

OECD Reviews of School Resources

Slovak Republic

Paulo Santiago, Gábor Halász, Rosalind Levačić and Claire Shewbridge





OECD Reviews of School Resources: Slovak Republic 2015

Paulo Santiago, Gábor Halász, Rosalind Levačić and Claire Shewbridge



This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Please cite this publication as:

Santiago, P. et al. (2016), OECD Reviews of School Resources: Slovak Republic 2015, OECD Reviews of School Resources, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264247567-en

ISBN 978-92-64-24755-0 (print) ISBN 978-92-64-24756-7 (PDF)

Series: OECD Reviews of School Resources ISSN 2413-4333 (print) ISSN 2413-3841 (online)

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.

Photo credits: Cover © VLADGRIN/Shutterstock.com.

Corrigenda to OECD publications may be found on line at: www.oecd.org/about/publishing/corrigenda.htm. © OECD 2016

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgement of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

Foreword

his report for the Slovak Republic 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).

The Slovak Republic was one of the countries 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 Paulo Santiago (OECD Secretariat), co-ordinator of the Review; Gábor Halász (Professor of Education in the Faculty of Pedagogy and Psychology at the University Eötvös Loránd in Budapest), Rosalind Levačić (Emeritus Professor of Economics and Finance of Education at the Institute of Education, University of London) and Claire Shewbridge (OECD Secretariat). The biographies of the members of the review team are provided in Annex B. This publication is the report from the review team. It provides, from an international perspective, an independent analysis of major issues facing the use of school resources in the Slovak Republic, current policy initiatives, and possible future approaches. The report serves three purposes: i) to provide insights and advice to Slovak education authorities; ii) to help other countries understand the Slovak 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 Slovak authorities, the focus areas of the Review of School Resources in the Slovak Republic are: i) the organisation of the school network; ii) the funding of school education (including distribution, incentives and transparency); and iii) the teaching profession and school leadership (including improving their attractiveness). Also, issues of special needs education and the education of the Roma minority are addressed from the funding perspective, i.e. how the funding system can facilitate the achievement of policy objectives in special education and the education of the Roma minority, including the development of inclusive education. While the review makes some considerations about the funding of vocational education and training (VET), it was decided not to give it specific emphasis in light of the fact that another OECD Review examined the Slovak VET system at the secondary level. The analysis presented in the report refers to the situation faced by the education system in October 2014, when the review team visited the Slovak Republic.

The Slovak Republic's involvement in the OECD Review was co-ordinated by Matej Šiškovič, Director of the Educational Policy Institute at the Ministry of Education, Science, Research and Sports of the Slovak Republic. An important part of the Slovak Republic's involvement was the preparation of a comprehensive and informative Country Background Report (CBR) on school resource use authored by Matej Šiškovič and Ján Toman from the Educational Policy Institute at the Ministry of Education, Science, Research and Sports of the Slovak Republic. The OECD review team is very grateful to the main authors of the CBR and to all those who assisted them in providing a

high-quality informative document. The CBR is an important output from the OECD project in its own right as well as an important source for the review team. Unless indicated otherwise, the data for this report are taken from the Slovak Country Background Report. 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 the Slovak Republic, 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 the Slovak Republic 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 the Slovak Republic (providing comments on the Slovak Republic's 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 Christèle Duvieusart, Country Desk Officer for the Slovak Republic as regards education and training, 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 Christèle Duvieusart for her contribution to the planning of the review and also for the helpful comments she provided on drafts of this report.

The review visit to the Slovak Republic took place on 7-14 October 2014. The itinerary is provided in Annex C. The visit was designed by the OECD (with input from the EC) in collaboration with Slovak authorities. It also involved a preparatory visit by the OECD Secretariat on 3-4 July 2014, with the participation of Christèle Duvieusart, from the EC. The review team held discussions with a wide range of groups at all levels of government (central, regional and municipal). At the national level, the review team met with Juraj Draxler, then Secretary of State for Education, Science, Research and Sports; other officials of the Ministry of Education, Science, Research and Sports; Ministries in charge of public expenditure; funding and quality assurance agencies; other relevant agencies dealing with the use of school resources; teacher associations; representatives of municipalities and self-governing regions; school leader representatives; representatives of the private school sector; organisations representing the interests of students with special needs; organisations representing the interests of Roma children; and researchers with an interest in the effectiveness of school resource use. At the regional and municipal levels, meetings were held with educational and finance authorities of the region of Prešov and the municipalities of Jelenec, Suit and Šuňava. In addition, the visit included meetings with the regional state authority in Prešov. The team also visited a range of schools in different regions, interacting with 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. Overall, the OECD review team held 45 meetings and interviewed about 200 individuals.

The OECD review team wishes to record its gratitude to the many people who gave time from their busy schedules to inform the review team of 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, Matej Šiškovič, for going to great lengths to respond to the questions and

^{*} 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.

needs of the review team. The review team was impressed by his efficiency and expertise. Our gratitude extends to his team, in particular Ján Toman and Daniela Zápražná, analysts of the Educational Policy Institute, for providing excellent support to the review team. The courtesy and hospitality extended to us throughout our stay in the Slovak Republic made our task as a review team as pleasant and enjoyable as it was stimulating and challenging.

The OECD review team is also grateful to colleagues at the OECD. Francesc Masdeu provided analytical support and Eleonore Morena provided key administrative, editorial and layout support. Deborah Nusche and Thomas Radinger provided advice while Yuri Belfali provided guidance and support.

This report is organised in five chapters. Chapter 1 provides the national context, with information on the Slovak school system, main trends and concerns as well as recent developments. Chapter 2 analyses the governance of schooling and the organisation of the school network. Chapter 3 reviews approaches to school funding. Chapter 4 looks at the management of the teaching workforce while Chapter 5 examines school leadership policies. Each chapter presents strengths, challenges and policy recommendations.

The policy recommendations attempt to build on and strengthen reforms that are already underway in the Slovak Republic, 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 Slovak Republic and fully understanding all the issues. This report is of course the responsibility of the OECD review team. While the team benefited greatly from the Slovak CBR and other documents, as well as the many discussions with a wide range of Slovak personnel, any errors or misinterpretations in this report are its responsibility.

Table of contents

Acronyms and abbreviations	12
Executive summary	13
Assessment and recommendations Education system context Strengths and challenges Policy recommendations	17 17 18 26
Chapter 1. School education in the Slovak Republic	35
Context	36 41
The governance of the school system	41
Main trends and concerns	56
Main policy developments	60
Notes	62
References	62
Annex 1.A1. Data on school education	64
${\it Chapter~2.}\ \textbf{Governance~of~schooling~and~the~school~network~in~the~Slovak~Republic~.}$	71
Context and features	72
Strengths	80 85
Policy recommendations	98
Notes	111
References	111
Chapter 3. Funding of school education in the Slovak Republic	115
Context and features	116
Strengths	126
Challenges	131 144
Notes	159
References	159
Chapter 4. The teaching workforce in the Slovak Republic	163
Context and features	164
Strengths	180
Challenges	186
Policy recommendations	196
References	202
Annex 4.A1. Descriptive data on teachers	204

_	5. School leaders in the Slovak Republic	
	ntext and features	
	engths	
	allenges	
Pol	icy recommendations	225
No	tes	232
Ref	erences	232
Annex A	. The OECD Review of Policies to Improve the Effectiveness of Resource Use	
in S	School	235
Annex B	. Composition of the OECD Review Team	236
Annex C	Visit programme	238
Tables		
	Degions of the Clavely Denublic	27
	Regions of the Slovak Republic	37
1.2.	Pre-primary education: Number of schools and students, school size	4.0
4.0	and class size, 2003, 2008 and 2013	46
1.3.	Basic education: Number of schools and students, school size	
	and class size, 2003, 2008 and 2013	48
1.4.	General secondary education: Number of schools and students, school size	
	and class size, 2003, 2008 and 2013	49
1.5.	Vocational upper secondary education: Number of schools and students,	
	school size and class size, 2003, 2008 and 2013	50
	Types of schools by their founders	52
	Number of schools by type, 2013	52
1.8.	Number and distribution of students with special educational needs (SEN),	
	by type of provision, 2003 and 2013	54
	Number and average size of special schools, 2003 and 2013	54
2.1.	Proportion of compulsory school age students with special educational	
	needs (SEN) by learning setting, 2010-11	82
2.2.	Thematic objectives and indicative allocation of support by the EU,	
	European Structural and Investment Funds for the Slovak Republic,	
	programming period 2014-20	84
2.3.	Investment priorities and specific objectives for "Education" Priority Axis	
	in the Operational Programme Human Resources for the programming	
	period 2014-20	85
2.4.	Municipalities providing lower secondary education, 2014	87
2.5.	Proportion of Roma children studying in various school types and the ethnic	
	composition of their classes/schools, survey data, 2010	93
3.1.	Expenditure per student in the Slovak Republic and selected countries,	
	2011	117
3.2.	Education expenditure as a percentage of GDP and public expenditure	
	in the Slovak Republic and selected countries, 2011	117
3.3.	Shares of public and private funding of education in the Slovak Republic	
	and selected countries, 2011	119
3.4.	Forms of education provided by school founders	120
	Salary normative in formula by school category, 2014	122
	Weights for specific student categories, 2014	

3.7.	Normatives for school facilities run by regional state authorities, 2014	123
3.8.	Normative and non-normative budget 2014, thousands of EUR	124
3.9.	Change in number of schools by type, 2003 to 2013	128
3.10.	Average expenditure per student and average school size by region, 2013	130
3.11.	Distribution of education spending between capital and current	
	expenditure, 2011	130
3.12.	Annual expenditure per student by educational institutions relative	
	to GDP per capita, 2011	132
3.13.	Percentage of education budget spent on personnel and operational	
	expenditure, 2013	134
3.14.	Change in average school size, 2003 to 2013	135
3.15.	Change in average class size, 2003 to 2013	136
3.16.	Average class size, student-teacher ratio and number of schools by size	
	of municipality, pre-primary and basic education, 2009 and 2013	137
3.17.	Class size in the Slovak Republic and selected countries, 2011	137
3.18.	Student-teacher ratios in the Slovak Republic and selected countries, 2011	138
3.19.	Student instruction time in the Slovak Republic and selected countries,	
	2014	138
3.20.	Teachers' working time in the Slovak Republic and selected countries, 2012	139
3.21.	Maximum class size rules, 2014	139
3.22.	Change in the number of special schools, 2002 to 2013	141
3.23.	Students with special educational needs (SEN) by learning setting,	
	2002 and 2013	141
3.24.	Minimum class size rules to be introduced from September 2016	147
3.25.	Amounts of formula components for special educational need	
	and social disadvantage in New Zealand	150
4.1.	Number of teachers, by level and type of education, 2005, 2009 and 2013,	165
4.0	mainstream schools	165
4.2.	Number of teachers, by level and type of education, 2005, 2009 and 2013, special schools	166
12	Number of teachers by qualification status, 2005, 2009 and 2014	166 167
	Distribution of teachers across career levels, by level and type	107
7.7.	of education, 2014	170
45	Distribution of teachers across career levels (%), by school sector	170
1.5.	and size of municipality, 2014	171
4.6	Monthly salary scale for teachers at schools and school facilities, 2014	172
	Assignment of salary grade, 2014	173
	Instructed hours by teaching qualification for the subject or field taught,	-, -
	by level and type of education, 2005, 2009 and 2014.	195
4.9.	Instructed hours by teaching qualification for the subject or field taught,	
	by school sector and size of municipality, 2014.	195
5.1.	Profile of Slovak school leaders in international comparison,	
-· -·	lower secondary education, TALIS 2013 and 2008	208
5.2.	Composition of school boards in Slovak schools.	214
	State School Inspection criteria to evaluate school management, 2014-15	216
	Mapping of school leader functional training to school leader standards	

Figures		
1.1.	Slovak population pyramid in 1980, 1990 and 2013	38
1.2.	Evolution of GDP growth in the Slovak Republic, the OECD	
	and the V3 countries, 1994-2014	40
1.3.	The Slovak school system	45
1.A1.1.	Enrolment in school education by level and type of education, 2000-13	64
	Number of schools by level and type of education, 2000-13	65
1.A1.3.	School size by level and type of education, 2000-13	65
1.A1.4.	Class size by level and type of education, 2000-13	66
1.A1.5.	School size by type of provider, 2000-13	67
1.A1.6.	Class size by type of provider, 2000-13	68
1.A1.7.	Proportion of students in church and private institutions by level	
	and type of education, 2000-13	69
2.1.	Projected change in 5-19 year-old populations across OECD countries	
	between 2000 and 2050	76
2.2.	Proportion of compulsory school age students with special educational	
	needs (SEN), 2010-11	78
2.3.	Proportion of compulsory school age students with special educational	
	needs (SEN) by learning setting, 2010-11	79
2.4.	Participation of 3-6 year-old Roma and non-Roma children in pre-primary	
	education, 2011	94
3.1.	Public expenditure on education as a percentage of GDP, 2005-11	118
3.2.	Public expenditure on education as a percentage of total public	
	expenditure, 2005-11	119
	Public funding of school education by initial source	120
3.4.	Flow of funding from central government to basic and upper secondary	
	schools	125
4.1.	Ratio of salary at top of scale to starting salary, lower secondary education,	
	public institutions, 2012	173
4.2.	Average number of hours teachers report having worked during the most	
	recent complete calendar week, lower secondary education, 2013	175
4.3.	Average number of hours lower secondary education teachers report having	
	spent on the following activities during the most recent complete calendar	
	week, the Slovak Republic and TALIS average, 2013	176
4.4.	Teacher annual salaries at start of career and at top of the scale,	
4.5	lower secondary education, public institutions, 2012	180
4.5.	Teachers' salaries relative to earnings for tertiary-educated workers	
	aged 25-64, public institutions, pre-primary and lower secondary	404
4.6	education, 2012.	181
4.6.	Resource issues hindering quality instruction, lower secondary education,	107
47	the Slovak Republic and TALIS average, 2013.	187
4.7.	Distribution of teacher qualifications and student-teacher ratio by social status of schools, basic education, 2013	100
10	Type of professional development recently undertaken by lower secondary	188
4.0.	teachers, the Slovak Republic and TALIS average, 2013	190
10	Barriers to teachers' participation in professional development,	130
ਜ .੭.	lower cocondary education, the Clovels Population and TALIC everage, 2012	100

4.10.	Teachers' needs for professional development, lower secondary education,	
	the Slovak Republic and TALIS average, 2013	193
4.A1.1.	Number of teachers, total and by type of provider, mainstream schools,	
	2005-13	204
4.A1.2.	Number of teachers, total and by type of provider, special schools	
	and conservatoires, 2005-13	205
5.1.	Distribution of the number of deputy leaders, by school type, 2014	210
5.2.	Relative attractiveness of school leader salaries across European countries	211
5.3.	School leaders' perception of their profession	220
5.4.	School leader salaries as a percentage of GDP per capita	
	across European countries, 2013-14	221
5.5.	School leader reports on school responsibility for resource	
	management, 2012.	223
5.6.	School leader reports on classroom observation	224

Follow OECD Publications on:





http://twitter.com/OECD_Pubs



http://www.facebook.com/OECDPublications



http://www.linkedin.com/groups/OECD-Publications-4645871



http://www.youtube.com/oecdilibrary



http://www.oecd.org/oecddirect/

Acronyms and abbreviations

CBR Country Background Report

CVTI Centrum vedecko-technických informácií – Slovak Centre of Scientific and

Technical Information

DG EAC Directorate General for Education and Culture of the European Commission

EADSNE European Agency for Development in Special Needs Education

EC European Commission
ESF European Social Fund
EU European Union

GDP Gross Domestic Product

ICT Information and Communication Technologies

IEA International Association for the Evaluation of Education Achievement
INEKO Inštitút pre ekonomické a sociálne reform – Institute for Economic and Social

Poformo

ISCED International Standard Classification of EducationMESRS Ministry of Education, Science, Research and Sports

MPC Methodology and Pedagogy Centre
NEP National Education Programme
NGO Non-Governmental Organisation
NRP National Reform Programme

NÚCEMNational Institute for Certified Educational MeasurementsOECDOrganisation for Economic Co-operation and Development

OP Operation Programmes

PIAAC OECD Programme for the International Assessment of Adult Competencies

PIRLS Progress in International Reading Literacy Study

PISA OECD Programme for International Student Assessment

SDPSchool Development PlanSENSpecial Educational NeedsSEPSchool Education Programme

ŠIOV Štátny inštitút odborného vzdelávania – National Institute of Vocational

Education

ŠPÚ Štátny pedagogický ústav – National Institute of Education
 ŠŠI Štátna školská inšpekcia – Slovak State Schools Inspectorate

STR Student-Teacher Ratio
TA Teaching Assistant

TALIS OECD Teaching and Learning International Survey

TIMSS Trends in International Mathematics and Science Study

UIPŠ Ústav informácií a prognóz školstva – Institute of Information and Prognoses

of Education

UNDP United Nations Development Programme

VET Vocational Education and Training

Executive summary

The school system in the Slovak Republic has accomplished significant achievements. Secondary-school attainment of the adult population (aged 25-64) is the highest within the OECD area. At the same time, upper secondary graduation rates for young people aged 25 or less are among the highest across OECD countries. However, the Slovak Republic has a mixed set of student outcomes at the school level. Performance in international assessments indicates some improvement in reading at the primary level, but some significant and growing challenges at the secondary level. There are also major equity challenges. School location (urban or rural area) and the socio-economic background of students considerably impact the performance of students. There are also concerns about strong social selectivity in the school system, including misplacement of some students in special schools. In addition, the poor educational outcomes of the Roma minority remain a major policy challenge.

The Slovak Republic has embarked on significant reforms to improve the quality and equity of the school system. These include the development of per capita funding, the definition of student learning objectives, the introduction of standardised national assessments, the creation of a career system for teachers and the introduction of a dual system within vocational secondary education. In this context of reforms, there is an apparent desire to increase resources devoted to education as well as the recognition that the sector's efficiency can be improved. This report analyses the use of resources in the Slovak school system, with a particular focus on the organisation of the school network, the funding of school education, the teaching workforce and school leadership. It identifies policy areas with potential efficiency gains or requiring further public investment.

The following policy priorities were identified to improve the effectiveness of resource use in the Slovak school system.

Increase overall public spending on education, while addressing key inefficiencies

The Slovak Republic has a sophisticated, transparent and well-embedded system of funding state, church and private schools by a formula, which is largely driven by the number of students, but includes modifying weights to adjust for schools' structural costs and students' characteristics. The funding system enables a high degree of financial autonomy for schools. In the hands of good school leaders, this autonomy gives them the means to make spending decisions that promote school improvement. The system is widely accepted and managed well; it needs minor modifications rather than a major overhaul. However, in spite of the efforts in recent years, the level of public spending is low by international standards, which contributes to inadequate teacher salaries, pre-primary provision and learning materials.

The Slovak government should continue efforts to increase the amount spent on school education in real terms and as a percentage of GDP as can be afforded, given general economic conditions and government fiscal policy. Priorities for increased funding are the expansion of pre-primary education (especially for socially-disadvantaged groups) and the increase of teacher and school leader salaries. This should involve a reform of the current financing of pre-primary provision, transferring the main funding responsibility from municipalities to the state, with the ultimate aim that all children aged 3-5 can attend if their parents so wish. Given the constraints on increasing the real value of education public expenditure, it is all the more vital to secure efficiencies within the existing education budget. EU structural and investment funds can be used to realise the necessary structural adjustments to make the education system more efficient and financially more sustainable (e.g. support local reorganisations of provision, develop capacity for inclusive education).

Further consolidate the school network

Given the present considerable inefficiencies in the provision of education services (e.g. small schools and classes) and the ongoing demographic changes, the rationalisation of the school network is a clear policy priority. This is widely recognised among stakeholders. Developing planning capacity, co-ordination mechanisms and inter-municipal collaboration is cornerstone to the creation of a more efficient and equitable school network. This could be organised through regional planning platforms covering all levels of school education and involving all relevant stakeholders. Municipal co-operation could involve the co-management of basic schools across municipalities, improving transportation services and the common use of various facilities, joint purchasing, shared school maintenance, improving the access to professional services, etc. The consolidation itself may involve a range of different strategies. One possibility is to close or consolidate small schools, or reduce services within schools with due consideration to the costs, feasibility and acceptability of different alternatives such as transporting students and housing them in boarding schools. Another possibility is for nearby schools to share resources. Shared resources may include teachers, sport facilities, computer labs and similar. A further possibility is the clustering of schools, which involves the conversion of several nearby small schools into satellites of one educational institution with a single leadership team and budget.

This should go alongside stronger financial incentives for consolidation. The Ministry of Education could define an average minimum class size below which a school is not funded from the state budget if the school's average class size remains consistently below the threshold size for a given number of years. As an alternative to introducing a minimum class size threshold, further measures could be taken to put financial pressure on founders with small schools and classes by modifying the existing compensation allocation. For example, the existing weighting for founders with fewer than 150 students could be reduced as the number of students decreases rather than remains constant, as at present in the formula. Also, maintaining a sufficiently high class size threshold before schools could be included in the network would go some way to address the problem that new entry from the private sector has resulted in reducing average school size and thus the efficiency of the school system.

Develop capacity for inclusive education in order to improve equity outcomes

There is a growing awareness of the equity challenges in the Slovak education system. The impact of students' socio-economic background on performance is among the highest; the integration of Roma students in mainstream education is limited; and there is a relatively high number of special needs students and also a relatively high proportion of those who are educated in a separate setting. The limited capacities of schools and teachers to provide integrated education, based on innovative pedagogies supporting teaching in heterogeneous classes, create constraints that push the system towards more structural differentiation (including both early tracking of students to basically different programmes and within-school tracking) and limited inclusion.

It is therefore essential that the equity dimension remains central in the development of educational policy. A priority should be the integration of the Roma community in the school system. An option is that the government uses VET (Vocational Education and Training) in general, and work-based learning and recognition of informal learning in particular, to integrate the Roma into the labour market. This should be accompanied by the expansion of second-chance education opportunities based on provision of formal certification and on-the-job learning. Also, students from socially-disadvantaged backgrounds should be supported by a maintenance grant to cover some of the expenses of attending school, such as transportation costs, equipment and foregone earnings. The expansion of effective inclusive education for students with special educational needs requires a well elaborated strategy with two key components. One is encouraging special schools to develop a new function of supporting both students with special needs being educated inclusively in mainstream schools and teachers providing inclusive education in these schools. This might involve rethinking the role of special schools, leading special schools' teachers to spend part of their working time in mainstream schools. The second key component of a strategy for inclusive education is enabling mainstream schools to provide effective inclusive education. The practice of inclusive education requires major changes both in the professional competences and the attitudes of mainstream teachers. Only teachers capable of using a rich repertoire of innovative teaching methods and capable of creating learning environments that support personalised teaching and learning can achieve successful inclusive education. Finally, at present, some funding for special educational needs and socially-disadvantaged students in mainstream schools is included in the non-normative budget. It would simplify the funding system and make the formula more comprehensive to include within it all the funds intended for improving vertical equity.

Improve the use of human resources in the school system

In the Slovak Republic, there is considerable autonomy in the management of the teaching workforce at the local level. Schools have considerable responsibility for recruiting, developing and dismissing teachers. This is a strength in a system where schools are individually judged on their ability to improve student learning. School leaders also have considerable room to develop the competencies of their teaching bodies in agreement with school development plans. However, there are indications of some inequitable distribution of teachers across schools. In addition, there are some challenges to the preparation of teachers, low participation rates in teacher professional development, teacher certification processes weakly linked to the core work of teachers while school leader development is hindered by the limited capacity for school leader appraisal.

While there is a need both to ensure the continuous entry of new talent into the teaching profession and to constantly motivate in-service teachers, there is no need to increase the overall size of the teaching workforce. On the contrary, the much-needed school consolidation is likely to require a certain degree of teacher redundancy. This entails developing strategies for reallocating, redeploying and retiring teachers currently employed in schools which will be affected by school (or class) consolidation. 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. Also, in order to address the specific instances of shortage that might still occur in rural areas and disadvantaged schools, the introduction of some incentives such as special allowances or in-kind support is recommended. This should be complemented with the monitoring of the equitable distribution of teacher resources across schools. Other areas of priority are bringing teacher certification closer to teaching practices; improving the framework for the provision of professional development; making initial teacher education more selective and better linked to school practices; and developing capacity for school leader appraisal.

Assessment and recommendations

Education system context

The school system has accomplished significant achievements but quality and equity concerns remain

The school system in the Slovak Republic has accomplished significant achievements. Secondary-school attainment of the adult population (aged 25-64) is the highest within the OECD area. At the same time, upper secondary graduation rates for young people aged 25 or less are among the highest across OECD countries. By contrast, tertiary educational attainment is low by international comparison, although increasing enrolment rates imply the situation is gradually improving. Adults have literacy and numeracy skills around the OECD average but the performance of young adults is poorer by international comparison. Also, the Slovak Republic has a mixed set of student outcomes at the school level. Performance in international assessments indicates some improvement in reading at the primary level, but some significant and growing challenges at the secondary level. School location (urban or rural area) and the socio-economic background of students make a difference in student performance. There are also concerns about strong social selectivity in the school system, including misplacement of some students in special schools. In addition, the poor educational outcomes of the Roma minority remain a major policy challenge.

Significant education reforms were launched, in part to respond to efficiency challenges in the school system

The Slovak Republic has embarked on significant reforms to improve the quality of the education system and is increasingly looking to international standards and best practices. Reform initiatives include the development of new mechanisms of school financing (per capita funding scheme), the definition of student learning objectives in National Education Programmes, further school autonomy with the development of School Education Programmes, the introduction of standardised national assessments, the creation of a career system for teachers and the introduction of a dual system within vocational secondary education. In this context of reforms, there is an apparent desire to increase resources devoted to education (which result from the awareness that spending per student remains markedly lower than the OECD average) as well as the recognition that the sector's efficiency can be improved. This report analyses the use of resources in the Slovak school system, with a particular focus on the organisation of the school network, the funding of school education, the teaching workforce and school leadership. It identifies policy areas with potential efficiency gains or requiring further public investment. The following policy priorities were identified to improve the effectiveness of resource use in the Slovak school system.

