maintenance of school facilities.

School maintenance expenditures are financed exclusively by the local governments (or other school owners). Local governments autonomously decide on the level of resources and their distribution among schools. This means that the central government is not directly engaged in the details of the organisation and maintenance of the schools in a given municipality. School maintenance funds are typically set by the local governments when the budget for each school is negotiated and approved.

The sources of funding are general local government revenues, i.e. no specific grants are received for this purpose from the central budget. Note that the lack of any specific grant does not imply that the school maintenance costs are funded entirely from local revenues paid by local taxpayers and firms. Aside from grants from the student basket scheme, local government revenue is comprised of shared personal income tax and other central governmental grants, property tax, other local taxes and other local revenue (e.g. user charges).

Note that local governments supplement student basket funds for kindergarten services (as the student basket covers kindergarten educational provision only for four hours per day).

### ***Specific funding for “school investment”***

The third major component of education finance in Lithuania is investment in schools and other local education facilities. The bulk of such resources come from specific central governmental and European Union (EU) Structural Fund investment grants, supplemented by local government funding. In the past years these funds were mainly allocated to the development of vocational training centres, taking about half of the funds. According to the share of funds other top priorities are the establishment of multifunctional centres in rural locations, investment in pre-school education and upgrading technology, natural sciences and arts facilities in general education.

### ***Other sources of revenue for schools***

In addition to these three channels of funding, schools have some further minor revenue sources. First, any taxpayer may transfer 2% of his/her income tax to a school. Second, in private schools parents pay tuition fees and may also contribute to school funds on a voluntary basis. It is important to note that private schools are entitled to the same funding from the student basket scheme as schools owned by local or central government. At the same time, school maintenance expenses are financed by the owner of the school, from tuition fees or other revenues. However, as the share of private schools is almost negligible (see Chapter 2), they are not discussed in detail in this chapter.

### ***The allocation of central funds for teaching costs: the student basket funding scheme***

The key component of the 2001 education finance reform was the introduction of the student basket scheme that allocates funds to cover teaching costs based on an exact formula. The major determinant of funding is the number of students in the school. The grant is calculated as a fixed per-student amount (referred to as the student basket) multiplied by the number of equivalent students.

The per-student amount is set by a complex formula, which is described in the next subsection. Note that this is given as a fixed amount in each budget year and the budget or other decisions made by the municipalities or schools are not affected directly by any single component of the formula or the method of calculation, only through the amount of the student basket. However, the values of certain coefficients are often subject to fierce policy debates at the national level when the formula is revised or updated annually.

The total funding for a school is determined not on the basis of raw enrolment figures but the number of equivalent students, i.e. a weighted sum of students. This way the funding scheme takes into account the cost differences in teaching different students. Major student characteristics considered are school year the student is enrolled in, special education needs (SEN), migrant status and national minority-language status. In addition the size, location and type of the school also affect weights.

In essence the student basket scheme can be regarded as a variant of a student voucher. The funding follows the student which was among the explicit policy goals of the reform to foster competition among schools, thus aiming to improve education quality. However, the scheme differs from a pure voucher funding in three respects. First, the grant is transferred to the local government not the individual school and local governments are entitled to redistribute a certain share of the funding across schools. Students can most often be expected to choose among schools within municipalities and this may weaken the incentives for schools to compete for resources, as far as local governments level out the funding to support schools with lower enrolments. Second, like in other education systems the voucher amount takes into account different student characteristics, however, a specific feature of the Lithuanian student basket funding scheme is that it also takes into account school size. The idea behind this is to acknowledge the legitimately higher costs of smaller schools which have lower enrolment rates due to their rural location. Unlike in a pure voucher system, local governments have some influence over the level of funding, as they can influence student enrolment and the organisation of the school network. Finally, though most of the student basket funds for teaching costs can be used autonomously by the schools, some constraints are imposed by central regulation. Minimum levels of required expenditure are set for elements such as textbooks and in-service teacher training.

### *The basic student basket formula*

Similar to most formula funding schemes, the basic idea behind the student basket formula is to calculate the number of necessary teachers as a function of student enrolment (N). The key elements of this calculation are the number of students' teaching hours (h) set by the national curriculum, teachers' teaching hours (p) according to teacher employment and salary regulation, and a presumed class size (n) which can be interpreted either as the average size of actual classes or a target that the central government expects schools to achieve. Dividing students' hours by the number of teaching hours of full-time teachers provides the number of required teachers for an average class. Multiplying this with the inverse of the class size results in the number of required teachers (T) per student enrolled:

$$\frac{T}{N} = \frac{h}{p} \times \frac{1}{n}$$

Multiplying the number of required teachers per student by the average teacher salary results in the per student amount needed to cover teacher salaries (TS). The average teacher salary, the second term of the equation, enters into the formula as the product of the average teacher salary coefficient (R) and the fixed basic salary (B) in the public sector for 12 months, since the regulation of teacher salaries is built on this approach (see the subsection on teacher salaries below). This amount forms the core of the student basket:

$$\frac{TS}{N} = \left(\frac{h}{p} \times \frac{1}{n}\right) \times (R \times B \times 12)$$

Moreover the formula also incorporates further components, as the student basket is intended to fund other teaching costs in addition to the teacher salaries. Some of them are included as coefficients augmenting the per student grant in a multiplicative manner. Social insurance contributions ( $K_{\text{socins}}$ ) and administration and library costs ( $K_{\text{admlib}}$ ) are entered proportional to the required teacher salaries. At the same time the component for funding textbooks, teaching materials and municipal pedagogical and psychological services ( $K_{\text{matmun}}$ ) is added independently of the number of required teachers, expressed as a percentage of the fixed basic salary. Finally, the student basket (SB) includes supplementary elements (Z), e.g. the student basket funding for non-formal education in schools:<sup>1</sup>

$$SB = \left(\frac{h}{p} \times \frac{1}{n}\right) \times (R \times B \times 12) \times (K_{\text{socins}} + K_{\text{admlib}}) + (B \times 12) \times K_{\text{matmun}} + Z$$

Note that the calculation of the number of required teachers and the sum of their estimated salaries are derived directly from parameters of educational regulation, measured average teacher salaries and an expected class size. In contrast, the additional coefficients – with the exception of social insurance contributions – are set in a more ad hoc way. This might be one reason for policy debates often focusing on these elements.

The amount of the student basket is set every budgetary year by the central government. It has only changed marginally in the past years (NASE, 2015). After a 9% decrease from 2009 to 2010, its value remained unchanged through 2013. In 2014 it increased marginally to LTL 3 348 (EUR 970), while in 2015 its value is LTL 3 382 (EUR 980).

Finally, it is important to note that a specific student basket formula applies to vocational schools, taking into consideration cost differences of practical training in different fields as well.

### ***Weighting factors for students and schools in the student basket scheme***

The per-student student basket amount given by the formula above applies to a standard reference student who has no distinctive minority or SEN status, is studying in a class of 25 students with a weekly number of lessons equal to the Years 1-10 average.

The funding scheme acknowledges some teaching cost differences and allocates more funding for certain types of students and schools with justifiably higher costs. This is done by assigning weighting factors to these types of students and calculating the student basket funds for the weighted sum of students. The weighting for the reference student is 1, while students who are more expensive to teach are assigned a weighting factor greater than 1.

Regarding individual student characteristics, the funding scheme assigns extra weighting to students with special educational needs (1.35), migrant status (1.30) and students following instruction in a national minority language (1.20). It is important to note, that in the multi-ethnic regions of the country all students of multilingual schools are allocated minority weighting under the condition that at least 20 of the students take part in multilingual education. The OECD review team found that this ensures significantly less strain on budgets for these schools.

Weighting factors increase proportionally with the teaching load for higher school years and are inversely proportional to school size in rural areas, acknowledging higher per student costs when class size is smaller. These coefficients can be derived from the basic formula for the student basket by substituting higher values for students' weekly school hours, determined by the curricula for each school year and lower expected class sizes for small rural schools. Note that as administration costs are included in the formula proportional to the required spending on teacher salaries, higher coefficients for smaller schools do also account for higher administration spending due to fixed costs to some extent.

The small school coefficients are defined for size categories of schools. Table 3.1 depicts the weighting by school size and year, together with the expected class size for each category. Note that the school type also defines the weighting, as the number of school years can vary in different school types. For example, a total enrolment of 120 students classifies a primary school with four years as a large school, but a secondary school with ten or twelve years as a small school. Also note that, in the case of basic schools and lower years in secondary schools, the funding formula is biased for rural schools to some extent even in the category of large schools.

The degree of the preferential treatment of small rural schools was modified several times since the introduction of the reform, reflecting constant debates about the adequacy of funding for these schools. In 2004 the coefficients for the very small schools were cut by about 10% (Herczyński, 2011). Later the school size categories were also modified and a more detailed classification was established for the smallest primary and basic schools. The coefficients have been also adjusted to the new categorisation.

Certain types of schools outside the mainstream of general education are also assigned special weighting factors. Most importantly, special education schools receive student basket funding at an increased level, while lower weighting is allocated to pre-school and kindergarten education. It is important to note that, up to 2014, kindergarten was provided for only four hours per day. As many families demand the service for the whole day, the remaining costs are covered by municipalities and user fees.

Table 3.1. **Student basket weighting coefficients by school size, type, location and year**

School type, location and size	Enrolment	Expected class size	Years 1 to 4	Years 5 to 8	Years 9 to 10	Years 11 to 12
<b>Primary school</b>						
Extra small, rural area	< 40	10	1.9177	..	..	..
Small, rural area	41-50	12	1.5644	..	..	..
Medium, rural area	51-80	15	1.2435	..	..	..
Large, rural area	81+	20	0.9963	..	..	..
Urban area		22	0.9963	..	..	..
<b>Basic school, pre-gymnasium</b>						
Extra small, rural area	< 80	10	1.8264	2.2644	2.7438	..
Small, rural area	81-120	12	1.5644	1.9095	2.4028	..
Medium, rural area	121-200	15	1.2435	1.5276	1.9222	..
Medium/large, rural area	201-300	15 (Years 1-8) 18 (Years 9-10)	1.2435	1.5276	1.6018	..
Large, rural area	301+	20 (Years 1-4) 22 (Years 5-10)	0.9792	1.2685	1.4206	..
Urban area		22 (Years 1-4) 25 (Years 5-10)	0.9461	1.2064	1.4077	..
<b>Secondary school, gymnasium</b>						
Small, rural area	< 300	15 (Years 1-8) 18 (Years 9-12)	1.2435	1.5276	1.6018	1.6661
Medium, rural area	301-500	20 (Years 1-4) 22 (Years 5-12)	0.9792	1.2685	1.4206	1.4735
Large, rural area	501+	20 (Years 1-4) 25 (Years 5-12)	0.9792	1.2064	1.4077	1.4345
Urban area		22 (Years 1-4) 25 (Years 5-12)	0.9461	1.1274	1.4077	1.4345

Source: Government of the Republic of Lithuania (2014), *Dėl Mokinio Krepšelio Lėšų Apskaičiavimo Ir Paskirstymo Metodikos Patvirtinimo – Nauja Metodikos Ir Jos Priedų Redakcija Nuo 2014-01-01, Nr. 790, 2013-08-28, Žin., 2013, Nr. 94-4699 (On The Approval of the Methodology of Calculation and Distribution of Funds of the Student Basket – New Methodology and Annexes Version 01/01/2014)*, [www3.lrs.lt/pls/inter3/dokpaieska.showdoc\\_l?p\\_id=480354](http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=480354).

The final student weighting is the combination, as a general rule, of the product of the weighting coefficients.<sup>2</sup> For example the coefficient for a regular student in Year 5 of a small rural basic school is 1.90, but 2.60 for a SEN student in the same school ( $1.90 \times 1.35$  SEN weighting). In 2014, the Lithuanian student basket comprises a range of 67 coefficient values.

### Rules on the allocation and use of the student basket funds

Central government regulations allow a degree of discretion at the municipal level in allocating the student basket funds to schools. With the exception of the five cities, municipalities should allocate to each school 93% of the grant calculated for that school. The remaining 7% can be allocated by the local government to municipal educational services or reallocated to other schools (where the 93% of the student basket is not sufficient to cover actual teaching costs). In the case of the five cities, 6% of the teaching costs funding may be reallocated. At the same time, the Ministry of Education and Science defines recommended per student amounts for certain expenses. Most significantly for the allocation of municipal resources, the Ministry recommends and sets minimum requirements on spending for providing pedagogical and psychological services. In 2014, the recommended amount was LTL 22.8 per student and the minimum requirement was 80% of this (LTL 18.2) (NASE, 2015).

Interestingly, this component of the funding scheme has been changed substantially after the introduction of the education finance reform (Herczyński, 2011). The share of the resources distributed by the local governments was initially set to 15%, later was gradually reduced to 6% and then adjusted to the current level of 7% (6% for the five cities). This represents a shift to strengthen school autonomy, while reducing the margin for local government redistribution.

In general, schools are highly autonomous in their use of student basket funding. However, there are some central government regulations that impose certain constraints on this autonomy by specifying a minimum amount of expenditure for specific uses. For schools, recommended spending per student is specified for textbooks and other teaching material, in-service teacher training, implementing and using ICT and vocational and career guidance for students, with minimum spending requirements ranging from 40 to 80% of the recommended amounts (NASE, 2015).

At the same time it is important to note that these expenses form a minor proportion of the overall student basket funding. The vast majority of the funding covers the salaries of teachers, management and other pedagogical staff, both regarding the school budgets or school and local government spending as a whole (for the latter the share of salary expenses in 2013 was 96%, NASE, 2015). During the OECD review, discussions with local government representatives and schools suggested that non-salary expenses typically tend to gravitate towards the required minimum level.

### **Central budgeting for and regulation on teacher salaries**

Beside the student basket funding scheme the second key element of education finance is the regulation on teacher salaries. On the one hand one input variable of the funding formula is average teacher salary, which mostly depends on the composition of the teacher workforce and the salary scale set by the central government. At the same time, when schools prepare the annual school budget, the funding they receive from the student basket scheme has to be balanced with their actual teacher salary expenses, which is directly constrained by the national salary scale (see below).

The national teacher salary scale, like salaries in the public sector in Lithuania in general, is regulated in terms of salary coefficients. Nominal salaries are calculated by multiplying the coefficients with a fixed amount, the so called “basic monthly salary”, which is set for the entire public sector uniformly. The government can increase teacher salaries by increasing the coefficients. When these coefficients are amended or the basic salary changes, the value of the student basket is adapted accordingly.

Teacher salary coefficients depend on teachers’ education, pedagogical experience and qualification category. The salary coefficients for teachers in schools of general education are displayed in Table 3.2. For each category the salary scale provides a range of coefficients and the school leaders are entitled to set the exact coefficient values within the range. Note that the type of school or the level of education in general does not affect teacher salaries directly. One notable exception is that teachers at Years 9-12 of *gymnasia* and Years 11-12 in secondary schools are entitled to salary supplements of 5-20% (NASE, 2015).<sup>3</sup>

The pattern of the salary coefficients shows that experience on its own has only a minor impact on the salary. Within each qualification category the differential between the starting and the top salary is a meagre 13-17%. On the other hand, promotion into a higher

qualification category may yield more substantial returns. Methodologist teachers earn 17-20% more than teachers with similar experience. Naturally, promotion into a higher qualification category goes together with accumulating more years of experience. Looking at the two most typical categories for the more experienced teachers (senior and methodologist teacher), the salary gain compared to the minimum for a qualified novice teacher can reach 28 and 37% respectively. Most of this gain (22 and 32% respectively) can be achieved by the middle of a teacher's career, with 10-15 years of experience.

Another important and rather unique feature of teacher remuneration in Lithuania is that actual teacher salaries are paid in proportion to the teacher's workload. This is calculated as the sum of teaching hours and 0.5-5 additional pedagogical hours for activities like checking pupils' written work, preparation for lessons, class management, and extracurricular activities. When the number of teaching hours falls below the level required in a full-time position (i.e. 18), teachers are paid proportionately lower salaries.

Salary scales for principals, deputies and teachers of special schools (e.g. specialised for teaching SEN students) are regulated similarly. These are not discussed here in detail but it should be noted that salaries of school leaders depend on both school type and the size.

**Table 3.2. Teacher salary coefficients for teachers in general education, 2014**

Qualification category	With up to 10 years of teaching experience	With 10-15 years of teaching experience	With 15 years or more teaching experience
Non-certified teacher, secondary level teacher degree before 1995	8.90-9.60 <sup>1</sup> 8.90-9.70	8.90-9.80	9.00-10.00
Non-certified teacher, studying in higher education	10.45-11.65 <sup>1</sup> 10.50-11.70	10.55-11.75	10.60-11.80
Teacher	10.65-11.85	10.80-12.00	10.90-12.10
Senior teacher	11.60-12.90	11.75-13.05	12.20-13.60
Methodologist teacher	12.45-13.85	12.70-14.10	13.05-14.55
Expert teacher	14.15-15.75	14.40-16.00	14.80-16.40

1. Non-certified teacher with less than 3 years of teaching experience.

Source: Data provided to the OECD review team by the Ministry of Education and Science.

### **Responsibility for managing school budgets**

School leaders are responsible for preparing and managing the school budgets which are then approved by the owner of the school. Within the school budget, expenses funded by student basket funds and school maintenance expenditures are kept separate. School visits of the review team revealed that the number of both teaching and non-teaching staff is usually approved by the municipality directly, though in some cases schools have some autonomy in deciding the number of non-teaching staff. School boards also take part in budgeting decisions, typically on the use of the personal income tax revenues of the schools.

The key challenge in preparing the school budget is the balancing of student basket funding with actual teacher salary spending. The student basket scheme allocates resources to schools mostly on the basis of enrolment figures and average salaries, thus funding is relatively evenly distributed. However, schools may have quite different costs, even though the inclusion of various weighting factors in the student basket funding formula aims to address some of the envisaged teaching cost differences. First, small schools have higher and more varied costs, which is compensated only in part by the formula. Second, the higher the share of teachers with longer experience or higher

qualification status in a school, the larger will be the gap between actual salary expenses and student basket funding. Third, in smaller schools teachers specialised for minor subjects may have a smaller number of teaching hours. Finally, some schools may happen to organise their work less efficiently than others, forming smaller classes or employing more teachers than could be attained in the given conditions, resulting in higher per student expenditures. Hence the allocated funding and actual expenditures should be balanced at the school level.

In the current financial arrangement schools and local governments use several methods to balance the school budgets. First, the funding scheme provides some flexibility allowing local governments to redistribute a limited share of student basket funding among schools or increase school resources at the expense of pedagogical services or in-service teacher training. This way high cost schools may receive additional resources. During the OECD review, representatives of local governments reported using this instrument intensely.

Second, actual teacher salaries are paid in proportion to the teacher workload (see the section on teacher salaries). If the number of teaching hours is below the level required in a full-time position (i.e. 18), teachers are paid proportionally lower salaries. Moreover, the school leader assigns the additional pedagogical hours for each teacher on a discretionary basis at the beginning of the school year. This provides further room for manoeuvre in adjusting actual teacher salary expense to the available resources.

Third, school leaders can adjust the level of actual teacher salaries by setting the exact salary coefficient of the monthly tariff pay within a range (about 10%, depending on teacher category, see the section on teacher salaries). The OECD review team noted that the schools visited during the review usually applied this uniformly to all teachers. This way schools are able to reduce or raise the overall level of salaries to some extent in order to balance student basket funding and actual teacher salary costs. As the coefficients can be set on a monthly basis, adjustments can be made within the budget year as well. If some resources were saved during the year, teacher remuneration can be moderately increased in the last months. However, the OECD review team noted that the schools visited during the review typically set this coefficient at a middle level. In these schools at least, this instrument seems to have only minor importance in balancing funding and actual expenditures.

## Strengths

### ***The funding approach includes a degree of flexibility for local adjustments***

The Lithuanian school system includes a clear distribution of responsibilities across different governance levels (Chapter 2). The alignment of the funding approach to these governance structures is a strength. First, there is a clear division between teaching costs and maintenance costs. This allows some flexibility of education expenditures at the school and municipal level, by allowing municipalities to decide on different trade-offs in management of school facilities. It also promotes greater efficiency (see below). Second, the use of a central funding formula for teaching costs ensures that the central government has means to influence teaching quality. This centralised formula funding scheme is consistent with the institutional setup in which the Ministry of Education and Science is responsible for the content and quality of teaching and for providing adequate level of funding to each school (Herczyński, 2011). At the same time, giving local governments the



opportunity to allocate a minor share of resources for the teaching process at their own discretion leaves some room for local education policies to be developed and adds some flexibility to the funding scheme. This is important because no matter how well designed a national funding formula is, it can never adequately reflect the varying needs of schools.

### ***Use of a central funding formula supports transparent and fairer resource allocation***

The 2001 education finance reform set ambitious goals and high expectations. Though they were not met fully, the implementation of the new financial arrangement indisputably improved the allocation and use of resources in education significantly in many respects. The student basket scheme allocates funds in a very transparent and predictable way. Establishing a more equitable system of allocating resources was one of the major goals of the reform, as prior to the student basket, disparities in municipal tax revenues had had an effect on school resources (Plikšnys, 2009). The formula has a simple logic which can be well understood by stakeholders, in spite of the complexity of the exact calculations.

The student basket scheme is in general accepted by most municipalities and schools as a fair method of allocation, though some controversies related to certain details of the formula prevail (see the discussion below on small schools). The formula essentially ensures horizontal equity of funding across schools, i.e. similar schools receive similar funding. The student basket scheme allocates the same funding for private and public schools, promoting competition both between and within the two sectors. Moreover, it recognises the additional funding needs of small rural schools and in this way aims to enhance equity in the access to education.

### ***The central funding formula is a key policy tool that supports public debate***

In addition, the transparency of the formula has a beneficial impact on policy debates at the national level. Fazekas (2012) cites the presentation of clear criteria that can be scrutinised and debated as a clear advantage of a funding formula for the allocation of public funding. The formula provides a clear framework for the debates on the sufficiency and proper allocation of funding. These debates often focus on certain parameters, which helps the participants to express their positions clearly and make agreements that are easy to monitor. The amount of the student basket is set every budgetary year by the central government. On the one hand yearly adjustments follow on from changes in the average teacher salary, either due to a change in the fixed basic salary in the public sector, or the statutory coefficients of the teacher salary scale or changes in the actual average salary due to changes in the composition of the teacher population. At the same time the supplementary components in the student basket formula are sometimes adjusted, as a result of a balance between fiscal considerations, pressure from teachers' unions, local governments and schools, and policy considerations of the Ministry of Education and Science. For example in the autumn of 2014 increased funding for non-formal education was ranked high on teacher unions' agenda and was increased by the government for 2015. Therefore, these components are adjusted as a result of political bargaining from time to time.

### ***The funding scheme promotes fiscal discipline and efficiency both at the local and central levels***

Teaching expenses in the municipal and school budgets must be matched to the allocated student basket funding. At the same time, the formula provides a tight grip on

the education budget at the national level. Once the amount of the student basket is approved, total expenditures cannot increase unpredictably within the fiscal year. Increasing the budget from one year to another requires an explicit and publicly discussed decision to raise the amount of the student basket. Funding average as opposed to actual teacher salaries is a key element in the formula that imposes a cap on local salary expenses as well. This allows the central government to indirectly control any increases in education spending due to the promotion of teachers into higher qualification categories, as promotions are only possible within the current budget of the school.

As the formula is built on deriving the expected costs of employing the necessary number of teachers in a school, conditional on the number of students, in general a minimum required level of funding is guaranteed. In other words, the method of the calculation ensures that the funding cannot be cut well below a sufficient level on average. However, note that sufficient funding to have teachers in each classroom at each lesson is different from adequate funding for providing education of good quality. The latter is much more difficult to ensure or even to measure and evaluate appropriately (Fazekas, 2012).

The funding scheme in general conveys clear incentives for schools to increase class size and to strive for attracting more students, even though in some cases these incentives are broken by discontinuities in the formula or the non-linearity of costs (see below in the Challenges section). From a theoretical perspective, building the formula on average as opposed to actual teacher salaries reinforces these efficiency incentives, as schools are encouraged to consider also the costs when employing teachers (Levačić, 2008). Furthermore, per student funding pushes municipalities to adjust the school network in order to increase school size, and thus exploit economies of scale. These incentives, accompanied by the autonomy and flexibility provided for schools in resource use, played an important role in the adjustment to the dramatic decline in the number of the student population and improved the cost-effectiveness of education. Even though it can be argued that the efficiency improvement is not on par with the ambitious original goals of the reform, given the depth and speed of demographic change the adjustment of the school network should be regarded as a considerable achievement (Herczyński, 2011).

Note that the sharp separation between the student basket that funds teaching and the municipal funding of school maintenance is a necessary condition for these incentives to work. In the absence of such separation, municipal funding could mitigate or even overwrite the incentives set by the formula. Under the current scheme, if enrolment increases student basket funding for the school also increases, providing a general incentive for schools to compete for students. At the same time, if there were no limits set for municipalities to redistribute funding from “successful schools” (defined as those attracting the greater number of students) to “struggling schools” (defined as those not attracting a sufficient number of students), this incentive would cease to work, as schools could not gain additional revenues by attracting more students. Note that this kind of redistribution is not only demanded by schools with low enrolment levels, but can be convenient for municipalities, as well. If teaching and school maintenance expenditures were not separated in the school budget, municipalities could achieve this redistribution indirectly. Maintenance funding for the successful school could be decreased, forcing the school to use the additional student basket funding for school maintenance, while additional municipal funding for the struggling school could be used to replace the missing student basket funding for teacher salaries. The separation of teaching and maintenance expenditures in the school budgets precludes this hidden redistribution.<sup>4</sup>

The student basket scheme also inspires and provides a model for the allocation of school maintenance funds for some municipalities. Though the general practice appears to be to allocate these funds by discrete budgetary decisions, some local governments apply a more systematic approach. For example the Šiauliai City Municipality introduced a local formula funding scheme that closely mimics the logic of the student basket and is referred to as the “municipality basket”. The size of the required staff is estimated by taking into account both actual enrolment and optimal school size which is set by the local government for each school type. Multiplying the required staff by an average salary coefficient results in the allocation for non-teaching staff salaries. Funding for material costs is also calculated with the formula. Beyond making the allocation of funds more transparent, this scheme also provides a wider autonomy for schools in using these funds. The OECD review team noted the share of the student basket funds within Šiauliai’s municipal education budget (close to 80%) was relatively higher than in other municipalities, which indicates that expenditures on school maintenance are relatively lower in Šiauliai.

***The funding approach includes key elements that promote an equitable allocation of resources***

A major advantage of the student basket scheme, and formula funding methods in general, is to ensure horizontal equity in the distribution of resources across schools. Municipal redistribution of a minor share of funding may result in some deviations, but this hardly endangers equity in the allocation of resources. Note that the sharp separation of the student basket funding from municipal funding of school maintenance is as important for equity as for efficiency incentives. Municipalities are not allowed to increase expenditures on teaching, even if abundant resources are available in the local budget.

Additionally, an element of the student basket scheme promotes equity in an indirect way. Funding average salaries impedes extreme differences in teacher qualification across schools, which drives towards equity. That is, the funding formula practically does not allow for employing mostly methodologist and expert teachers in a school, which is a constraint on outstanding disparities in education quality.

Disparities in funding can be expected to emerge only regarding school maintenance. However, the structure of local public finances appears to restrain these effectively in Lithuania. Local government revenues are dominantly set by the central government. The major sources of revenues are intergovernmental grants and the shared personal income tax, with a strong element of equalisation in the latter (Davulis et al., 2013). The share of local tax and non-tax revenues was below 20% in 2012 and local governments rely mostly on intergovernmental grants (Davulis et al., 2013). This revenue structure suggests that wealth inequalities between municipalities are not likely to create substantial differences in school maintenance expenditures.

***The funding approach supports a good level of school autonomy over resources***

The education finance reform broadened school autonomy within clearly defined limits. This setup created the opportunity for increasing the accountability of school leaders. School leaders’ authority covers the organisation of classes, assigning different workload for individual teachers, setting the level of teacher salaries and influencing the promotion of teachers into higher salary categories. The autonomy in allocating teaching

hours and setting teacher wages within a range provides an opportunity for rewarding and encouraging quality in teaching, even though during the school visits the review team got the impression that this autonomy is typically not used to establish merit pay.

### **Availability and use of EU funds support key effectiveness and efficiency objectives**

Finally, besides the student basket scheme, the allocation and utilisation of EU funding grants should also be mentioned among the strengths of education funding. First, this diversification of funding was a core part of the government's short-term strategy to limit the impact on the overall education budget of the required reductions in the convergence programme for the public sector (Chapter 2). The absorption rate of these funds dedicated to education is quite high (Table 3.3). Second, during the country visit the review team got the impression that the operational programmes are built on a thorough strategic planning and a careful choice of priorities. The majority of funding was concentrated on the development of the school network in some key fields: vocational education, kindergarten services and small rural schools providing additional services, the so called multifunctional centres, plus the provision of school buses (for an example, see Chapter 2). These support the broader effectiveness and efficiency objectives for the education system.

**Table 3.3. Use of EU funds in pre-school, general education and vocational training facilities**

Financing of the measures of the Operational Programme for Promotion of Cohesion for improving pre-school and general education and vocational training facilities (as at 21 October 2013)

	Funding allocated (LTL)	Funds paid out to project promoters (LTL)	Share of funds absorbed (%)
Establishment of universal multifunctional centres in rural locations	80 649 537	47 277 326	58.6
Investment in pre-school education institutions	91 725 688	77 763 864	84.8
Adaptation and upgrading of technology, natural sciences and arts facilities in general education schools	86 450 000	86 450 000	100.0
Development of the infrastructure of the network of public libraries in general education institutions	22 440 000	22 426 344	99.9
Reformation of special schools and establishment of methodological centres	5 000 000	1 285 408	25.7
Upgrading of facilities of pedagogical psychological services and work environment of special pedagogues, social pedagogues, psychologists and speech therapists working in educational institutions	35 368 011	34 365 159	97.2
Upgrading of general education schools	34 200 000	34 199 349	100.0
Development of the infrastructure of private general education schools and public general education schools implementing artistic development programmes	30 220 152	24 571 129	81.3
Modernisation of adult education institutions	10 071 384	10 068 538	100.0
Development of vocational training facilities	407 411 154	205 772 115	50.5

Source: NASE (2015), *OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for Lithuania*, National Agency for School Evaluation, [www.oecd.org/edu/school/schoolresourcesreview.htm](http://www.oecd.org/edu/school/schoolresourcesreview.htm).

## **Challenges**

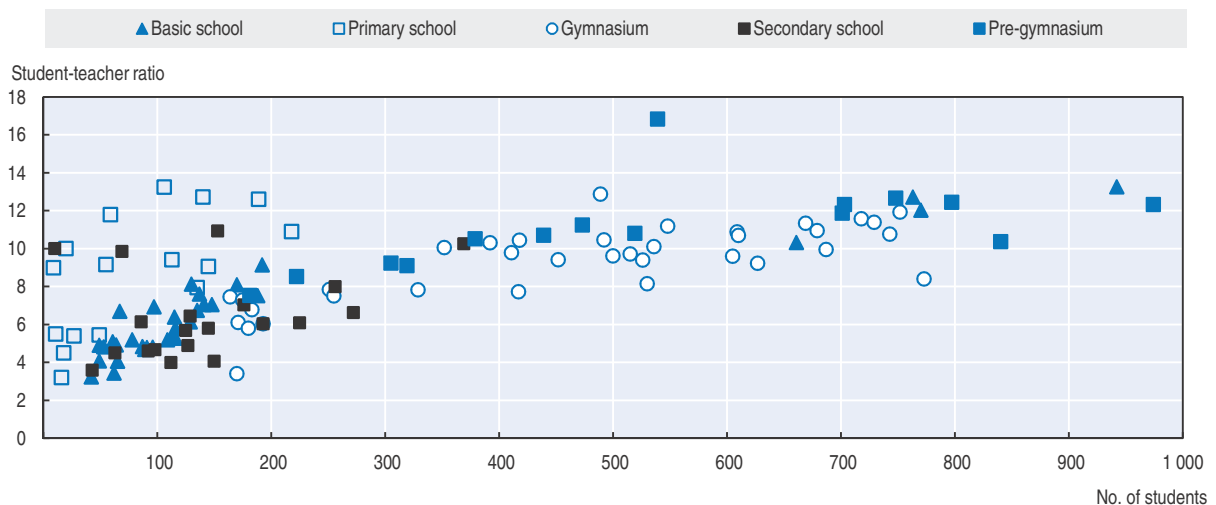
School funding in Lithuania is characterised by serious tensions, some of the issues are already placed high on the policy agenda.

### ***Adequate funding of small rural schools is difficult to ensure***

Probably the most recurrent student basket formula debate is on funding for small schools, which has potentially significant ramifications including weaker incentives for school consolidation and for school competition and a lower overall level of efficiency. This emerges as a permanent hotspot of the current financial arrangement, despite adjustments of the student basket formula in the mid-2000s. Representatives of school leaders and local governments during the OECD review shared the view that in general in small schools teaching costs are more difficult to accommodate to student basket revenues. It is important to remember that not only the overall level of funding per class is lower in smaller schools but also its variation as a function of the exact enrolment numbers. In other words, if a relatively small school operates with only few, but sufficiently large classes, funding per class can be at a level similar to large schools. For example, if the funding scheme provides adequate resources for teaching costs in a primary school with an enrolment of 80, with one class per year, a school with 51 students, but also with four classes and the same number of teachers, can be expected to encounter a serious imbalance between funding and costs.

Figure 3.1 illustrates the higher expenditures of small schools by depicting the student-teacher ratio as a function of school size for the five municipalities visited during the country review. Note that this is not a representative sample of Lithuanian schools, though both urban and rural areas are included. The figure clearly suggests that the student-teacher ratio increases sharply up to the point of 250-300 students in a school (except primary schools). Interestingly, in these municipalities more than half of the schools fall in this size category, characterised by strong economies of scale. In other words, the small school problem is not limited to a handful of schools in remote areas.

Figure 3.1. **Student-teacher ratio and school size in five municipalities, by school type, 2013**



Source: Data provided to the OECD review team by the Ministry of Education and Science.

To our knowledge no systematic and comprehensive appraisal, based on micro level data about the adequacy of the actual funding level in schools of different size, type and location has been prepared yet. A related question is whether the allowed redistribution of

student basket funding across schools leaves sufficient room for local governments to smooth these differences. Overall detailed empirical evidence is still missing on this problem.

Funding of small schools appears primarily as a question of fairness of the funding formula. However, differences in education quality and inequalities of opportunity in education are also affected. Rural neighbourhoods can be expected to be less attractive for teachers due to settlement size *per se* and the less favourable composition of students (lower socio-economic status on average). As this is not compensated by higher wages, rural schools are severely constrained in employing teachers of the highest quality. Moreover, as far as rural schools are attended by students with a lower socio-economic status on average, the achievement gap between the poor and the rich widens this way. These problems are reinforced by a lower level of student basket funding.

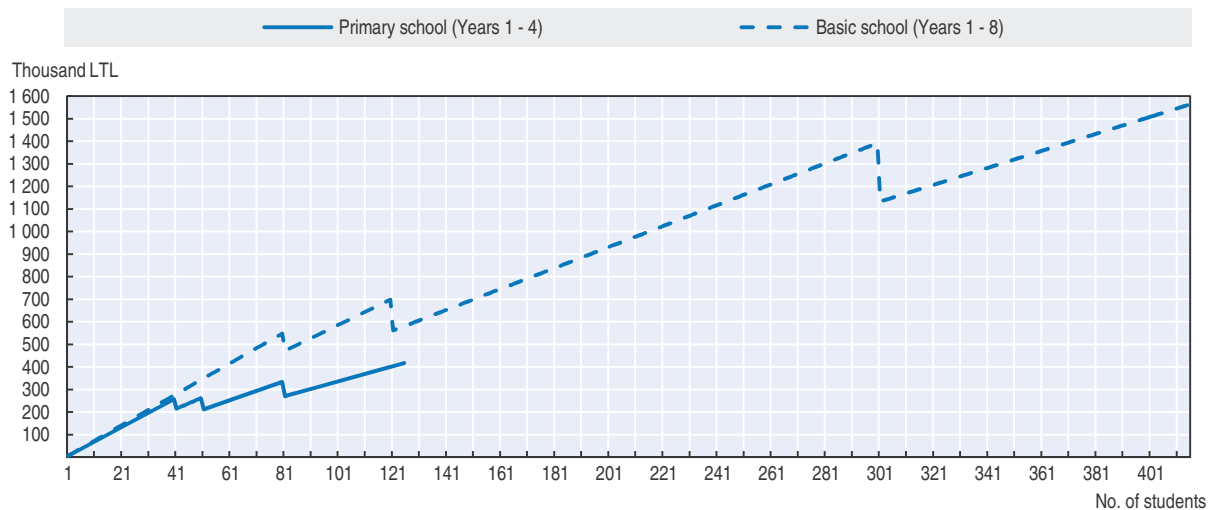
### ***Discontinuities in the funding formula impair horizontal equity in funding***

Funding problems of small rural schools are currently addressed by shifts in the student basket formula at certain school sizes. At the same time this formulation of the additional support for small schools is often argued to still generate fiscal pressure for some schools and possibly perverse incentives. As Herczyński (2011) pointed out these discontinuities impair horizontal equity in funding, since two almost identical schools, apart from the fact that one of them enrolls one additional student, receive substantially different levels of funding. These discontinuities emerge because of the sharp drops in total funding at the cut-offs between size categories of schools.