Strengths and challenges

Local autonomy is well balanced with adequate accountability

The current distribution of decision-making power in the Slovak state education system involves the three poles of the national, the municipal/regional and the institutional. The schools have acquired relatively great autonomy; all of them now have an elected school board with relatively strong jurisdictions; they are protected from too strong a local control through the funding system (which limits the redistributing power of their founders); they take responsibility for human resource management; and they are also encouraged to adapt the national curriculum to their own specific educational context through school education programmes. At the same time the national Ministry maintains strong regulatory powers. The move towards extended local and institutional autonomy has been paralleled with the creation and strengthening of accountability frameworks. The emerging national system of standardised student achievement measurement and the State Schools Inspectorate are key elements of the latter. In addition, the Slovak Republic has an information system which allows the monitoring of many local and institutional level processes (such as student performance, funding and human resource management) and creates opportunities to assess the impact of national policies and development interventions.

There is consensus on the need to improve efficiency but governance arrangements make efficiency improvement challenging

The policy environment for efforts to improve school resource use seems to be favourable in the Slovak Republic. The quality and efficiency problems of the education system seem to be widely recognised and the need for action, including measures for network rationalisation seem to be shared among stakeholders. A range of efficiency concerns arise from current arrangements for the governance of schooling. The administrative capacities of most self-governments (especially small municipalities) are relatively weak; many of them require active support from the relevant state institutions to take and implement decisions. Furthermore, while effective education provision can only be organised through inter-municipal co-operation which allows the sharing of resources (for example, teaching capacities, special education services or extracurricular facilities), incentives for inter-municipal co-operation are weak. Efficiency challenges are also linked with the relative isolation of subsystems (pre-primary schools; basic schools; upper secondary schools; special needs schools) and the rather rigid boundaries between them. This makes it difficult for subsystems to share resources and also hinders the smooth shift of resources from one subsystem to another when needed and in function of demographic changes, emerging new needs, existing inefficiencies and changing policy priorities. This relative isolation of subsystems seems to be accompanied by the low intensity of communication between the administrative authorities responsible for these subsystems.

Spending on education is relatively low which leads to inadequate teacher salaries and pre-primary provision

Spending is considerably lower than the OECD average at all stages of school education in the Slovak Republic. The relatively low level of spending translates into inadequate spending on teacher and school leader salaries and on learning materials, including textbooks, and failure to meet the demand for pre-primary education places. Teacher salaries in 2012 were the lowest in the OECD in relation to the earnings of fellow

tertiary-educated workers. In the same year, the Slovak Republic was the only OECD country where teachers earned less than half of the remuneration of similarly educated workers. As a result, the teaching profession is not competitive in the labour market, causing difficulties in attracting talented young people to the teaching profession and in keeping those already on the job motivated. However, in recent years, there have been significant efforts on the part of the Slovak government to increase teacher salaries. Salaries were increased by 5% in 2013, 2014 and 2015, reflecting a commitment to bring teacher salaries to more adequate levels. Another consequence of low funding is the inability to meet the demand for pre-primary education places. Although the number of children enrolled at pre-primary schools has increased since 2008 – when pre-primary education became free of charge for one year before the start of compulsory schooling – demand for pre-primary education places exceeds supply. Pre-primary education enrolment remains significantly lower in the Slovak Republic than in other countries of the Central and Eastern European region. This is related to insufficient supply in many municipalities, which take primary responsibility for the provision of pre-primary education.

The funding formula has a range of positive features

The Slovak Republic has a sophisticated and well-embedded system of funding state, church and private schools via a formula, which is largely driven by the number of students, but includes modifying weights to adjust schools' budget revenues to differences in their size and structural costs (i.e. costs that schools cannot affect by their own decisions, such as student taught hours). The formula includes some components aimed at achieving a more equitable distribution of funding in relation to student needs. In addition, the funding system has shown itself to be adaptable. Over the years, the Ministry of Education has adjusted the formula in response to stakeholders' communications of their requirements. There is also extensive collection of data at school level to support the formula calculations.

There is flexibility in the funding system to respond to difficulties schools experience in financing all their costs from the amount allocated by the formula. Founders can redistribute funding between their schools – up to 5% of the salary normative and up to 20% of the operational costs normative. In addition, schools make requests to the founder and via them to the Ministry of Education for financial assistance. The formula provides efficiency incentives as funding depends on the number of students, but this is partially offset by the compensation factor which provides some protection for small schools and is thus sensitive to local needs. The formula funding system enables a high degree of financial autonomy for schools. In the hands of good school leaders, this autonomy gives them the means to make spending decisions that promote school improvement. Finally, the system appears to be highly equitable horizontally in the state sector as municipalities and self-governing regions add very little to basic and secondary school budgets from their own resources. The system is widely accepted and well managed; it needs minor modifications rather than a major overhaul.

Funding is transparent and the scope for misuse of funds is limited but there is a lack of audit capacity

The funding system is transparent. The funding formula is made publicly available. Schools produce quarterly financial reports, which are submitted to the founder. Founders are required to aggregate the economic reports from all their schools and submit these to

the regional state authority ("deconcentrated" state administration), which in turn prepares a summary report for submission to the Ministry of Education. Church and private founders are required to submit economic reports only of the use of public funds (data on private funds spent on educational services, however, are not monitored). Comprehensive audit regulations are in place. Although there are very limited resources at state central or regional level to audit school accounts and schools have infrequent audits from state employed auditors, there are mitigating factors. In particular, municipality auditors audit municipal schools. The small number of schools per founder and the presence of community members on School Boards make for local transparency of school spending. Also, schools have limited possibilities for the misuse of funds as over 80% goes on salaries and schools run on tight budgets for their other needs. Schools and municipalities also publish invoices of their purchases on their websites.

There has been some consolidation of the school network but there is a need to consolidate further

There has been some consolidation of the school network. As the number of students dropped 18.7% (20.4% in the state sector) between 2005 and 2013, the number of schools decreased by 5.4% (8.5% in the state sector) and the number of teachers by 7.8% (10.3% in the state sector). Overall, the decrease of the number of schools and teachers is slower than the decrease of the number of school-age students but it shows some capacity of the decentralised system to adapt to the demographic changes. On balance, the formula has promoted efficiency as it has encouraged some consolidation of state schools since its introduction in 2003. However, while state schools have been consolidated, the number of church and private schools (which typically have smaller classes), has been rising. Furthermore, the compensation component for founders with fewer than 250 students enables small schools to remain within the network. Consequently, over the last decade the average size of schools has decreased. Smaller schools tend to have higher per student costs as fixed costs are spread over fewer students. Small schools generally have small classes which education research has found do not generally boost student attainment except for the youngest and most socially-disadvantaged students.

Also, the high number of small municipalities providing lower secondary education makes the establishment of size-efficiency at this educational level particularly challenging. In light of the projected demographic decrease it is expected that the pressure to consolidate the school network will increase, as well as the pressure on small municipalities to establish co-operation for effective provision of lower secondary education. There are also specific efficiency challenges related to the provision of upper secondary education. Programme-level planning is missing in vocational secondary education and little tracking of graduates is undertaken. In addition, there is little synergy between vocational and general secondary programmes and regional co-operation between vocational providers is weak.

There is growing policy attention to equity in education but little capacity to provide inclusive education

There is a growing awareness of the critical situation faced by social groups particularly hit by social deprivation and poverty, especially regarding the need to make serious efforts to integrate the Roma minority in mainstream education. This results from the recognition that the Slovak education system is among those where the impact of the

socio-economic status of parents on student performance is among the highest. Also a strength in the system is the priority given to the provision of instruction in the language of national minorities, placing equity considerations above efficiency considerations.

However, the equity challenges in the Slovak education system are significant. The integration of the Roma community in mainstream education is limited. Similarly to other Central and Eastern European countries there is a tendency in the Slovak Republic to place a disproportionally high number of Roma children into special needs classes and schools. Although these placements are done on the basis of the decision of an expert panel the outcome of the process is a practice of exclusion that is often criticised by Roma and other civil rights activists. Overall, there is little capacity to provide inclusive education. The limited capacities of schools and teachers to provide integrated education, based on innovative pedagogies supporting teaching in heterogeneous classes, create constraints that push the system towards more structural differentiation (including both early tracking of students to basically different programmes and within-school tracking) and limited inclusion.

The integration of students with special needs in mainstream education remains a major challenge

In the Slovak Republic, a strength in terms of equity is that the funding system encourages individual mainstream schools to integrate students with special educational needs (SEN) through a per capita normative that is higher than for regular students. However, there has been a significant increase of students categorised as having special educational needs following the introduction of the funding premium. This raises concerns about the potential limited transparency of the processes to determine whether or not a student has special educational needs. There are a relatively high number of SEN students in the Slovak Republic as well as a relatively high proportion of those who are educated in a separate setting.

Socio-economic disadvantage and learning difficulties might still lead to attendance of special schools. The tendency to treat children with learning difficulties as children with mental disabilities, that is, "medicalising" the socio-economic disadvantages is often seen by local players as a solution to equity challenges but, on the longer term, these are further amplifying equity challenges. It is expected that the June 2015 amendment to the School Act which limits the attendance of special schools and special classes in mainstream schools to children with a diagnosed medical disability will progressively eliminate the practice of "medicalising" socio-economic disadvantage.

The fact that, while the administration of mainstream schools has been transferred to municipalities and regional self-governments, the system of special education schools has remained under direct state supervision has created a major challenge through disconnecting almost entirely the subsystem of special needs schools from the mainstream systems. This disconnection makes it particularly difficult to develop strategies for inclusive or integrated education which can be realised only through intensive daily interactions between the institutions and the practitioners of special needs schools and mainstream schools. The limited role of special schools' professionals in improving the capacities of mainstream education to become more inclusive might be a major bottleneck for the promotion of effective inclusion in the Slovak Republic. At the same time, teachers in mainstream schools expressed difficulties coping with the presence of SEN children in their classes.

There is a high degree of school choice but there are also concerns about accreditation processes to enter the school network

The existence of private institutions with access to public funding, the per capita funding system based on the principle of public money following students and the free school choice system have created a quasi-market environment which places the users of services in a powerful position. This is supported by the disclosure of information about schools for parents and students with the intention of making school choice more informed and encouraging competition among institutions. This has encouraged the growth of private involvement in the education system, and increased the diversity of institutions from which innovative pedagogical strategies can be drawn.

However, recent new entry by church and private schools, encouraged by the funding system, has resulted in smaller schools and class sizes and hence a higher cost school system with no evident increase in student learning outcomes. Thus the stimulation of such an active schools market has come at the cost of reduced efficiency, though it has provided parents with a greater choice of different types of school. There are concerns about the transparency of school accreditation and registration decisions and whether these decisions are based on an assessment of need. Also, competition between state and non-state schools is unfair in a number of respects. In particular, private and church schools receive the state school student normative and can charge fees without any reduction in state funding (while state schools cannot).

EU funds create opportunities to improve the efficiency of the school system but implementation has proven challenging

The Slovak Republic is using EU structural funds to modernise its education system. This is a major historical opportunity to achieve not only reforms improving the quality and relevance of education but also to realise the necessary structural adjustments to make the education system more efficient and financially more sustainable. Priority areas are educational infrastructure, vocational education and training, the integration of the Roma community and pre-primary education. However, a major challenge has been the ability to absorb and consume the EU structural and development funds made available to the country. Another challenge is the alignment of EU-funded development interventions with the overall sectoral strategies and a better diffusion of the results of the most successful programmes. These challenges are aggravated by the weak operational and project management capacity, especially when the focus of managing projects should be shifted from achieving short-term output results to making a real longer-term impact.

Local autonomy in managing the teaching workforce is good but the distribution of teachers across schools raises concerns

In the Slovak Republic, there is considerable autonomy in the management of the teaching workforce at the local level. Schools have considerable responsibility for recruiting and dismissing teachers. This is a strength in a system where schools are individually judged on their ability to improve student learning. School leaders also have considerable room to develop the competencies of their teaching bodies in agreement with school development plans. Teacher appraisal processes internal to the school are well established, are led by school directors and have important consequences for the professional development of teachers. This strengthens the ability of school leaders to shape teacher professional competencies to properly respond to the needs of their

educational communities. Also, the autonomy from which schools benefit to allocate their budgets to teacher resources grants them with the ability to select the optimal number and mix of school staff for their schools, including opportunities to hire non-teaching staff to support the work of teachers. However, there are indications of some inequitable distribution of teachers across schools. For example, there are indications that, in schools attended by 15 year-olds, the likelihood of teacher shortages (as perceived by school directors) is considerably higher in both socio-economically disadvantaged schools and in schools located in a rural area. Also, there are indications that the proportion of less experienced teachers is higher in disadvantaged and non-urban schools.

A career structure for teachers exists but teacher certification fails to focus on the core work of teachers

In the Slovak Republic, teachers benefit from a clearly established career structure with four steps associated with a teacher certification process. The existence of a career structure for the most part accomplishes two important functions: the recognition of experience and advanced teaching skills with a formal position and additional compensation; and the potential to better match teachers' skills to the roles and responsibilities needed in schools. These convey the important message that the guiding principle for career advancement is merit and have the benefit of rewarding teachers who choose to remain in the classroom. Given the potential greater variety of roles in schools as the teacher goes up the career ladder, the career structure fosters greater career diversification. Such opportunities for diversification already exist in Slovak schools as with management responsibilities for teachers at schools, developers of professional development activities and mentors of beginning teachers. These are likely to have a positive motivational effect. Another positive feature of the teaching profession is the opportunity for horizontal differentiation. This is formalised in specialised career positions such as class teacher, educational advisor, ICT co-ordinator, Head of Subject Committee or Head of Methodology Association, which are proposed to teachers according to the needs of individual schools. In addition, beginning teachers benefit from a clearly established mentoring programme offering support and additional training as they enter the profession.

However, there are a range of implementation aspects to teacher certification that raise concerns. First, teacher certification is not a competency-based process, i.e. it does not directly assess whether a teacher has acquired the competencies needed to perform at the different stages of the career. Instead, as it is currently designed, teacher certification focusses on the acquisition of qualifications. Second, the certification process is too resource-intensive for individual teachers (preparing an academic paper) and does not concentrate on the core work of teachers (no observation of actual teaching). Third, teacher certification is disconnected from other teacher appraisal processes such as those internal to the school. Fourth, there are no provisions for re-certification, i.e. once certified at a given stage, the teacher remains indefinitely at that stage.

Teacher professional development is well linked to school priorities but participation rates are low

Professional development is well established among Slovak teachers, benefits from a wide supply of programmes offered by a variety of providers, entails the accreditation of individual programmes, involves co-ordination between schools and their founders and benefits from dedicated budgets at schools. Two features are of particular importance and

should be highlighted. First, teacher appraisal is used to identify the professional development needs of individual teachers. This is commendable as development is one of the main functions of teacher appraisal. Second, taking advantage of the fact that schools organise internal processes for teacher appraisal, school leaders define individual professional development plans in alignment with school development plans. While teachers decide on the professional development programmes they undertake, access to programmes free of charge is only granted if these are part of the school's plan for teacher professional development. However, in international comparison, the participation rates in professional development of Slovak teachers appear to be low. There are indications that this might result from the combination of a number of factors such as the little relevance of the supply of professional development programmes, the limited entitlement to free professional development, the predominance of the financial incentive to undertake professional development and an inefficient market for professional development.

There are some challenges to the preparation of teachers

Initial teacher education raises a range of concerns. First, there is some anecdotal evidence indicating that initial teacher education is not attracting the best candidates from school education. Second, a very large proportion of graduates from initial teacher education seems not to actually go into teaching upon graduation. Third, there are concerns about the required minimum qualifications for pre-primary education teachers. The Slovak Republic is the only OECD country where such minimum qualifications are set at the upper secondary level. This is in stark contrast to the requirement of a master's level higher education qualification for teachers at the other levels of school education. There is no reason why quality standards should be lower at pre-primary education given the lasting effects of this level of education on student learning opportunities. Fourth, a number of organisational aspects to the organisation of teacher education programmes are problematic: practical training could be strengthened through both the amount of time devoted to it and the quality of the interactions with schools; and teaching students with special needs and ICT skills for teaching have been identified by Slovak lower secondary teachers as their main needs for professional development, which might potentially indicate some under-emphasis in these areas in teacher education programmes.

There is some lack of transparency in teacher compensation defined at the school level

There are some potential benefits of linking teacher appraisal to the personal allowance teachers receive. It can allow school directors to do proper staff planning and reward, retain and motivate teachers. However, there are concerns about the transparency and subjectivity of the criteria used to determine the individual performance-related extra compensation teachers may receive at the school level. A major reason for the lack of transparency in defining teachers' personal allowance is the absence of a clear framework for appraising the performance of teachers. In addition, there seems to be very little scope for school directors to award performance-related extra payments because of the limited extra money available in their budgets. Therefore, in practice, the personal allowance is used predominantly as an instrument to reward additional tasks and responsibilities.

Mechanisms to heighten the objectivity of school leader selection are in place

There is a transparent procedure for the selection of school leaders. Both the school board and the State Schools Inspectorate (ŠŠI) play a central role in the selection process,

even if the ultimate decision remains the responsibility of the school founder. An inspector from the ŠŠI must be a member of the School Board's selection committee in basic and secondary schools. Slovak school boards have a broad composition with eleven members representing the three major stakeholder groups (founder, school staff and parents/ students). This approach is likely to reduce opportunities for "political appointments" by school founders. In addition, school inspectors bring in professionalism and experience. They also heighten objectivity as they bring in a perspective both external to the school founder and to the immediate school community (as represented by the staff, parents and students). The current approach to school leader selection also facilitates a more coherent management of school leaders as the specific group taking the ultimate selection decision (school founder) is also in charge of the other relevant dimensions of human resource management (appraisal, development, career advancement). This should facilitate the alignment between the selection, appraisal and development of school leaders with the founder's educational objectives and financial resources.

School leaders play a key strategic and development role in the school but the position remains unattractive

The school leader is responsible for the overall quality of education services at the school. He or she develops a School Development Plan. The school leader is also responsible for preparing an Annual School Report and this includes a report on progress in implementing the School Development Plan. Compared to other countries, there is a high level of autonomy and responsibility for school leadership in Slovak schools. In the area of school resource management, Slovak school leaders report that a much greater degree of responsibility lies fully with the school, either for the school leader and/or shared with teachers. They benefit from good administrative and management support structures. The majority of school leaders have the support of at least one deputy leader. Typically, schools also employ administrative staff responsible for regular administrative arrangements, including a member of staff with responsibility for administering the school budget. Larger schools have both an "economist" and an "accountant". The economist assumes responsibility for the payroll, planning the school budget for staff salaries and the accountant assumes responsibility for operational costs, planning the school budget for goods and services. School leaders may also benefit from different advisory bodies to support their work (pedagogical board, methodological associations, subject committee). However, the position of "school leader" is perceived as unattractive and compensation is inadequate. The position of "school leader" is rather an extension of "teacher" and does not adequately enjoy a distinct professional status. There is currently not a distinct career structure for Slovak school leaders. A school leader is conceptualised as "a teacher who performs specialised activities" and receives additional salary allowances that correspond to these activities (an allowance for managerial activities).

Capacity for and approach to school leader appraisal varies among school founders

Procedures and criteria used for school leader appraisal vary considerably among different founders. For founders with only a few schools there would be more regular contact with the School Board and parents. Such feedback, in addition to the regular audit of finances, is deemed adequate information to feed into school leader appraisal. For founders with a larger number of schools, procedures may include meeting once or twice a year at each school and/or the use of a standard questionnaire to gather feedback from

school leaders. Different criteria range from a general perception of community satisfaction with the school or an assessment of school progress against goals in the School Development Plan, to a specific set of criteria established by the founder, such as the size of the school and evidence on school performance. Also, the capacity to conduct school leader appraisal varies enormously among different school founders. Some founders may have a specific department with responsibility for schools, but the number of employees will vary and may be only one.

Policy recommendations

Increase overall public spending on education, while addressing key efficiency concerns

The Slovak government should continue efforts to increase the amount spent on school education in real terms and as a percentage of GDP as can be afforded, given general economic conditions and government fiscal policy. Priorities for increased funding are the expansion of pre-primary education and the increase of teacher and school leader salaries. It is also desirable to enable schools to increase both the amount and proportion of school budgets spent on learning materials and equipment. A general increase in the total amount allocated to school budgets would enable schools to spend more on both staff and learning materials/equipment. Given the constraints on increasing the real value of education public expenditure, it is all the more vital to secure efficiencies within the existing education budget, as proposed below by rationalising the school network so as to reduce the number of small schools and small classes.

An expansion of pre-primary education, especially for socially-disadvantaged communities is required. This should involve a reform of the current financing of preprimary provision, with the ultimate aim that all children aged 3-5 can attend if their parents so wish and no child is prevented from attending because their parents cannot afford the fees. Since pre-primary education is so important in preparing a child for basic education it should become fully funded by the Ministry of Education through appropriate normatives (instead of mostly funded by municipality budgets). Another top priority should be the improvement of teachers' compensation and working conditions. The objective is to improve the status of the teaching profession, attract better candidates to teaching, ensure teacher education graduates enter the profession, make teaching more appealing to males, and ensure teachers have adequate incentives to be effective in their daily practice. This need is well recognised by the Slovak government as shown in recent efforts to improve teachers' salaries. These efforts should be sustained in the years to come, result in the significant improvement of teacher salary conditions, and go alongside efforts to improve working conditions. The latter relate, in part, to efforts to better resource individual schools so they are able to provide better instructional materials to teachers, more relevant professional development for teachers, and better conditions for individual student support.

Further consolidate the school network through co-ordination of education provision

Given the present considerable inefficiencies in the provision of education services (e.g. small schools and classes) and the ongoing demographic changes, the rationalisation of the school network is a clear policy priority. Developing planning capacity, co-ordination mechanisms and inter-municipal collaboration is cornerstone to create a more efficient and equitable school network. School consolidation should be about making optimal

choices to ensure quality education for all children. It is therefore important that the focus is not on savings or a prioritisation of accessibility over quality. The key question in considering school consolidation must therefore be what is in the best interest of students.

In the consolidation of the school network, in particular in small municipalities, the Slovak Republic can consider a number of different strategies. One possibility it to close or consolidate small schools, or reduce services within schools (e.g. a basic school providing only Years 1-4) with due consideration to the costs, feasibility and acceptability of different alternatives such as transporting students and housing them in boarding schools. Another possibility is that nearby schools share resources. Shared resources may include teachers (who would conduct lessons and other activities in more than one school), sport facilities (open to students from all schools participating in the collaboration), computer labs and similar. A further possibility is the clustering of schools, which involves the conversion of several nearby small schools into satellites of one educational institution with a single leadership team and budget.

The management of the school network also requires co-ordination and planning at the regional level. This could be organised through regional planning platforms covering all levels of school education and involving all relevant stakeholders (e.g. municipalities, self-governing regions, regional representatives of the world of work, regional state authorities and also representatives of national authorities) and connected to regional development processes. These could initially be launched on a pilot basis in one or two self-governing regions. The regional planning processes should also encourage more horizontal co-operation between municipalities, especially in the case of those of smaller size. At present, inter-municipal co-operation is not facilitated due to weak regional co-ordination and the strong role of municipalities and school directors, making co-operation for jointly provided educational or connected services very rare. This co-operation could involve the co-management of basic schools across municipalities, improving transportation services and the common use of various facilities, joint purchasing, shared school maintenance, improving the access to professional services, etc.

Create stronger financial incentives for school and class consolidation

Given the international evidence that smaller classes are not value for money, except possibly for young children and students from socially disadvantaged backgrounds, efficiency would be improved by modifying the funding formula to put further pressure on founders to consolidate schools and classes. To encourage further school consolidation, the Ministry of Education could define an average minimum class size below which a school is not funded from the state budget if the school's average class size remains consistently below the threshold size for a given number of years – for example three years. As an alternative to introducing a minimum class size threshold, further measures could be taken to put financial pressure on founders with small schools and classes by modifying the existing compensation allocation. For example, the existing weighting for founders with fewer than 150 students could be reduced as the number of students decreases rather than remain constant, as at present in the formula.

In addition, the minimum number of students required before a school is approved for inclusion in the network should be raised, for instance to an average class size of 20 for Years 1-9 and 25 for Years 10-13. Maintaining a sufficiently high class size threshold before schools could be included in the network would go some way to address the problem that new entry from the private sector, stimulated by receiving the same per student formula

allocation as state schools, has resulted in reducing average school size and thus the efficiency of the school system. Finally, financial pressure on schools having to split classes to prevent a breach of maximum class size rules would be eased by making maximum class size rules more flexible so that schools have more freedom to decide on their own class and teaching group formations, given their educational objectives and budget constraints. Maximum sizes should be increased and schools allowed to raise them further after obtaining permission from a relevant authority or even abolished altogether.

Expand inclusive education for students with special needs while reviewing their identification

The expansion of effective inclusive education for students with special educational needs (SEN) requires a well-elaborated strategy with two key components. One is encouraging SEN service providers (in SEN schools) to develop a new function of supporting both students with special needs being educated inclusively in mainstream schools and teachers providing inclusive education in these schools. This might involve rethinking the role of special schools, leading special schools' teachers to spend part of their working time in mainstream schools not only directly supporting children but also providing consultancy to class teachers. Turning special schools into methodological centres providing support to mainstream schools is a highly complex process of institutional change, which requires serious adaptive capacities from SEN professionals and schools and it can be implemented only slowly and gradually through pilot development projects based on voluntary participation and through the spreading of successful practices.

The second key component of a strategy for inclusive education is enabling mainstream schools to provide effective inclusive education. This is also a slow and gradual process which, however, can be significantly accelerated by massive and effective capacity building. The practice of inclusive education requires major changes both in the professional competences and the attitudes of mainstream teachers. Only teachers capable of using a rich repertoire of innovative teaching methods and capable of creating learning environments that support personalised teaching and learning can achieve successful inclusive education. This requires a supportive institutional context characterised by an organisational culture which supports diversity and pedagogical innovations. Successful inclusive education can be realised only if massive capacity building in mainstream schools creates new capacities in these institutions and in their teachers to manage effectively classes where students with and without special needs are educated together. Institutions responsible for initial and continuous teacher education, including those providing specialised forms of training linked with specific development interventions should be strongly involved in this process.