To illustrate this, Figure 3.2 shows the total student basket funding as a function of total enrolment for two representative rural schools: a primary school with Years 1 to 4 and a basic school with Years 1 to 8, each with regular students only (the argument follows that in Herczyński, 2011). At the threshold of size categories there is a sharp drop in the amount of total funding. This implies that if student enrolment increases beyond the cut-off point, the school loses resources and substantial further expansion is required to recover the previous level of funding. For primary and eight year basic schools the drop at the first cut-off point is of 16% and 14% respectively, at the higher cut-off points, it is 19% (Figure 3.2). The funding drop at cut-off points appears to hit more primary and basic schools, while the impact is less significant on secondary schools. For secondary schools with twelve years the values are 14% and 3% (Figure 3.A1.1, Annex 3.A1). It can be argued that these decreases make the allocation of resources inequitable. Also, this may provide perverse incentives for schools that see maximising funding as a major priority. If total enrolment just exceeds a funding cut-off point the school may be tempted to deter some students and step down into the smaller size category instead of striving to attract more students.

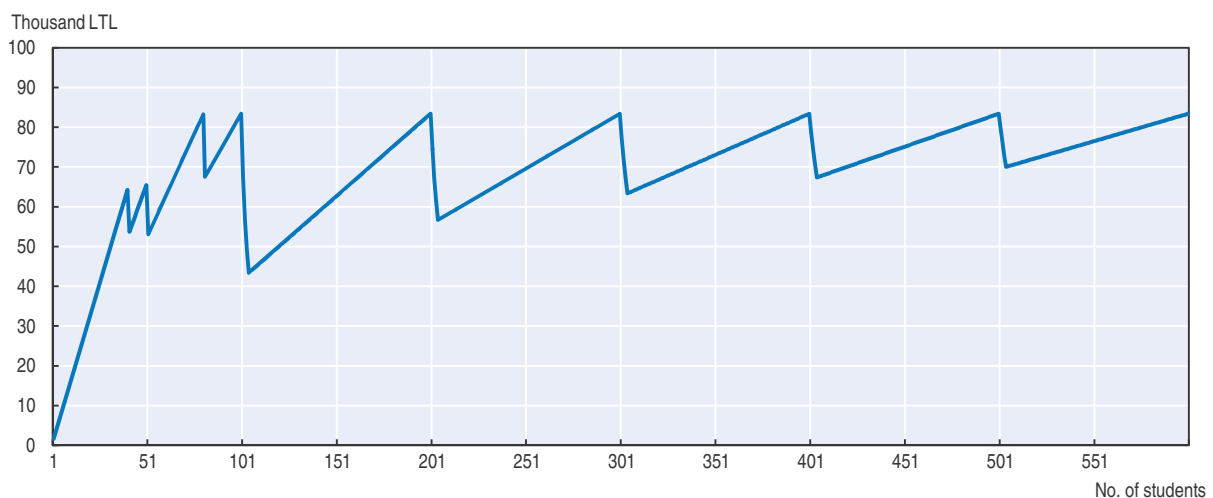
### ***A funding scheme proportional to enrolment and the non-linearity of costs creates tensions, especially in small schools***

Discontinuities in the formula reveal only part of the tensions created by the funding scheme. School size may affect teaching costs as well as total funding in a non-linear fashion. This is because teaching costs are more closely determined by the number of classes than the number of students, and the number of classes is a non-linear function of total enrolment. The marginal cost of teaching an additional student is substantial if an additional class must be established but is close to zero otherwise. Hence it is informative to look at funding level per class, which may provide a more accurate picture of the

Figure 3.2. **The student basket for rural primary and basic schools of different size, 2014**

Source: Based on Table 3.1 and student basket amount for 2014.

financial situation of the school. Figure 3.3 depicts this, representing simulated funding level per class in primary schools, assuming equal enrolment in each year and a strict maximum class size of 25, i.e. schools are assumed to increase class size up to 25 but the enrolment of the 26th student leads to the setup of an additional class. In a primary school with four years this means that 100 students are arranged into 4 classes while from 104 the number of classes is 8. Note that the maximum class size value of 25 is chosen arbitrarily here. It is important to keep in mind that this is a stylised representation of the current funding arrangement and should be interpreted with caution. However, the assumptions do not affect the overall pattern, only the magnitudes and frequencies of peak values.<sup>5</sup>

Figure 3.3. **Student basket funding per class in primary schools (Years 1-4), by school size, 2014**

Source: Based on Table 3.1 and student basket amount for 2014.

Keeping these assumptions in mind the patterns of Figure 3.3 still suggest three important lessons for the current financing arrangements. First, opening additional classes appears to have at least comparable or an even larger impact than drops at funding formula cut-off points.<sup>6</sup> In other words the discontinuities in funding per class are likely to exceed those of total funding per student.

Second, the smaller the school is, the larger the fluctuations in per class funding are. Funding per class becomes more stable as school size increases, especially for primary schools: creating a third or fourth class causes a smaller drop in average class size than opening the second. Note that similar figures for funding per class in basic schools and secondary schools are presented in Figure 3.A1.2, Annex 3.A1.

Third, the overall level of funding per class is below the typical range for the smallest primary and basic schools. That is, primary schools with less than 60-70 students and eight year basic schools with an enrolment below 80-90 currently seem to receive less funding compared to larger schools. It is worth recalling here that student basket funding covers not only teacher salary costs, which predominantly depends on the number of classes but salaries for the school management, as well. As there is a fixed cost element in the latter, economies of scale can be significant, especially for small schools. This implies higher administration costs per class in the smallest schools which means that the fiscal pressure on these schools can be even stronger than suggested by Figure 3.3 and Figure 3.A1.2 in Annex 3.A1.

Altogether it appears that the actual class sizes have a strong impact on the current student basket funding being sufficient to cover actual costs. This impact is stronger for the smallest schools. Moreover, larger and especially urban schools can be expected to have more room to smooth out these discontinuities of per class funding. Popular schools attracting students from outside their designated catchment area, for example, are likely to have reasonably large average class size.

### **Low wages, especially for new teachers, but a need to attract new talent into teaching**

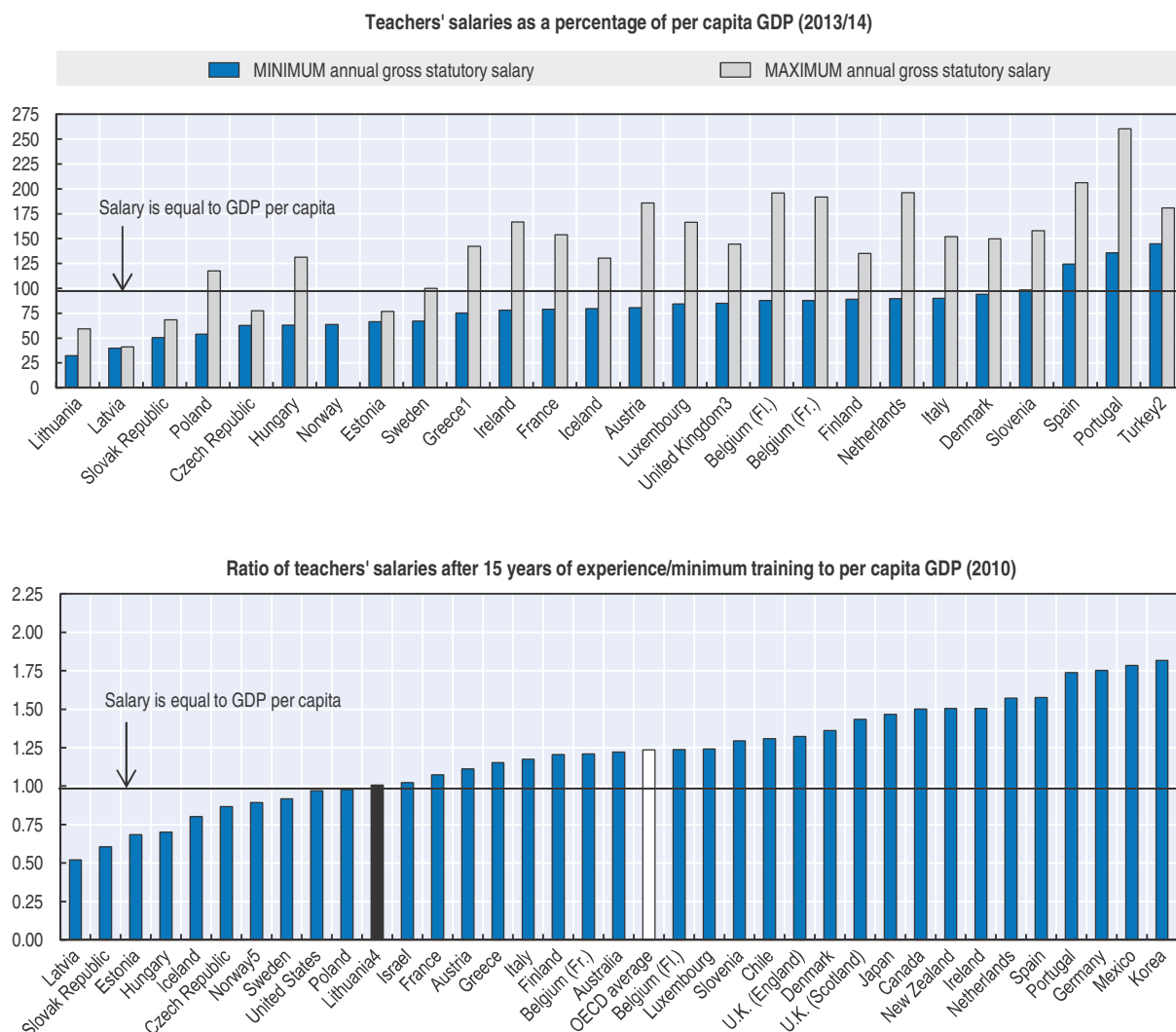
The ageing teacher workforce and the difficulties of attracting talent into the teaching profession emerge as a key problem in the medium and long term. Though these are not problems of education finance *per se*, they are deeply rooted in the financial arrangements and should be addressed also by budgetary changes. First, note that the ageing teacher population and the low attractiveness of the profession for the young are two interrelated problems. The high share of teachers above fifty years of age or already retired is outstanding in international comparison (see Chapter 4). This implies that in the medium or long term Lithuanian schools may encounter sudden teacher shortages, especially given the low number of new entrants to the profession. One of the visited local governments reported difficulties in the recruitment of young teachers already. At the same time, the small number of vacancies in schools makes it difficult for young teachers to start their teaching career. This situation was generated by the incidence of two trends. On the one hand, the shrinking student population resulted in adjustments of the school network and a dramatic decrease in the number of teaching posts. On the other hand, teacher turnover has slowed down as a large number of teachers already in retirement continue teaching. For example in one of the municipalities visited the share of teachers above the retirement age well exceeded 10%.



Unfortunately, the current conditions in the teacher labour market rather deter than attract talented young people into the teaching profession. Due to the small number of vacancies, employment prospects as a teacher are not reassuring in the short term. Teacher salaries relative to national income (GDP per capita) are low in international comparison, but in particular for new teachers (see also point below):

- European data that compare annual gross statutory salaries (such data exclude additional benefits or salary allowances, e.g. for different qualification categories, additional responsibilities, teaching students with special educational needs or in difficult circumstances, etc.) are shown in Figure 3.4, Panel A. In the academic year 2013/14, the

Figure 3.4. **Relative attractiveness of teacher salaries in lower secondary education**



1. GDP data are for 2012.
2. GDP data are for 2011.
3. Data are for England and Wales only.
4. Average actual teachers' salaries for all teachers, irrespective of the level of education they teach.
5. The GDP mainland market value is used.

Source: For Panel A data are taken from Eurydice (2014), *Teachers' and School Heads' Salaries and Allowances in Europe 2013/14*, [http://eacea.ec.europa.eu/education/eurydice/documents/facts\\_and\\_figures/salaries.pdf](http://eacea.ec.europa.eu/education/eurydice/documents/facts_and_figures/salaries.pdf); for Panel B data are taken from OECD (2013), *PISA 2012 Results: Excellence through Equity (Volume II): Giving Every Student the Chance to Succeed*, <http://dx.doi.org/10.1787/9789264201132-en>, Table IV.3.3.

minimum and maximum teacher salary was 32% and 59% of the per capita GDP respectively at each level of public education; the lowest minimum and second lowest maximum value in the European Union (Eurydice, 2014). Teacher salaries significantly exceed the Lithuanian level in each of the EU10 countries,<sup>7</sup> as well, except Latvia. New recruits to teaching are likely to be at or near the minimum salary, with more experienced teachers also likely to have additional benefits related to different qualification categories and additional responsibilities.

- OECD data compare teacher salaries after 15 years of teaching relative to national income (note the maximum annual gross salary in Lithuania, as shown in Figure 3.4 Panel A, is attained after 15 years of teaching). The OECD uses data for *actual* teacher salaries in Lithuania and finds that these are at the level of national income, although teacher salaries are still relatively less attractive than in other OECD countries (Figure 3.4 Panel B). Note also that following the financial crisis in Lithuania, per capita GDP has been steadily increasing from a low point in 2009. In the OECD comparison, per capita GDP was weaker, while it had recovered somewhat in the European comparison (NASE (2015) gives 2010 per capita GDP at LTL 30 890 and 2013 per capita GDP at LTL 40 385).

Increasing teacher salaries significantly requires either raising the total spending on education or adjusting the use of resources in order to reach higher student-teacher ratios. However, in the short term it is difficult to increase substantially the total amount of resources devoted to education due to fiscal constraints (see Chapters 1 and 2).

As noted, new teachers are more likely to be at or near the minimum level of annual gross salary as shown in Figure 3.4, Panel A. Low wages are aggravated by the uncertainty generated by salaries set on the basis of the actual workload, accompanied by the practice that young teachers are on average allocated fewer contact and pedagogical hours than the more experienced colleagues until they attain the senior teacher category (see Table 3.4). This widens the salary gap between the less and more experienced and qualified teachers, as teachers in the early phase of their career are, on average, more prone to have a smaller number of pedagogical hours and consequently have even lower salaries.

Table 3.4. **Teacher qualification and experience and average number of weekly working hours, 2013**

Teaching experience	Up to 10 years		10-15 years		15 years or more	
	Teaching hours	Pedagogical hours	Teaching hours	Pedagogical hours	Teaching hours	Pedagogical hours
Non-certified teacher	14.57	19.83	13.72	18.97	13.76	18.95
Teacher	15.59	21.53	15.72	21.75	13.14	18.14
Senior teacher	18.03	25.25	18.52	26.19	18.07	25.52
Methodologist teacher	19.33	26.56	20.44	29.19	19.81	28.48
Expert teacher	16.63	21.55	21.83	28.70	20.38	28.76

Source: Data provided to the OECD review team by the Ministry of Education and Science.

### ***Despite budgeting autonomy, many Lithuanian schools have little room to reward teaching quality***

There is a general inherent tension in the student basket funding scheme: the funding based on average salaries can differ significantly from actual salaries due to the actual composition of teachers. While central funding is allocated by a formula that includes weighting factors to acknowledge some variation in teaching costs across schools, actual

teaching costs can be expected to vary much more, and some schools may have higher than average teaching costs due to conditions that cannot be addressed easily in the short term. The funding formula is calculated with reference to average teacher salaries, while the actual payroll of the schools can deviate from this by a wide margin. Teacher salaries are regulated by the national salary scale but the composition of the teaching workforce is different from school to school. The higher the share of teachers with more years of experience or belonging to a higher qualification category, the larger the actual salary expenses are in the school. In the short term schools have only limited influence over this factor. When a new teacher is recruited or a teacher applies for promotion, the decision affects salary expenses of the school. Nevertheless, during the school visits in the OECD review, the school leaders claimed that fiscal conditions typically do not constrain the promotion of teachers into higher qualification categories. However, the composition of teachers with respect to the years of experience is in general a factor that schools have little influence over.

Moreover, these problems can be more pronounced for small schools as the variation of this gap might be larger simply due to the smaller number of teachers. For example, in larger schools the positive and negative differences of individual salaries and the average salary coefficient used in the student basket formula are more likely to cancel out to some extent.

Under tight budget conditions balancing average and actual salaries may exert a huge pressure on school management. This is advantageous for the central government from an austerity perspective, as individual school decisions cannot increase overall education spending within the year and schools are forced to adjust actual teacher salaries downwards if it is necessary. On the other hand, school visits of the review team provided the impression that currently school autonomy in budgeting is often confined to balancing the funding constraint and teacher salary spending. Although school autonomy in budgeting is an appealing feature of the current financial arrangement from a theoretical point of view, managing this tension leaves little room for initiatives to improve, encourage and reward quality of teaching.

One way of balancing the student basket funding with actual expenditures is to set the level of teacher salaries according to the available school budget (see above). Although the freedom of schools to choose the exact teacher salary coefficients within the range set by the national teacher salary scale provides an opportunity, at least in theory, to reward high quality teaching, it is mainly used to balance the school budget. Moreover, this generates disparities in teacher salaries across schools, raising equity concerns. Different salaries for similar work can be regarded unfair. At the same time, as Plikšnys argues (2009) the fact that currently teachers receive the same salary for working in different circumstances in terms of class size, year and class composition is also questionable on equity grounds.

### ***Inequalities related to the socio-economic background of students receive little attention***

The focus of both policy and academic discourse regarding equality of opportunity is most often on whether students have special educational needs and/or study in a national minority language, while achievement gaps with respect to children's socio-economic background are largely omitted. The current funding scheme reflects this focus and limitation. Inequality of opportunity measured by student achievement differences related to family background can be regarded to be at a medium level in a European comparison. For example the gap in mathematics performance between the top and bottom quartiles of

the socio-economic status distribution is somewhat below the average of the European countries, though significantly higher than in the Nordic countries or Estonia (OECD, 2013, Figure II.2.6). This suggests that though it is not an outstanding social problem at the moment, considerable inequalities between students from relatively less and more advantaged socio-economic backgrounds do exist and should not be ignored in education policies.

### ***Differences in allocation of funding at the municipal level***

A key feature of the Student Funding scheme is that local governments decide on using a given share of the funds. On the one hand, this part of the student basket provides funding for municipal educational services. At the same time, it can be reallocated among schools in order to balance teaching cost differences (see above). However, the incentives for improving efficiency are also weakened by this redistribution if local governments reallocate resources to inefficient schools from more efficient ones. Another possible drawback of this setup is the danger of inadequate levels of resources spent on pedagogical services and in-service teacher training, as funding teacher salaries in each school is the top priority.

Though policy debates at the national level are typically centred on the student basket scheme, besides that local governments are responsible for a sizeable amount of education expenditures. During the visits in the OECD review, the team gained the impression that there are marked differences among municipalities both in the level of funding school maintenance, the methods used for allocating these funds and presumably in the cost-effectiveness of funding as well. During the OECD review, school leaders at the school visits often reported a limited autonomy on the usage of school maintenance funds as usually both the number of non-teaching staff and their salaries are approved by the local government. As local governments have accrued large debts, improving the efficiency of municipal service provision is of prime importance (NAOL, 2014).

### ***Some concerns about the quality of data on students and schools underpinning formula funding***

Though considerable progress has been achieved in this respect since the introduction of the education finance reform, the National Audit Office claims that the reliability of data provided by schools should be improved further. In a 2012 report the National Audit Office analysed the allocation and use of student basket funds and found that data on enrolment and student characteristics used for calculating the funding are still not sufficiently reliable (NAOL, 2012).

## **Policy recommendations**

Though the 2001 education finance reform established a clear and essentially well-functioning arrangement for funding schools in Lithuania, some tensions call for further considerations. The following policy recommendations are suggested in the context of an overall recommendation to both create further efficiency gains and to increase the level of funding in the longer term (see Chapter 2).

### ***Secure funding in the short-term to help attract and retain new talent into teaching***

Substantial improvements in education quality are hardly achievable without increasing educational spending and efficiency in resource use that are both lower than in

most European countries. In particular, in the long term teacher salaries should be raised considerably in order to make the teaching profession more attractive for talented young people. International comparisons suggest that this appears to be a key factor in creating a successful system (Mourshed et al., 2010).

As this cannot be achieved from one year to the next, in the short term, salaries for new entrants and teachers in the first years of their career should be increased noticeably. One way to do this could be to grant additional pedagogical hours for novice teachers acknowledging the time consuming effort to prepare for lessons, given that currently these teachers earn smaller salaries in part due to the smaller number of teaching hours allocated to them on average.

Moreover, more vacancies should be created to provide more employment opportunities for young teachers. One option to do this would be to decrease employment of teachers who are already in retirement but still teaching. Some of these teachers could be employed in new roles to use their experience, e.g. as mentors for the young, with a smaller number of teaching hours or in part-time jobs. However, a categorical prohibition of employing teachers in retirement should be avoided, as this could create sudden teacher shortages in some regions.

### ***Avoid introducing a universal class basket funding scheme***

In Lithuania, the sufficient funding of small schools is a long lasting unresolved challenge. At the time of the OECD review, policy debates gravitated towards replacing the student basket with a class basket scheme, i.e. allocating funding as a function of the number of classes. This approach is appealing since it acknowledges that the cost of teaching is determined much more by the number of classes than by total enrolment and it can smooth the imbalances created by per student funding. Subsequent to the OECD review, the government approved, in November 2015, an experimental methodology to calculate and allocate education resources. This pilots a model of a “class basket” in five municipalities.

However, a class basket scheme would considerably weaken the incentives to organise schooling efficiently and to compete for students. Schools would unlikely organise classes larger than prescribed by regulation, while currently their financial interest is to maximise class size. For example, if the maximum class size is 30, a school with about 60 students per year can be expected to strive for enrolling 61 students, and organising three smaller classes. Currently the incentive is to have 60 students and two classes. Lower average class sizes would involve higher per student expenditures and a decreased level of cost-effectiveness at the macro level. This is in a context where an existing challenge for schooling in Lithuania is an internationally low class size (Figure 2.8).

The class basket would also decrease the incentive for school competition substantially. Increasing enrolment marginally would not increase revenues, while incurring some additional costs, (unless of course the marginal student would allow setting up an additional class). The OECD review team raises a note of caution that the introduction of a class-basket scheme could risk reintroducing some of the basic problems that the 2001 education finance reform was intended to solve. Plikšnys (2009, p. 15) reports that before the reform municipalities typically distributed education funds following the number of classes, which resulted in “the funding of a large number of unnecessarily small classes [...] schools were not motivated to seek new enrolment...”.

Moreover, the financial incentive effects of per-student funding urging local governments to create a more efficient school network would cease to work as well. It is important to note the context of a declining average class size in urban schools (from 23.3 in 2006 to 20.6 in 2015). Currently, urban municipalities have an incentive to establish larger schools to alleviate budgetary pressures, as the higher per-student costs of small schools are not completely funded by the student basket. Furthermore, the local government is also interested in ensuring that class sizes are not too small, because that generates a stronger demand for the municipal share of student basket funding. By introducing a class basket scheme these incentives would disappear.

It is important to note that these side effects would be stronger if a class basket scheme were built on the actual as opposed to an expected number of classes. Moreover, funding tied to the actual classes requires a meticulous regulation of class size with a regular monitoring of compliance. These rules could be difficult to enforce and schools could gain substantial extra revenue by small manipulations of the data. Hence, if a class basket scheme is to be introduced, it should be built on a formula of the expected number of classes as a function of total enrolment per year. Normative class sizes should be set carefully in order to minimise the decrease in average class size. At the same time a class basket scheme would not necessarily balance the disparities in funding between small and larger schools entirely. School management and administration incur some fixed costs that are higher both per student and per class in small schools.

Altogether a universal class basket scheme could help smaller schools, but would undermine incentives for efficiency and presumably would result in smaller class size on average. This trade-off should be evaluated thoroughly. It will be essential, in evaluating the impact of the experimental methodology of the class basket, to consider how effectively this addresses the challenges for small, rural schools and, importantly, what the full costing implications will be if this is introduced system-wide.

### **Consider alternative measures to address funding challenges at the school level**

Some schools in Lithuania face distinct funding challenges. These may be related to their location and size, but also to the composition of their teaching body.

An alternative to a universal class basket scheme could be establishing a separate scheme for small rural schools in the current system that would grant exceptional status to these schools according to criteria like settlement size, population density and the remoteness of the location. These schools could be funded more generously either in the form of a class basket or supplementing the student basket with a fixed amount per school, while preserving the benefits of the student basket scheme for the majority of the schools. This approach would provide an opportunity for the central government for initiating further adjustments in the school networks when setting the criteria for the justified small rural school status. At the same time an obvious drawback of this approach would be creating harsh differences between similar schools just meeting or failing to meet the criteria for exceptional funding.

Besides the problems of small schools, differences in teaching costs are substantial in general, often resulting in a strong pressure on school budgets. Compared to small rural schools this is a much less highlighted issue, though it has important ramifications for both equity and incentives for efficiency. Fiscal pressure on schools should be relieved by taking into account to some extent cost differences due to teacher composition in terms of

experience and qualification in the funding formula. The current scheme has some advantages over funding actual teacher salaries, and establishing an actual salary scheme seems to be neither politically feasible nor desirable. However, cost differences could be smoothly incorporated into the formula by assigning different weights for categories of schools with a high, average or low salary cost index.

### ***More effectively address equity within the funding formula***

More attention should be given to equity in education besides urban-rural differences, and SEN and minority students. Inequality of opportunity related to social disadvantage is a fundamental equity problem in most countries. Though disparities in Lithuania are at an average level in international comparison, the problem appears to be overlooked in its funding policies. Several EU countries provide examples of incorporating indicators of social disadvantage into the funding formula. In the Netherlands low parental education is used as the key indicator of social disadvantage, and these students are assigned a larger weight in the funding formula (Ladd-Fiske, 2009). In the French Community of Belgium the schools are grouped into 20 categories with respect to the share of students with social disadvantage, and schools in the top 5 categories are entitled for additional funding (Demeuse et al., 2009). In the UK the majority of local education authorities take into account the free meal status of students, as an indicator for poverty in the local funding formula (Levačić, 2008). As Ladd and Fiske (2009) demonstrate on the example of the Netherlands additional funding on its own is hardly sufficient to tackle inequalities of opportunity in education. Nonetheless, as one part of a more comprehensive approach it can be a useful measure to improve the education of less socio-economically advantaged students. The possibility of assigning larger weights to socio-economically disadvantaged students in the funding formula should be considered.

### ***Evaluate the costs and adequacy of funding regularly***

Improving the funding scheme in accordance with raising education quality requires more evidence, both from regular audit work and academic research. Reliable and detailed evidence should be gathered on the costs and adequacy of funding in general, and on specific topics, e.g. small schools, national minority schools, the education of SEN students and equity problems related to social disadvantages. For example, an important feature of the general funding formula is that the overall allocation is based on a regular student in a class of 25 students. In 2015, the average class size in urban schools is 20.6 students and in rural schools is 11.4 students (Chapter 1).

In the first decade of the education finance reform, the National Audit Office prepared several reports evaluating the reform. These reports played an important role in initiating and supporting structural adjustments. The first report in 2003 investigated the implementation of the reform. The report revealed serious problems both in the calculation and the usage of the student basket funds. Several municipalities received more funds than they should have, and an estimated 4.7% of funds was spent on school maintenance instead of teaching costs (Herczyński, 2011). However, the last comprehensive report was published in 2008 and called attention to inefficiencies in education finance and the need for further optimisation of the school network (NAOL, 2008).

Improving the financial arrangements requires regular and detailed analysis of the adequacy of funding and its effects on the quality of teaching, the efficiency of schools and the equity of education. For example, while improving the funding of small rural schools is

high on the education policy agenda, a comprehensive analysis of the current situation based on solid empirical evidence is not available. Another example is the higher cost of education for SEN, migrant and national minority-language students. The funding scheme assigns additional funding to ensure vertical equity (i.e. providing education of similar quality to different students), while there is no systematic evaluation of the actual costs. Though this component of funding is naturally framed by political preferences as well, comprehensive and compelling analysis and empirical evidence on the exact cost differences would strengthen the basis for policy decisions.

### **Promote efficiency in municipal funding of school maintenance**

While the central government cannot directly influence the allocation and use of school maintenance costs, more attention should be devoted to improving efficiency in this field. Regular evaluation of resource use and the promotion of best practices in allocating municipal funding would be useful. Also, the National Audit Office (NAOL, 2014) has underlined the need for the Ministry of Education and Science in collaboration with municipalities to evaluate and review the implementation of state investment projects. In general, greater oversight of investments is required to ensure a more efficient and effective use of public funds.

### **Notes**

1. Some of these additional elements may enter the formula as a multiplicative term, which is omitted here for the sake of simplicity.
2. Individual student characteristics present the exception. For a student classified in more than one of the language minority, migrant and SEN categories only the highest coefficient is applied instead of the product of these.
3. Teachers of primary years in some minority schools (located in Eastern Lithuania with ten or more students out of whom 50% do not speak Lithuanian) are also entitled to a similar supplement (NASE, 2015).
4. However, this separation was not employed perfectly at the outset of the reform. Herczyński (2011) reports that in the first period following the education finance reform, a few local governments supplemented the student basket funding from general local government revenues in order to cover higher teaching expenditures. However, this practice was rather the exception than the rule, and the overall amount of these funds was negligible compared to the total student basket funding. The OECD review team did not note any such practice from discussions with representatives of local governments.
5. The assumption of equal distribution of students across years may increase the fluctuation of figures. Smaller maximum class size values have a similar effect. A more uneven distribution of students across years would reduce these peak values to some extent. Finally note that because the maximum class size rule is not strictly applied, i.e. some schools open additional classes with a lower number of students, Figure 3.3 does not represent the actual population average, in which discontinuities can be smoothed out to some extent.
6. Note that for secondary schools the 300-children cut-off cannot be noticed as it coincides with the switch point from one to two classes per year.
7. The EU10 refers to the ten “new” countries that joined the EU in May 2004, one of which was Lithuania.

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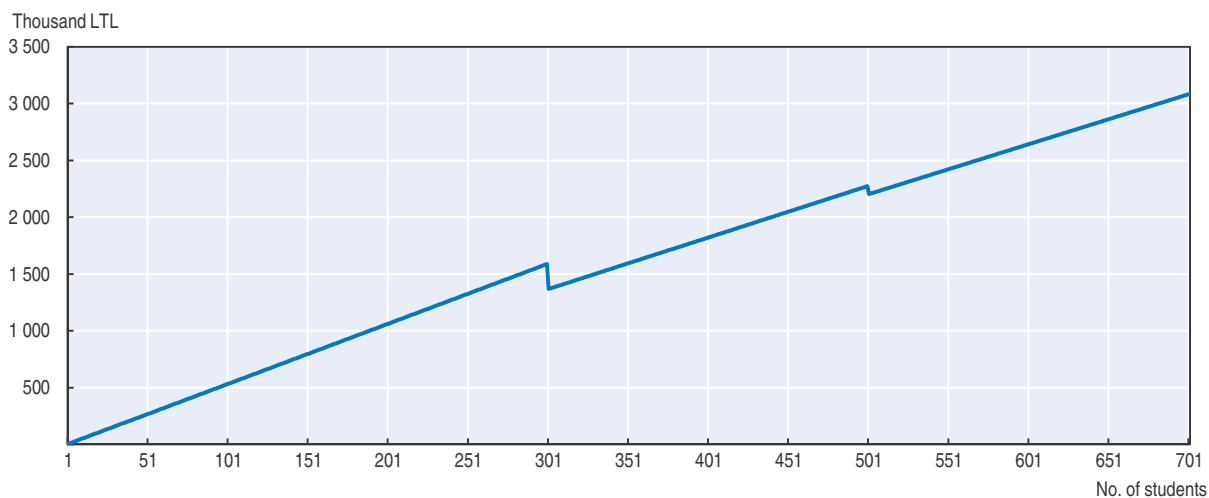


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ANNEX 3.A1

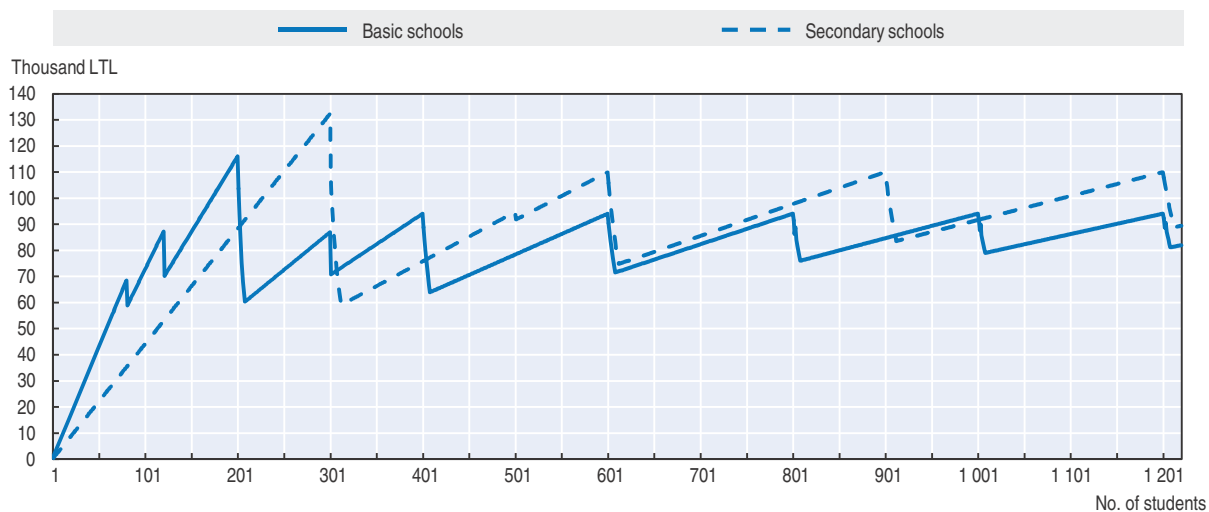
Data for Chapter 3

Figure 3.A1.1. Student basket funding for rural secondary schools (Years 1-12) of different size, 2014



Source: Based on Table 3.1 and student basket amount for 2014.

Figure 3.A1.2. Student basket funding per class and school size for basic and secondary schools



Source: Based on Table 3.1 and student basket amount for 2014.