At the same time, a rigorous review is needed of teachers', school leaders' and educational psychologists' practices in identifying students for special school attendance or integration to discover to what extent this increase has been driven by the attractions of additional funding and the intention to place socially-disadvantaged children, in particular Roma, in special schools. The Ministry of Education needs to be more proactive in ensuring that assessment for SEN categorisation and hence funding is carried out using consistent criteria and is not motivated by other considerations such as obtaining increased funding or little motivation to include certain students groups in mainstream education.

Give priority to equity objectives and expand the equity components of the funding formula

In light of the low equity performance of the Slovak school system it is essential that the equity dimension remains central in the development of educational policy. For example, all initiatives aimed at improving the efficiency of resource use should give specific attention to the Slovak Republic's strategy for the integration of the Roma community. One of the key components of this strategy is the establishment of relevant indicators and the regular monitoring based on these indicators. In general the principles of the early school leaving strategy of the European Union can be applied in this area, including the combination of measures of prevention, intervention and compensation and the use of macro- and micro-level data to support the evidence-based policy approach. The careful impact analysis of development interventions in this area is particularly important. Also, the government should use VET in general, and work-based learning and recognition of informal learning in particular, to integrate groups at risk, including the Roma, into the labour market. This should be accompanied by the expansion of second-chance education opportunities based on provision of formal certification and on-the-job learning, Also, students from socially-disadvantaged backgrounds should be supported by a maintenance grant to cover some of the expenses of attending school, such as transportation costs, equipment and foregone earnings. This would be contingent on regular school attendance and satisfactory progress.

It is also important that equity remains a key consideration of school network design and planning. There is a need for a continuous monitoring of the equity implications of all restructuring or rationalisation decisions. The specific needs of the socially-disadvantaged groups have to be considered and the implications of rationalisation measures especially for the integration of the Roma minority and the inclusion of students with special education needs have to be carefully analysed. It is proposed that this dimension receives the greatest attention when creating the new institutional frameworks for effective network design and planning with guarantees such as the participation of the representatives of the most vulnerable groups. Some service components, such as the employment of Roma teaching assistants should benefit from special protection when restructuring or rationalising measures are implemented. This should be accompanied with intensive capacity development programmes for mainstream teachers in order to improve their skills to use advanced pedagogical methods enhancing work in heterogeneous student groups and more personalised teaching.

At present, some funding for special educational needs and socially-disadvantaged students in mainstream schools is included in the non-normative budget. It would simplify the funding system and make the formula more comprehensive, including within it all the funds intended for improving vertical equity. Funding could be provided on the basis of indicators of social disadvantage or non-fluency in the language of instruction. Using the formula to allocate funding intended to support equity objectives rather than providing resources in kind, such as teaching assistants, gives schools autonomy in deciding how best to spend the money on supporting disadvantage. Different students in different school contexts benefit from different ways of using the additional funding.

Improve the processes determining public funding eligibility and adjust the public funding of non-state schools

In the decentralised context where the allocation of public funding to private providers and where the contribution of private partners (e.g. parents, employers) to pay for some components of public services is a normal practice, there is an increasing need to establish a high level of transparency. This can be supported by the establishment of quality standards and through various quality evaluation development procedures. The current rules for accrediting schools into the school network or excluding them should gradually be made more flexible so that the nature of these decisions (allocating public funding for services provided by various providers) becomes clearer. Decisions on allocating public funding to education services should increasingly depend on needs analysis and quality assessment. Only services of proven quality should get public funding and only new services whose need has been identified should be allowed to become part of the school network.

Also, the national government should reconsider its policy of providing non-state schools exactly the same amount of money that is spent on students in state schools given that non-state schools are allowed to charge tuition fees. Providing such substantial subsidies to generally wealthier households to opt out of the state school system raises equity issues and over the longer term quality issues by depriving state schools of the input of potentially more engaged parents and students. It also runs against the state's objective of consolidating the system into schools of an effective scale and in this light can be considered counter-productive. Alternatively, non-state schools could receive the same amount of public subsidy as long as they do not charge tuition fees. In such a system, non-state schools would see their public subsidy reduced in proportion to the level of the tuition fees they charge.

Given the freedom for parents to choose a school in the Slovak Republic, it is important that parents, schools and policy makers have fair and reasonably accurate information on the relative performance of schools. Using raw test and examination results to compare schools when making school choice decisions distorts the schools market since schools with advantaged student intakes are inaccurately perceived as more effective than schools with less advantaged intakes. The development and maintenance of a value-added system of assessing school performance and the appropriate dissemination of these measures is required in order to underpin the schools market with fairer and more objective measures of school performance.

Use EU funds to support strategies to improve the efficiency of the school system

The OECD review team recommends a systematic review of the possible uses of EU structural and investment funds, within the framework of the Partnership Agreement between the European Commission and the Slovak Republic for the programming period 2014-20, to support strategies to improve the efficiency of the school system. For example, these funds can be used effectively to create the necessary institutional and human conditions for inclusive education (e.g. to support the adjustment of SEN schools' functions with the development of new methodological service centres providing individual services to mainstream schools which are integrating students with special needs). The use of EU structural and investment funds for supporting the implementation of the strategy of the Slovak Republic for the integration of the Roma community should also remain a priority (e.g. through facilitating access to pre-primary education). In

addition, the EU funds can also be used to support local reorganisations of provision aiming at improving efficiency and at reconciling efficiency and quality goals. In those municipalities where the school population is expected to decrease EU funds can be used, for example, to create appropriate conditions for school transportation.

As school consolidation proceeds, adjust the use of human resources at schools

While there is a need to both ensure the continuous entry of new talent into the teaching profession and to constantly motivate in-service teachers, there is no need to increase the overall size of the teaching workforce. On the contrary, the needed school consolidation is likely to require a certain degree of teacher redundancy. This entails developing strategies for reallocating, redeploying and retiring teachers currently employed in schools which will be affected by school (or class) consolidation. 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. Also, the introduction of teaching assistants to support the learning of students with special needs and disadvantaged students is a development that can be expanded. Finally, in order to address the specific instances of shortage that might still occur in rural areas and disadvantaged schools, the introduction of some incentives such as special allowances or in-kind support is recommended. This should be complemented with the monitoring of the equitable distribution of teacher resources across schools.

Simplify the teacher certification process and maintain a focus on school-based teacher appraisal

The teacher certification process should remain as the component of teacher appraisal predominantly dedicated to accountability but needs to be simplified and brought closer to teaching practice. This process should be associated with the existing career structure, allowing for progression within the career path as well as providing access to different specialisations and positions. The appraisal for certification should be founded on the national framework for teaching standards, describing teacher competencies at the different stages of the career. Also, instruments used in teacher appraisal need to capture the quality of teachers' practices in the classroom, namely classroom observation and teacher portfolios providing evidence of teachers' work. Each permanent teacher should undergo periodically (e.g. every four years) a formal appraisal for certification, or re-certification. The purpose would be to confirm the teachers as fit for the profession. Also, the emphasis on school-based teacher appraisal which is predominantly for teacher development should be maintained and strengthened. The introduction of teaching standards will bring the necessary reference to guide teachers through their development and will better link school-based teacher appraisal to other aspects of teacher policy such as appraisal for certification, career advancement and professional development. This approach to teacher certification would associate good performance to career progression, also possibly linking performance to the speed of salary step progression within career stages. This ensures teachers have a monetary incentive to achieve good performance. As a result, the possible use of pay bonuses for good performance at the school level (through the teacher's personal allowance) might be redundant as a monetary incentive.

Improve the framework for professional development provision

Professional development needs to become a more regular practice among teachers in the Slovak Republic, with a greater diversity of relevant offerings, driven by teachers' aspirations for professional growth and adequately resourced. A number of options are recommended. First, professional development should be understood by teachers as the main instrument to acquire the new competencies necessary for professional growth and career advancement. It is therefore suggested that the direct link between professional development and a salary allowance is eliminated to avoid the phenomenon of "credit chasing". Second, suppliers of professional development programmes need to better connect to the professional development needs identified through school-level professional development plans. This suggests a range of possible actions: better interaction between professional development providers and individual schools; an assessment on the part of an organisation such as the State Schools Inspectorate of the professional development needs of teachers; or strategies to directly survey teachers about their professional development needs. Finally, given that there is a significant degree of dissatisfaction with the current provision for professional development, it would be helpful to review the framework for funding and provision. A possible approach is to open a market for professional development provision while providing individual schools with earmarked funds for professional development or give each teacher a personal allowance which could be spent over several years. In this situation, schools could freely choose the training and provider most suited to meet their professional development needs. This would also require the strengthening of the accreditation system, making sure accreditation processes are effective and take into account the observed quality and relevance of programmes. This approach would also benefit from an improved eligibility for paid professional development for individual teachers.

Improve the provision of initial teacher education

Overall, the Slovak Republic is not facing teacher shortages. This is an opportunity to be more selective about those who enter the profession and initial teacher education. If salaries are increased, as suggested above, and better candidates are attracted to initial teacher education, it is clear that entry into preparation programmes can be much more selective to ensure only high-quality graduates fill the available teaching posts. Potentially useful initiatives include: providing more information and counselling to prospective teacher trainees; procedures that try to assess whether the individuals wanting to become teachers have the necessary motivation, skills, knowledge and personal qualities; incentive schemes to recruit candidates with high-level competencies; and flexible programme structures that provide students with school experience early in the course. Also, a higher education qualification should become the minimum requirement for entering the teaching profession at pre-primary education level. There is no reason why qualification requirements for pre-primary education teachers should be lower than those for teachers at other school levels. Furthermore, the role of field experiences in schools as part of teacher education programmes could be reinforced. Finally, in light of efforts to integrate students with special needs in mainstream schools, initial teacher education programmes need to strengthen their preparation of teachers to respond to this increasing need in schools.

Make the school leader position more attractive and underline the importance of distributed leadership

The Slovak Republic is faced with the challenge of attracting new talent to prepare for and eventually take up school leader positions. There is a clear need to make the school leadership position more attractive and this requires re-thinking of the school leader career and finding ways to make leadership positions more financially attractive. Steps in making the profession more attractive may include: a distinct career structure for school leadership (linking career progression to specific leadership responsibilities as underpinned in school leader professional standards); an independent salary scale for school leadership; greater flexibility in teaching hour requirements; and appraisal results to inform career advancement. Also, given the diversity and complexity of conflicting demands on school leaders' time, there are pressing needs to effectively share management responsibilities. This requires policy to underline the importance of distributed leadership.

Support a more coherent approach to school leader appraisal and strengthen the input of the School Board

There is a need to establish a more coherent approach to school leader appraisal so practices across schools become more consistent. An important first step is to use a central reference such as the existing professional standards. This is likely to increase the objectivity of appraisal procedures. There is also a need to emphasise the developmental purpose of appraisal and to ensure that it is does not introduce excessive demands on school leaders' time. The challenge is to develop appraisal processes, frameworks and conditions that do not require an excessive investment of time and effort, that serve as an effective tool for improving practices and that are perceived as useful and relevant by school leaders. An important step in this is developing capacity among school founders to undertake school leader appraisal. The inspection framework includes a set of quality indicators to evaluate "school management" which could serve as a basis for founders to undertake annual school leader appraisal. Also, a discussion of documents such as school annual reports and development plans could be part of school leader appraisal. Finally, in light of its involvement in school leader selection, and with the objective of reinforcing the alignment between the selection, appraisal and development of school leaders, there is room to strengthen the role of the school board in school leader appraisal. The school board could conduct an annual interview with the school leader, analyse student outcomes at the school and review school leadership processes.

Chapter 1

School education in the Slovak Republic

School governance in the Slovak Republic is fairly decentralised and involves three levels of administration: the central government, regions and municipalities. While the central government retains the key regulatory role the provision of public education services is mostly the responsibility of regions (upper secondary education) and municipalities (pre-primary and basic education). The large majority of children attend state schools, although Church and other private providers receive public funding on a similar basis to state schools. The content of instruction in the Slovak Republic is established at two levels. At the national level, the Ministry issues National Education Programmes (NEPs). Schools further develop School Education Programmes, which consist of the operationalisation of NEPs to fit the context of individual schools. The Slovak Republic has a mixed set of outcomes. Performance in international assessments indicates some improvement in reading at the primary level but some significant and growing challenges at the secondary level. There are also concerns about strong social selectivity and inequities in the education system, including misplacement of some students in special schools.

This chapter provides key contextual aspects – political, demographic and economic – for the subsequent analysis. It includes a detailed description of the organisation of school education in the Slovak Republic, including its governance arrangements. In addition, it provides an account of the main trends and concerns within the Slovak education system.

Context

Located in Central Europe, the Slovak Republic has a territory of 49 000 km² and, as of 2013, a population of more than 5.4 million (Statistical Office of the Slovak Republic, 2014). The Slovak Republic is bordered by the Czech Republic and Austria to the west, Poland to the north, Ukraine to the east and Hungary to the south. The largest city is the capital, Bratislava, and the second largest is Košice.

The Slovak Republic was established on 1 January 1993 as a democratic parliamentary republic. The Constitution is the supreme law of the country and the official language is Slovak. The constitutional system is comprised of the legislative power (National Council of the Slovak Republic, the Parliament of the country), the executive power (President of the Slovak Republic and the Government of the Slovak Republic) and the judicial power (Constitutional Court and other courts) (Educational Policy Institute, 2015). Central administration of the Slovak Republic consists of the central Government Office, ministries and central administration bodies.

Administrative units

Decentralisation in the Slovak Republic is based on a dual system of: i) self-government by local authorities (regions and municipalities); and ii) "deconcentrated" state administration that refers to the transfer of responsibilities to local units of the central government.

Self-government is organised at two main levels with no hierarchical relationship between them but which function on the basis of mutual co-operation: 8 self-governing regions (see Table 1.1) and 2 890 self-governing municipalities (138 towns and 2 752 villages) (Statistical Office of the Slovak Republic, 2014). Both self-governing regions and municipalities finance their "original competences" from own funds. Additionally, they perform some tasks delegated by the state as part of the so-called "transferred competences". To perform their tasks within the transferred competences, self-governing regions and municipalities have a legitimate claim to use funds from the state budget (Educational Policy Institute, 2015).

There are two types of "deconcentrated" state administration: i) the general state administration, decentralised from the central level to the district level (district offices of general administration), which applies, for instance, to administration procedures linked to entrepreneurship, general domestic affairs, civil security or citizenship; and ii) the specialised state administration, decentralised from the central level through the regional level (regional offices of specialised state administration) and the district level (district

Table 1.1. Regions of the Slovak Republic

Region	Capital	Area (km²) Population (2013)		Population density (people per km ² , 2013)
Banská Bystrica	Banská Bystrica	9 454	656 813	70
Bratislava	Bratislava	2 053	618 380	301
Košice	Košice	6 754	794 756	118
Nitra	Nitra	6 344	686 662	108
Prešov	Prešov	8 973	818 916	91
Trenčín	Trenčín	4 502	592 394	132
Trnava	Trnava	4 146	557 608	135
Žilina	Žilina	6 808	690 420	101
Slovak Republic	Bratislava	49 035	5 415 949	110

Source: Statistical Office of the Slovak Republic (2014), Regional Statistical Yearbook of Slovakia 2014, https://slovak.statistics.sk.

offices of specialised state administration), which applies, for instance, to school offices, environmental protection offices and health care administration offices. The regional offices of specialised state administration, which have some administrative responsibilities over education, will be referred to as regional state authorities in this report. The Slovak Republic has currently 79 districts, Bratislava being divided into 5 districts.

Demographic characteristics

Population

The Slovak Republic is seeing a long-term trend of population ageing (see Figure 1.1). From 1992 to 2012, the Slovaks' median age rose by 6.1 years (up to 35.7 years), compared to the EU27's 5.8-year increase (up to 41.5 years). This is mainly due to low fertility rates (lower than the EU27 average) and increasing life expectancy at birth (catching up with EU27). Similarly to other European countries, the Slovak Republic has experienced a negative demographic development in the last decades. Between 1990 and 2012, the annual number of births dropped from 80 000 to 55 000, which resulted in an important decline of the school population (Educational Policy Institute, 2015).

The Slovak population is projected to decrease in 50 years' time by 300 000 people as a result of the expected dynamics of fertility, life expectancy and migration rates and the age structure is expected to become much older than it is at present. The share of young people (aged 0-14) is projected to fall from 15% to 12% by 2060. This will lead to a sharp decline in the proportion of those considered economically active (aged 15-64), from 72% to 54%. In addition, the proportion of people aged above 65 will grow from 12% to 34% and the share of those aged above 80 from 3% to 12%, which will have important implications on the socio-economic system, including public pension programmes and health care (Educational Policy Institute, 2015).

However, from 2002 to 2011, the number of births increased. This trend has had an impact on the population of children aged 3-5, which rose from 154 000 (in 2006) to 168 000 (in 2012). As a result, unsatisfied demand for pre-primary education has been growing. In the coming years, the population of all age cohorts (except for 15-18) is expected to rise. By 2020, the number of children aged 6-9 should exceed the level of 2013 by 10%. The size of the 10-14 age cohort shall reach its peak in 2025 and outgrow the level of 2013 by 13%. The population aged 15-18 is expected to be below the level of 2013 until 2026 (Educational Policy Institute, 2015).

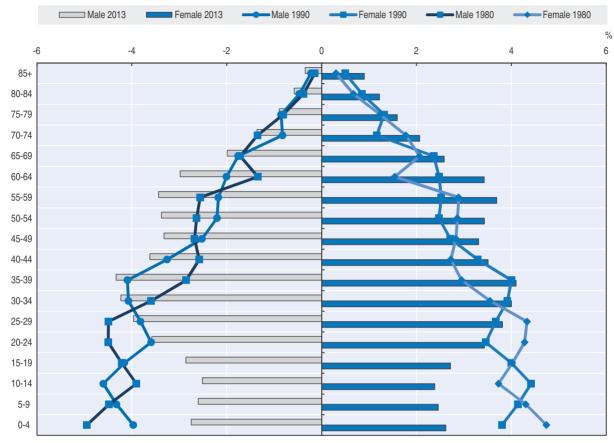


Figure 1.1. Slovak population pyramid in 1980, 1990 and 2013

Source: OECD statistical database, Historical Population Data and Projections (1950-2050), http://dotstat.oecd.org/Index.aspx.

Population projections for 2025 differ across districts. The majority of districts can expect a change (generally negative) of up to 20% in the student population across most of the age cohorts. However, there are districts where the population of individual age student cohorts is expected to rise by more than 20%, which could have a significant impact on the necessary school capacities. Four out of the five districts with the highest expected average increase of the student population are located in Bratislava (the other one is Senec, a neighbouring district to Bratislava). The growth is mostly concentrated on the 5-9 and 10-14 age ranges and varies from 42% and 144%. By contrast, districts in the eastern part of the country and southern districts of central Slovak Republic will experience a decrease across all student age cohorts by 2025 (Educational Policy Institute, 2015).

Cultural and language diversity

According to the most recent census in the Slovak Republic (2011), more than 80% of the total population stated Slovak nationality. Large but decreasing in number are also national minorities. In 2011, more than 670 000 people (12.3% of the total population) stated a nationality other than Slovak. The Hungarian minority is the largest (8.5%), while it has seen the largest decrease since the previous census. The Roma minority, which follows (2.0%), experienced the largest increase. Approximately three-quarters of the Slovak population are registered members of church. In 2011, 62% of the total population

professed Roman Catholic religion, followed by the Evangelic Church (5.9%) and Greek Catholic Church (3.8%). About 13% of the population did not declare any religious affiliation (Educational Policy Institute, 2015).

A citizen of the Slovak Republic who belongs to a national minority also has the right to use (besides the official language) the language of the national minority. Citizens belonging to a national minority, who make up at least 15% of the total number of citizens in a given municipality in two subsequent censuses, have the right to use the language of the minority in official dealings. The use of the languages of national minorities in official dealings and in other fields is regulated by relevant legislation.

The country applies strict immigration policy and serves mainly as a transition country for migrants. Thus, the Slovak Republic shows negligible numbers of permanent immigration. Since 2005, the number of immigrants with permanent residence fluctuates between 5 000 and 8 000 a year.

Economic growth and inequality

Economic growth

The Slovak Republic is a very open and export-oriented economy, relying heavily on the automotive industry. The country produces the largest number of passenger cars per capita globally. The second most important industry is consumer electronics. These two sectors have brought most of the country's foreign direct investments in the last 20 years. The Slovak economy takes advantage of its well-educated, productive and relatively cheap labour force, high-quality connections to markets in Western Europe as well as its favourable geographical position for export to the markets in Eastern Europe (Educational Policy Institute, 2015).

Integration and globalisation contributed to a relatively high real GDP growth in the Slovak Republic. As a result, the Slovak economy caught up with those of its neighbouring countries as well as with the economies of OECD countries, with an average GDP growth of 5.6% between 2000 and 2008 (see Figure 1.2). However, the Slovak Republic was hit hard by the global economic crisis because of its relatively higher dependence on foreign demand and its small domestic market, and the GDP experienced a 5% drop between 2008 and 2009, compared to an average OECD drop of 3%. Economic growth turned again positive in 2010, and the GDP grew by 4.8% in 2010, 2.7% in 2011, 1.6% in 2012, 1.4% in 2013 and 2.6% in 2014 compared to OECD GDP growth averages of 3.0%, 1.9%, 1.3%, 1.4% and 1.8% respectively (OECD, 2014a). The Slovak Republic recovered relatively quickly from the 2009 global crisis. By 2013, the GDP had surpassed the pre-crisis peak by more than any other European country that experienced a recession in the wake of the global financial crisis (OECD, 2014b).

Unemployment

The Slovak Republic faces high unemployment rates, mainly affecting young and people with lower levels of education. In 2012, the unemployment rate reached 14% and ranked fifth highest among OECD countries. In addition, the Slovak Republic reports a high share of long-term unemployed (more than one year), which has dramatic consequences in terms of working habits and skills loss. In 2012, 64% of unemployed people had not been working for more than a year, compared to an average of 34% and 40% in OECD and V3 countries (Czech Republic, Hungary and Poland) respectively. Moreover, 45% of all

Slovak Republic - - - OFCD · - V3 GDP growth (%) 15 10 5 0 -5 -10 -15 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Figure 1.2. Evolution of GDP growth in the Slovak Republic, the OECD and the V3 countries, 1994-2014

Note: V3 countries are the Czech Republic, Hungary and Poland.

Source: OECD (2014a), OECD Economic Outlook, http://dx.doi.org/10.1787/eco_outlook-v2014-2-en.

unemployed people were unemployed for longer than two years. From 2008 to 2013 the unemployment of the young aged 15-24 years rose by 14 percentage points up to 33%. During the same period, the total unemployment rate increased by 4.6%. In 2013, the unemployment rate of low educated people (primary and lower secondary education) in the Slovak Republic reached 42.6%, which is twice as much as the EU28 average and threefold the total unemployment rate in the country. People with tertiary education are the least vulnerable group, with an unemployment rate of 7.3% in 2013. In addition, 5.3% of 15-19 year-olds were neither employed nor in education or training in 2011 (3.9% unemployed and 1.4% inactive), which is less than the OECD average of 8% (2.7% unemployed and 5.8% inactive) (OECD, 2013a). In 2014, the labour market showed signs of recovery, however, with long-term unemployment remaining high.

As explained in Shewbridge et al. (2014), there is evidence that Slovak children in homes with an unemployed parent are at far greater educational risk than on average in the OECD. Just over 14% of the Slovak students participating in PISA 2012 reported that their fathers were not in full- or part-time paid employment and their average performance disadvantage in mathematics was 62 points (this compares to a performance disadvantage of 24 points on average in the OECD for students whose fathers are not in paid employment) (OECD, 2013b, Table II.3.2).

Regional disparities

Regional inequality is one of the highest among OECD countries and is increasing (OECD, 2014b). GDP per capita in Bratislava is the 6th highest among 272 regions in the European Union while the country as a whole ranks only 20th out of 28 EU countries (OECD, 2014b). Regions can be divided into two broad groups: more developed western regions (Bratislava, Trnava, Trenčín, Nitra), and lagging central and eastern regions (Žilina, Banská Bystrica, Prešov, Košice). Regional differences in household income and unemployment are also high. Poverty risks and benefit dependency are over-represented in the east and centre of the country (OECD, 2014b).

The lack of integration of the Roma community

A major challenge is the integration of the Roma community in the education system and the labour market and, more generally, in society. A large proportion of the Roma population lives in segregated areas with little opportunity of finding employment. By 2009, about 68% of Roma men and 77% of Roma women had completed at most lower secondary education, compared to an average of 4% and 7% for the overall population respectively (Educational Policy Institute, 2015).

The governance of the school system

School governance is fairly decentralised

School governance is fairly decentralised and involves three levels of administration: the central government, regions and municipalities. While the central government retains the key regulatory role the provision of public education services is mostly the responsibility of regions and municipalities.

An important regulatory role for the central government

The government and the Ministry of Education, Science, Research and Sports are responsible for national education policy and the overall strategy for the education system. The responsibilities of the Ministry include the supervision and development of the education system, establishing the framework for student learning objectives (through National Education Programmes, see below), defining the levels and terms of funding, setting the requirements for the professional and pedagogical competence of educational staff, determining salaries of teachers and managing the register of schools and school facilities which are part of the school network.

The Ministry of Interior is also formally part of the administration of the funding to schools. In 2013, the management of education departments of regional state authorities (which mainly administer special schools, see below), shifted from the Ministry of Education to the Ministry of Interior. Since then, all schools except those established by self-governing regions are financed from the budget chapter of the Ministry of Interior. However, the Ministry of Education is in charge of education budget negotiations and determines the terms for the funding of individual schools. The Ministry of Interior acts as an intermediary regarding the cash flow from the state budget to schools and provides mainly back office services for the Ministry of Education.

Another significant player, at the national level, is the Slovak State Schools Inspectorate (ŠŠI). It is responsible for monitoring schools and school facilities and checking the conditions and results of the education they provide, the quality of their management, the efficiency of their use of resources and their compliance with binding regulations. The Inspectorate can also recommend the closure of schools or school facilities.