## Chapter 4

# The teaching workforce in Lithuania

*This chapter presents a profile of the teaching workforce in Lithuania and describes current approaches to teacher initial education, recruitment, qualification requirements, work load, professional development and career structure. It considers the strengths and challenges inherent in the current system and makes policy recommendations designed to improve the management and development of the teaching workforce, including with a focus on planning the future supply of teachers and creating a more coherent teacher career pathway.*

## Context and features

### **Profile of the teaching workforce**

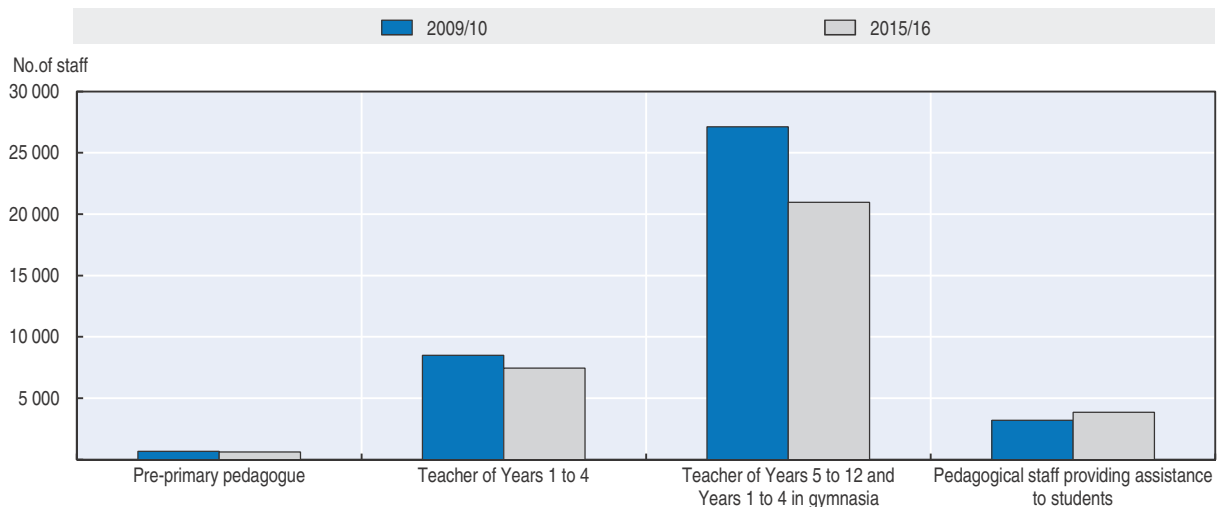
In 2010, teachers made up 3.5% of the Lithuanian active population (total of employed and unemployed persons), which was the second highest concentration of teachers in any European Union country (Luxembourg is the highest at 3.6%; the EU average is 2.1%) (Eurydice, 2013, Figure D11). The majority of Lithuanian teachers (92% in 2015/16) teach in general education schools. Between 2009/10 and 2015/16, the total number of pedagogical staff dropped by 16.5%, but the drop was slightly more pronounced in vocational education: in general education schools a drop of 16.2% to a total of 33 097 pedagogical staff (compared to 39 497 in 2009/10); and in vocational education and training schools a drop of 19.3% to a total of 2 866 pedagogical staff (compared to 3 550 in 2009/10) (Lithuanian Education Management Information System – EMIS).

Pedagogical staff in general education schools in Lithuania comprise four different groups: teachers of Years 1 to 4 (representing 22.7% of the overall pedagogical staff); teachers of Years 5 to 12 and Years 1 to 4 in *gymnasia* (63.7% of the overall pedagogical staff); pedagogical staff providing assistance to students (11.7% of the overall pedagogical staff); and pre-primary pedagogues (1.9% of the overall pedagogical staff). As shown in Figure 4.1, the reduction in pedagogical staff between 2009/10 and 2015/16 was not distributed equally across the different professional categories. While the number of teachers for Years 1 to 4 decreased by 12.2% and the number of teachers for Years 5 to 12 and Years 1 to 4 in *gymnasia* decreased by 22.7%, the number of pre-primary pedagogues declined by only 6.5% and the number of pedagogical staff providing assistance to teachers actually increased by 19.8% (Figure 4.1).

In vocational education and training (VET) schools, the body of professional staff comprise the following three groups in 2015/16: teachers (representing 30.4% of the overall pedagogical staff in VET), teachers of vocational training (65.5% of the overall pedagogical staff in VET) and tutors (3.8% of the overall pedagogical staff in VET). Between 2009/10 and 2013/14, the decline in pedagogical staff was most pronounced among teachers (a decrease of 24.4%), whereas the number of teachers of vocational training decreased by only 3.7% and the number of tutors increased by 9.4% (NASE, 2015).

As in other OECD countries, female teachers outnumber male teachers in Lithuania. The degree of feminisation of the Lithuanian teacher workforce is very high in general education schools, with 97.9% of female teachers at the primary level (ISCED 1) and 84.2% of female teachers at the secondary level (ISCED 2 and 3) in 2015 (NASE, 2015). The teaching profession in Lithuania is considerably aged and has become more so in recent years. In 2015, the average age of teachers in Lithuania was 48.5 years. Only 3.8% of teachers in general education schools were aged less than 30 years in 2015, compared

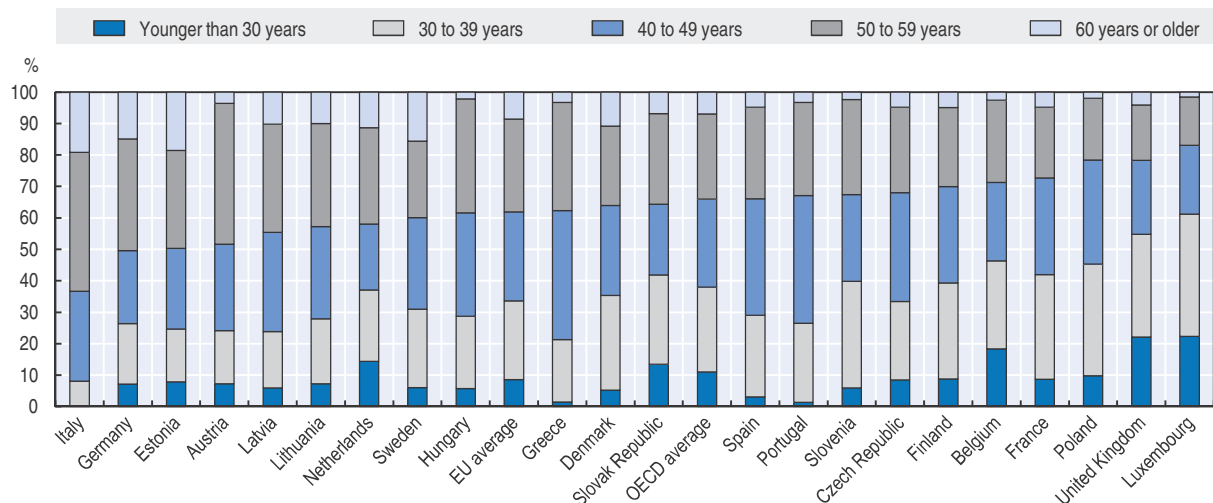
Figure 4.1. **Development of pedagogical staff across professional groups in general education schools**



Source: Data from the Lithuanian Education Management Information System (EMIS).

to 6.3% in 2011. At the other end of the age distribution, 49.7% of teachers were aged 50 and over in 2015, compared to 41.6% in 2011 (NASE, 2015). International data clearly show that the ageing of the teacher workforce is a comparatively greater challenge in Lithuania (Figure 4.2). Insights from international surveys indicate that in international comparison Lithuanian teachers have considerably more years of experience teaching on average (Table 4.1).

Figure 4.2. **Age of the Lithuanian teacher workforce in international comparison**



Note: Year of reference for European data is 2013 and for OECD data is 2012.

Sources: European Commission/EACEA/Eurydice (2015a), *Appendix to the Teaching Profession in Europe: Practices, Perceptions, and Policies*, [http://eacea.ec.europa.eu/education/eurydice/documents/thematic\\_reports/184EN\\_APPENDIX.pdf](http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/184EN_APPENDIX.pdf); OECD (2014), *Education at a Glance 2014: OECD Indicators*, <http://dx.doi.org/10.1787/eag-2014-en>, Table D5.1.

Table 4.1. **Lithuanian teachers' years of teaching experience in international comparison**

International indicator		Lithuania (%)	Average (%)
TIMSS 2011 Year 4	Average number of years of teaching experience	24 years	17 years
	Percentage of students with teachers with 20 years or more experience	70	40
	Percentage of students with teachers with less than 5 years of experience	1	14
TIMSS 2011 Year 8	Average number of years of teaching experience	23 years	15 years
	Percentage of students with teachers with 20 years or more experience	64	33
	Percentage of students with teachers with less than 5 years of experience	6	20
TALIS 2008 Lower secondary	Percentage of teachers aged 60 years or more	9.7	3.9
	Percentage of teachers aged 50 to 59 years	27.9	23.5
	Percentage of teachers aged 30 years or less	8.7	15.1
	Percentage of teachers working for 20 years or more	48.8	35.5
	Percentage of teachers working for 2 years or less	4.8	8.3
	Percentage of teachers working for 3 to 10 years	17.6	29.2

Sources: Mullis, I.V.S. et al. (2012), *TIMSS 2011 International Results in Mathematics*, [http://timssandpirls.bc.edu/timss2011/downloads/T11\\_IR\\_Mathematics\\_FullBook.pdf](http://timssandpirls.bc.edu/timss2011/downloads/T11_IR_Mathematics_FullBook.pdf), Exhibits 7.5 and 7.6; OECD (2009), *Creating Effective Teaching and Learning Environments: First Results from TALIS*, <http://dx.doi.org/10.1787/9789264068780-en>, Tables 2.1 and 2.3.

### **Initial teacher education**

Initial education of pedagogical staff for pre-school and general education schools in Lithuania is provided at colleges and universities. There are several different ways to acquire teaching qualifications in Lithuania:

- Completing an initial teacher education programme at either the bachelor's degree or master's degree level (studies taken at the master's degree level should grant graduates a pedagogical qualification for teaching a second subject or performing an additional pedagogical role, such as vocational guidance counsellor or career counsellor).
- Completing an optional module of pedagogical studies as part of a bachelor's degree programme that does not primarily aim at training pedagogical staff.
- Completing pedagogical studies under non-degree study programmes after having completed higher education in a different study area.

Vocational education and training schools also employ vocational teachers in addition to teachers of general school subjects. Initial teacher preparation for vocational teachers is organised in a consecutive model whereby a vocational qualification is studied first, followed by pedagogical studies. VET teachers must have a vocational and pedagogical qualification. If they do not have a pedagogical qualification, they are offered a 120-hour course on pedagogy and psychology principles. These courses are provided by accredited teacher development institutions. Additionally, universities provide programmes for vocational teachers' pedagogical education.

In order to attract young talented people to initial teacher education, the Lithuanian government established a targeted teacher education scholarship to support the acquisition of teaching qualifications to students having demonstrating good academic achievements. The amount of the scholarship is LTL 400 per month.

### **Qualification requirements**

New qualification requirements for Lithuanian teachers came into force in September 2014. According to these requirements, a teaching position in pre-school and

general education schools may be taken up by an individual having completed a tertiary education programme,<sup>1</sup> holding a pedagogical qualification (or completing such qualification within two years after taking up a teaching position) and having completed studies in a specific school subject or programme. The requirement of completing studies in a specific subject or programme can be waived for individuals with at least 15 years of work experience in teaching a specific school subject or area as they are considered specialists in that subject or area. For teachers of initial vocational education and training programmes, there are two types of qualification requirements: either: a) holding a higher or post-secondary qualification<sup>2</sup> and a pedagogical qualification (if not, a course in educational psychology must be duly completed); or b) having graduated from a vocational school, having completed secondary education, holding three years of practical experience in the respective study area and having completed a course in educational psychology.

### Recruitment into teaching

Teacher vacancies must be publicly announced as required by the Ministry of Education and Science. Teachers are hired into schools through an open recruitment procedure organised at the school level and led by the school principal. Teachers apply directly to the school. After submitting their application and required documents, eligible candidates are invited for an interview with the school principal, plus up to three representatives of the school council may join the interview as observers. Following the interviews and consultation with experts, the school concludes an employment contract with the successful candidate. School principals have autonomy in teacher appointment, deployment and dismissal. They also confirm teacher job descriptions based on the requirements set out in national regulations.

In general, given the high number of pedagogical staff in Lithuania, job vacancies would appear to be very limited. International data indicate minimal vacancies as reported by school principals: in TIMSS 2011, 93% of students were in schools where the school principal reported no vacancies for mathematics teachers; and in PISA 2012, almost all students were in schools where there were no concerns about a lack of qualified teachers interrupting instruction (Table 4.2). However, there is an incentive programme to attract teachers to certain areas of shortage under which teachers working in schools far from their place of residence may have their transportation and/or accommodation costs covered by the school founder.

Table 4.2. **Teacher recruitment in international comparison  
(as reported by school principals)**

PISA 2012	Lithuania (%)	OECD average (%)
Lack of qualified mathematics teachers	1	17
Lack of qualified science teachers	3	17
Lack of qualified language-of-instruction teachers	1	9
Lack of qualified teachers of other subjects	2	21
TIMSS 2011	Lithuania (%)	International average (%)
No vacancies for mathematics teachers	93	58

Sources: Mullis, I.V.S. et al. (2012), *TIMSS 2011 International Results in Mathematics*, [http://timssandpirls.bc.edu/timss2011/downloads/T11\\_IR\\_Mathematics\\_FullBook.pdf](http://timssandpirls.bc.edu/timss2011/downloads/T11_IR_Mathematics_FullBook.pdf), Exhibit 5.12; OECD (2013a), *PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices*, <http://dx.doi.org/10.1787/9789264201156-en>, Figure IV.3.5.

### **Certification and career structure**

There are three different qualification categories teachers can aspire to: senior teacher, teacher-methodologist and teacher-expert. These qualification categories represent a sequence of career steps, associated with specific responsibilities and a salary supplement. Table 4.3 presents the number of teachers who had acquired the different qualification categories in 2013. As can be seen from the table, the vast majority of teachers in Lithuania have acquired a qualification category: almost half of the teachers in Lithuania are senior teachers (45%), and over one-third of teachers are teacher-methodologists (39%). The category of teacher-expert, however, appears to be reserved for a small minority (only 3%) of teachers across Lithuania.

**Table 4.3. Distribution of teachers (Years 1-12) across qualification categories, 2015**

Qualifications category	Teachers	Percentage (%)
Non-qualified teachers	1 352	4.76
Teachers	2 465	8.67
Senior teachers	12 836	45.16
Teacher-methodologists	10 951	38.53
Teacher-experts	819	2.88
<b>Total</b>	<b>28 422</b>	<b>100.00</b>

Source: Data from the Lithuanian Education Management Information System (EMIS).

It is voluntary for teachers to apply to a higher qualification category. The basic rules and criteria for certification are determined through a national framework. Every school is required to set up a certification board, which is responsible for decision making regarding their teachers' promotion to different qualification steps. When making decisions about their teachers' advancement to higher levels of certification (methodologist or expert), the school's certification process must also involve external members. These external members usually represent the municipal authority and the national administration.

The main selection criteria to access a higher qualification category are related to teachers' experience and qualifications. Teachers must have four years of working experience as a teacher to be eligible as a senior teacher, five years of working experience to be eligible as teacher-methodologist and six years of experience to be eligible as teacher-expert. In addition, the certification board considers the teacher's formal qualifications in national priority areas. Currently, teachers applying for promotion to a higher qualification category must provide evidence of having undertaken professional development in the areas of information and communication technologies (ICT) and special educational needs (SEN). The certification process further involves a lesson observation conducted by the school administration or external evaluators.

### **Workload and use of teachers' time**

Teachers' conditions of service are regulated by the Labour Code, government regulations and other legal acts. Responsibility for teachers' employment conditions are shared between the government, the Ministry of Education and Science, the municipalities and the school leadership (Eurydice, 2014). Teacher employment in Lithuania is conceived on the basis of a workload system, i.e. regulations stipulate the total number of working hours and define the range of tasks teachers are expected to perform beyond teaching



itself. A teacher's working week consists of 36 hours comprising contact hours and additional tariff hours. These are defined as follows:

- Contact hours refer to the time during which the teacher works directly with students and include lessons, extracurricular teaching and teaching in non-formal educational institutions.
- Additional hours refer to the time allocated for indirect work with students and include lesson preparation, marking and class teacher responsibilities. While contact hours are recorded by teachers in official registers, the record keeping for additional hours is not formalised.

Together, the contact hours, additional hours and breaks between lessons are referred to as hours of pedagogical work. As explained in Chapter 2, teachers' tariff salary is established for 18 contact hours per week. For teachers of general education subjects, the number of pedagogical working hours is established per school year. Beyond the hours of pedagogical work, teachers may receive salary allowances for additional responsibilities, such as supervision of the dormitory, workshops or other tasks for up to four hours per week.

In international comparison, Lithuanian teachers have on average some of the smallest class sizes (Chapter 1). Indeed, on this aspect (manageable class size) and other selected factors, Lithuanian teachers report relatively favourable working conditions compared to their counterparts in other countries (Table 4.4).

**Table 4.4. Teacher working conditions in international comparison, as reported by teachers, 2011**

TIMSS 2011		Hardly any problems	Minor problems	Moderate problems
Year 4	Lithuania (%)	30	59	11
	International average (%)	26	47	27
Year 8	Lithuania (%)	32	56	12
	International average (%)	21	49	31

Note: Teachers were asked to report on the severity of each of the following problems: the school building needs significant repair; classrooms are overcrowded; teachers have too many teaching hours; teachers do not have adequate workspace (e.g. for preparation, collaboration, or meeting with students); teachers do not have adequate instructional materials and supplies.

Source: Mullis, I.V.S. et al. (2012), *TIMSS 2011 International Results in Mathematics*, [http://timssandpirls.bc.edu/timss2011/downloads/T11\\_IR\\_Mathematics\\_FullBook.pdf](http://timssandpirls.bc.edu/timss2011/downloads/T11_IR_Mathematics_FullBook.pdf), Exhibits 5.10 and 5.11.

### **Teacher competency requirements and professional development**

The 2007 Description of Teachers' Professional Competence, approved by Order of the Minister of Education and Science, provides an overview of the skills and proficiencies Lithuanian teachers are expected to acquire. It relates to all teachers including in pre-primary, basic and secondary education as well as special education and vocational and non-formal education. The document groups relevant teacher competencies into four groups: i) general cultural; ii) occupational; iii) general; and iv) special competencies. However, at the time of the OECD review, work was underway within the Education Development Centre (EDC) to develop a new, more comprehensive framework of teaching standards and competency descriptors (more on this below).

According to the Law on Education, it is mandatory for teachers to undertake regular professional development. Teachers are entitled to a minimum of five days of professional development activities during a school year. The EDC is responsible for carrying out expert

evaluation and accreditation of professional development programmes and the institutions providing these programmes. The Centre of Information Technologies in Education manages teachers' individual professional development data in the Register of Teachers' Professional Development Programmes and Events (Eurydice, 2014).

Professional development activities typically require the payment of a fee, which may be covered by the school budget or by participating teachers themselves. Schools are allocated specific funding for professional development through the student basket funding system (see Chapter 2). They can use this funding to buy the services of accredited providers of professional development and/or they may raise their own funds to buy the services of other (non-accredited) institutions.

There are a broad range of professional development providers. The EDC accredits mandatory courses in the areas of information and communication technologies (ICT) and special educational needs (SEN). It offers courses in a range of more innovative areas which are unlikely to be covered by other providers and has set up a network of learning consultants working directly with schools. In addition, the EDC has accredited 60 municipal teacher education centres across Lithuania. It also evaluates and accredits professional development bodies in higher education institutions. Other accredited providers operate under the auspices of publishing houses or specialised schools (e.g. music or arts schools). There is also a variety of private providers, not all of which are officially accredited.

Teacher professional development is funded through the state budget, as set out in the 2012 Concept on Teachers' Professional Development. The Ministry of Education and Science plans the funding for teacher professional development and collaborates with research institutions to carry out needs analyses and evaluate the use of professional development offers by teachers. European Union funds also contribute substantially to financing teacher professional development in Lithuania. A range of European Union (EU) funded training offers have already been implemented in areas such as enhancing creativity and teaching methodologies. EU funds may also be used to offer specific seminars as part of EU projects or to organise larger conferences with the participation of international experts. The next cycle of EU funding is intended to focus on school improvement and student achievement, as part of which schools themselves are expected to set professional development priorities.

At the time of the OECD review there was no central public agency to co-ordinate teacher professional development in the country. Since February 2015, a new Division of Teacher Activity has been established within the Ministry of Education and Science. The new Division has a mandate to co-ordinate teacher performance evaluation, professional development and appraisal. Professional development is provided by a range of different institutions as described above. Information about available programmes, seminars and other events is typically published by the municipal education units and the regional teacher education centres. Schools and teachers select professional development in the free market using their own budgets for professional development.

## Strengths

### ***Policy documents promote a renewed focus on teacher professionalism***

Promoting the professionalism of teachers is essential to enhance the focus on teaching quality and support teachers' continuous professional learning so that they can

best support the educational success of each of their students. The OECD review team commends Lithuania for the strong focus that it has placed on teacher professionalism in recent policy documents.

The curricula of primary and basic education (2008) and secondary education (2011) emphasise the importance for teachers to develop innovative teaching practices and differentiate instruction in order to prepare their students for life and work in the mid-21st century and respond to the diverse learning needs of all students. The focus on innovative and creative teaching is further emphasised through a number of programmes aiming to help teachers experiment with new approaches to teaching and learning. For example, the “Creative Partnership” programme, which involves schools from across 54 municipalities, enhances co-operation between schools and creative practitioners and provides professional development to participating teachers.

The programme of the 16th Government for the period 2012-16 puts the professional teacher in focus and sets out to: strengthen teacher status; ensure average pay above national average; change certification processes; ensure fair pay; improve initial teacher education; ensure good working and living conditions; support innovation, and enhance professional development processes. These intentions are further supported by a range of recent initiatives, such as the development of a teacher competency framework, the implementation of programmes to attract qualified graduates into teaching and the introduction of the 2012 Concept on Teachers’ Professional Development (more on these below). It is particularly positive that the focus on teacher professionalism is extended to include educators working in pre-primary education, recognising the importance of early learning and the need to recruit and continuously support qualified specialists at all levels of education.

### ***A teacher competency framework is being developed***

A professional profile or competency framework for teachers can help provide a common basis to organise the key elements of the teaching profession such as initial teacher education, teacher appraisal, certification, professional development and career advancement. Although the 2007 Description of Teachers Professional Competence provides a list of skills and proficiencies that teachers are expected to have, this description does not appear to be widely used or even known across the system. It does not provide a profile or illustration of what constitutes “good teaching” in the Lithuanian context and gives little guidance for teachers’ professional growth, professionalisation and career development. To fill this void, the Education Development Centre has been working on the development of a new competency framework for teachers that could be more closely embedded with teachers’ initial preparation and continuous learning. The competency framework describes values and attitudes that should guide all teachers in their professional activities and develops the competencies that are important for teachers’ professional development. These competencies are divided into three groups: general (or key) competencies, didactical competencies, and subject-related competencies (see Table 4.5).

The draft teacher competency framework aims to: i) describe teachers’ occupational competencies and knowledge, underlying skills and proficiencies as well as core values and attitudes; ii) demonstrate the possibility of competency growth in four stages; iii) describe how competencies could be demonstrated in professional activities and evaluated; and iv) assist teachers in their professionalisation and career development.

Table 4.5. **Key elements of the draft teacher competency framework, 2014**

<p><b>Key values and attitudes underlying teachers' professional development</b></p> <ul style="list-style-type: none"> <li>• Respect for the individual.</li> <li>• Responsibility for student performance and their impact on the preservation/development of sustainability, citizenship, and social responsibility.</li> <li>• Constant personal professional development.</li> <li>• Development of a democratic and humanistic school.</li> <li>• Support and assistance to encouraging the involvement of pupils in learning, self-development, socialisation and personality development.</li> <li>• Co-operation with a learning community.</li> </ul>
<p><b>General (or key) competencies</b></p> <ul style="list-style-type: none"> <li>• Cultural competence (knowledge and skills that help to preserve and develop the culture of Lithuania, to develop a sustainable and responsible society, to participate in public and educational change processes acting creatively and openly).</li> <li>• New technologies and information management skills, the ability to use digital technology and equipment, information search, preparation of textual and visual information to develop pupils' information and virtual communication culture of systematic development of digital literacy.</li> <li>• Professional communication, and establishing and nurturing relationships with the school community, the public, the relevant institutions and organisations, both public and communicating effectively in a foreign language.</li> </ul>
<p><b>Didactic competencies</b></p> <ul style="list-style-type: none"> <li>• Understanding and acknowledgment of learners' differences and predispositions for learning (with regard to special abilities and needs identification) and assistance to learners.</li> <li>• Motivation of learners (knowledge and understanding of learners physical, emotional, social and intellectual development and interests, with regard to their different needs and abilities and encouraging the active involvement in learning, helping to achieve progress and personal goals, manage and reflect on their learning activities and performance.</li> <li>• Preparation of learning and teaching environment, learning content and situations.</li> <li>• Implementation and development of curriculum (education (learning) content analysis, planning, organisation, design, evaluation and reflection).</li> <li>• Assessment of learners "achievements and progress with the selection of educational objectives consistent with the assessment strategies, according to the students/learners" needs and the provision of an efficient, personal development focusing on feedback.</li> <li>• Professional development in order to identify and solve the problems, to improve the quality of teaching, to systematically assess and analyse personal performance.</li> </ul>
<p><b>Subject-related competencies</b></p> <ul style="list-style-type: none"> <li>• Knowledge and skills allowing the delivery of the curriculum corresponding to modern theories and knowledge in the related field as well as self-assessment, identification of further training in order to upgrade or acquire special skills.</li> </ul>

Source: Information provided by the Lithuanian Ministry of Education and Science, based on information on professional competencies of teachers 2014 (project) and the concept of teacher development available online at <http://www.upc.smm.lt/>.

Based on interviews with representatives from the Education Development Centre and additional documentation, the OECD review team formed the impression that the development of the teacher competency framework was informed by evidence from international research on key aspects of effective teaching standards (OECD, 2013b). First, the draft framework is not designed as a stand-alone document but is embedded and aligned with other aspects of the teaching profession such as initial teacher education, career development and appraisal. Second, the framework is aligned with the Lithuanian Qualification Framework and it focuses on the key competencies that teachers are expected to develop through initial teacher education and professional development. Third, the competencies outlined in the framework are associated to different levels of performance with gradually increasing demands on teacher competencies. The competency framework also foresees the possibility to recognise prior learning based on evidence of achieved competencies. The intention is that the new competency framework should over time become part of the teacher certification process. Finally, the EDC is also working on recommendations for teachers to self-evaluate against the new standards and for school leaders to use the standards in regular teacher appraisal.

The (re-)definition of professional standards or profiles for the teaching profession can help acknowledge the great complexity of teaching in the 21st century and emphasise the need for continuous learning and development (OECD, 2013b). At the time of the OECD review visit, a public consultation process was ongoing and the draft standards had been discussed at 25 consultation events across six municipalities. As part of the implementation process, it will be important to continue to build on stakeholder involvement in order to ensure that there is a sense of ownership among teacher professionals. The participation of teachers in developing and implementing competency frameworks is essential to making them a credible basis to organise different aspects of the teaching profession. Teachers' participation in developing standards for the profession recognises their professionalism, the importance of their skills and experience and the extent of their responsibilities (Hess and West, 2006).

### ***There are initiatives to raise the attractiveness of teaching profession***

There is recognition within the Ministry of Education and Science and across actors in the school system that teaching is not currently perceived as an attractive profession and that high-performing graduates are reluctant to choose teaching as a career. Throughout the visit to Lithuania, the OECD review team learned about a range of promising initiatives intended to enhance the attractiveness of the teaching profession. These included:

- The introduction in 2010 of a programme of targeted scholarships for high performing students of initial teacher education.
- The implementation of the programme “I Choose to Teach!”, to attract recent university graduates from different disciplines to work in schools. This programme was started with EU funding and is now managed by the School Improvement Centre with business support. Programme participants received tailored professional development to help them develop their teaching skills.
- The implementation of state-sponsored initiatives to attract high-performing students from a range of disciplines into teaching and the provision of state funding for 400 teacher student places, which are attributed based on the completion of a motivation test.
- There were also initiatives implemented by individual teacher education institutions, such as a mentoring programme for teachers run by the faculty of one of the teacher education institutions.

### ***There is recognition of and willingness to address the oversupply of teachers***

As described in Chapters 1 and 2, the demography of Lithuania is characterised by a significant decline in the student population, which has resulted in an oversupply of teachers. The Lithuanian authorities are well aware of this challenge and the OECD review team noted a commitment to policy experimentation in designing strategies to: i) address the current surplus of teachers; and ii) maintain the focus on preparing high-quality teachers for future generations. For example, EU funding supported a pilot internship programme for teachers, allowing teachers to undertake an internship outside the school sector once every eight years. It should be noted that teachers maintain their full teacher salary for the duration of the internship, which makes this a very cost-intensive initiative. The pilot experimented with different internship durations, from three months to one year. The pilot was being evaluated at the time of the OECD review visit and the OECD review team was told that preliminary findings indicated positive results in the sense that

participants returned to their schools re-invigorated and with new ideas. Some participants left the teaching profession following their internship, which in a context of teacher oversupply, was also seen as a positive result.

Another initiative being considered at the time of the OECD review was to use EU structural funds for teachers' professional re-orientation. Such a "re-qualification fund" would help teachers transfer to other employment sectors. At the time of the review visit, work was underway at the Ministry of Education and Science to develop the allocation mechanism for this fund.

### **Teachers have opportunities to apply for promotion and move up to specialist roles within their school**

The presence of different qualification categories (senior teacher, teacher-methodologist and teacher-expert) associated with a teacher certification process has clear benefits. Teachers have a right to performance evaluation and can move up on the career ladder following a successful performance review.

The existence of teacher certification processes provides incentives for teachers to update their knowledge and skills and it rewards high performance and accumulated experience. The process for certification was widely perceived as fair, as it involves both school leaders and peers from another school. While teacher *competency requirements* are currently still under development as part of the new teacher competency framework (see above), clear requirements for formal *qualification requirements* have been set in 2014 and contribute to making the certification process transparent.

In addition to the advantages for individual teachers, the certification process and career structure has clear benefits for the school system as a whole. Methodologist and teacher-experts are expected to contribute to the development of their schools and the teaching profession more broadly by developing and spreading good practice both within and beyond their schools. The roles undertaken by methodologists and experts can be as diverse as co-authoring text books, coaching and mentoring other teachers and contributing to local, regional and national pedagogical events.

### **Professional development is valued and well-resourced**

Teacher professional development in Lithuania is well-conceived and well-developed. Teachers are legally obliged to undertake professional development and are entitled to five professional development days annually. Schools receive regular funding for the purpose of teacher professional development through the student basket. Teachers interviewed by the OECD review team reported that it is common practice for teachers to make use of their five-day entitlement. This is also reflected in the results from the OECD Teaching and Learning International Survey (TALIS): in 2008, 95.5% of Lithuanian teachers reported that they undertook some professional development in the previous 18 months (compared to 88.5% on average across TALIS countries)<sup>3</sup> (OECD, 2009). The importance attached to teacher professional development is also reflected in the professional development requirements that are part of the teacher certification and promotion processes. TALIS 2008 results also allow some insight to the benefits of professional development: Lithuanian teachers who reported having participated in more days of professional development were more likely to report having constructivist beliefs about teaching, which in turn was associated with greater job satisfaction, and to collaborate professionally and co-ordinate teaching (OECD, 2009).

At the time of the OECD review visit, work was ongoing to build a systematic approach for teacher professional development. The 2012 Concept on Teachers' Professional Development introduces a coherent policy to further strengthen schools' work in this area. It outlines three broad thematic areas for teachers' professional development, which are further developed in the draft teacher competency framework (see above). Other important elements of the Concept on Teachers' Professional Development include the possibility for teachers to accumulate funding for professional development over several years, and the establishment of a new function of "professional development consultant" to be introduced in schools, with the specific responsibility to support teachers in planning for professional learning. A key element of this work is the idea to liberalise the area of teacher professional development so that schools and teachers can take greater initiative in planning strategically for teacher development and school improvement, freely using the funds allocated by student basket.

Another noteworthy development is the recent establishment by the EDC of a network of educational consultants. These accredited consultants are expert teachers who have been specifically prepared to provide professional learning opportunities to teachers in fifteen national priority areas. At the time of the OECD review visit, work was ongoing to organise their work in a systematic way to offer "methodological days" for schools and create learning "ambassadors" in the different regions of Lithuania.

## Challenges

### ***Strategic vision for the teaching profession is only recently emerging and has not yet permeated the system***

Stakeholders interviewed by the OECD review team voiced concerns about the lack of strategic oversight regarding teacher policy in Lithuanian education. While both the National Agency for School Evaluation (NASE) and the Education Development Centre (EDC) are developing initiatives that have a bearing on the teaching profession, there appeared to be a lack of strategic oversight at the level of the Ministry of Education and Science. Such oversight is important to ensure policy coherence and help co-ordinate different actors that are involved in teacher policy development and implementation. The Lithuanian Education Council particularly emphasises the need to reform teacher initial education and in-service training and also the teacher certification system (Lithuanian Education Council, no date). The OECD review team picks up each of these points in more detail below.

Although work is underway to develop a new teacher competency framework, at the time of the OECD review visit there appeared to be little debate or common understanding across the system regarding what constitutes "good teaching". The 2007 description of teacher competencies is not currently being used to inform the professional practice or learning of individual teachers. In the absence of a widely shared reference document defining good teaching, the main guiding document for teachers appeared to be the existing curriculum and examination guidelines. However, these documents provide insufficient guidance for teachers regarding evidence-based teaching practice and the different roles and responsibilities that are expected of teachers at different stages of their career. Quite the contrary, the strong focus of teachers on preparing students for national examination bears risks of curriculum narrowing and limited focus on broader 21st century skills, which are unlikely to be measured in national examinations.

### ***There are serious concerns related to the supply and demography of teachers in Lithuania***

An ageing teaching workforce is more of a concern in Lithuania than in OECD countries on average. In 2012, on average in the OECD countries, the proportion of teachers aged 50 or older was 30% in primary education, 34% in lower secondary education and 38% in upper secondary education (OECD, 2014, Table D5.1). In Lithuania, 43% of lower secondary education teachers were aged 50 years or older in 2013, which is also higher than the average for the European Union countries (37%) (European Commission/EACEA/Eurydice, 2015b, Figure 1.3). As noted above, national statistics show a significant increase in the proportion of Lithuanian teachers aged over 50 in recent years. The ongoing ageing process of the teacher workforce brings a number of challenges to the school system. A specific feature of the teaching profession in Lithuania is the absence of an obligation for teachers to leave the profession at a specific age. There is no specific document regulating statutory dismissal of pedagogical staff once they have reached the official retirement age. The Labour Code provides that teachers may retire upon mutual agreement, but there is no formal obligation for them to do so (Eurydice, 2014). In 2015, 7.1% of Lithuanian teachers are at the retirement age (EMIS).

At the other end of the age pyramid, there is evidence that a significant proportion of graduates from initial teacher education end up not entering the teaching profession – according to official sources, this concerns a proportion as high as 85% of entrants into initial teacher education (NASE, 2015). This is not only a source of considerable waste and inefficiencies, but it also raises concerns about a potential future undersupply of teachers. Given the current age profile of Lithuanian teachers, there is likely to be a retirement wave of teachers within the next five to ten years, at which point there will be a risk of a shortage of qualified teachers. Shortages are likely to be concentrated in specific subject areas, particularly in mathematics, science and technology. Although there are currently no teacher shortages across the education system overall, a stagnant professional body is likely to perpetuate teaching traditions that Lithuania may wish to reform, and may hinder the introduction of innovations and other initiatives.

### ***Teaching is not perceived as an attractive career choice***

Lithuanian teachers reported only average levels of job satisfaction in TALIS 2008 (88% in Lithuania; 90% TALIS average), despite the fact that they also reported relatively favourable working conditions (OECD, 2009, Table 4.19). Many of the stakeholders interviewed by the OECD review team commented on the lack of attractiveness and low prestige of the teaching profession. Especially among young men, the teaching profession is not perceived as an attractive career choice. According to internationally comparable statistics, in 2009, 85% of teachers in Lithuania were women, compared to 72% on average across the European Union (Eurydice, 2012). As in other European Union countries, women are comparatively more dominant in teaching positions at the lower levels of education and in Lithuania the level of male employees is acutely low in primary education: in 2010, women represented 97% of Lithuanian teachers in primary education and 81% in lower secondary education, compared to 85% and 67% in the European Union respectively (European Commission/EACEA/Eurydice, 2013, Figure D12). The lack of attractiveness of teaching as a profession is reflected in the small proportion of students in teacher education coming from among the most qualified graduates from secondary education.



This is related to the low relative salaries of teachers (see Chapter 3) which, to a great extent, determine the teaching profession's social standing. As a result, the teaching profession is not competitive in the labour market, causing difficulties in attracting young people and males to the teaching profession and in keeping those already on the job motivated. In addition, teachers in Lithuania, like their counterparts in 20 European education systems (European Commission/EACEA/Eurydice, 2015b, Figure 1.5), do not have civil servant status and there are concerns regarding job security and working conditions, especially for beginner teachers. Where teachers have to be dismissed because of redundancy, it is likely that the burden of adjustment falls on the less experienced teachers who were employed most recently.