The Ministry is assisted in its work by a range of national-level agencies which are supervised by the Ministry and partially funded from its budget. These include: i) the Slovak Centre of Scientific and Technical Information (CVTI) (which was merged with the Institute of Information and Prognoses of Education, UIPŠ), which is the national information centre for science, technology, innovation and education (collecting and processing information on education); ii) the National Institute for Certified Educational Measurements (NÚCEM), which takes responsibility for the common (or state) part of the school-leaving examination (Maturita), organises national student assessments (in Years 5 and 9, see below), and manages international student assessments; iii) the National Institute of

Vocational Education (ŠIOV), which is responsible for work which informs policy development in secondary vocational education, including the development of educational programmes and methodological advice to vocational schools; iv) the National Institute of Education (ŠPÚ), which develops work to inform policy development in basic and general upper secondary education including the content of educational programmes and methodological advice to schools; and v) the Methodology and Pedagogy Centre (MPC), which organises and implements professional development for teaching and non-teaching staff – it has one head office and three regional centres which co-ordinate and organise in-service training courses for teachers and school management.

A decentralised provision of education services

As part of their transferred competences in school education, self-governing regions establish and close upper secondary schools and apprenticeship training centres. As part of their original competences, self-governing regions establish and close primary schools of art, language schools (other than language schools associated with basic schools), school facilities (e.g. free time centres, school farms and apprenticeship training centres, school dormitories) and school special-purpose facilities (e.g. school catering facilities, school service centres).

As part of their transferred competences in school education, municipalities establish and close basic schools, covering both primary and lower secondary education. As part of their original competences, municipalities establish and close pre-primary schools, primary schools of art, language schools associated with basic schools, school facilities (e.g. school clubs for children, free time centres, school dormitories) and school special-purpose facilities (e.g. school catering facilities, school service centres).

Education departments of regional state authorities are the founders of special schools (at all levels) as well as of some school facilities (e.g. dormitories, catering facilities). They also co-operate with school self-governing authorities and private school founders by providing guidance regarding the funding and organisation of schools and offering methodological guidance (e.g. training). In addition, they also manage professional advisory services which are provided to all schools in the respective region.

The remaining providers are the church and other private providers. They receive public funding on a similar basis to state schools and benefit from considerable autonomy in managing their schools (see below). In terms of funding, in basic and upper secondary education, founders serve as the link between the central level and schools. Founders distribute funds they receive from the Ministry to individual schools and are allowed to reallocate a certain amount among their schools (see Chapter 3).

A range of policy consultation processes

The development of educational policies led by the Ministry involves a range of consultations, including with advisory bodies headed by the Minister of Education. Advisory bodies, involving a range of stakeholders and education experts, include the Curriculum Board (whose members are mostly pedagogical experts and representatives of basic and secondary schools) and the Board for Education of National Minorities (with representatives of national-minority schools). The Ministry also co-operates with the representatives of school founders (e.g. Association of Self-governing Regions, Association of Municipalities, Association of Private Schools and School Facilities, Association of Catholic Schools of Slovakia); several professional organisations such as the Chamber of

Teachers, the Trade Union of Employees of Education and Science, the Association of Hungarian Teachers in Slovakia, the Association of Special Teachers of Schools and Advisory Centres and the Association of State Gymnasium School Leaders; and employers' representatives. Also, ad hoc working groups and advisory groups involving relevant stakeholders are typically established in case of specific legislative arrangements (Educational Policy Institute, 2015).

In addition, the Slovak government, with the purpose of developing a relevant vocational education system, established the National Council for Vocational Education and Training together with regional and sectoral VET councils. The Council is the advisory and co-ordinating body for vocational education policies. The Council consists of 15 working groups which focus on individual vocational fields of study to support the links to the labour market. The Council discusses state education programmes for vocational education and recommends the Ministry of Education to introduce new vocational fields of study or exclude current ones. Members of the Council are representatives of self-governing regions, ministries, and employers.

Educational goals

General goals, policy objectives and targets

Goals for student learning are expressed at different levels. The 2008 School Act defines the objectives of the education system as:

- Gaining a range of competencies (e.g. communication skills, mathematical literacy, social and civic competencies).
- Gaining English language proficiency and in at least another foreign language.
- Learning how to identify, analyse and solve problems.
- Preparing for a responsible life in a free society in the spirit of mutual understanding and tolerance; learning how to develop personally, engaging in lifelong learning, working in a team and taking responsibility.

In addition, strategic objectives and priorities of the Slovak government for education are defined in the National Reform Programme (NRP), which is the national strategic document for the country's economic development and structural policies in the framework of the Europe 2020 Strategy. In line with European benchmarks defined in the Europe 2020 Strategy and the strategic framework Education and Training 2020, the Slovak Republic established quantitative targets for its education system. By 2020, the share of early school leavers aged 18-24 should be less than 6%, 15-year-old students should reach an average of 505 points in PISA (OECD Programme for International Student Assessment) and at least 95% of children aged 4-5 should attend pre-primary education.

Student learning objectives

More specific learning objectives for students are developed in references established at the national level through National Education Programmes (NEPs). These binding documents stipulate the content in each learning area; the expected outcomes in each subject at the end of each year and at the end of an education level (education standards); and a general learning plan. An education standard comprises a content standard (minimum knowledge areas to be covered) and a performance standard (proficiency levels in the prescribed minimum content). The general learning plan contains learning areas with a defined list of mandatory and optional subjects. It also defines: the minimum

number of lessons students have to take during their studies in each subject; the maximum weekly number of lessons for students in each year; and the number of lessons schools can use in their School Education Programme in order to specialise. The Ministry of Education issues distinct NEPs for:

- Pre-primary education.
- Basic education, with a distinction between the 1st stage (primary) and the 2nd stage (lower secondary).
- General upper secondary education (gymnasiums).
- Vocational upper secondary education (83 of them) and conservatoires.
- Children with special educational needs (gifted children and children with disabilities).
- Primary schools of art and language schools.

On the basis of the binding NEPs, schools prepare more specific School Education Programmes (SEPs). These determine, within the constraints imposed by the general learning plan of NEPs, how the content proposed by NEPs is distributed into individual years (or other units such as modules) and establish the subject syllabi (a detailed description of the educational content). One learning area can be divided to form one, two or more subjects or, conversely, the content of several learning areas may be integrated into a so-called "integrated subject". Schools shape their profiles by means of their SEPs.

The new framework setting student learning objectives intends to promote a competency-based learning approach. The national education programmes specify competencies and "cognitive competencies" in different content areas. For example, "Language and communication" within the subject "Slovak language and literature" includes the competency "Distinguishing sentences and texts". The associated cognitive competencies are "Reproduction", "Application", "Analysis", "Synthesis", "Generalisation", "Evaluation" and "Self-assessment" (Shewbridge et al., 2014). Accordingly, the final examinations at upper secondary level (Maturita) and the national assessments in Years 5 and 9 (Testovanie 5 and Testovanie 9, see below) are adapted to assess competencies listed in the national education programmes.

The organisation of the school system

Overview

The school system in the Slovak Republic is organised in three sequential levels: pre-primary education (ISCED 0 (International Standard Classification of Education), ages 3 to 6), basic education (ISCED 1 and 2, typical ages 6 to 15) and upper secondary education (ISCED 3, typical ages 15 to 16/19). Basic education is organised according to two stages: primary education (ISCED 1, Years 1-4); and lower secondary education (ISCED 2, Years 5-9) (see Figure 1.3). Students typically attend a single-structure school during their basic education but can also enrol in a *Gymnasium* (a secondary school providing general education) following Year 5 (8-year *Gymnasium*). School attendance is compulsory for ten years, from 6 to 16 years old.

There are three types of upper secondary education:

• General upper secondary education with a school-leaving examination (Maturita) (ISCED 3A programmes, Years 10-13). It is provided in a four-year Gymnasium and in the last four years of an eight-year Gymnasium. These programmes are geared to the continuation of studies at higher education level.

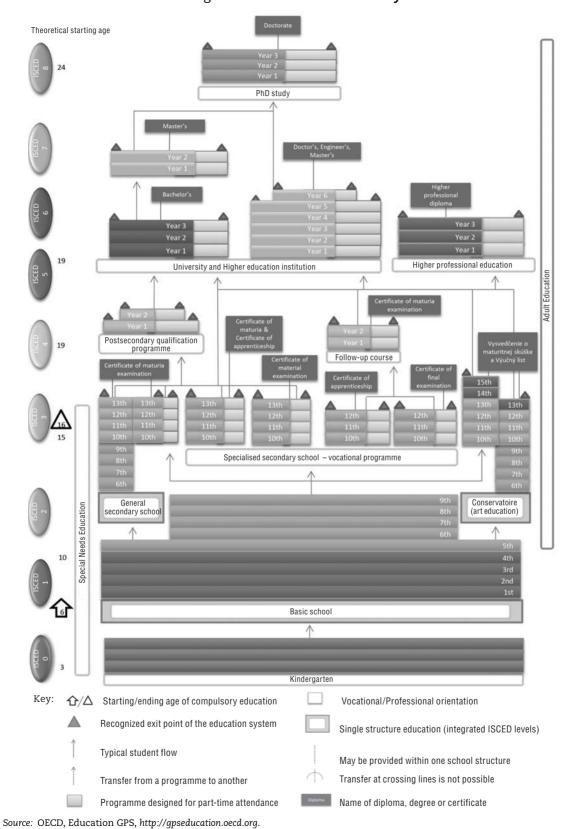


Figure 1.3. **The Slovak school system**

- Vocational upper secondary education with a school-leaving examination (Maturita)
 (ISCED 3A programmes, also known as specialised secondary school programmes with a
 school-leaving examination, Years 10-13/14). It is provided in secondary vocational
 schools and in conservatoires. These programmes are either geared to working life or the
 continuation of studies at higher education level.
- Vocational upper secondary education with an apprenticeship certificate (ISCED 3C programmes, also known as specialised secondary school programmes with an apprenticeship certificate, Years 10-11/12), lasting two to three years. It is provided in secondary vocational schools. These are geared towards an initial qualification for students, giving priority to their entering the job market while, at the same time, allowing them to study further (but with no direct transition to higher education).

There are also some vocational programmes offered at the lower secondary level (ISCED 2C), targeted at students who did not complete basic education and will then continue their studies in a secondary vocational school.

Pre-primary education

Responsibility for providing public pre-primary education lies with the municipalities, including its financing, as part of their original competences. This provision is complemented by privately-run pre-primary education, either by the church (only 2.3% of enrolled students in 2013-14) or other private providers (2.6% of students) (see Table 1.2 and Figure 1.A1.7 in Annex 1.A1).

Table 1.2. Pre-primary education: Number of schools and students, school size and class size, 2003, 2008 and 2013

		•		
	2003	2008	2013	Change between 2003 and 2013 (%)
Number of schools				
State	3 180	2 773	2 716	-14.6
Private	11	56	89	709.1
Church	19	42	65	242.1
Total	3 210	2 871	2 870	-10.6
Number of students				
State	149 728	133 749	145 497	-2.8
Private	318	2 364	3 970	1 148.4
Church	672	2 073	3 592	434.5
Total	150 718	138 186	153 059	1.6
School size				
State	47.1	48.2	53.6	13.8
Private	28.9	42.2	44.6	54.3
Church	35.4	49.4	55.3	56.2
Total	47.0	48.1	53.3	13.6
Class size				
State	20.1	20.0	20.4	1.5
Private	16.7	17.3	17.0	1.8
Church	21.7	21.8	21.1	-2.5
Total	20.1	20.0	20.3	1.0

Note: Data for special pre-primary schools are not included. School size refers to the average number of students per school.

Pre-primary education is free of charge for all children one year before compulsory school attendance. For socially-disadvantaged children, pre-primary education is also free irrespective of age. However, in all other cases, pre-primary schools (including state ones) can charge tuition fees. There is no ceiling for tuition fees in pre-primary schools except in those run by regional state authorities (special schools).

Enrolment in pre-primary education remains below the OECD average and has actually decreased in recent years. In 2012, the enrolment rates were 73% and 81% at ages 4 and 5 against OECD averages of 84% and 94% respectively. In 2005, the respective enrolment rates were 74% and 85% (OECD, 2014c). The total number of students in pre-primary education has increased only slightly (1.6%) between 2003 and 2013, with a reduction of the number of students in the state sector (decrease of 2.8%) (see Table 1.2 and Figure 1.A1.7 in Annex 1.A1). This trend reflects some difficulties for the municipalities to respond to the increasing demand and the growing number of private and church providers. From 2007 to 2013 the number of rejected applications in pre-primary education increased more than fivefold, from 1 760 to 9 600 (Educational Policy Institute, 2015). Not surprisingly, between 2003 and 2013, both school size and class size in pre-primary education have increased (see Table 1.2 and Figures 1.A1.3, 1.A1.4, 1.A1.5 and 1.A1.6 of Annex 1.A1).

Basic education

Responsibility for providing public basic education lies with the municipalities, as part of their transferred competences. This provision is complemented by privately-run basic education, either by the church (5.3% of enrolled students in 2013) or other private providers (1.1% of students) (see Table 1.3 and Figure 1.A1.7 in Annex 1.A1). Basic education brings together primary education (Years 1-4) and lower secondary education (Years 5-9), typically offered within the same school. In primary education, all subjects are usually taught by a generalist teacher, while in lower secondary education, subjects are taught by teachers specialising in one or two subjects.

Basic education has been considerably affected by demographic trends with a loss of 26.4% of students between 2003 and 2013 (see Table 1.3 and Figure 1.A1.1 in Annex 1.A1), with a small increase of the proportion of students in church and private schools (from 3.9% to 6.4%). This has been accompanied by the closure of about 12% of municipal schools (while the number of church and private schools increased), and the decrease of both average school size and class size (see Table 1.3 and Figures 1.A1.2, 1.A1.3, 1.A1.4, 1.A1.5 and 1.A1.6 of Annex 1.A1).

Basic education provided in state schools is free of charge. Private and church schools, however, are allowed to charge tuition fees.

Year Zero

Basic schools can create a Year Zero for socio-economic disadvantaged children aged six who are deemed not to have the capability of attending Year 1. It is considered a transition year to bring children up to the level deemed necessary to attend Year 1. Parental consent is needed to place a child in Year Zero. Another requirement is a recommendation from the consulting and prevention centre which evaluates the child's school capability.

Table 1.3. Basic education: Number of schools and students, school size and class size, 2003, 2008 and 2013

	2003	2008	2013	Change between 2003 and 2013 (%)
Number of schools				
State	2 272	2 090	2 003	-11.8
Private	11	34	42	281.8
Church	104	113	114	9.6
Total	2 387	2 237	2 159	-9.6
Number of students				
State	554 986	436 077	399 760	-28.0
Private	503	3 066	4 874	869.0
Church	25 302	22 572	22 743	-10.1
Total	580 791	461 715	427 377	-26.4
School size				
State	244.3	208.6	199.6	-18.3
Private	45.7	90.2	116.0	153.8
Church	243.3	199.8	199.5	-18.0
Total	243.3	206.4	198.0	-18.6
Class size				
State	21.3	19.7	18.5	-13.0
Private	12.0	14.6	14.2	18.3
Church	21.1	19.3	18.2	-13.9
Total	21.3	19.6	18.5	-13.3

Note: Data provided refer to attendance of basic schools. As a result, students attending lower-secondary education in 8-year *gymnasiums* are not taken into account. Data for special basic schools are not included. School size refers to the average number of students per school.

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

Eight-year gymnasium

During their basic education students can enrol in a *Gymnasium* (a secondary school providing general education) following Year 5 (8-year *Gymnasium*). This option is considered a prestigious pathway in the school system and is typically chosen by those students with the best academic achievement. In recent years, the government has shown the intention to limit access to 8-year gymnasiums to the 5% of students who complete primary education at most. This limitation has been postponed several times and is now planned to be introduced in 2016-17.

Upper secondary education

As explained earlier, there are three types of upper secondary education: general upper secondary education (with school-leaving examination) (ISCED 3A); Vocational upper secondary education with school-leaving examination (ISCED 3A); and Vocational upper secondary education with an apprenticeship certificate (ISCED 3C). While most students graduate from vocational upper secondary education (70% in 2012), the proportion of students graduating from general upper secondary education has been growing in the last few years from 24% in 2005 to 29% in 2012 (Educational Policy Institute, 2015). At the same time, the proportion of students graduating with a school leaving examination (Maturita), has grown from 63% in 2003 to 83% in 2013 (Educational Policy Institute, 2015). In 2011, around 80% of students pursuing vocational upper secondary education were enrolled in vocational upper secondary education with

school-leaving examination. In 2012, more than 75% of general upper secondary graduates enrolled in tertiary education while only 35% of vocational upper secondary graduates did so (Educational Policy Institute, 2015).

Upper secondary education (both general and vocational) provided in state schools is free of charge. Private and church schools, however, are allowed to charge tuition fees.

General secondary education

Responsibility for providing public general upper secondary education lies with the self-governing regions, as part of their transferred competences. Privately-run general secondary education, either by the church (16.2% of enrolled students in 2013-14) or other private providers (5.0% of students) complements this provision (see Table 1.4 and Figure 1.A1.7 in Annex 1.A1). General secondary education is provided in either 4-year or 8-year *gymnasiums*.

Table 1.4. General secondary education: Number of schools and students, school size and class size, 2003, 2008 and 2013

		* * * * * * * * * * * * * * * * * * * *		
	2003	2008	2013	Change between 2003 and 2013 (%)
Number of schools				
State	158	156	151	-4.4
Private	19	40	38	100.0
Church	46	55	57	23.9
Total	223	251	246	10.3
Number of students				
State	83 072	79 902	60 439	-27.2
Private	3 240	4 196	3 837	18.4
Church	13 745	15 723	12 435	-9.5
Total	100 057	99 821	76 711	-23.3
Class size				
State	30.6	29.0	25.2	-17.6
Private	23.1	17.1	15.0	-35.2
Church	30.3	27.2	23.2	-23.7
Total	30.2	27.9	24.0	-20.5
School size				
State	526.4	512.2	401.0	-23.8
Private	256.1	138.1	111.7	-56.4
Church	298.8	285.9	218.2	-27.0
Total	456.5	403.0	314.0	-31.2

Note: Data provided refer to attendance of *gymnasiums*. As a result, students attending lower-secondary education in 8-year *gymnasiums* are taken into account. Data for special secondary schools are not included. School size refers to the average number of students per school and considers part-time students while the number of students and class size do not.

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

General secondary education lost 23.3% of students between 2003 and 2013 (see Table 1.4 and Figure 1.A1.1 in Annex 1.A1), with an increase of the proportion of students in church and private schools (from 16.2% to 21.2%). Interestingly, this has been accompanied by an increase of about 10% in the total number of schools (despite a decrease of 4.4% in the number of state *gymnasiums*), and a substantial decrease of both average school size and class size (see Table 1.4 and Figures 1.A1.2, 1.A1.3, 1.A1.4, 1.A1.5

49

and 1.A1.6 of Annex 1.A1). It should also be highlighted that the proportion of general secondary students in 8-year *gymnasiums* has been decreasing steadily, from 41.7% in 2003 to 31.5% in 2013.

Gymnasiums are selective institutions. Admission is conditional on requirements set by them, which typically include an entrance examination and an aptitude test.

The number of students in general secondary education (including students in the first four years of 8-year *gymnasiums*) as a proportion of students in secondary education reached about 34% in 2013, an increase from 31% in 2003.

Vocational upper secondary education

Responsibility for providing public vocational upper secondary education also lies with the self-governing regions, as part of their transferred competences. Privately-run vocational secondary education, either by the church (2.5% of enrolled students in 2013-14) or other private providers (9.6% of students) complements this provision (see Table 1.5 and Figure 1.A1.7 in Annex 1.A1). Vocational programmes are provided in vocational secondary schools and conservatoires.

Table 1.5. Vocational upper secondary education: Number of schools and students, school size and class size, 2003, 2008 and 2013

	2003	2008	2013	Change between 2003 and 2013 (%)
Number of schools				
State	567	396	357	-37.0
Private	46	86	83	80.4
Church	15	20	20	33.3
Total	628	502	460	-26.8
Number of students				
State	213 967	176 602	131 870	-38.4
Private	8 168	14 576	14 359	75.8
Church	3 307	4 166	3 735	12.9
Total	225 442	195 344	149 964	-33.5
Class size				
State	26.3	25.6	22.7	-13.9
Private	22.1	20.4	18.0	-18.7
Church	26.9	23.3	20.8	-22.8
Total	26.2	25.1	22.1	-15.6
School size				
State	393.0	460.1	386.1	-1.7
Private	234.4	206.7	201.6	-14.0
Church	275.3	252.7	239.4	-13.1
Total	378.5	408.4	346.4	-8.5

Note: This table does not include data for conservatoires. Data for special secondary schools are not included. School size refers to the average number of students per school and considers part-time students while the number of students and class size do not.

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

Vocational secondary education lost 33.5% of students between 2003 and 2013 (see Table 1.5 and Figure 1.A1.1 in Annex 1.A1), with an increase of the proportion of students in church and private schools (from 3.7% to 12.1%). This has been accompanied by a

significant decrease of about 27% of the total number of schools (37% for state schools), and a decrease of both average school size and class size (see Table 1.5 and Figures 1.A1.2, 1.A1.3, 1.A1.4, 1.A1.5 and 1.A1.6 of Annex 1.A1).

In vocational upper secondary education with school-leaving examination (ISCED 3A programmes), the programmes the most in demand are social sciences and services (including waiter/waitress, tourism industry, hairdresser, cook, with about 44% of 2013 graduates), type-I technical sciences (including electronics, metallurgy, food industry, engineering, technical and applied chemistry, with about 21% of 2013 graduates) and type-II technical sciences (including transport, telecommunications, postal services, printing, building industry, cartography, wood processing, and information technologies, with about 18% of 2013 graduates) (data provided to the OECD review team by the Ministry of Education, Science, Research and Sports).

Conservatoires provide a comprehensive artistic education in 6- to 8-year programmes. They prepare students for a professional artistic career and for teaching artistic subjects in educational art programmes.

The 2009 Act on Vocational Education and Training sought to improve the relevance of VET for the labour market. The Act set the conditions for the involvement of individual employers and their associations and private investment capital in the VET system. The Act encouraged co-ordination between the business sector and education through the establishment of VET councils at the governmental, regional and industrial level. In 2015, a new Act on Vocational Education and Training came into force. It introduces features of a dual system of vocational education and training, namely with the employers' contribution to the practical component of students' training and the state's provision of tax incentives to employers for their participation in the dual system (see below). Another OECD Review on the Slovak VET system provides further information about recent developments in vocational education in the country (Fazekas and Kurekova, 2016).

Extracurricular activities

In the Slovak Republic, there is a tradition of extracurricular activities for students. These are provided either by schools themselves (especially for students in lower years) or by various types of school facilities, both state and private. Among the most popular are primary art schools, which provide primary and secondary art education, and language schools. These are usually attended by students as a complement to the curriculum in formal schooling. School facilities also comprise "school clubs" and "free time centres". Other school facilities provide a variety of specialised support services and care. In 2013, around 150 000 students took courses in 317 primary art schools and 22 500 students attended language courses in 41 language schools. Also, for the same year, about 181 000 children attended 495 free time centres and more than 118 000 children attended 1 942 school clubs for children at (special) basic schools (Educational Policy Institute, 2015).

Extracurricular activities provided by school facilities are mostly run by municipalities and private and church providers (some, at the upper secondary level, are run by self-governing regions). In the case of state school facilities, these services are financed by municipalities' and regions' own budgets in the context of their original competences. Regulations also require municipalities and the self-governing regions to provide non-state founders of school facilities at least 88% of the per-student funding which they spend on salaries and operations in their own institutions. In 2013, the public funding allocated to

free time centres was changed. While previously municipalities were centrally allocated funds for free time centres on the basis of enrolment at the centres (funds which were nonetheless not earmarked), the new approach consists of allocating funds on the basis of the number of all children aged 5-15 with permanent residence in the municipality (regardless of whether or not free time centres exist in the municipality).

School providers and school types

Schools and school facilities can have the state, church, or a private entity as a founder. Founders of state schools are municipalities, self-governing regions or regional state authorities. Provision is distributed as depicted in Table 1.6.

Table 1.6. Types of schools by their founders

State			Church	Private	
Founder	State administration (8 regional state authorities)	Self-governing region	Municipality	Registered churches and religious communities	Natural persons or legal entities
Types of schools	Special schools (pre-primary, basic, secondary)	Secondary schools	Pre-primary schools, basic schools	Pre-primary schools, basic schools, secondary schools, special schools (pre-primary, basic, secondary)	Pre-primary schools, basic schools, secondary schools, special schools (pre-primary, basic, secondary)

Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

Non-state provision is particularly significant in education provided by conservatoires (about 37% of enrolments in 2013) and general secondary education (about 21% in 2013), and less so in vocational upper secondary education (about 12% in 2013). As shown in Figure 1.A1.7 in Annex 1.A1, the proportion of education services offered by church and private providers has been increasing steadily in the last decade. Private entities and churches are also important providers of extracurricular activities. They run about 35% of free time centres.

Table 1.7 displays the number of schools in 2013 by type. Basic schools may offer all nine years ("fully organised basic school") or fewer than nine years ("not fully organised basic school").

Table 1.7. Number of schools by type, 2013

Type of school	Number
Pre-primary school	2 870
Special pre-primary school	51
Basic school	2 159
Special basic school	233
General secondary school	
4-year gymnasium and 8-year gymnasium	246
Vocational secondary school	460
Special secondary school	133
Conservatoires	15

Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

All state, private and church schools comply with the same regulations (e.g. National Education Programmes, education standards, teacher qualifications). There are, however, differences regarding the autonomy in appointing school leaders (non-state founders do not have to follow the nomination of school boards), admitting students to Year 1 of basic schools (non-state schools are not obliged to admit all children to Year 1 of basic school) and funding (e.g. non-state schools can charge tuition fees).

Language of instruction

In the Slovak Republic, it is possible to teach and learn in a language other than Slovak either in a dedicated school or in given classes within a school. In 2013, 29 715 students were taught in Hungarian in basic school (7% of the total number of students in basic education), while a much smaller number of students received classes in languages such as German, English and Ukrainian (fewer than 500). This possibility is offered by both state and non-state schools.

The Concept of Upbringing and Education of National Minorities develops a framework for equal education of all citizens of the Slovak Republic, focusing on the education of all national minorities in their native language according to the European Charter for Regional or Minority Languages.

Students with special educational needs

In the Slovak Republic, children with special educational needs (SEN) are children with disabilities and gifted children.³ The Concept of Upbringing and Education of Children with Disabilities, approved in 2000 by the Ministry of Education, defined the key objectives and their draft implementation for the following 15-20 years. This concept has encouraged the integration of students with special needs in mainstream schools but this only occurs when deemed feasible. Also, the Concept of Development of Gifted Children and Youth in the Slovak Republic defines the conditions for the development of gifted students in the education process and defines the methods for their identification.

Students with special needs learn in three possible settings: i) regular classes of mainstream schools; ii) special classes formed in mainstream schools; and iii) special education schools. Students are considered "integrated" if they attend a regular class of a mainstream school. If integrated in a regular class, a student with special needs typically has an individual learning plan. Special schools exist for pre-primary, basic and secondary education. Attendance of a special school requires a recommendation from an appropriate authority and parental consent.

The proportion of SEN students in the Slovak Republic is high by international standards. In 2013, 1.0%, 10.2% and 5.4% of students were considered SEN students in pre-primary, basic and secondary education respectively (see Table 1.8). This reflects a considerable increase compared to 2003, except for pre-primary education. In line with policy objectives, the proportion of SEN children attending mainstream schools has been increasing, reaching 31.8%, 44.9% and 52.8% in 2013 for pre-primary, basic and secondary education respectively (see Table 1.8).

Except for secondary education, the number of special schools decreased between 2003 and 2013, while the proportion of private and church providers increased. During this period, the size of basic special schools increased considerably while that of secondary special schools decreased (see Table 1.9).

Table 1.8. Number and distribution of students with special educational needs (SEN), by type of provision, 2003 and 2013

	2003			2013		
	Number	Proportion of students with SEN	Proportion of SEN students attending mainstream schools	Number	Proportion of students with SEN	Proportion of SEN students attending mainstream schools
Pre-primary education						
All students	152 127			154 164		
SEN students attending mainstream schools	796	1.4	36.1	516	1.0	31.8
SEN students in special schools	1 409			1 105		
Basic education						
All students	606 167			456 002		
SEN students attending mainstream schools	8 414	5.3	24.9	23 280	10.2	44.9
SEN students in special schools	25 376			28 625		
Secondary education						
All students	330 753			232 930		
SEN students attending mainstream schools	299	1.7	5.4	7 006	5.4	52.8
SEN students in special schools	5 254			6 255		

Note: SEN students attending mainstream schools consider students with disabilities and gifted students. Source: Data provided to the OECD review team by the Ministry of Education, Science, Research and Sports.

Table 1.9. Number and average size of special schools, 2003 and 2013

Nombre of schools	20	003	2013	
Number of schools	Total	State	Total	State
Pre-primary education	66	63	51	41
Basic education	290	282	233	208
Secondary education	86	85	133	124
School size	All schools	State schools	All schools	State schools
Pre-primary education	21.3	21.8	21.7	22.5
Basic education	87.5	88.3	122.9	131.0
Secondary education	61.1	61.7	47.0	48.5

Note: School size refers to the average number of students per school.

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

As explained in Chapter 3, the school funding formula establishes a considerable premium for a student with special educational needs. In addition, to support the integration of SEN students, schools have the possibility of hiring dedicated teaching assistants. For example, more than 890 new teaching assistants for SEN children were hired as of September 2014.

Pedagogical and Psychological Consulting and Prevention Centres are in charge of identifying student special educational needs. They guide and advise parents on the appropriate education environment for their children with special educational needs. For instance, attendance of a special school and placement in Year 0 require the recommendation of these Centres. These centres also provide general counselling regarding students with special educational needs, including for mainstream schools and their teachers.

School governance

Schools benefit from extensive levels of autonomy. Within their schools, school leaders are given full responsibility for the quality of the education, the financial management, the appointment and dismissal of teachers, and the relations with the school community and the general public. School leaders are appointed and dismissed by the founder and serve a five-year fixed term. School leaders form their leadership team and can establish advisory boards (e.g. pedagogical board, methodology association, subject committee).

An important body in school management is the school board. While it is mostly an advisory body, it takes part in key decisions at the school level. School boards were introduced in order to ensure the promotion of public interest in schools. The school board is established by the school's founder and is made up of the following members: four founder representatives (3 in secondary vocational schools, where one extra member represents employers), four parent representatives (3 in upper secondary schools, where one extra member is the representative of the student school board), two teacher representatives and one non-teaching staff representative. In state schools, the school board selects the school leader through an open recruitment process and the founder is required to follow the school board's nomination. By contrast, in non-state schools. founders are not required to follow the nomination suggested by the school board. The founder is also required to hear the school board's views before the potential dismissal of the school leader, while the board can also initiate a process to remove the school leader. The school leader is also required to consult the school board on a range of issues, including the draft school budget, the school development plan, the number of students to be admitted, the establishment of new educational programmes, the school activity report and specific human resources issues.

An increasing trend is the creation of student school boards at upper secondary level. From 2004 to 2011, the share of upper secondary schools with such boards increased from 32% to 58% (Educational Policy Institute, 2015). Parent teacher associations are also common in Slovak schools, but their role is informal. They organise elections to appoint parents' representatives to the school board.

Evaluation and assessment

As described in Shewbridge et al. (2014), the evaluation and assessment framework in the Slovak Republic comprises the main components listed below (teacher evaluation and school leadership appraisal are described in Chapters 4 and 5 respectively).

Student assessment

While school leaders determine school assessment policies, with the advisory support of the School Pedagogical Board, the national education programmes contain both content and minimum performance standards to guide student assessment. Summative assessment plays a strong role in Slovak basic and secondary schools. Students receive formal assessment reports at the end of the first and second semesters of the school year, with grades for both academic achievement and behaviour. They also receive certificates upon successful completion of primary and lower secondary education. Students sit national tests at the end of lower secondary education (*Testovanie* 9) which help to inform the choice of secondary school they will attend. These are developed by the NÚCEM and were introduced in 2009. The NÚCEM also developed a new national test at the end of the

1st stage of basic education (*Testovanie* 5), introduced in November 2015. At the end of upper secondary schooling, most students sit examinations (*Maturita*) in Slovak language and literature and a foreign language, as well as in two elective subjects. The compulsory subjects include an external component (a written test) developed and administered by the NÚCEM. The *Maturita* is designed to determine students' entrance to higher education (Shewbridge et al., 2014).

School evaluation

The Slovak State Schools Inspectorate (ŠŠI) conducts external evaluation of all Slovak schools using a published quality indicators framework. It also monitors the competency of school leaders and teachers. The official cycle is for each school to have a comprehensive inspection once every five years, which involves a visit from a team of inspectors over three to seven days and results in a specific evaluation report with recommendations for the school (this is not published). The ŠŠI also conducts information inspections, typically in a single day, e.g. to check whether the school education programme complies with the national education programme. The ŠŠI may also conduct a "thematic inspection" in a selection of schools on a particular topic. There is a system to follow up schools in which inspectors have identified concerns. Upon re-inspection, if adequate improvement has not been made there may be sanctions for the school leader, for funding or even closure, although these are very rare. Since 2003, basic and secondary school leaders are obliged to submit an annual report on the school's educational activities, results and conditions to the school founder for approval and to the school board for comment. Legal requirements on the content of these reports were introduced in 2006 and include a school development plan for the following two-year period. School founders are responsible for school leader appointment, appraisal and dismissal (with the participation of school boards) and also monitor the management of school funds and other compliance issues not inspected by the ŠŠI. Student results in tests administered by the NÚCEM are aggregated to the school level and published on line, without any information on the school's socio-economic context or intake (Shewbridge et al., 2014).

Education system evaluation

The Ministry is responsible for evaluating the school system and draws on the evaluation work of the ŠŠI and results of national and international assessments. There is no specialised research institute and central agencies have limited analytical capacity. There is a central mechanism to compile annual information on the system, mostly based on a collection of data from schools, which is moving to student- and teacher-level data (a pilot of individual level collection was run in 2014). The ŠŠI publishes an annual report including a summary evaluation for the education system as a whole based on inspection analysis and other evidence. The NÚCEM publishes reports on different aspects of student performance in national and international assessments. The eight regional state authorities have a limited evaluation role, but check school administrative and financial requirements. Since 2009-10, the ŠŠI reports major inspection findings for each self-governing region (Shewbridge et al., 2014).

Main trends and concerns

Some challenges with educational attainment remain

Secondary-school attainment has traditionally been high, and continues to be so. In 2012, the proportion of adults aged 25-64 who had attained at least upper secondary

education was 92%, the highest figure in the OECD area (compared to an OECD average of 75%). The equivalent proportion for adults aged 25-34 reached 94% (compared to an OECD average of 82%). Upper secondary graduation rates for young people aged 25 or less reached 84% in 2012, the 5th highest figure among the 20 OECD countries for which data are available (OECD, 2014c).

By contrast, tertiary educational attainment is very low by international comparison, although increasing enrolment rates imply the situation is gradually improving. In 2012, the proportion of adults aged 25-64 who had attained tertiary education was 19%, the 5th lowest figure in the OECD area (against an OECD average of 32%). This proportion was 27% for adults aged 25-34 (the 5th lowest figure against an OECD average of 39%) (OECD, 2014c).

Adults have literacy and numeracy skills around the OECD average but the relative performance of young adults is poorer

The OECD Survey of Adult Skills (PIAAC)⁴ shows that Slovak adults (16-65 year-olds) have literacy skills not significantly different from the average of participating OECD countries while they have numeracy skills significantly above the average of participating OECD countries. Slovak adults scored on average 274 points in literacy (ranked 10th out of 23 countries, compared to an OECD average of 273 points) and 276 points in numeracy (ranked 8th out of 23 countries, compared to an OECD average of 269 points). The performance of young adults (16-24 year-olds) was comparatively worse (in their relative position within the OECD area) with an average of 276 points in literacy (ranked 13th out of 23 countries, compared to an OECD average of 280 points) and 278 points in numeracy (ranked 10th out of 23 countries, compared to an OECD average of 271 points). By contrast, the proportion of adults scoring at the two highest levels in problem solving in technology-rich environments (26%) was significantly below the OECD average (34%) (OECD, 2013a).

The proportion of low-skilled adults Score Level 1 and below is relatively small at 11.6% in literacy (against an OECD average of 15.5%) and 13.8% in numeracy (compared to an OECD average of 19.0%) (OECD, 2013a). However, in the Slovak Republic, the difference in literacy proficiency between adults with high- and low-educated parents is above the average of participating OECD countries. Also, low-skilled adults are about five times less likely to participate in adult education and learning than highly-skilled adults (OECD, 2013a).

Student learning outcomes are improving in primary education but worsening in secondary education

As analysed in Shewbridge et al. (2014), in international comparison, the Slovak Republic has a mixed set of outcomes. Performance in international assessments indicates some improvement in reading at the primary level, but some significant and growing challenges at the secondary level. The main conclusions, as analysed by Shewbridge et al. (2014) are as follows:

Slovak students perform above the international average at the primary level in reading and science
At the primary level, international evidence from the International Association for the
Evaluation of Education Achievement's (IEA) Progress in International Reading Literacy
Study (PIRLS) and Trends in International Mathematics and Science Study (TIMSS)
indicates that Slovak students (average age 10.4 years) perform above the international
average in reading and science assessments, but only around the international average

Figure I.2.14).

level in mathematics (Mullis et al., 2012a; Martin et al., 2012; Mullis et al., 2012b). The relatively poorer average performance in mathematics appears to be related in part to the fact that topics included in the international assessment were not included in the Slovak curriculum through Year 4 (Mullis et al., 2012b). Positive messages from these international results include: evidence of improvement in Slovak students' reading performance between 2001 and 2009, in particular in assessing "reading for literary purposes" and "interpreting, integrating and evaluating" (Mullis et al., 2012a); and 11% of Slovak students performing at the advanced international benchmark in science (performing the most demanding tasks on the test) in comparison to 7% internationally (this was also a strength in the TIMSS 2007 science test) (Martin et al., 2012).

• Slovak students perform below the international average at the secondary level in reading, mathematics and science
At the secondary level, international evidence on student performance from the OECD Programme for International Student Assessment (PISA) 2012 results indicates that Slovak students perform below the international average in mathematics, reading and science (OECD, 2014d). In mathematics, this represents a decrease in performance compared to PISA 2009, when Slovak students performed around the OECD average. In fact, since PISA 2003, Slovak student performance in mathematics has deteriorated both in absolute

terms and relative to other countries. This meant that the Slovak Republic ranked from 23rd to 29th of the 33 OECD countries in PISA 2012 mathematics (OECD, 2014d,

• A significant proportion of students underperform in secondary education
A significant challenge in the Slovak Republic is the high proportion of low-performing students. In PISA 2009, 22.3% of students demonstrated low levels of reading proficiency compared to 18.8% on average in the OECD. In PISA 2012, 27.5% of Slovak students demonstrated low levels of mathematics proficiency compared to 23.1% on average in the OECD. In fact, a significant increase in the proportion of low-performing students in mathematics has driven the deterioration in mathematics performance since 2003 (7.5 percentage points increase of students performing below mathematics proficiency Level 2, as defined by PISA) (OECD, 2014d, Figure I.2.23). It is the same case for science performance (OECD, 2014d, Figure I.5.11). Also, the Slovak Republic is among the ten PISA participants with the widest spread in mathematics scores (score point difference between the top and bottom 10% of students) (OECD, 2014d, Figure I.2.24). However, the observed gender difference in mathematics performance has reduced between 2003 and 2012 and is now around the OECD average (OECD, 2014d, Figure I.2.27).

There are significant equity concerns in the Slovak school system

As analysed by Shewbridge et al. (2014), international evidence indicates significant concerns for equity in the Slovak school system. The range of different socio-economic backgrounds among Slovak students is similar to the OECD average (OECD, 2013b, Figure II.2.6). However, compared to the OECD average, Slovak students' socio-economic background is more strongly related to their mathematics performance in PISA 2012 (socio-economic background explains 14.6% of variance in mathematics performance in the OECD and 24.6% in the Slovak Republic), and the performance differences across socio-economic groups are greater (OECD, 2013b, Table II.A).

Also, educational differences between rural areas and cities are significant. As explained in Shewbridge et al. (2014), in the PISA 2012 mathematics assessment, Slovak students in rural areas were significantly outperformed by their peers in towns and cities, although some of this was explained by socio-economic differences (OECD, 2013b, Table II.3.3a). Even when taking into account these socio-economic differences, the performance disadvantage for students in rural areas is significantly more pronounced than on average in the OECD.

Another concern relates to the basis for attending a special school. It is well known that in the Slovak school system a good proportion of students who attend special schools do so as a result of learning difficulties and/or a social disadvantage and not following the identification of a learning disability. This is particularly the case of Roma children whose attendance of special schools is still very high in spite of the decision to progressively integrate disadvantaged students into mainstream schools (World Bank, 2012).

As analysed in Shewbridge et al. (2014), educational outcomes of the Roma minority are particularly poor: more than 70% of the Roma population has not reached upper secondary education and Roma do not attain tertiary education (OECD, 2012). Also, in spite of the several measures to encourage parents with less advantaged socio-economic status to enrol their children in early childhood education, the participation of Roma children remains low (Šiškovič, 2012 in OECD, 2012). In 2010, while only 28% of Roma children aged 3-6 attended pre-primary education, 59% of non-Roma children living in the same localities attended pre-primary education (see Figure 2.4 in Chapter 2) (UNDP, 2012). There are also few schools offering teaching in Roma language which, in part, results from a shortage of qualified teachers who could teach in Roma language and a lack of the necessary textbooks.

The Strategy of the Slovak Republic for Roma Integration by 2020 approved in 2012 is the underlying document for policies aimed to address the adverse position of vulnerable Roma communities for the period until 2020 and for the use of financial resources from the European structural and investment funds in the programming period 2014-20. The strategy defines better access for Roma children to all levels of education including pre-primary education as the global educational objective. Special emphasis is placed on the elimination of segregation at schools, the prevention of early school leaving and ensuring a successful transition to the labour market (Educational Policy Institute, 2015).

A high degree of academic selection within the school system

As described earlier, children may transfer to an academically selective school while attending basic school (8-year *gymnasium*), which in reality translates into moving the students with the highest academic achievement into elite institutions. Also, access to upper secondary education is highly selective. As reported in Shewbridge et al. (2014), data from the OECD PISA 2012 assessment indicate that 50% of 15 year-olds were in schools where the school leader reported that student academic performance records were always considered in decisions to admit students, as compared to 39% on average in the OECD (OECD, 2013c, Table IV.2.7). This is the dominant practice at the upper secondary level (83% of students, compared to 52% on average in the OECD), but less common than on average in the OECD at the lower secondary level (8% of students studying at ISCED 2 level, compared to 27% on average in the OECD) (OECD, 2013c, Table IV.2.8). Furthermore, at the upper secondary level there appears to be an established culture in many schools to transfer students to a different school due to either their low academic performance,

behavioural problems or special learning needs: 37% of Slovak students at the upper secondary level were in schools where the director reported this would be very likely, in comparison to 16% on average in the OECD (OECD, 2013c, Table IV.2.10).

Year repetition is low but on the increase

Although year repetition is not common practice in the Slovak Republic, there are indications that this may be becoming more frequent. As explained in Shewbridge et al. (2014), between PISA 2003 and 2012, there was a notable increase in the rate of year repetition reported by students in the Slovak Republic, from 2.5% to 7.6% (compared to averages for the OECD area of 13.8% and 13.3% in 2003 and 2012 respectively) (OECD, 2013c, Figure IV.2.10).

Labour market outcomes of vocational education graduates are of concern

Unemployment affects mainly graduates of secondary vocational schools. Unemployment rates (two years after graduation, as of May 2015) are highest for graduates of non-Maturita fields of study (17%) followed by Maturita fields of study with extended practical training (14%) and Maturita fields of study (11%). Substantially lower unemployment rates affect graduates from general secondary education (5%), as most of them continue their studies in tertiary education (CVTI, 2015).

Main policy developments

A major reform of public administration with large implications for education

In 2002 the reform of public administration significantly affected the governance of the education system, in that a traditional model of sector-based central governance was abolished and the influence of self-government was strengthened. Eight newly established regions gained significant autonomy, including in the governance and management of upper secondary schools. Similarly, municipalities gained self-governance powers to take responsibility for pre-primary and basic schools.

More recently, in 2012, the government of the Slovak Republic initiated a restructuring of public administration, the so-called ESO Reform (Efficient, Reliable and. Open Public Administration). The objective is to make public administration simple, accessible, sustainable, transparent and cost-effective. For example, more transparent structures of the de-concentrated central administration shall be established through single Citizen's Contact Administrative Points. The objective is also to establish a new quality management system to monitor and assess performance efficiency and the quality of state administration. In this context, as mentioned earlier, the management of education departments of regional state authorities shifted from the Ministry of Education to the Ministry of Interior.

Establishment of per-student school funding

In 2003, decentralisation in education was established alongside the launch of the school funding reform. Act No. 596/2003 set roles and responsibilities for the state, regions and municipalities, and introduced a system of mainly normative funding to schools. The normative budget for each school became dependent on the number of students at the school, the school type and other parameters defined by the law (see Chapter 3). Normative funding covers expenditures for teachers' salaries and operational costs. As of 2014, the

Ministry has been preparing adjustments to the per-student funding model, with the objective of strengthening incentives for school consolidation, possibly through the introduction of a factor based on the number of classes (see Chapter 3).

The development of National Education Programmes and School Education Programmes

The 2008 School Act, the main legislative document governing schooling, establishes two levels for determining the content of instruction in the Slovak Republic. At the central level, the Ministry determines National Education Programmes (NEPs) for each educational area within pre-primary, basic and secondary education. These define the compulsory content, scope and conditions of education and provide a national framework for student learning. In agreement with such framework, schools further develop School Education Programmes (SEPs), which consist of the operationalisation of NEPs to fit the context of individual schools. Schools have considerable room to design their own learning strategies as NEPs are not markedly detailed. However, SEPs as well as approaches to student assessment and the content of textbooks need to comply with the requirements defined in NEPs. Recently, the Ministry of Education, Science, Research and Sports approved new NEPs for pre-primary, basic and general secondary education which are implemented as of September 2015. The new NEPs stipulate more time to be devoted to the teaching of mathematics and natural science subjects (physics, biology, chemistry).

The introduction of standardised national assessments

School autonomy in the development of programmes and in choosing instruction methods has generated the need to monitor student outcomes across schools. Not surprisingly, the introduction of external instruments for the assessment of students such as national assessments at key stages of schooling has been among the main policy issues in the education agenda. Full-cohort national assessments in Year 9 (Testovanie 9) have been conducted since 2009. Students are assessed in Slovak language and literature, as well as, where applicable, in the main language of instruction (Hungarian or Ukrainian) and in mathematics. The National Institute for Certified Educational Measurements (NÚCEM) is also conducting national assessments for Year 5 as of November 2015.

Creation of a career system for teachers

The Act on Pedagogical Employees and Specialist Employees (2009) specified qualification requirements for school staff and their rights to professional development. The Act created a salary system based on teachers' level of qualification (their academic qualification, career level and responsibilities), as well as a system of bonuses (based on performance or credits gained from attending professional development training) (see Chapter 4). The Act also guarantees teachers the freedom to choose pedagogical methods and teaching approaches.

Reform of vocational secondary education introduces features of a dual system

A new act on vocational education and training was adopted by parliament in March 2015 in co-operation with employers whereby features of a dual system of vocational education and training are introduced. The new system stipulates that employers participating in the dual system provide and finance the practical part of the education based on a contract with a given vocational school and a contract with the

student. The state gives employers tax incentives to participate in the dual system based on the number of students and the extent of practical training (Educational Policy Institute, 2015). The law strengthens the role of self-governing regions in determining the size of study programmes that should be guided by labour market forecasts and school performance indicators (Fazekas and Kurekova, 2016). As of September 2015, 117 employers are engaging in the dual system and offered 1 450 VET placements at their workplace (these were matched by the interest of approximately 420 students, who will take part in the dual system during school year 2015/16). These employers are evenly distributed across regions and most have between 20 and 100 employees.

Notes

- 1. However, this is likely to be an underestimation. Compared to the two previous censuses, the number of people who did not report their nationality increased significantly. At the same time, the number of people declaring Slovak nationality decreased significantly, while no significant changes occurred for other nationalities.
- 2. The size of the Roma population is likely to be underestimated. A large share of Roma is not recorded in any statistics. The Atlas of Roma Communities project provides the most accurate estimate derived from a field survey. In 2013, 7.5% (403 000) of the population were part of the Roma community. Compared to the previous 2004 survey, there was an increase of 70 000 people.
- 3. Some children identified as having special educational needs can also be assigned to the "socially-disadvantaged" category. These children attend mainstream schools and are either integrated in a regular class or attend a special class.
- 4. The Survey of Adult Skills (PIAAC), which took place from August 2011 to March 2012, assesses the proficiency of adults aged 16-65 in literacy, numeracy and problem solving in technology-rich environments. Around 166 000 adults were surveyed in 24 countries and sub-national regions, including 22 OECD member countries. Further information is available at www.oecd.org/site/piaac.

References

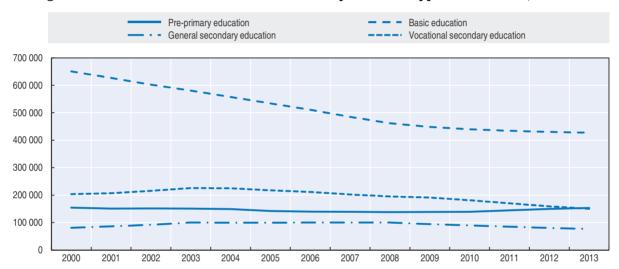
- CVTI (2015), data available from the website of the Slovak Centre of Scientific and Technical Information (CVTI), www.cutisr.sk/buxus/docs/JH/na-ov_sept-maj15_final.xlsx.
- Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, Educational Policy Institute, Ministry of Education, Science, Research and Sports of the Slovak Republic, Bratislava, www.oecd.org/edu/school/schoolresourcesreview.htm.
- Fazekas, M. and L. Kurekova (2016), A Skills beyond School Review of the Slovak Republic, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, forthcoming.
- Martin, M.O. et al. (2012), TIMSS 2011 International Results in Science, International Association for the Evaluation of Educational Achievement (IEA), Amsterdam and TIMSS and PIRLS International Study Center, Boston, http://timssandpirls.bc.edu/timss2011/downloads/T11_IR_Science_FullBook.pdf.
- Mullis, I.V.S. et al. (2012a), PIRLS 2011 International Results in Reading, International Association for the Evaluation of Educational Achievement (IEA), Amsterdam and TIMSS and PIRLS International Study Center, Boston, http://timssandpirls.bc.edu/pirls2011/reports/downloads/P11_IR_FullBook.pdf.
- Mullis, I.V.S. et al. (2012b), TIMSS 2011 International Results in Mathematics, International Association for the Evaluation of Educational Achievement (IEA), Amsterdam and TIMSS and PIRLS International Study Center, Boston, http://timssandpirls.bc.edu/timss2011/downloads/T11_IR_Mathematics_FullBook.pdf.
- OECD (2014a), OECD Economic Outlook, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_outlookv2014-2-en.
- OECD (2014b), OECD Economic Surveys: Slovak Republic 2014, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-svk-2014-en.
- OECD (2014c), Education at a Glance 2014: OECD Indicators, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.

- OECD (2014d), PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264208780-en.
- OECD (2013a), Education at a Glance 2013: OECD Indicators, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2013-en.
- OECD (2013b), PISA 2012 Results: Excellence through Equity (Volume II): Giving Every Student the Chance to Succeed, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201132-en.
- OECD (2013c), PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.
- OECD (2012), OECD Economic Surveys: Slovak Republic 2012, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-svk-2012-en.
- Shewbridge, C., J. van Bruggen, D. Nusche and P. Wright (2014), OECD Reviews of Evaluation and Assessment in Education: Slovak Republic 2014, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264117044-en.
- Šiškovič, M. (2012), "Slovenské škôlky: málo kapacít a nižšia účasť sociálne slabších rodín" (Slovak pre-schools: Low capacities and lower participation of socially disadvantaged families), Policy Brief, Financial Policy Institute, Ministry of Finance of the Slovak Republic.
- Statistical Office of the Slovak Republic (2014), Regional Statistical Yearbook of Slovakia 2014, Bratislava, https://slovak.statistics.sk (accessed 21 October 2015).
- UNDP (2012), Report on the Living Conditions of Roma Households in Slovakia 2010, UNDP Europe and the CIS, Bratislava Regional Centre, www.undp.org/content/dam/rbec/docs/Report-on-the-living-conditions-of-Roma-households-in-Slovakia-2010.pdf.
- World Bank (2012), Diagnostics and Policy Advice on the Integration of Roma in the Slovak Republic, World Bank, Washington, DC, http://documents.worldbank.org/curated/en/2012/09/16791578/diagnostics-policy-advice-integration-roma-slovak-republic-vol-1-2-main-report.