Concerns related to the organisation of teacher working hours may also contribute to the low attractiveness of the teaching profession. As mentioned above, the tariff salary for teachers in Lithuania is established for 18 contact hours per week. However, in the context of declining student numbers and teacher oversupply, many schools have responded by lowering the number of contact hours of their teachers, which results in lower salaries and lower pension rights for these teachers. National data clearly show a phenomenon of teachers in small schools taking on a second job (Table 4.6). Stakeholders interviewed by the OECD review team also reported their perception of an imbalance in the distribution of contact hours across the teaching staff in a given school, with beginning teachers being given fewer. These perceptions are borne out in national data that clearly show lower contact hours (less than 16 hours) and pedagogical hours on average for “teachers” compared to for “senior teachers” (Chapter 3, Table 3.4). This negatively impacts on the salaries of these teachers and may risk further decreasing the attractiveness of the profession for recent graduates.

Table 4.6. **Proportion of teachers working a second job, 2014**

	Primary schools		Basic schools		Pre- <i>gymnasia</i>		Secondary schools		<i>Gymnasia</i>	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Big schools	13.3	7.7	13.9	8.0	..	11.0	16.3	9.2	14.8	13.3
Small schools	24.2	20.4	30.6	29.6	45.7	36.7	23.2	34.5	18.0	32.8

Source: Ministry of Education and Science (2015), *Lietuva Svetimas Regionuose Mokykla 2015 (Lithuanian Regional School System 2015)*, Svetimo Aprupinimo Centras, Lietuvos Respublikos svietimo ir mokslo ministerija, Table 17.

### **Teachers are not adequately prepared to meet current and emerging demands in teaching**

#### ***Initial teacher education does not sufficiently prepare the next generation for teaching***

The review team formed the impression that there is a traditional approach to the organisation of classrooms in Lithuania with frontal teaching still being the predominant approach. Teaching and assessment practices have remained relatively traditional as a large majority of teachers in Lithuanian schools have been in their teaching positions for many years (often decades), and have often taught in the same school for all of their teaching careers. In 2009, 58.2% of Lithuanian teachers had been employed in the same school for more than ten years, compared to 37% on average across the European Union (Eurydice, 2012).

However, generational change in the teacher workforce will not automatically bring about innovations in teaching and learning, as there are a range of concerns around the adequacy and quality of the current provision of initial teacher education in Lithuania. Teachers interviewed by the OECD review team indicated that their preparation had focused mostly on acquiring knowledge in the specific subject matter they were teaching. Across stakeholders interviewed, there was an impression that the main focus of teacher initial education courses remained on traditional subject matter and the content of the curriculum. There seemed to be limited focus on the actual teaching process and subject didactics necessary to prepare teachers for a career in dynamic and fast-evolving classroom contexts. It appeared necessary to connect initial teacher education more closely to real-life classrooms and ongoing professional development, which would ensure coherent teacher learning all through their career.

### ***Concerns related to professional development***

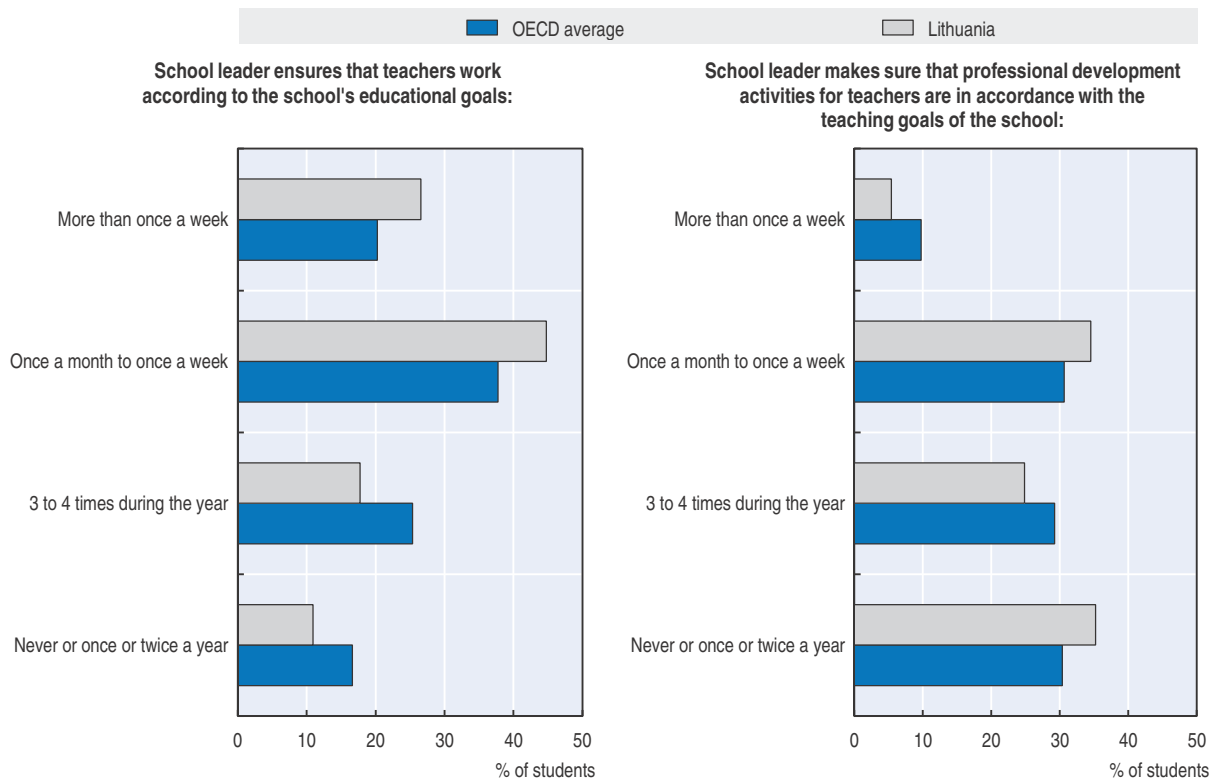
Even though the importance of professional development is clearly recognised in Lithuania, its provision appears fragmented. The amount of money allocated for teacher qualification development differs by more than a factor of three among Lithuanian municipalities (Ministry of Education and Science, 2015). The supply of the professional development offer in Lithuania is based on a liberal market in which providers compete for participants. There is a diversity of providers, including the national and regional Education Development Centres, private companies, international bodies, cultural centres, universities and individual programmes sponsored by EU structural funds. However, the Lithuanian school system lacks a strategic approach to needs analysis, which would help target the professional development offer to emerging and evolving priority areas for Lithuanian schooling.

Although the offer of professional development is abundant, it is important to note that among the “barriers to teachers’ participation in professional development” reported by teachers in TALIS, the majority of Lithuanian teachers indicated that “there is no suitable professional development offered” (in 2008, 53.2% of Lithuanian teachers reported this, compared to 42.3% on average across TALIS countries) (OECD, 2009). This underlines the need to develop a strategy to target professional development better to the needs of Lithuanian schools.

On the demand side, the review team formed the impression that professional development was predominantly a choice by individual teachers and was not systematically associated with school development needs. Despite the requirement for Lithuanian schools to establish a school-level continuing professional development plan (as is the case in the majority of European Union countries, European Commission/EACEA/Eurydice, 2015, Figure 3.7), there was little evidence of school-centred professional development that would emphasise the community of learners within the school. School leader reports from PISA 2012 indicate that while it is frequent practice to ensure teachers work to the school’s educational goals, more so than on average in OECD countries, it is a less frequent concern to link professional development activities to these (Figure 4.3). There was a comparatively weak correlation (0.35) in Lithuania between activities to promote instructional improvements and professional development and the framing and communicating of the school’s goals and curricular development, as measured in PISA 2012 (OECD, 2013a, Table IV.4.16). The OECD review team notes that at the school level – similar to the system level – there appeared to be a lack of needs analysis and targeting of professional support to

Figure 4.3. **School leader reports on linking professional development to school goals (PISA 2012)**

Percentage of students in schools where the school leader reported the following:



Source: OECD (2013a), *PISA 2012 Results: What Makes a School Successful (Volume IV): Resources, Policies and Practices*, <http://dx.doi.org/10.1787/9789264201156-en>, Table IV.4.8.

meet the individual and collective learning needs identified through teacher appraisal and school self-evaluation. For example, the PISA 2012 survey asked school leaders whether their school had implemented a standardised policy for mathematics that included staff development and training and this was far less common in Lithuanian schools (30% of Lithuanian students were in schools that had done so, compared to 62% on average in the OECD) (OECD, 2013a, Table IV.4.32). As considerable national and international funding goes into teacher professional development, there is a need to make the use of such funding more efficient and make sure that it contributes to raising the quality of teaching provided in schools.

### **Concerns related to the certification process and career pathway**

The teacher certification process has clear benefits. It provides incentives for teachers to update their knowledge and skills and it rewards teachers for their performance and experience. However, there are a range of implementation aspects that raise concerns.

First, certification is a one-off process that does not require regular “re-certification” or confirmation of teachers’ continuing performance at the expected level. It therefore provides no guarantee that teachers update their skills on an ongoing basis and continue to engage in professional learning throughout their career. Regarding the process itself, while formal criteria are clearly defined, a large part of the certification decision is based on “historical

data” regarding the teacher’s fulfilment of professional development requirements. While the certification process involves a lesson observation, in the absence of teaching standards, there was little evidence that quality criteria were consistently applied.

Second, while it is expected that teacher-methodologist and teacher-experts develop and spread good practice, they are not held accountable for the degree to which they engage in such responsibilities and there is little knowledge at the system level regarding the contributions they make. This corps of highly qualified professionals is a strong resource of the school system, which could potentially be used more effectively. While the review team formed the impression that most methodologist and experts take on broader roles beyond the borders of their own school (such as contributing to other schools or regional events), there appeared to be room for these teachers to play a greater role *within their own schools* to enhance pedagogical leadership and the development of professional learning communities.

Third, certification decisions are based on the level of the education sector and subject-specific competencies. This rigidity means that a teacher at the primary level cannot transfer with the same qualifications to teach at the upper secondary level. The OECD review team also encountered examples where a teacher could be at different qualification levels for the different subjects that he or she was teaching. For example, a teacher of mathematics and Lithuanian could be a teacher-methodologist in mathematics and a teacher-expert in Lithuanian. In this way, certification decisions would appear to not give due consideration to the full set of competencies that are important for teachers to be effective both within and beyond their classroom.

### ***There are few possibilities for teachers to receive professional feedback***

Unlike most other OECD countries, there are no requirements in Lithuania for school leaders to implement regular teacher appraisal and performance review cycles. The certification process is voluntary and is typically only implemented for those teachers who apply for it. Regular teacher appraisal and feedback may be implemented at the initiative of individual schools, but this largely depends on the leadership style of the principal and the evaluation culture of the school. Hence, there are wide variations across schools in the extent to which teachers have the opportunity to benefit from professional feedback to improve their practice. The absence of regular teacher appraisal processes also means that there is no mechanism to make sure that consistent underperformance will be identified and addressed. The National Agency for School Evaluation (NASE) reported that a trial initiative to introduce annual evaluation conversations with teachers was cancelled due to union resistance.

The only institutionalised opportunity for external feedback comes through external school evaluation, which includes lesson observations of individual teachers, followed by a feedback conversation. The external experts are required to include in their feedback no less than three strengths and no more than two areas for improvement, and teachers may request a more detailed discussion if they wish. While this is a very positive element of school evaluation, such evaluations are only implemented once every seven years and cannot replace the more regular feedback that teachers need to review and improve their practice on an ongoing basis.

While frequent observation, evaluation and feedback can help improve the practice of all teachers, it is particularly important for beginning teachers who have limited experience in the classroom. In Lithuania, although there is a legal probationary period of three months, there is currently no mandatory induction period for new teachers. Schools may organise their own procedures for induction, mentoring and coaching of new teachers, but international evidence indicates that while many schools have some elements in place, such practices are not widespread: in 2008, 69% of the principals surveyed in TALIS reported that there was no formal induction programme for new teachers in their school (compared to 29% on average across TALIS countries) (OECD, 2009); only 53% of Lithuanian students in PISA 2012 were in schools with a teacher mentoring system, compared to 72% on average in the OECD (OECD, 2013a, Table IV.4.32).

## Policy recommendations

### ***Develop a strategic vision for the teaching profession***

As mentioned above, many valuable initiatives are underway to support teacher professionalism in Lithuania. The review team commends the progress made towards the development of a teacher competency framework and strongly encourages Lithuania to pursue its efforts in completing and implementing the framework as a core guiding document to support teacher professionalism in the school system. The teacher competency framework should be implemented in a way as to provide a common basis to guide key elements of the teaching profession such as initial teacher education, regular teacher appraisal, certification processes, teacher professional development and career advancement. Clear, well-structured and widely-supported professional standards for teachers can be a powerful mechanism for aligning the various elements that are part of teachers' professionalism.

The four stages of teacher development described in the draft competency framework allow for the use of the framework as a basis for certification and career advancement processes. Going further, the OECD review team recommends establishing a more explicit link between the four stages of teacher development outlined in the competency framework and the existing career steps of senior teacher, teacher-methodologist and teacher-expert. It would be helpful if the document could describe the different roles associated to different career steps alongside the needed competency requirements. For the competency framework to be relevant and “owned” by the profession, it is essential that the teaching profession takes the lead in further developing and implementing it.

### ***Manage the teacher supply***

While it is important to ensure the continuous entry of new talent into the teaching profession, there is no need to increase the overall size of the teaching workforce in Lithuania. On the contrary, the continuing decline of the student population is likely to result in further school consolidation and teacher redundancy. This makes it necessary to continue developing strategies for reallocating, redeploying and retiring teachers currently employed in schools which will be affected by school (or class) consolidation.

One option to address the current oversupply of teachers would be through legal changes regarding the conditions under which retired teachers can continue to teach. In Hungary, for example, a policy was introduced that obliged teachers to choose between receiving a salary or a pension. However, there are risks associated to such a policy. Any

policy which institutionalises incentives or pressure for teachers to leave the profession needs to carefully consider projected demographic fluctuations. In Lithuania, based on current population projections, teacher shortages are likely to occur in the mid-2020s. Hence it might be more effective to focus on developing a short-term incentive policy, making it voluntary and attractive for experienced teachers to plan for their own succession and leaving the profession while transmitting their accumulated knowledge and coaching others.

In this context, it is important to note that there are a number of areas in which teachers made redundant by school consolidation could assume new responsibilities. These include engaging them to help mainstream special needs students in regular schools and classes; using them to implement strategies to individually support students who are falling behind; and involving them in advisory roles within or across schools. This could go alongside offering early retirement packages for some teachers who are close to retirement age.

It would be essential to frame such policy in the context of targeted needs of the school system and to help teachers in specific areas of oversupply to move out of the profession while at the same time continuing to encourage specialists in key areas of shortage (such as the STEM subjects) to join the profession. In addition, the Lithuanian authorities should consider prioritising national funding for teacher students to subject areas in which the school system is facing shortages. As noted above, the policy of funding 400 study places in initial teacher education is helpful, but could be made more efficient by focusing further on key priority areas.

Even if there is currently an oversupply of teachers, it is important for the school system to plan ahead and ensure an adequate rate of teacher renewal so the school system is continuously provided with new ideas and perspectives. It is also important that newly educated teachers are not lost for the profession by moving into other career pathways. Therefore, continuing to work on improving the attractiveness and prestige of the teacher career should remain a priority. In addition to allocating funding to improve salaries for new teachers (see Chapter 3), the OECD review team recommends a more strategic approach to teacher education and more coherent career pathways for teachers (see below).

### ***Create a more coherent teacher career pathway for teachers***

Although career steps exist in Lithuania, there is room to further develop the teacher career in order to recognise and reward teaching excellence and allow teachers to diversify their career pathways. This is likely to contribute to make teaching an attractive career choice.

Schools and teachers are likely to benefit from a more elaborate career structure for teachers, which would more clearly define each key stages of the career. An important policy objective should be to match the career structure for teachers with the different types and levels of expertise described in the draft teacher competency framework. The current draft describes four stages of teacher development, which could be easily matched to the existing career steps of teacher, senior teacher, teacher-methodologist and teacher-expert. This would reinforce the matching between teachers' competencies and the roles that need to be performed in schools to improve student learning.

### ***Focus in particular on beginning teachers***

The first two to three years on the job should be seen as an important first career phase, during which new teachers need to be systematically supported to develop their skills. Research from different countries points to the importance of ensuring that beginning teachers receive adequate guidance (OECD, 2010; Jensen and Reichl, 2011). At this early stage of teachers' career, it is particularly important to ensure that teachers can work in a well-supported environment and receive frequent feedback and mentoring. One way of paying greater attention to this career phase would be to require graduates from initial teacher education to apply to be "provisionally certified" in order to seek employment as a teacher. Provisionally certified teachers could then apply for full certification upon completion of an induction period (more on this below), based on an appraisal in relation to the teacher competency requirements.

### ***Introduce a requirement for teachers to renew their qualification levels***

It is a strength of the Lithuanian system that different qualification levels exist in the teaching profession and that access to higher qualification levels is granted through a voluntary application process. However, the review team recommends that those teachers who do not apply for a higher qualification level should be required to regularly renew their qualification status. Requirements for re-certification could be set after a specific period time, such as every five to seven years. The basis for renewal could be as simple as an attestation that the teacher is continuing to meet performance standards that are agreed for the profession. Teachers at all career levels need to continue to learn and update their practice. Even methodologists and experts will need coaching/mentoring to stay up to date with pedagogical developments. Box 4.1 provides an example from Australia, where teacher registration fulfils the function that certification could have in Lithuania.

### ***Diversify roles and responsibilities associated with career steps***

It was the impression of the review team that the most common tasks taken on by teacher-methodologists and teacher-experts in Lithuania were outreach functions at the level of the municipality. While collaboration beyond the school borders is an important aspect of the school's work, it would be important to further diversify and clarify the range of roles that should be taken on by teachers at different qualification levels. In particular, there should more focus on teacher leadership in whole-school improvement. Experts and methodologists could be designated to support the school leader with specific aspects of leadership such as the co-ordination of professional development for the school, classroom observations, teacher performance evaluations, co-ordination of student assessment approaches, and so forth.

If Lithuania is to develop more systematic induction and mentoring approaches (as recommended below), the task of mentoring beginning teachers should also be a key responsibility for methodologists and experts. The current age structure of the Lithuanian teaching profession also creates a need for new functions, such as helping teachers who have been in the same school for a long time keeping their knowledge and skills up to date, or supporting colleagues with the use of information and communication technologies (ICT).