ANNEX 1.A1

Data on school education

Figure 1.A1.1. Enrolment in school education by level and type of education, 2000-13



Note: Students attending lower-secondary education at 8-year *gymnasiums* are taken into account under "General secondary education". Data for "Vocational secondary education" do not include students in conservatoires. Data for special schools are not included. For general and vocational secondary education, part-time students are not included.

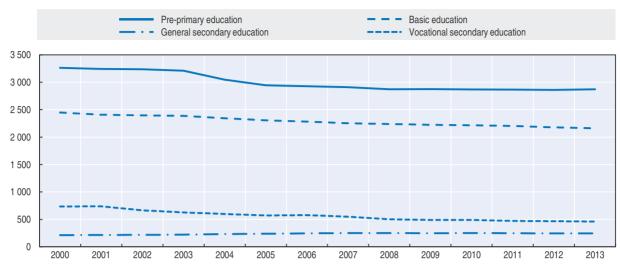


Figure 1.A1.2. Number of schools by level and type of education, 2000-13

Note: Data for "Vocational secondary education" do not include conservatoires. Data for special schools are not included. Source: Data provided to the OECD review team by the Ministry of Education, Science, Research and Sports.

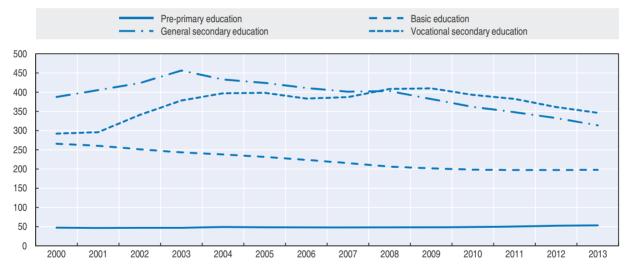


Figure 1.A1.3. School size by level and type of education, 2000-13

Note: School size refers to the average number of students per school. Students attending lower-secondary education at 8-year gymnasiums are taken into account under "General secondary education". Data for "Vocational secondary education" do not include students in conservatoires. Data for special schools are not included. For general and vocational secondary education, part-time students are included.

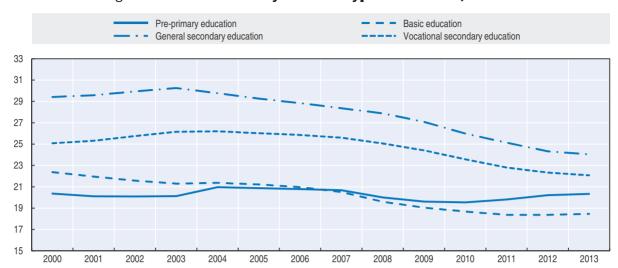


Figure 1.A1.4. Class size by level and type of education, 2000-13

Note: Class size refers to the average number of students per class. Students attending lower-secondary education at 8-year *gymnasiums* are taken into account under "General secondary education". Data for "Vocational secondary education" do not include students in conservatoires. Data for special schools are not included. For general and vocational secondary education, part-time students are not included.

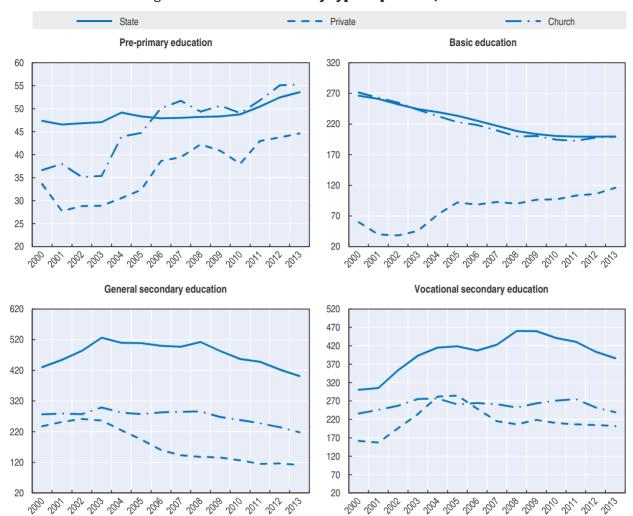


Figure 1.A1.5. School size by type of provider, 2000-13

Note: School size refers to the average number of students per school. Students attending lower-secondary education at 8-year gymnasiums are taken into account under "General secondary education". Data for "Vocational secondary education" do not include students in conservatoires. Data for special schools are not included. For general and vocational secondary education, part-time students are included.

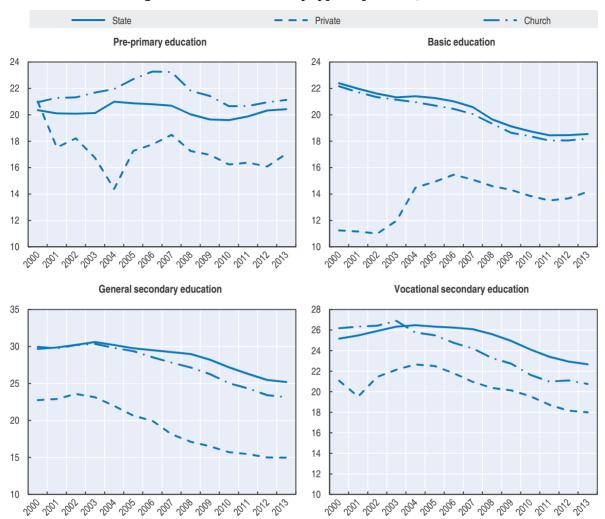


Figure 1.A1.6. Class size by type of provider, 2000-13

Note: Class size refers to the average number of students per class. Students attending lower-secondary education at 8-year *gymnasiums* are taken into account under "General secondary education". Data for "Vocational secondary education" do not include students in conservatoires. Data for special schools are not included. For general and vocational secondary education, part-time students are not included.

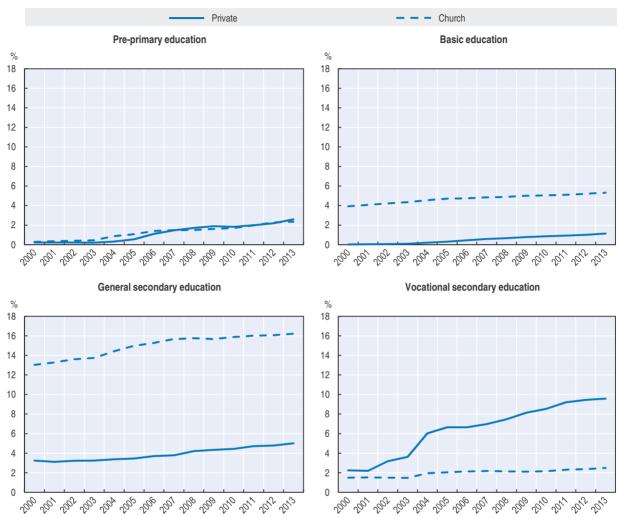


Figure 1.A1.7. Proportion of students in church and private institutions by level and type of education, 2000-13

Note: Students attending lower-secondary education at 8-year gymnasiums are taken into account under "General secondary education". Data for "Vocational secondary education" do not include students in conservatoires. Data for special schools are not included. For general and vocational secondary education, part-time students are not included.

Chapter 2

Governance of schooling and the school network in the Slovak Republic

This chapter is about the governance of schooling, in particular the supply of school services and the organisation of the school network. The chapter places particular emphasis on areas of priority for the Slovak Republic such as the re-structuring of the school network in light of demographic developments, better integrating students with special needs, improving the educational opportunities of the Roma community and expanding the provision of pre-primary education. It also reviews capacity and co-operation at the local level for education provision, synergies across education subsystems, co-ordination for educational regional planning, and the use of EU structural funds in education. The chapter further highlights the importance of implementation aspects of education policy and the need to assess the impact of policy interventions.

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.

This chapter is about the governance of schooling, in particular the supply of school services and the organisation of the school network. It analyses how the effectiveness of resource use is influenced by key features of the school system such as the distribution of responsibilities, the structure of schooling, diversity of school offerings, learning opportunities across regions and student groups and the level of parental choice. The chapter places particular emphasis on areas of priority for the Slovak Republic such as the re-structuring of the school network in light of demographic developments, better integrating students with special needs and improving the educational opportunities of the Roma community.

Context and features

The governance of education in the Slovak Republic is facing similar challenges than in most other OECD countries with a number of specificities which are typical to the Central and Eastern European region. First, the education sector operates under various external constraints, such as the scarcity of resources and the parallel need for fiscal consolidation; and demographic changes, especially the decrease of the school-age population with significant regional differences. Second, the broader context of the ongoing public administration reform strongly determines the room of manoeuvre for specific education sector policies. Third, education has become a system characterised by several decision-making levels, each having a certain, sometimes significant, level of autonomy and by the interaction of various actors, each having its own specific interests and agendas, which is leading to an increasing level of administrative complexity (Cerna, 2014).

The governance of schooling is affected by a context of funding constraints and fiscal consolidation

In 2011, about 4.4% of the GDP was spent on educational institutions in the Slovak Republic (including tertiary education), which is the second lowest figure within the OECD area (see also Chapter 3) (OECD, 2014a). The 2012 OECD Economic Survey of the country underlined that teachers in the Slovak Republic are among the worst paid in the OECD stressing that, on average, teachers were earning less than half the salary of a tertiary graduate, compared to between 77% and 89% in the average OECD country (OECD, 2012) (see also Chapter 4). The government expressed several times its intention to increase educational spending but this is difficult to realise in the context of current fiscal consolidation efforts. According to the European Commission's 2012 fiscal sustainability report "the country is at medium sustainability risk in the medium run and at high risk in a long-term perspective, mainly due to the budgetary impact of ageing costs" (European Commission, 2012) and the 2013 report of the Commission on public finances in the also stated that the fiscal imbalances in the Slovak Republic require "the credible implementation of ambitious structural reforms" (European Commission, 2013). Nonetheless, the fiscal situation has improved recently. The European Commission noted

that the "successful measures to improve public finances enabled" the Slovak Republic "to leave the EU's Excessive Deficit Procedure" (European Commission, 2014a). Reconciling the goal of increasing public spending in education and the parallel goal of reducing public debt puts the efficiency challenges of the education system in the spotlight (Jurzyca, 2014).

While reducing the high public debt remains a key objective, the country is also aware of the longer term negative consequences of underinvestment in human resources. This has been strongly stressed by the European Commission in the context of the 2015 "European Semester": "Low investments undermine Slovakia's competitiveness and growth prospects. Continuing economic convergence will require significant increases in both physical and human capital" (European Commission, 2015a: 4). As the fiscal situation improves the country is being encouraged by the European Union to increase growthenhancing investment, especially in human resource development, including education (European Commission, 2015b). An area which is not affected by funding constraints and fiscal consolidation is the funding of development interventions supported by the EU structural funds.

The governance of schooling is highly decentralised

The public administration system has undergone major changes in the last decade in the Slovak Republic, with the emergence of politically autonomous municipal and regional self-governments which have now a major role in shaping the provision of education services, the school network and in assuring appropriate conditions for the daily operation of schools (see Chapter 1). There are 2 890 municipalities in the eight self-governing regions in the Slovak Republic (see Chapter 1). Municipalities are the "founders" of state pre-primary, primary and lower secondary educational institutions, except for those exclusively providing education for children with special needs, which have remained part of a separate network under the direct supervision of de-concentrated state administration units (regional state authorities). The authorities of the self-governing regions are the founders of state upper secondary institutions, also with the exception of those exclusively offering special needs education (also managed by regional state authorities). The number of municipalities running schools is very high and almost one third of them are founders of lower secondary institutions (see also Chapter 1).

The municipal and regional systems of self-governance are relatively new in the Slovak Republic and the way responsibilities are shared between the municipalities or self-governing regions and the national authorities is still in a state of development. As the time elapsed since the emergence of the system of self-governments is still too short to firmly evaluate its effectiveness and sustainability, caution is needed when analysing the current and possible future public administrative context of educational governance. This caution has to be stressed particularly strongly when it comes to the regional level. The emergence of self-governing regions is a very recent development; therefore it is not yet possible to see how their social recognition, political weight, administrative jurisdictions and particularly their problem-solving capacities will develop (Buček, 2011).

The current distribution of decision-making power in the Slovak state education system seems to be balanced between the three poles of the national, the municipal/regional and the institutional. The institutions (schools) have acquired relatively large autonomy: all of them now have an elected school board with relatively strong jurisdictions (including the selection of the school director), and they are protected from too strong a local control through the funding system (which limits the redistributing

power of their founders) and they are also encouraged to adapt the national curriculum to their own specific educational context through school education programmes (see also Chapter 1).

The national government, that is, the Ministry of Education, Science, Research and Sports has strong regulatory powers. It uses a range of instruments to implement and monitor its policies through its de-concentrated regional agencies (the regional state authorities, recently integrated into the general purpose regional administrative units of the government), an information system which generates vast amounts of data on local and school level processes (including student outcomes), the national inspectorate that allows the collection of qualitative classroom level information and a relatively well developed network of other specialised agencies of the Ministry of Education (see Chapter 1) (Shewbridge et al., 2014). At the same time, municipalities are increasingly influential players in the field of public service provisions, with strong national level representation and interest assertion capacities.

The multi-level and multi-actor character of the Slovak education system, as it has emerged from the public administration reform of the early 2000s and the more recent curriculum reform of the late 2000s has created a particularly complex governance context that requires intelligent and sophisticated steering and policy implementation approaches. Unlike in some other countries, the decentralisation process in the Slovak Republic has not led to the weakening of national authorities: it has rather changed their role and their repertoire of instruments for effective steering.

The ongoing public administration reform has implications for education governance

The ongoing reform of general public administration might have a strong impact on the administration and the governance of the education sector. One of the key goals of this reform is to face the challenge of fragmented public administration "organised around strong ministerial silos" and to strengthen integration through promoting "co-ordination and collaboration across ministries" (OECD, 2014b). One of the visible impacts of the public administration reform in the education sector is the integration of the regional education sector administrative services into the regional state authorities subordinated to the Ministry of Interior (Shewbridge et al., 2014). This change certainly will, in the longer run, weaken the possibility for the central administration to use direct administrative tools and might encourage the movement towards a strategic steering model, and it might also strengthen the operative management functions of the self-governing regions.

One of the explicit aims of the public administration reform is to ensure stronger collaboration between the "streamlined" de-concentrated state administration units (the regional state authorities) and municipal and regional self-governments in order to "facilitate regional development and address increasing regional inequalities" (OECD, 2014b). Another aim is to promote the use of evidence-based policymaking, including more systematic and better quality impact assessment through improving the analytical capacity of the administration. It is a logical expectation that all these changes will also pressure administrators in the education sector, for example, to provide stronger support to regional actors to enhance their planning capacities and also to improve the knowledge and information basis of decision-making.

The consolidation of the school network has become a policy priority

One of the areas where the steering capacity of the state administration is being challenged, and where there might be a need for new, innovative forms of interventions is the governance of the school network. Given the inherited inefficiencies and the ongoing demographic changes, the rationalisation of the school network is unavoidable. But now, as the politically autonomous self-governments have become the "founders" of state schools (i.e. they exercise ownership rights, such as deciding on opening, closing or reorganising schools), the processes of rationalisation require co-operation and sophisticated co-decision procedures.

The school network is defined in the Slovak Republic as the totality of schools formally accredited by the Ministry of Education, Science, Research and Sports to provide education and care in the country. Only schools belonging to the network are entitled to receive public funding. The procedure of school accreditation is regulated so that founders have to submit their application to the Ministry of Education by 31 March each year. Following a positive decision by the Ministry, the founder can establish the school and start its operation on the 1 September of the following year. Private and church founders must also enclose the approval obtained either from the municipality (in the case of pre-primary and basic schools) or the self-governing region (in the case of upper secondary schools) in their application. Without this approval the Ministry does not include the school in the network. A basic school with Years 1-4 can be established if the expected number of students is at least 30, and a basic school with Years 1-9 if the number of students is not lower than 150. In special cases (for example, if the closest basic school is difficult to reach) a lower number of children can be accepted. When the Ministry evaluates the applications it takes into account local and regional needs, the language of instruction, the number of students and the financial and technical conditions of schools. The Ministry can also take the decision to close schools through a similar process but a proposal to close a school can also be made by regional state authorities and the Inspectorate.

The need for rationalisation is clear and seems to be accepted by all key stakeholder groups, including teacher unions and various other organised interest groups. There are a number of inherited inefficiencies which have been reinforced by the public administration and public funding reforms, creating too many and too small founder units and leading to a fragmentation of the system. The current demographic decline makes these inherited inefficiencies even more visible. The number of births dropped from 80 000 in 1990 to 55 000 in 2012 and this has led to a continuous decline of the school-age population (Educational Policy Institute, 2015). The number of students decreased by 21% between 2005 and 2012, with the largest decrease in the secondary vocational sector (27%) but substantial decrease also occurred at the level of basic schools and general secondary schools (nearly 20%). At the same time the number of teachers also dropped, although at a lower rate (14%), as well as the number of classrooms (8%) and schools (7%) (Educational Policy Institute, 2015).

The Slovak Republic is among those OECD countries where the expected future decrease of the school-age population in the coming decades is among the highest (see Figure 2.1), though, in the shorter term, the size of some school-age groups is expected to grow. By 2025 the number of children aged 15-19 is expected to be more than 20% higher in 59 out of 72 districts. There are, however, significant differences in population projections between regions and districts. The districts in the eastern part of the country and the

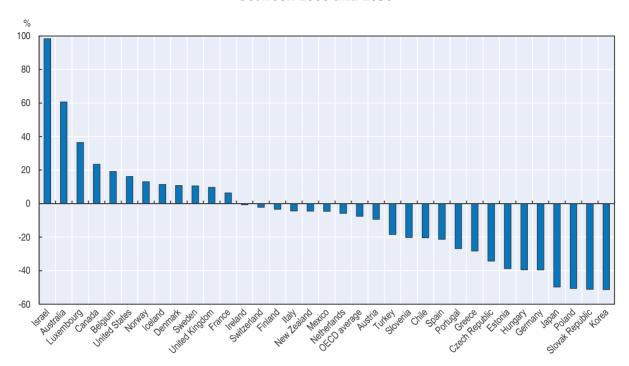


Figure 2.1. Projected change in 5-19 year-old populations across OECD countries between 2000 and 2050

Source: OECD statistical database, Historical Population Data and Projections (1950-2050), http://dotstat.oecd.org/Index.aspx.

southern districts of the centre of the country will experience a sharp decrease but in some western districts, especially in Bratislava, the school population is expected to grow, at least in the shorter term.

The clustering of primary and lower secondary education within a single school unit and the approach to vocational education are specific features of the Slovak education system

Compulsory basic education is typically provided in schools comprising both primary and lower secondary level classes, with the consequence that lower secondary education is seen as part of a basic service to be provided as close as possible to the place where people live, that is, even in small villages. This structural feature of the system makes it difficult to create school units of appropriate "size efficiency", although there are many basic schools with only primary education classes (Years 1 to 4). Furthermore the Slovak Republic, similarly to other Central and Eastern European countries inherited a very extensive sector of secondary vocational schools providing specialised training in many, rather narrow vocational areas (in 2013, there were 460 secondary vocational schools). Education in secondary vocational schools is typically more expensive than in schools providing general education and the relative isolation of this sector from the world of work (especially when compared to work-based or company-based skills development forms), the often high drop-out rates and the relatively high proportion of graduates who find jobs in areas that are different from the profile of their original formal VET qualification shows serious efficiency problems in this typical Central and Eastern European model of skills development (World Bank, 2006).

In the light of the notorious efficiency problems of the VET system the 2015 adoption of the new Act on VET (see Chapter 1) deserves particular attention. This new legislation strongly supports work-based learning as schools are now encouraged to establish partnerships with companies for providing practical training in accordance to their needs. According to CEDEFOP (European Centre for the Development of Vocational Training), the new school-company partnerships may gradually change the nature of initial VET, "transforming the traditional school-based supply-driven system to a demand-driven work-based learning system" (CEDEFOP, 2015). A recent amendment to the School Act is also linking the state funding of VET schools to the labour market relevance of their programmes. Since 2012 the Ministry has also been publishing lists of study fields with a lack of/surplus of graduates compared to the needs on the labour market.

The student population is becoming more heterogeneous

A further contextual factor that has major implications for the efficiency of resource use in the Slovak education system is the growing heterogeneity of the student population and, parallel to this, the relatively low capacity of the system to organise effective teaching in heterogeneous student groups. A key issue in school resource use relates to the ability of school systems to properly address the diversity of student needs, ensuring learning opportunities across student groups through adequate school offerings and adapted school settings.

In 2013 the number of students with special educational needs (SEN) was 66 787, which was 7.9% of the whole student population (this proportion is 1.0%, 10.2% and 5.4% in pre-primary, basic and secondary education respectively) (see Table 1.8 in Chapter 1). Of these SEN students, 31.8%, 44.9% and 52.8% were attending mainstream schools (either in regular or special classes) in pre-primary, basic and secondary education respectively (see Table 1.8 in Chapter 1). The proportion of students categorised as having special educational needs is higher than in most European school systems while the proportion of SEN students attending regular classes in mainstream schools is lower than in most European school systems (see Figures 2.2 and 2.3). Although these data have to be treated cautiously they indicate potential efficiency problems related to the provision of special needs education (see also Chapter 3).

The growing heterogeneity of the student population is also related with the changing ethnic composition of the Slovak society, especially with the growing proportion of students belonging to the Roma minority, many of them living in conditions of deep poverty. According to the most recent census in the Slovak Republic (2011), only 2% of the Slovak population identified as belonging to the Roma minority (Educational Policy Institute, 2015). However, this is likely to be an underestimate. More accurate figures are provided by the Atlas of Roma Communities project, which is based on a survey applied directly in the field (UNDP, 2014). According to this survey, about 7.5% of Slovak population identified as belonging to the Roma Community (403 000 people). Of these, 46.5% live spread among the majority population, 12.9% live in concentrated settlements within municipalities, 23.8% live in concentrated settlements on the border of municipalities and 17.0% live in segregated settlements (UNDP, 2014 and Decade of Roma Inclusion, 2013). According to a study published in 2012 there were eight districts in the Slovak Republic where the proportion of the Roma minority was close to or higher than 20% (Matlovičová et al., 2012). In such districts the proportion of Roma children can be very high. According

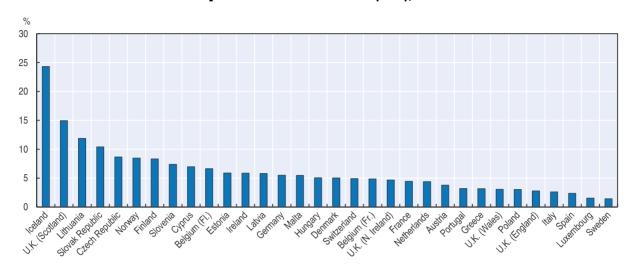


Figure 2.2. Proportion of compulsory school age students with special educational needs (SEN), 2010-11

Notes: Caution is needed in comparing data across countries. Both the definition of "special educational needs" and the age range for compulsory education differ across countries. See the source of the data for further details. Data for Hungary, Luxembourg, Portugal and Spain refer to 2009-10 while data for the Czech Republic, Estonia, Greece, Latvia, Lithuania, Malta, the Netherlands, the Slovak Republic, Slovenia and the United Kingdom (Northern Ireland, Scotland and Wales) refer to 2011-12. Data for the private sector in the United Kingdom (Scotland) refer to 2009-10.

Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: EADSNE (2012), Special Needs Education: Country Data 2012, European Agency for Development in Special Needs Education, Odense, Denmark.

to a study on the demographic trends of the Roma population the share of school-age Roma children in the total number of children aged 6 to 15 will increase from 14% in 2005 to 15.7% in 2015 and 17.1% in 2025 (Vaňo, 2005).

Extracurricular activities are given great importance in developing social capital

An additional contextual factor is the richness of extracurricular activities and services in Slovak schools (see Chapter 1). School clubs (offered to students enrolled in the concerned school) and free-time centres (not attached to a specific school and which are open to all children) provide a wide range of educational and free time activities. In 2012, more than 300 000 children were enrolled in 500 free-time centres and more than 125 000 children were attending 2 100 school clubs (Educational Policy Institute, 2015). Many schools provide extracurricular activities related to mathematics and ICT: more than 90% of students are attending schools offering computer clubs, which, according to PISA data is the third highest figure in the OECD. The availability of extracurricular activities and services is seen as a strength of school education in the Slovak Republic as this sector plays an important role in the production of social capital. It also allows increasing the role of local revenues and parental contributions, especially when public support to this sector is targeted to the most disadvantaged student population.

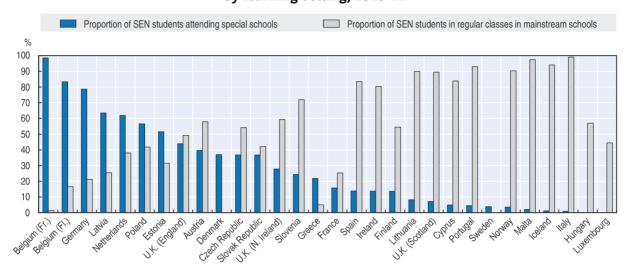


Figure 2.3. Proportion of compulsory school age students with special educational needs (SEN) by learning setting, 2010-11

Notes: Caution is needed in comparing data across countries. Both the definition of "special educational needs" and the age-range for compulsory education differ across countries. See the source of the data for further details. Data for Hungary, Luxembourg, Portugal and Spain refer to 2009-10 while data for the Czech Republic, Estonia, Greece, Latvia, Lithuania, Malta, the Netherlands, the Slovak Republic, Slovenia and the United Kingdom (Northern Ireland, Scotland and Wales) refer to 2011-12. Data for the private sector in the United Kingdom (Scotland) refer to 2009-10.

Notes on Cyprus by Turkey and by all the European Union Member States of the OECD and the European Union: see notes for Figure 2.2. Source: EADSNE (2012), Special Needs Education: Country Data 2012, European Agency for Development in Special Needs Education, Odense, Denmark

EU funds are used to support educational development

The Slovak Republic, similarly to other Central and Eastern European countries, has been using EU structural funds to modernise its education system since its accession to the European Union. The operational programme for the education sector for the period 2007-13 specified five major development goals (Ministry of Education of the Slovak Republic, 2007):

- Creating a modern, flexible school system.
- Establishing conditions for the development of higher cognitive capabilities of students by developing their competences.
- Ensuring a transition from factual learning to the development of key competences, opening the school and linking it to the surrounding environment and the entire society
- Performing a didactic reform aimed at the application of modern teaching strategies, effective forms and methods of education.
- Modifying the objectives of education and the content of upbringing and educational programmes so that they provide the school leaver a set of competencies for further education or for entry in the labour market, as well as skills for life-long learning.

Since these ambitious goals imply the realisation of major changes in the practices of teachers and schools a large part of the EU funds has been used to support capacity development through various training programmes. The time constraints of the EU-funded interventions have made, among others, the establishment of new programmes and institutional mechanisms – such as massive teacher professional development – a particularly urgent task.

Strengths

There is consensus on the need to improve the efficiency of the school system

The policy environment for efforts to improve school resource use seems to be favourable in the Slovak Republic. The participation of the country in this OECD Review of School Resources is only one sign of this. During the visit and the interviews with key stakeholders the OECD review team gained the impression of the existence of a genuine concern for quality and efficiency, shared by all key stakeholders met. The quality and efficiency problems of the education system seem to be widely recognised and the need for action, including measures for network rationalisation seem to be shared even by the representatives of those social and professional groups whose position might be, in the short term, affected by such measures.

Hence the apparent willingness and capability of key stakeholders to co-operate in the efforts to make the Slovak school system more efficient and more effective is an important strength. During the interviews the OECD review team gained the impression that the representatives of the major stakeholder groups are open to negotiate the appropriate solutions. This is a particularly important feature because, given the level of decentralisation and the sharing of responsibilities in the Slovak education system, only common and co-ordinated action can bring results.

Local autonomy is well balanced with adequate accountability

The visit of the OECD review team confirmed the picture provided by the OECD Review of Evaluation and Assessment in Education in the Slovak Republic (Shewbridge et al., 2014) that the country has managed to build a system with a relatively good balance between accountability and autonomy. The analysis of the education policy practice of the most effective education systems suggests that the combination of extended local and institutional autonomy with strong accountability mechanisms, continuous capacity building and the use of effective system steering instruments offers the highest chances to create a high performant education system (Mourshed et al., 2010). The necessity to combine these perspectives seems to be widely recognised in the Slovak Republic among key stakeholders.

The move towards extended local and institutional autonomy which started in the first half of the last decade, first with the local government and fiscal decentralisation reforms and municipal and regional self-governments becoming the owners (founders) of most schools, and later continued, in the second half of the decade, with the new education law extending the autonomy of schools, has been paralleled with the creation and strengthening of accountability frameworks. The emerging national system of standardised student achievement measurement and the State Schools Inspectorate are key elements of the latter. As already stressed in the previous section on contextual factors, the current system of educational governance in the Slovak Republic can be described as a relative balance of power between three poles: i) the state education authorities regulating and supervising the system; ii) the autonomous local/regional governments (founders of schools); and iii) the autonomous schools with their own board of elected representatives (school board). Through its meetings with municipal leaders, school leaders and school board members the OECD review team formed the impression that a genuine commitment to the goals of assuring quality and effectiveness in the

Slovak Republic is a realistic expectation at local and institutional level. The elected leaders and representatives the OECD review team met at these levels seemed to show a good understanding of the current challenges and good problem-solving capacities.

School choice and school-level information strengthen the system of checks and balances

The balance of power of the three poles is complemented by two inter-related mechanisms that are further strengthening the system of checks and balances: the relative strength of market mechanisms, on the one hand, and the actions leading to increased transparency, on the other hand. The existence of private institutions with access to public funding, the per capita funding system based on the principle of public money following students (see Chapter 3) and the free school choice system have created a quasi-market environment which places the users of services in a powerful position. This is supported by the disclosure of information about schools for parents and students with the intention of making school choice more informed and encouraging competition among institutions. The Ministry of Education supports the operation of a public Internet portal called "School Map"¹ which publishes key data on every school, such as the contact details, the number of students and teachers, the number of students with a socially-disadvantaged background, the budget of the school, details on the specific educational profile of the school, graduate unemployment data (for secondary schools) and the aggregated standardised tests' results of the school. Further data (such as the results of the secondary school leaving examination) are available on another portal operated by an NGO, which allow users to compare schools on the basis of a set of indicators.² While some of these data may be problematic (see Chapter 3), school-level information assists school choice by parents.

There is good central steering

The relatively strong local and institutional power and the market mechanisms are counterbalanced by strong national level steering and the use of a relatively wide variety of steering instruments. The Slovak Republic has an information system which allows the monitoring of many local and institutional level processes (such as student performance, funding and human resource management) and creates opportunities to assess the impact of national policies and development interventions. This is a system in development, with new forms of data collection and new indicators being continuously added. One of the most recent developments is the shift from the collection of aggregated institutional statistical data (which faced considerable quality assurance challenges) to individual student and teacher level data collection (as of September 2015, following a pilot exercise during 2014). This naturally raises the question of data protection and also new questions of data reliability. National authorities are also running a high number of specific programmes (mostly with EU co-funding) which make it possible for them to intervene when necessary in the increasingly decentralised public management environment and also develop the capacities of local decision makers.

The funding system is also used to create incentives shaping the behaviour of local actors (see Chapter 3). The per capita normative funding is encouraging municipal and regional self-governments to use funds in a more efficient way, and to seek options for the reorganisation or restructuring of education services when the number of enrolled students is falling (see Chapter 3). A good example of using funding instruments to steer the system towards established policy goals is the encouragement for individual

mainstream schools to integrate students with special educational needs (SEN) through a per capita normative that is higher than for regular students (even if the results are not always as desired, see Chapter 3). There are also several forms of targeted funds for specific purposes such as energy savings or purchase of special equipment. The system seems to be, at least in part, responsive to the financial incentives, which allows the central government to steer the system in the decentralised environment.

There has been some consolidation of the school network

Under the pressures created by the funding system, the adjustment of the school network has already started (see also Chapter 3). As the number of students dropped by 18.7% (20.4% in the state sector) between 2005 and 2013, the number of schools dropped by 5.4% (8.5% in the state sector) and the number of teachers decreased by 7.8% (10.3% in the state sector) (see Table 2.1). This adjustment has been particularly effective in the state

Table 2.1. Proportion of compulsory school age students with special educational needs (SEN) by learning setting, 2010-11

	, , ,	,	
	2005	2013	% change
Students	992 864	807 111	-18.7
State schools	926 419	737 566	-20.4
Pre-primary education	141 814	153 059	7.9
State schools	139 516	145 497	4.3
Basic education	534 147	427 377	-20.0
State schools	507 278	399 760	-21.2
General secondary education	99 758	76 711	-23.1
State schools	81 357	60 439	-25.7
Vocational secondary education	217 145	149 964	-30.9
State schools	198 268	131 870	-33.5
Teachers	77 942	71 839	-7.8
State schools	71 208	63 843	-10.3
Pre-primary education	13 201	14 841	12.4
State schools	12 989	14 001	7.8
Basic education	37 690	35 006	-7.1
State schools	35 566	32 344	-9.1
General secondary education	8 404	7 387	-12.1
State schools	6 490	5 344	-17.7
Vocational secondary education	18 647	14 605	-21.7
State schools	16 163	12 154	-24.8
Schools	6 060	5 735	-5.4
State schools	5 710	5 227	-8.5
Pre-primary education	2 945	2 870	-2.5
State schools	2 887	2 716	-5.9
Basic education	2 304	2 159	-6.3
State schools	2 173	2 003	-7.8
General secondary education	238	246	3.4
State schools	160	151	-5.6
Vocational secondary education	573	460	-19.7
State schools	490	357	-27.1

Note: Students attending lower-secondary education in 8-year gymnasiums are included under "General secondary education". For "General secondary education" and "Vocational upper secondary education" only full-time students are included. Data for special schools are not included. Data on teachers are based on head counts and include teachers at primary schools of art and language schools.

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

secondary vocational sector where a drop in student numbers of 33.5% between 2005 and 2013 was followed by a decrease of 27.1% in the number of state vocational schools and a reduction of 24.8% in the number of teachers (see Table 2.1). Overall, the decrease in the number of schools and teachers is slower than the decrease of the number of school-age students but it shows some capacity of the decentralised system to adapt to the demographic changes. However, it should be noticed that in the general context of the drop in student numbers, the private school sector has been expanding considerably at all levels of education. The same happens in the church school sector but to a lesser extent (see Tables 1.2, 1.3, 1.4, 1.5 in Chapter 1 and Table 4.1 in Chapter 4).

There is a growing awareness of equity issues

The OECD review team noticed a growing awareness of the critical situation faced by social groups particularly hit by social deprivation and poverty, especially the need to make serious efforts to integrate the Roma minority in mainstream education. These efforts have already had some influence also in the area of school network design, for example in the form of installing modular schools to enhance the accessibility to education services for Roma children close to the place where they live (although this approach also raises important equity questions as another potential factor of segregation). There is also a growing recognition of the negative equity implications of the early tracking created by 8-year *gymnasiums*, enrolling very young (10-year-old) children.

The role of extracurricular activities in the integration of disadvantaged student groups seems to be widely recognised in the Slovak Republic and this already receives high level political support. According to the 2014 National Reform Programme of the Slovak Republic submitted to the European Commission a pedagogical model for full day schooling was elaborated in 2012 with the support of EU funds. The model, after being evaluated by domestic and foreign experts, was put to test in 200 basic schools with at least 20% of their students coming from socially-disadvantaged environments. In this framework special curricula have been developed putting the emphasis on "linking students' educational and out-of-class activities" (Ministry of Finance of the Slovak Republic, 2014).

One of the specific equity dimensions characterising the whole region of Central and Eastern Europe is related to the special educational needs of national minorities. Hungarians are the largest national minority in the Slovak Republic (more than 8% of the whole population). In 2013, 8.5% of the 21 552 classes operated by state basic schools were using a language other than Slovak as the language of instruction, which was slightly higher than in 2000 (7.8%). Unsurprisingly, the size of classes where the language of instruction is not Slovak is significantly lower. For example, while the average size of basic school classes using Slovak as the language of instruction was 18.8 in 2013 the same figure for those teaching in Hungarian was only 15.9, and this figure was much lower in the case of other languages (Ukrainian, German or Ruthenian) (between 11 and 12). The provision of instruction in the language of national minorities is a priority in the Slovak Republic, placing equity considerations above efficiency considerations.

Funding from the European Union creates opportunities to improve the efficiency of the school system

As already mentioned, the Slovak Republic, similarly to other Central and Eastern European countries, is using the EU structural funds to modernise its education system. This is a major historical opportunity to achieve not only reforms improving the quality

and relevance of education but also to realise the necessary structural adjustments to make the education system more efficient and financially more sustainable. The fact that this OECD Review of School Resources is conducted at the beginning of the new 2014-20 programming period offers a unique opportunity for the Slovak Republic to include elements related to a more efficient resource use into the design of new development interventions. The strategic planning of the use of EU cohesion and structural funds, as presented in the Partnership Agreement between the European Commission and the Slovak Republic for the programming period 2014-20 shows that educational development is an important part of the national development programmes co-funded by the EU. According to this agreement a total of EUR 737 million are allocated to the thematic objective "Investing in education, training and vocational training for skills and lifelong learning" (about 5% of a total of over EUR 14 billion) with almost two-thirds funded from the European Social Fund and slightly over one-third from the European Regional Development Fund (about 2% is funded from the European Agricultural Fund for Rural Development) (see Table 2.2) (Government of the Slovak Republic, 2014).

Table 2.2. Thematic objectives and indicative allocation of support by the EU, European Structural and Investment Funds for the Slovak Republic, programming period 2014-20

Thematic objective	Indicative allocation of support by the EU (EUR)
Strengthening research, technological development and innovation	1 849 125 523
2. Enhancing access to, and use and quality of, ICT	825 683 592
Enhancing the competitiveness of SMEs, of the agricultural sector (for the EAFRD) and of the fishery and aquaculture sector (for the EMFF)	914 635 480
4. Supporting the shift towards a low-carbon economy in all sectors	1 119 171 222
5. Promoting climate change adaptation, risk prevention and management	995 298 991
6. Preserving and protecting the environment and promoting resource efficiency	1 858 443 897
7. Promoting sustainable transport and removing bottlenecks in key network infrastructures	3 495 128 621
8. Promoting sustainable and quality employment and supporting labour mobility	1 189 558 794
9. Promoting social inclusion, combating poverty and any discrimination	1 407 671 723
10. Investing in education, training and vocational training for skills and lifelong learning	736 744 582
11. Enhancing institutional capacity of public authorities and stakeholders and efficient public administration	267 311 313

Source: Government of the Slovak Republic (2014), Partnership Agreement of the SR for the Years 2014-2020, www.partnerskadohoda.gov.sk.

Thematic objective "Investing in education, training and vocational training for skills and lifelong learning" is operationalised through the *Operational Programme Human Resources for the Programming Period of 2014-2020*, the Integrated Regional Operational Programme (mostly with investment in educational infrastructure) and the Rural Development Programme (mostly through support for vocational training in the areas of agriculture and forestry). The Operational Programme Human Resources gives a prominent role to education as one of six Priority Axes (1-Education; 2-Youth Employment Initiative; 3-Employment; 4-Social Inclusion; 5-Integration of Marginalised Roma Communities; and 6-Technical Facilities in Municipalities with Presence of Marginalised Roma Communities). Within the "Education" Priority Axis, funded by the European Social Fund (a total of EUR 459 million), there are four specific investment priorities, one of them focussed on school education (Ministry of Labour, Social Affairs and Family of the Slovak Republic, 2014) (see Table 2.3). Priority Axes 5 and 6 to support marginalised Roma communities also

Table 2.3. Investment priorities and specific objectives for "Education"
Priority Axis in the Operational Programme Human Resources
for the programming period 2014-20

Investment priority	Specific objectives
Investment priority 1: Reduction and prevention of early school dropouts and support for access to quality pre-school, elementary and secondary education including formal, informal and common methods of education with a view to re-inclusion in education and training. (Financed by the European Social Fund – ESF)	Specific objective 1.1: Increasing inclusivity and equal access to quality education and improving results and competences of children and students.
Investment priority 2: Improving the labour market relevance of education and training systems, facilitating the transition from education to work, and strengthening vocational education and training systems and their quality, including through mechanisms for skills anticipation, adaptation of curricula and the establishment and development of work-based learning systems, including dual learning systems and apprenticeship schemes. (Financed by the European Social Fund – ESF)	Specific objective 2.1: Improving the quality of vocational education and training while reflecting labour market needs.
Investment priority 3: Improving the quality and efficiency of, and access to, tertiary and equivalent education with a view to increasing participation and attainment levels, especially for disadvantaged groups. (Financed by the European Social Fund – ESF)	Specific objective 3.1: Increase the quality of tertiary education and development of human resources in the area of research and development with a view to establishing a link between tertiary education and the needs of the labour market.
Investment priority 4: Enhancing equal access to lifelong learning for all age groups in formal, non-formal and informal settings, upgrading the knowledge, skills and competences of the workforce, and promoting flexible learning pathways including through career guidance and validation of acquired competences. (Financed by the European Social Fund – ESF)	Specific objective 4.1: Improving the quality and effectiveness of lifelong learning with an emphasis on the development of core competences and enhancing and upgrading skills.

Source: Ministry of Labour, Social Affairs and Family of the Slovak Republic (2014), Operational Programme Human Resources for the Programming Period of 2014-2020, www.minedu.sk/data/att/7342.pdf.

provide for investment in education services, including access to pre-primary education. In turn, investments to support school education through the Integrated Regional Operational Programme, which are funded by the European Regional Development Fund, are aimed at the improvement of school infrastructure; the provision of material and technical equipment in classrooms, laboratories, and resources for language teaching; and the creation of centres for dual vocational education and training. There is a special emphasis on the infrastructure needed to expand pre-primary education provision, especially in those municipalities with marginalised Roma communities (Ministry of Labour, Social Affairs and Family of the Slovak Republic, 2014).

In the coming years this might be the most powerful instrument to promote changes leading to higher efficiency and effectiveness in the Slovak school system. However, the longer term sustainability of reforms carried out with the support of EU funds will also depend on the availability of national funding sources. The EU investment described above typically requires co-funding from the national government.

Challenges

Lack of capacity and little co-operation at the local level are challenges in school resource use

Designing and managing the school network can be achieved only through a strong co-operation of all relevant agencies, especially state institutions and municipal/regional self-governments. One of the specific challenges the Slovak Republic seems to face in governing its school system is that while the key decisions (reorganisations, mergers) have been transferred to municipal/regional self-governments as founders, most of the information and administrative capacities have been retained by the central and

de-concentrated institutions of the state administration. The administrative capacities of most self-governments are relatively weak; many of them require active support from the relevant state institutions to take and implement decisions. Furthermore, particularly in lower secondary education, effective education provision can be organised only through inter-municipal co-operation which allows the sharing of resources (for example teaching capacities, special education services or extracurricular facilities) between institutions across several municipalities. But the incentives for inter-municipality co-operation are weak. As noted by the 2014 OECD Economic Survey (OECD, 2014c) "many municipalities are too small to efficiently provide public services".

There are rigid boundaries across education subsystems

Efficiency challenges are also linked to the relative isolation of subsystems (pre-primary schools; basic schools; upper secondary schools; special needs schools) and the rather rigid boundaries between them. This makes it difficult for subsystems to share resources and also hinders the smooth shift of resources from one subsystem to the other when needed in function of demographic changes, emerging new needs, existing inefficiencies and changing policy priorities. Pre-primary education is not sufficiently integrated into the formal education system, basic education institutions are disconnected from upper secondary institutions, and special needs schools are almost completely isolated from the mainstream school system. This relative isolation of subsystems seems to be accompanied by the low intensity of communication between the administrative authorities responsible for these subsystems. The de-concentrated regional offices of the Ministry of Education (now integrated into the general purpose regional state authorities), the self-governing regions, and municipalities as founders of the various types of institutions that belong to different subsystems are not sufficiently connected to each other to easily share human, infrastructural and knowledge resources. As a consequence, rationalisation efforts in one subsystem cannot rely on similar efforts in another subsystem.

The provision of lower secondary education is faced with major efficiency challenges

In 2013, about 427 000 students attended around 2 200 basic schools in the Slovak Republic (see Table 1.3 in Chapter 1). This means that the average size of basic schools was around 200. Although basic schools typically provide both primary and lower secondary education, the operation for these two levels can be carried out separately: in fact, in 2013 only 60% of basic schools were operating with at least nine classes (one-third of them operated with less than seven classes and one-quarter of them with only one or two classes).3 This opens opportunities to organise teaching in a more efficient way, but when children have to move to higher year classes in another school that operates in a different municipality there is a need for enhanced co-operation between municipalities. The average school size in terms of the number of classes is rather low: out of 2 185 basic schools only 538 (24.6%) had at least 16 classes in 2013, that is, less than one-quarter of basic schools functioned with two parallel classes in each year. When schools providing lower secondary education have only one class in each year – as it is the case in most basic schools in the Slovak Republic - the possibilities of using subject teachers' work-time efficiently might be more limited. In this case a logical solution would be to use the work-time of some teachers in more than one school but this again requires strong inter-municipality co-operation.

As already mentioned in the context section, the number of municipalities offering lower secondary education is very high. There are 500 municipalities with less than 2 000 inhabitants with schools offering lower secondary education. This corresponds to 7.7% of municipalities with less than 1 000 inhabitants and 61.3% of municipalities with between 1 000 and 2 000 inhabitants offering lower secondary education (see Table 2.4). Ensuring a sound financial basis and adequate administrative capacities to provide good quality lower secondary education in such small municipalities is likely to be a challenging task. As a comparison, the number of municipalities in Denmark and Finland, which are countries with a similar population size as the Slovak Republic, is only 98 and 336 respectively. The high number of small municipalities providing lower secondary education makes the establishment of size-efficiency at this educational level particularly challenging. In the light of the projected demographic decrease it is expected that the pressure to consolidate the school network will increase, as well as the pressure on small municipalities to establish co-operation for effective provision of lower secondary education.

Table 2.4. Municipalities providing lower secondary education, 2014

Size of municipalities (inhabitants)	Number of municipalities	Number of municipalities managing basic schools with lower secondary education	Proportion of municipalities managing basic schools with lower secondary education (%)
<= 1 000	1 907	146	7.7
> 1 000 and <= 2 000	578	354	61.3
> 2 000 and <= 3 000	183	171	93.4
> 3 000 and <= 4 000	63	63	100
> 4 000 and <= 5 000	41	40	97.6
> 5 000	155	155	100
Total	2 927	929	31.7

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

Also, with some general education secondary schools enrolling students younger than the typical school-leaving age of basic schools (8-year *gymnasiums*) the secondary and basic education sectors are competing for lower secondary students. The best performing students often leave basic schools providing lower secondary education to enrol in 8-year *gymnasiums* making it more challenging for municipalities to provide effective lower secondary education services in basic schools.

Upper secondary education faces a range of efficiency challenges

There are also specific efficiency challenges related to the provision of upper secondary education. In the year 2013 there were 246 general secondary schools (gymnasiums, including 8-year gymnasiums) attended by 76 711 students and 460 vocational secondary schools attended by 149 964 students, that is, the average size of general secondary schools in terms of student numbers was around 314, and that of vocational secondary schools around 346 (see Tables 1.4 and 1.5 of Chapter 1). More than 86% of upper secondary students were attending programmes leading to the school leaving examination (the Maturita), either in general or vocational education, which gives access to higher education. Upper secondary state education is provided by schools founded by the self-governing regions, although approximately 40% of general secondary schools and 20% of vocational secondary schools are run either by churches or private entities.

Programme-level planning is missing in vocational secondary education and little tracking of graduates is undertaken

Secondary vocational education is one of the few fields where the isolation of subsystems has been diminished with the integration of the earlier upper secondary specialised schools (SOŠ, stredné odborné školy) with practical secondary vocational schools (SOU, stredné odborné učilištia) which are now all named secondary vocational schools. The differences between these two previous subsystems are now disappearing and an increasing number of schools which previously provided only upper secondary practical programmes are now also providing more general programmes (ReferNet Slovakia, 2011). This has opened an opportunity for increased efficiency through resource sharing, but it has also created new challenges, partly for those students used to make choices between institutions (rather than between programmes) and for those users who try to better connect vocational secondary education with labour market needs. The OECD review team noticed during the visit that the labour market relevance of secondary vocational education is typically considered at the level of institutions or types of institutions and not at the level of specific programmes which is unsuitable when schools are offering various parallel programmes. There seems to be a need for a shift both in user orientation and in provision planning from the level of institutions (schools) to the level of specific programmes.

Aligning secondary VET outputs with the skills needs of the world of work is particularly difficult in the absence of programme level planning and co-ordination. This is possibly one of the causes of the too rapid decrease of enrolment in practical programmes (ISCED 3C) which has often been criticised by employers (ReferNet Slovakia, 2011). If employers only see the institution (school) level and do not see the programme level, the possibility of the former influencing the content of the programmes and, in general, the output of secondary VET remains too limited. Most decision-makers in secondary VET still seem to think in terms of a network of schools instead of a network of programmes. This can be, however, counterbalanced by the increased autonomy of secondary VET institutions in determining the content of their programmes but only if they actively involve the social partners, especially employers, into the design and development of curricula which has already become a normal practice in many VET schools (ReferNet Slovakia, 2011). There are, however, some promising developments in this area. According to the 2013 ReferNet report on VET in Slovakia "indication of VET programmes offering an insufficient number of graduates and programmes featuring a surplus of graduates on the labour market is being developed as a proxy for reducing a mismatch between supply and demand on the labour market." The report also mentions that "a list of respective study and training programmes has been already developed in partnership with social partners (...) to assist in regulation of numbers of classes and study programmes in 2015/16" (ReferNet Slovakia, 2013).

A major source of inefficiency at the level of secondary VET is the lack of systematic programme tracking of graduates. Many secondary VET schools have very little knowledge about what happens with their students after they leave the school and enter the labour market. Apparently the recognition of the key role of this type of information in programme or network planning is still missing among decision-makers. As analysed by Fazekas and Kurekova (2016), these data gaps also prevent informed policy decisions and undermine informed student choice.

There is little synergy between vocational and general secondary programmes

While the isolation of subsystems has diminished at the level of vocational secondary education it still exists between the general and the vocational secondary subsystems. The OECD review team did not see examples of schools providing both general and vocational upper secondary programmes which could offer possibilities for students to move between the two tracks and also for teachers to use their competences in both fields. Although the self-governing regions have a general responsibility for running upper secondary schools the general and the vocational subsystems operate quite isolated from each other and the OECD review team could not sense any intention to get the two subsystems closer to each other. Also, as concluded by Fazekas and Kurekova (2016), vocational programmes in the Slovak Republic are not adequately geared towards supporting general skills development.

Regional co-operation between VET providers is weak

The relatively weak planning and co-ordinating capacity of self-governing regions seems to be one of the factors that may hinder efforts to make the vocational training system more efficient and more responsive to regional labour market needs. Similarly to other Central and Eastern European countries (see Box 2.1) the Slovak Republic also started the process of establishing larger regional vocational training centres with the aim of improving the internal (financial) and external (labour market) efficiency of the training system. This process has, however, been slower than in some other countries, partly because of certain regional actors being "cautious taking into account risks of conflicts between VET schools selected for upgrading into centres and those not selected in terms of financing and attracting students" (ReferNet Slovakia, 2010), partly because this process seems not to have a real "owner". However, the new 2015 Act on vocational education and training, as it strengthens the role of self-governing regions in determining the supply of VET programmes, is expected to bring improvements to regional co-ordination in VET provision.