#### Box 4.1. **Teacher registration in Australia**

Registration is a requirement for teachers to teach in Australian schools, regardless of school sector. All states and territories have existing statutory teacher registration authorities responsible for registering teachers as competent for practice. The levels of teaching registration vary according to the jurisdiction. In most jurisdictions, teachers reach the first level of registration from the relevant authority upon graduation from an approved initial teacher education programme. Currently, each teacher registration authority has its own distinct set of standards for registration; however, from 2013 jurisdictions will be progressively introducing the Australian Professional Standards for Teachers (the Standards) which will provide a national measure for teachers' professional practice and knowledge. Advancement to full registration (or professional competence) is achieved after a period of employed teaching practice and, from 2013, an appraisal against the Standards at Proficient level.

In all states and territories, after teachers have initially become registered within their jurisdiction, they must renew their registration. The period of registration varies but is most commonly five years. The main function of the registration process is that of certifying teachers as fit for the profession mainly through the mandatory process of accessing or maintaining "Full/Competence" status – as such, these processes ensure minimum requirements for teaching are met by practising teachers. Registration processes constitute a powerful quality assurance mechanism to ensure that every school in Australia is staffed with teachers with suitable qualifications who meet prescribed standards for teaching practice. At their initial level (provisional/graduate registration), they also provide a policy lever for setting entrance criteria for the teaching profession and, through the accreditation of initial teacher education programmes, strengthen the alignment between initial teacher education and the needs of schools.

Source: Santiago, P. et al. (2011), *OECD Reviews of Evaluation and Assessment in Education: Australia 2011*, <http://dx.doi.org/10.1787/9789264116672-en>.

### **Develop a strategic approach to teacher education and professional learning for the mid-21st century**

#### **Initial teacher education**

The current age structure of the Lithuanian teacher workforce has placed initial teacher education under pressure, as it heightens the importance of effectively preparing new teachers to replace those who will retire in the next five to ten years. Several stakeholders mentioned the need for initial teacher education to become more relevant to today's classrooms and to incorporate the advances of recent international research regarding effective teaching and learning in the mid-21st century. Initial teacher education should not only provide sound basic training in subject-matter knowledge, pedagogy related to subjects, and general pedagogical knowledge; it also needs to develop the skills for reflective practice and research on the job. The design of initial teacher education needs to be regularly reviewed and such review should take into consideration the views of current school leaders and teachers.

The teaching career should be seen in lifelong learning terms, with initial teacher education providing the foundations. In this perspective, the stages of initial teacher education, induction and professional development need to be better interconnected in order to create a more coherent learning and development experience for teachers



(OECD, 2005). Ideally, the teacher competency framework should provide the link between these different stages of teacher learning and provide the basis for a coherent approach to lifelong learning for teachers.

### **Induction**

To support teachers in the transition from initial education to actual work in schools, the Lithuanian education system would benefit from the introduction of more systematic induction and feedback systems for new teachers. Most high-performing education systems require their beginning teachers to undertake a mandatory period of probation or induction, during which they receive regular support and can confirm their competence to move on to the next stage of the teaching career (OECD, 2010). Box 4.2 provides an example from Northern Ireland in the United Kingdom. Research indicates that beginning teachers benefit from systematic induction and mentoring programmes as long as mentors are carefully selected, well prepared for their tasks and given adequate time to carry out their mentoring role (Hobson et al., 2009; OECD, 2010).

### **Regular teacher appraisal**

To support continuous improvement of teaching practices the review team recommends establishing a requirement for school leaders to implement regular formative teacher appraisal processes. This should be an internal process carried out by line managers, senior peers and the school principal with a focus on teachers' practices in the classroom. It could be implemented on an annual basis. The main outcome would be feedback on teaching performance and contribution to school development, which should lead to a plan for professional development. It can be low-key and low-cost and include a mix of methods appropriate to the school. Some of the elements should be individual goal-setting linked to school goals, self-appraisal, peer appraisal, classroom observation, structured conversations with the school principal and peers. Such appraisal practices would ensure that all teachers receive regular feedback on their practice.

While the process for formative teacher appraisal should remain school-based, it should be linked to the framework of teacher competencies. This would allow all school leaders to develop a shared understanding of expected teaching standards and of the level of performance that can be achieved by the most effective teachers. It would also be important that school-based teacher appraisal processes are validated through external school evaluation and that school leaders are held accountable for establishing teacher a school-based teacher appraisal policy.

### **Linking teacher appraisal to professional development and school improvement**

It was noted above that teacher professional development appears fragmented and lacking in focus on key priorities for the school system. To ensure that the provision of teacher professional development responds to the needs of the system, the OECD review team recommends linking provision more closely to a systematic analysis of needs, both at the school level and at the system level.

At the system level, the offer of professional development should be informed by the competency requirements outlined in the teacher competency framework, and thereby address concerns raised above about the fragmentation of professional development provision. This could be achieved by the Ministry of Education and Science and/or the Education Development Centre by reviewing professional development offers, and,

#### Box 4.2. Support for beginning teachers in Northern Ireland, the United Kingdom

In Northern Ireland, a “career entry profile” is established for each beginning teacher upon completion of initial teacher education. This profile outlines the teacher’s strengths and areas for further development in relation to the Northern Ireland competency model. When taking on a first teaching position, there is a formal one-year induction period to help teachers address the personal and professional needs and objectives identified in their career entry profile. The induction period involves a programme of both centre-based and school-based professional support. The board of governors, upon recommendation of the school principal, approves the teacher’s completion of the induction period and the teacher professional organisation (General Teaching Council for Northern Ireland) holds a record of completion of induction.

As part of the induction process, teachers then prepare a personal action plan, which forms the basis for a two-year period of Early Professional Development (EPD). This phase involves within-school support by a “teacher tutor” and by the regionally-based Curriculum Advisory and Support Services. It is aimed at helping beginner teachers further develop and consolidate their competencies. When the beginning teacher and teacher-tutor agree that all the criteria for EPD have been met, they will seek confirmation by the school principal. The board of governors approves the completion of EPD, based on the recommendation of the principal and a final reflection document produced by the teacher concerned.

The early teacher education and development phases are further strengthened through the Teacher Education Partnership Handbook, which provides guidance to all those involved in the process, including student teachers, beginning teachers, teacher tutors, education and library boards and higher education institutions.

The availability of teacher tutors in each school is an important element in facilitating the transition of teachers from initial education into full-time teaching at a school. Teacher tutors are responsible for placement and care of student teachers in a school. They are typically senior teachers who can draw on their own experience to support beginning teachers through their first years of teaching. The tutors are expected to hold regular meetings with beginning teachers, draw up action plans, assist in lesson planning, observe classroom practice, review progress and provide general support to help the beginning teacher reflect upon his or her practice and improve classroom teaching. Tutors can play a key role in helping beginning teachers understand existing standards, self-appraise their practice and use feedback from others to review and improve their practice.

*Source:* Shewbridge, C. et al. (2014), *OECD Reviews of Evaluation and Assessment in Education: Northern Ireland, United Kingdom*, <http://dx.doi.org/10.1787/9789264207707-en>.

developing guidance documents on the extent to which existing professional development relates to teacher competency framework. They could then, with the competency framework in mind, provide guidance for schools on relevant training offers. For an example from Memphis, Tennessee in the United States, see Box 4.3.

At the school level, teachers’ individual choices of professional development should be more strongly influenced by: a) their own appraisal results and identification of areas for improvement; and b) priorities of the school development plan. Effective teacher appraisal should give teachers a choice from a wide range of possible professional learning activities that meet their individual needs in relation to the priorities of the school’s overall development plan. Conversely, the appraisal results of individual teachers should also be

### Box 4.3. Memphis, Tennessee: Linking professional development to competency standards

The city of Memphis, Tennessee in the United States has developed a system that explicitly links professional learning to teacher appraisal. In Memphis City Schools, appraisal is based on teaching standards, and professional development is linked to teachers' competencies on the standards. Thus, a teacher who has poor performance on a specific indicator on a teaching standard can find professional growth opportunities related to that indicator. Memphis City Schools publishes a professional development guide each year that lists the professional growth offerings by standard and indicator. In addition, most of the professional development courses are taught by Memphis City School teachers, ensuring that the course offerings will be relevant to the contexts in which these teachers work.

Source: OECD (2013b), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, <http://dx.doi.org/10.1787/9789264190658-en>.

aggregated to inform school development plans. In Korea, for example, results of the teacher peer review processes not only feed into teachers' individual professional development plans, but are also used to inform a synthetic report on professional development for the whole school bringing together the results of all appraised teachers (without identifying individual teachers) (Kim et al., 2010).

#### Notes

1. Or post-secondary education acquired before 2009 or specialised-secondary education acquired before 1995.
2. Or specialised-secondary education acquired before 1995.
3. It should be noted, however, that the average duration of such professional development was shorter in Lithuania than elsewhere (11.2 days compared to 15.3 on average across TALIS countries).

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## ANNEX A

### *The OECD Review of Policies to Improve the Effectiveness of Resource Use in School*

The **OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools** (also referred to as the School Resources Review) is designed to respond to the strong interest in the effective use of school resources evident at national and international levels. It provides analysis and policy advice on how to distribute, utilise and manage resources so that they contribute to achieving effectiveness and efficiency objectives in education. School resources are understood in a broad way, including financial resources (e.g. expenditures on education, school budget), physical resources (e.g. school buildings, computers), human resources (e.g. teachers, school leaders) and other resources (e.g. learning time).

Fifteen education systems are actively engaged in the review. These cover a wide range of economic and social contexts, and among them they illustrate quite different approaches to the use of resources in school systems. This will allow a comparative perspective on key policy issues. Participating countries prepare a detailed background report, following a standard set of guidelines. Some of the participating countries have also opted for a detailed review, undertaken by a team consisting of members of the OECD Secretariat and external experts. Insofar, the participating countries are (in bold those that have opted for an individual review): **Austria, Belgium (Flemish Community)**, Belgium (French Community), **Chile**, the **Czech Republic, Denmark, Estonia**, Iceland, **Kazakhstan, Lithuania**, Luxembourg, the **Slovak Republic**, Spain, Sweden and **Uruguay**. An international comparative report from the OECD review, bringing together lessons from all countries, will be completed in 2016.

The project is overseen by the Group of National Experts on School Resources, which was established as a subsidiary body of the OECD Education Policy Committee in order to guide the methods, timing and principles of the review. More details are available from the website dedicated to the review: [www.oecd.org/edu/school/schoolresourcesreview.htm](http://www.oecd.org/edu/school/schoolresourcesreview.htm).

## ANNEX B

## Composition of the OECD Review Team

**Claire Shewbridge** is an Analyst in the OECD Directorate for Education and Skills and currently working on the School Resources Review. She most recently co-authored the OECD report *Synergies for Better Learning: An International Perspective on Evaluation and Assessment* (2013) taking responsibility for analysis on school evaluation and education system evaluation. Prior to that, she worked on the OECD Review on Migrant Education, co-authoring the OECD report *Closing the Gap for Immigrant Students* (2010). For five years, Claire worked on the Programme for International Student Assessment (PISA), leading analysis of student attitudes towards science learning and the environment in the PISA 2006 survey, co-authoring *Are Students Ready for a Technology Rich World? What PISA Studies Tell Us* (2005) and co-ordinating OECD reports on excellent students, success and challenges for immigrant students, student competencies in general problem solving and mathematics. She also worked on OECD statistical publications *Education at a Glance* and the *OECD Employment Outlook*. Claire is rapporteur for the OECD review of School Resources in Lithuania.

**Katrina Godfrey** has worked at senior level in the Department of Education in Northern Ireland since 2004. She was appointed in November 2013 as Deputy Permanent Secretary with responsibility for Schools and Youth related policies as well as Human Resource and Corporate Services. Her previous roles within the Department include Director of Planning and Performance Management (2011-13) and Director responsible for the Curriculum, Qualifications and Standards (2007-11). In these roles Katrina was responsible for leading the development of some of the Department's core policies, including for school improvement and literacy and numeracy. She also co-chaired a working group to build co-operation across the island of Ireland in addressing common challenges relating to underachievement, particularly among pupils from disadvantaged backgrounds. Katrina also served as the UK member of an EU Working Group developing advice for policymakers on assessment of key competencies

**Zoltán Hermann** is a research fellow at the Centre for Economic and Regional Studies of the Hungarian Academy of Sciences. His research is focused on applied work in economics of education and his research interests are inequalities in education, institutional determinants of student achievement, the evaluation of educational policies and financing public education. His current research work includes: the efficiency of public education in Hungary and the effects of demographic trends; inequalities and school finance; the teacher labour market; and the effectiveness, equality of opportunity and productivity of public education in international comparison.

**Deborah Nusche** is a Policy Analyst in the OECD Directorate for Education and Skills, where she has been since 2007. She is currently working on the OECD School Resources Review. Prior to this, she conducted policy analysis for three major cross-country studies at the OECD: a review of school leadership policy and practice leading to the two-volume publication *Improving School Leadership* (2008); a review of migrant education leading to the OECD publication *Closing the Gap for Immigrant Students* (2010); and a review of evaluation and assessment in education, leading to the OECD publication *Synergies for Better Learning: An International Perspective on Evaluation and Assessment* (2013), for which Deborah led the analysis on teacher appraisal and student assessment. As part of these studies, she conducted individual education policy reviews in 15 countries.

## ANNEX C

*Visit programme*

<b>Tuesday, 2 December 2014, Ministry of Education and Science, Vilnius</b>	
08:30-09:00	Strategy and Policy Development
09:00-09:30	National Audit Office
09:30-10:30	Budget Planning and Funding <ul style="list-style-type: none"> <li>● Division of Financing Education</li> <li>● Investment Division</li> <li>● Property management and public procurement</li> </ul>
10:30-11:30	Teachers and School Leaders [evaluation of competencies] <ul style="list-style-type: none"> <li>● National Agency for School Evaluation</li> <li>● Education Quality and Regional Policy Department</li> <li>● Report on Ministerial guidelines for the development of the teaching profession</li> </ul>
11:45-12:15	Allocation and use of EU funds <ul style="list-style-type: none"> <li>● Department of the European Union Assistance Co-ordination</li> </ul>
12:15-12:55	Information base for funding allocation <ul style="list-style-type: none"> <li>● Centre of Information Technologies in Education</li> </ul>
14:00-15:00	School network, State criteria and Accreditation procedure [Secondary School conversion to <i>Gymnasium</i> ] <ul style="list-style-type: none"> <li>● Education Organisation Division</li> <li>● Educational Quality and Regional Policy Department</li> </ul>
15:00-15:45	Human Resources <ul style="list-style-type: none"> <li>● Education Development Centre</li> <li>● Association of Regional Development Centres</li> </ul>
<b>Wednesday, 3 December 2014, Vilnius</b>	
09:00-11:30	<b>School Visit: Vilniaus r. Kyviškių pagrindinė mokykla</b> (basic school)
12:00-13:30	Working Lunch with Vilnius City and Vilnius District municipalities
14:00-14:45	Teachers Trade Unions <ul style="list-style-type: none"> <li>● Lietuvos mokytojų profesinė sąjunga</li> <li>● Lietuvos švietimo įstaigų profesinė sąjunga</li> </ul>
14:45-15:30	School Principals' Associations
15:30-16:15	Pre-service Teacher Training Institutions <ul style="list-style-type: none"> <li>● University of Educational Sciences</li> <li>● Vilnius University</li> <li>● Mykolas Riomeris University</li> <li>● Vilnius College</li> </ul>
<b>Thursday, 4 December 2014, Klaipėda</b>	
08:00-10:30	<b>School Visit: Klaipėdos r. Slengių mokykla-daugiafunkcis centras</b> (primary school/multifunctional centre)
11:00-12:00	Meeting: Klaipėda District Municipality <ul style="list-style-type: none"> <li>● Administration and Education Division</li> </ul>
13:30-14:30	Meeting: Rietavas Municipality <ul style="list-style-type: none"> <li>● Administration, Education Division and Special education support centre</li> </ul>
15:00-17:30	<b>School Visit: Rietavo savivaldybės Tverų vidurinė mokykla</b> (secondary school)



**Friday, 5 December 2014, Šiauliai**

08:00-09:00 Meeting: Šiauliai City Municipality  
Administration and Education Division

09:15-11:45 **School Visit: Šiaulių Gegužių progimnazija** (*pre-gymnasium*)

15:15-16:15 Meeting: Ministry of Social Security and Labour

**Monday, 8 December 2014, Kėdainiai, Vilnius**

09:30-12:00 **School Visit: Kėdainių "Atžalyno" gimnazija** (*gymnasium*)

12:15-13:15 Working lunch with Kėdainiai Municipality reps

15:00-16:00 Meeting

- National Centre for Special Educational Needs
- Municipal Psychological Support Centres
- Child Welfare Commission

16:00-16:45 School Students' Union

16:45-17:30 Parents' Associations

**Tuesday, 9 December 2014, Vilnius**

09:00-11:30 **School Visit: Vilniaus statybininkų rengimo centras** (*vocational school*)

13:00-13:45 Meeting: Ministry of Finance

14:00-15:30 Seminar with researchers

- Prof. Habil. Dr Margarita Teresevičienė, Vytautas Magnus University
- Prof. Dr Jonas Ruškus, Vytautas Magnus University
- Doc. Dr Emilija Sakadolskienė, University of Educational Sciences
- Prof. Dr Vilija Saliėnė, University of Educational Sciences
- Dr Daiva Jakavonytė-Staškuvienė, University of Educational Sciences
- Dr Lina Miltenienė, Šiauliai University
- Doc. Dr Jolanta Urbanovič, Mykolas Romeris University
- Eglė Pranckūnienė, Centre for School Improvement
- Dr Dainius Žvirdauskas, Kaunas University of Technology

15:45-16:45 Final delivery by review team: Preliminary impressions



## **ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

## OECD Reviews of School Resources

# Lithuania

The effective use of school resources is a policy priority across OECD countries. The *OECD Reviews of School Resources* explore how resources can be governed, distributed, utilised and managed to improve the quality, equity and efficiency of school education.

The series considers four types of resources: financial resources, such as public funding of individual schools; human resources, such as teachers, school leaders and education administrators; physical resources, such as location, buildings and equipment; and other resources, such as learning time.

This series offers timely policy advice to both governments and the education community. It includes both country reports and thematic studies.

### Contents

Chapter 1. School education in Lithuania

Chapter 2. Governance of schooling and the school network in Lithuania

Chapter 3. School funding in Lithuania

Chapter 4. The teaching workforce in Lithuania

Consult this publication on line at <http://dx.doi.org/10.1787/9789264252547-en>.

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