Box 2.1. The establishment of regional vocational training centres in Lithuania

Lithuania, as one of the Eastern and Central European countries which inherited a large network of technical and vocational schools, many of them very small, started a restructuring programme at the beginning of the 2000s. The aim was to establish "multifunctional regional vocational training centres". The creation of the regional centres was started with merging training institutions in a given region. Originally the goal of transforming some of these new centres into post-secondary training institutions was also pursued but this was later rejected (Methodological Centre for VET, 2003). Following the access of the country to the European Union (EU) the process of regionalising VET provision was supported by development interventions in the framework of EU funded structural operations. The mergers led to a significant reduction of the number of VET schools. By 2008 13 vocational schools operating as regional centres had been granted self-governing status with increased budgetary autonomy. This allowed them to attract "a variety of stakeholders in the management (enterprises, regional and municipal government representatives, etc.)" which also helped "to improve the relationship with employers and has strengthened the standing of VET" (Methodological Centre for VET, 2008). During the last one-and-a-half decade similar programmes were launched also in other Eastern and Central European EU member countries.

The creation of regional training centres seems to depend strongly on the willingness of a number of partners to co-operate, such as sectoral employer organisations, regional self-governments, regional state authorities and the schools themselves. According to a ReferNet report there were 13 pilot centres in 2010 operating in the fields of motors trades and repairs, engineering, construction, forestry and electrical engineering (ReferNet Slovakia, 2010). Regional VET councils, "affiliated with the self-governing regions" (ReferNet Slovakia, 2011) might play a key role in accelerating this process but this can happen only if the planning and co-ordinating capacity of regional self-governments becomes stronger.

The provision of special needs education is inefficient

A further case of isolation of a subsystem concerns the field of special needs education. In the context section above the OECD review team stressed the relatively high number of SEN students in the Slovak Republic and also the relatively high proportion of those who are educated in a separate setting. Since the education of SEN students, by nature, is expensive, the way SEN categories are defined, the way actual decisions to place individual students into these categories are taken and also the forms special education provision can take are among the greatest efficiency challenges in all school systems, including that of the Slovak Republic.

The fact that, while the administration of mainstream schools has been transferred to municipalities and regional self-governments, the system of special education schools has remained under direct state supervision is understandable, given the much lower sensitivity of local providers for this specific area, their limited capacity to assure the highly professional services that are typically needed in this sector, and the high level of specialisation which requires a national scale of operation. This has created, however, a major challenge through disconnecting almost entirely the subsystem of special needs schools from the mainstream systems. This disconnection makes it particularly difficult to develop strategies for inclusive or integrated education which can be realised only through intensive daily interactions between the institutions and the practitioners of special needs schools and mainstream schools. The dominant European trend is to move towards more integrated education and this is accompanied by the functional transformation of special needs schools from primary service providers to SEN students to providers of professional support for mainstream schools inclusively educating students with special educational needs. The administrative separation of special needs schools from the mainstream sectors seems to be a major obstacle to the development of inclusive education not only in quantitative but also in qualitative terms.

The OECD review team formed the impression that, on the one hand, SEN practitioners and schools are less interested in giving direct support to mainstream practitioners and schools in the Slovak Republic than in other countries and, on the other hand, mainstream practitioners and schools are less prepared to provide quality education in inclusive settings than in those countries where this is actively supported by SEN practitioners and schools. Although the number of SEN students educated in mainstream schools is increasing, thanks to the existing financial incentives and to the interventions of those who protect human rights and fight against discrimination, this has often created formal and authentic integration. In its interviews, the OECD review team heard criticisms by teachers in mainstream schools who expressed difficulties coping with the presence of SEN children in their classes. The experiences of other countries show that the capacity of

mainstream schools to provide high quality inclusive education can be created only if SEN and mainstream schools and teachers are in a daily intensive interaction and this can be created only if these sectors are not administratively isolated.

The relative isolation of the system of special needs schools from mainstream institutions has to be assessed in light of what is said above, in the section on contextual factors, about the increasing number of Roma children and their disproportionate placement in SEN schools. This practice is based on the judgments of expert committees which decide on individual cases on the basis of established criteria and principles, which are deeply rooted in the professional knowledge (and, inevitably, also beliefs) of the national SEN profession and which are strongly determined by the perceived pedagogical reality of mainstream schools. The relative isolation of special education schools, enrolling a large proportion of Roma children, from mainstream schools leads to poor communication between the professionals of the two sectors. As a consequence, the use of the expertise of professionals based in special education schools to enhance integration is probably much more limited than in those countries where the two sectors are better connected and where special schools' professionals work together, on a daily basis, with their colleagues in mainstream schools. The limited role of special schools' professionals in improving the capacities of mainstream education to become more inclusive might be a major bottleneck for the promotion of effective inclusion in the Slovak Republic.

Also, as analysed in Chapter 3, the significant recent increase of students categorised as having special educational needs which followed the introduction of a funding formula with a funding premium for special needs students raises concerns about the potential limited transparency of the decision processes to determine whether or not a student has special educational needs. This issue has certainly negative implications in terms of costs per student in Slovak schools.

A positive development has been an amendment to the School Act approved on 30 June 2015 whereby the basis for attendance of a special school or a special class in a mainstream school is more clearly defined. More specifically, the amendment stipulates that socio-economic disadvantage cannot be the basis for attending a special school or a special class in a mainstream school. Such attendance is to be limited to students with a diagnosed medical disability. The amendment also stipulates that the Slovak State Schools Inspectorate is required to monitor Pedagogical and Psychological Consulting and Prevention Centres which are in charge of identifying student special educational needs. In its supervisory role the Inspectorate may mandate the improvement of practices of the Centres and can also impose sanctions on them. This amendment seeks to support the integration of socially disadvantaged student groups (such as Roma children) in mainstream schools and classes.

Equity remains a major concern

Socio-economic background has a strong impact on student performance

Disparities in the field of education are not only regional but also social. According to the 2012 PISA survey, the Slovak education system is among those where the impact of the socio-economic status of parents on student performance is among the highest and the proportion of resilient students⁴ is among the lowest (see also Chapter 1). While the OECD average of the percentage of variance explained by socio-economic status in mathematics performance was 14.8%, in the case of the Slovak Republic it was 24.6%, which was the

highest in the whole OECD area. And while the proportion of resilient students was 6.4% for the whole OECD area this percentage was only 3.9% in the Slovak Republic, which was the fourth lowest value (OECD, 2013).

There is little capacity to provide inclusive education

The low equity performance of the Slovak education system has many causes, some of them being certainly related to the low level of education spending mentioned earlier. But there are also structural causes related with the high level of structural differentiation and the isolation of the subsystems, as well as the low level capacity of the system to provide inclusive or integrated education. These latter two causes are strongly interrelated and they tend to reinforce each other, generating a vicious circle that leads to lower equity performance. The limited capacities of schools and teachers to provide integrated education, based on innovative pedagogies supporting teaching in heterogeneous classes, create constraints that push the system towards more structural differentiation (including both early tracking of students to basically different programmes, including with the option to join 8-year aymnasiums, and within-school tracking) and limited inclusion. But more structural differentiation and limited inclusion prevent the system learning those pedagogical approaches that allow effective teaching and learning in heterogeneous classes. In this context, especially when the system moves towards extended local and institutional autonomy, local actors tend to take decisions that lead to even higher levels of structural differentiation and exclusion which appear to them as effective solutions. Examples of this are the construction of modular schools close to segregated Roma communities and placing those children not deemed "ready" to enter Year 1 in the so-called Year 0. While it intends to provide some children with stronger foundations to start primary education, the latter practice tends to introduce inequality from an early age. It also raises concerns that Roma children might be particularly targeted.

The integration of the Roma community in mainstream education is limited

Similarly to other Central and Eastern European countries there is a tendency in the Slovak Republic to place Roma children in disproportionally high numbers into SEN classes and schools. Although these placements are done on the basis of the decision of an expert panel the outcome of the process is a practice of exclusion that is often criticised by Roma and other civil rights activists. This alleged discrimination has been subject to infringement proceedings launched by the European Commission in April 2015 against the Slovak Republic for non-compliance with the Racial Equality Directive (European Union Agency for Fundamental Rights, 2011) in its treatment of Roma school children. This has also been recognised by national authorities as a fundamental equity and rights issue which needs to be addressed (Office of the Ombudsman, 2013). The 30 June 2015 amendment to the School Act which stipulates that attendance of a special school or class is only for children with a diagnosed medical disability seeks to address this issue.

According to data from a 2010 household survey almost 20% of Roma students attended special classes in the Slovak Republic (UNDP, 2012a). This means that the proportion of SEN children was approximately twice as high among Roma students as in the total student population. Data from the same survey have also shown that almost two thirds of Roma children attending SEN schools were enrolled in institutions where there were only (or nearly only) Roma children and more than 90% of those attending SEN classes in mainstream schools were in classes with only Roma students (see Table 2.5). The lack of

Table 2.5. Proportion of Roma children studying in various school types and the ethnic composition of their classes/schools, survey data, 2010

	Mainstream basic school (%)	Special basic school (%)	Special class in a basic school (%)	Secondary vocational school (%)	Total (%)
Only (or nearly) Roma children	31.1	65.2	90.9	14.3	36.2
More Roma children than non-Roma	16.3	15.2	0.0	16.7	15.4
Approximately half Roma and half non-Roma children	15.6	14.4	9.1	21.4	16.4
More non-Roma children	32.2	3.0	0.0	33.3	26.0
Only (or nearly) non-Roma children	4.7	2.3	0.0	14.3	6.0
Individuals total	100.0	100.0	100.0	100.0	100.0

Source: UNDP (2012a), Report on the Living Conditions of Roma Households in Slovakia 2010, www.undp.org/content/dam/rbec/docs/Report-on-the-living-conditions-of-Roma-households-in-Slovakia-2010.pdf.

integration of Roma children also occurs within mainstream schools. The proportion of Roma children attending mainstream schools where the majority of classmates are Roma is the highest among all Central and Eastern European countries: according to data from a 2011 survey of the UNDP, the World Bank and the European Commission this was higher than 40% among the 7-15 year-old student population (UNDP, 2012b).

Socio-economic disadvantage and learning difficulties might still lead to attendance of special schools

The tendency to treat children with learning difficulties as "mentally disabled", that is, "medicalising" the socio-economic disadvantages is often seen by local actors as a solution to equity challenges but, on the longer term, these are further amplifying equity challenges. Unlike most other countries, the practice of "medicalising" the education of children with special education still exists in the Slovak Republic. The OECD review team saw strong indications of this when visiting a special needs education school: teachers were wearing white lab smocks and walls were decorated with medical pictures. All SEN children the OECD review team met at the school were Roma. Several of the children the OECD review team met at the school would probably receive education in regular classes in mainstream schools in most other education systems. Although the children met seemed to receive careful attention and teachers showed strong emotional commitment to take care of them, the almost complete isolation of these children from their mainstream colleagues certainly becomes a major obstacle to their future social integration. It is expected that the 30 June 2015 amendment to the School Act which limits the attendance of special schools and special classes in mainstream schools to children with a diagnosed medical disability will progressively eliminate the practice of "medicalising" socio-economic disadvantage.

Enrolment in pre-primary education is low

Pre-primary education enrolment is significantly lower in the Slovak Republic than in other countries of the Central and Eastern European region (see Chapter 1). This is related to insufficient supply in many municipalities, especially those inhabited by the Roma population and other disadvantaged social groups. According to the survey by the UNDP, the World Bank and the European Commission referred to above only 28% of the 3- to 6-year-old Roma children were attending pre-primary education in the Slovak Republic in 2011 (see Figure 2.4). Pre-primary education is financed by municipalities from their own budgets, and many of them do not have sufficient resources to expand this service. Since municipalities are not formally obliged to provide pre-primary education to all children

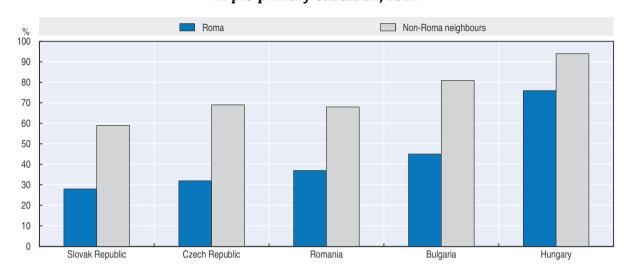


Figure 2.4. Participation of 3-6 year-old Roma and non-Roma children in pre-primary education, 2011

Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

even if they could afford it they do not always do it. The Ministry of Education has the intention of increasing investment in this area by allocating investment funds to individual municipalities based on a new subsidy mechanism. In 2015, EUR 14.5 million are being allocated from the state budget to the municipalities with the highest demand for pre-primary education provision. In the first round of this initiative, the Ministry is covering the extension of capacity in 113 municipalities with the creation of an additional 3 600 pre-primary places for children. Given a higher than expected number of applications by municipalities, the government intends to allocate additional resources to satisfy the remaining demand. EU funds are planned to substantially contribute to the increase in capacities for pre-primary education including in areas with significant Roma communities.

The provision of pre-primary education is not sufficiently integrated with the provision of primary education

The relative isolation of subsystems also characterises the provision of pre-primary education. The education of children below the school compulsory starting age has a low degree of integration with primary education. This is particularly reflected in the difference between the funding models used in the pre-primary education sector and in the basic and secondary education sectors. While schools are funded from the state budget through a formula, the public funding of pre-primary education is provided by municipalities from their own revenues, although they receive an allocation from the state budget within non-normative funding for children one year before the start of compulsory schooling (see Chapter 3). The difference in the funding models might discourage municipalities from organising pre-primary and school education as integrated services where resources can easily be shared. The fact that pre-primary services cannot benefit from resources allocated to basic schools (even if the same resources are shared between pre-primary and basic school services) and vice versa creates barriers to the provision of integrated services. The relative isolation of the pre-primary education sector from the school sector might be

one of the causes of the lack of appropriate provision of pre-primary education in the Slovak Republic. At the level of pre-primary education there is an increasing level of unsatisfied demand (the number of rejected applications grew from 1 760 in 2007 to 9 600 to 2013) and in light of demographic changes this trend is projected to continue in the short term (up to 2017) (Educational Policy Institute, 2015).

Co-ordination for educational regional planning is needed

The challenge of disconnected subsystems is strongly connected with the challenge of co-ordination. The OECD review team formed the impression that inefficiencies related to the management of the school network are rooted in a great part in co-ordination weaknesses. Co-ordination becomes a challenge in every system where subsystems operate under different political and administrative jurisdictions, which is the case in the Slovak Republic. The decentralisation process, leading to the emergence of increasingly autonomous and powerful local actors (self-governing regions, municipalities, school boards), raises the question of how to assure co-ordination in this new context of multilevel and multi-actor governance. Ideally decentralisation should be accompanied by the creation of new co-ordination mechanisms, adapted to the reality of the new governance context, including those covering the management of the school network. These new co-ordination mechanisms are apparently not yet sufficiently institutionalised, especially in the field of school network design.

When thinking about the possible new co-ordination mechanisms the challenge of regional differences in demographic and ethnic patterns has to be taken into account. The Slovak Republic is one of those countries where regional differences strongly determine the applicability of specific public policies and public management solutions, including in the education sector. The dispersion of regional GDP, an indicator of regional differences used by Ecostat, was 35.2%, in 2011, with only five other EU countries (Bulgaria, Estonia, Hungary, Latvia and Romania) having higher values, and the value of this indicator was 1.3 times higher than one decade ago, with no other EU country showing a similar increase (Ecostat data).⁵ This is accompanied by large regional differences in the level of labour market activity, unemployment and the balance between the demand for and the supply of skills. According to a regional analysis published by the OECD in 2014, the lowest level of unemployment, in some western regions, was 10% while in some eastern regions it was 18%. The same analysis identified significant differences also in skills supply and demand, with regions representing each of the existing patterns, that is "low skills equilibrium", "skills deficit", "skills surplus" and "high skills equilibrium" (OECD, 2014d). As stressed in the Country Background Report for this review "problems with capacities in basic schools are of regional nature" (Educational Policy Institute, 2015: 45) and this seems to be valid also for other subsystems and education levels, and not only for capacity but also for efficiency problems.

The regionalisation of planning of school provision is necessary in all countries but given the major regional differences this is particularly so in the Slovak Republic. The related political and administrative challenge is the allocation of responsibilities for regional planning. Regional planning can be done, theoretically, both by national and regional authorities, and both through technical/administrative and social/political processes, the two extremities being: i) technical/administrative regional planning by national authorities; and ii) social/political planning by regional authorities. The possible solutions in the education sector will be strongly determined by the current process of

public administration reform, as well as the institutional context of regional development, especially the use of EU regional development funds. During the visit, the OECD review team saw no serious reflection on how the regional planning of the school network should be institutionalised, how much this planning should be conceived as an administrative or as a social/political process, what role the autonomous local authority should play in this process and how planning in the education sector should be connected to the overall institutional framework of territorial development.

Processes to determine public funding eligibility need improvement

Similarly to other systems that are based on normative funding, especially those which allow private institutions to have access to public funding, the Slovak system faces the challenge of undertaking an adequate selection of those services and providers that should be eligible to receive public funding. This requires a continuous monitoring of the existing school registration and accreditation processes which assume the selection function and, on the basis of this, revising standards and the application of these standards when necessary. If this does not happen, funding claims by new services and providers may create unexpected burdens on the public purse (see also Chapter 3). Recent new entry by church and private schools, encouraged by the funding system, has resulted in smaller schools and class sizes and hence a higher cost school system with no evident increase in student learning outcomes (see Chapters 1 and 3). As shown in Figurex 1.A1.5 and 1.A1.6 in Annex 1.A1 of Chapter 1, school size and class size are smaller in church and private schools than in state schools (and much smaller in private schools) in a context in which a growing number of church and private schools are entering the school network (see Tables 1.2, 1.3, 1.4 and 1.5 of Chapter 1). On the basis of the evidence gained through the interviews, the OECD review team formed the view that the current process of accrediting providers and granting their registration in the network of publicly funded services does not provide enough guarantees public money is spent on services of high quality.

Revising standards and the application of these standards is a particularly difficult task because a balance has to be created between the need to adapt these in function of their observed impact, on the one hand, and the need for longer term stability and predictability, on the other hand. There is also a need to increase the transparency of accreditation and registration decisions. This is particularly valid regarding the decisions to register private providers into the publicly funded network as these decisions are, in all countries where public funding is allocated to private education providers, one possible source of corruption. Establishing high levels of transparency is generally seen as the most powerful instrument to avoid corruption in this area.

There is not enough attention to implementation aspects of education policy

A further challenge is that, similarly to other Central and Eastern European countries, there is a strong legalistic administrative tradition in the Slovak Republic shaped historically by the German legal tradition and reinforced, paradoxically, by the accession to the European Union (Liebert et al., 2013). This tradition is characterised by an overemphasis on the role of legal instruments in policymaking and a relative neglect of implementation aspects. This was illustrated during the interviews of the OECD review team. When talking about specific education problems and possible solutions to these problems the interlocutors of the OECD review team typically referred to legislative

documents under preparation and very rarely mentioned other "soft" policy instruments. References to instruments such as incentives, development interventions, and the use of feedback mechanisms or capacity building were seldom made.

A legalistic approach might be inadequate when the nature of the policy problem requires solutions applied gradually in function of the development of capacities or other contextual features. For example inclusive education of SEN children in mainstream schools can be successful only when a critical mass of teachers possesses the adequate competences which can be acquired only through professional learning. These are complex professional competences, learning them requires time, they spread across schools and among teachers only gradually and they cannot be mandated. An implication of this is that the spreading of inclusive education can be made only gradually, and this happens only if there is a sustained strong policy support for this process. A legalistic approach, which often forces teachers and schools to provide inclusive education from one day to another following the adoption of relevant legal rules and which does not provide strong and sustained professional support in the implementation phase cannot be successful in this and similar policy areas.

A specific challenge, strongly related with the legalistic administrative tradition, is the lack of or the limitations of impact analysis of policy interventions. As a document submitted a few years ago by the Slovak government to the European Commission in the framework of a social impact assessment peer review process stated: "the Slovak Republic has so far had little practical experience in the area of social impact assessment within the preparation of regulation proposals" (Alfoldiova, 2008). In fact, this statement could be made in all Central and Eastern European EU member countries. During the review visit, the OECD review team saw very few signs of legislative changes or other policy interventions being preceded or followed by careful impact evaluation. This impression has been particularly strengthened by the interaction of the OECD review team with the representatives of the education policy research community.

There are considerable challenges in making an effective use of EU structural funds

The use of EU structural funds for large scale development interventions requires specific management and implementation capacities which, similarly to other Central and Eastern European countries, are often missing in the Slovak Republic. A major challenge has been the ability to absorb and consume the EU structural and development funds made available to the country. According to a recent evaluation report, while the Slovak Republic was particularly successful in contracting out European Social Fund support for the 2007-13 programming period, the payment ratio⁶ was among the lowest in the Central and Eastern European region (KPMG, 2014). The same evaluation report mentions that the Slovak authorities took important measures to improve the management of the EU-funded operations but this might influence less the capacity to achieve long-term outcomes than a more effective achievement of shorter term outputs. Another evaluation mentioned the Slovak Republic as one of those countries where the "high bureaucratic burden associated with the projects" was causing implementation failures (Jedlička and Rzentarzewska, 2014). According to the calculations of a private think-tank, while the contracting ratio for all operational programmes (OPs) of the 2007-13 programming period was 66% by 2012, this was only 53% in the Education OP, and while the utilisation ratio was 31% for all OPs this was only 21% in the Education OP (Kuhn et al., 2012). By mid-April 2015, for the 2007-13 programming period, the Slovak Republic managed to spend only 66% of the total amount of available European funds for the Education OP which already resulted in the loss of some significant financial resources (it should be noted, however, that the deadline for the allocation of the funds has been extended to 31 December 2015).

A further challenge is the alignment of EU-funded development interventions with the overall sectoral strategies and a better diffusion of the results of the most successful programmes. As the 2014 EU Education and Training Monitor report on the Slovak Republic stresses "EU funds could be used more effectively to support educational reforms" and, in order to achieve this, "good practices piloted through EU-supported projects could be better mainstreamed and supported by national funding" (European Commission, 2014b).

Also, since the planning and the implementation of EU-funded programmes are regulated by the relevant legal documents of the European Union and they are increasingly used to support the implementation of common European strategies in the Member states, there is a challenge in linking these to specific national policy priorities and policy measures. Since education development programmes are part of broader human resource development programmes, this requires the effective collaboration of various ministries and national agencies and also that of national and regional actors. The evaluation of the longer-term impact of EU-funded development interventions is a major challenge given the general weakness of policy impact assessment capacity referred to above. These challenges are aggravated by the weak operational and project management capacity, especially when the focus of managing projects should be shifted from achieving short-term output results to realising longer-term real impact.

Policy recommendations

Further consolidate the school network through co-ordination across levels of school administration

Given the present considerable inefficiencies in the provision of education services (small schools and classes) and the ongoing demographic changes, the rationalisation of the school network is a clear policy priority. Developing planning capacity, co-ordination mechanisms and inter-municipal collaboration is cornerstone to creating a more efficient and equitable school network. This is elaborated below. The other major policy strategy is the establishment of stronger financial incentives for school rationalisation and class consolidation. This is elaborated in Chapter 3.

Make the best interest of students the guiding principle for school consolidation

It is clear that with the current demographic outlook of the Slovak Republic, school consolidation remains a top priority for education policy. There is still considerable room for efficiency gains through school consolidation. However, it is important to keep in mind that school consolidation should be about making optimal choices to ensure quality education for children. The objective should be to ensure that students' access to high quality education is not affected adversely by where they live.

Achieving efficiencies and ensuring public funding invested in education is having optimal impact is mainly about ensuring the highest possible quality of education for students with the available resources. It is therefore important that the focus is not on savings or a prioritisation of accessibility over quality. The key question in considering school consolidation must therefore be what is in the best interest of students. In some cases, closing the school may not be the best solution – the distance to travel may simply

not be practicable. However, in others consolidating educational provision on fewer sites will present wider opportunities for both students and teachers and steps should be taken to ensure this happens.

Consider a range of strategies to rationalise the school network

In the consolidation of the school network, in particular in small municipalities, the Slovak Republic can consider a number of different options (see Ares Abalde, 2014 for further considerations about these options):

- Closing or consolidating small schools. An option, especially for those small schools where the quality of the learning has been identified as deficient, is the closure of the school. Assessments could be conducted at the regional level, in the context of the regional planning platforms suggested below, to identify such schools. The assessment should consider the (financial, human and political) costs, feasibility and acceptability of different alternatives such as transporting students and housing them at boarding schools. Alternatively, consolidating schools with the reduction of services (e.g. a basic school providing only primary education instead of Year 1 to Year 9) will avoid their closure. This is in the spirit of the modular approach to school consolidation proposed below.
- Sharing of resources between nearby schools. Sharing of resources among schools, possibly belonging to different municipalities, is a practice followed in a number of countries, in which a group of schools located close to each other retain their individual identity and legal status (thus each will still have its own school leader and its own reporting requirements), but they agree to share specific resources to lower the cost and improve services rendered to students. Shared resources may include teachers (who would conduct lessons and other activities in more than one school), sport facilities (open to students from all schools participating in the collaboration), computer labs and similar. Box 2.2 provides an example of the sharing of resources among schools in the Flemish Community of Belgium.
- Clustering of schools. The clustering of schools involves the conversion of several nearby small schools into satellites of one educational institution with a single leadership team. This means that the legal status of smaller schools is changed, and only one school leader of the central school will manage the operations of all satellite establishments. Similarly, there is only one budget for the whole school cluster encompassing the central school and the satellite schools. This institutional structure allows not only transportation of satellite school students to the central school, but also travel of central school teachers to satellite establishments to conduct classes there, for example on specific school days. Moreover decisions need to be taken about the location of new education resources, such as teacher working time or equipment: whether they are more efficiently used in the central school or in the satellites. Similarly, it is necessary to decide for each satellite school which years will be taught there. Since this is typically the autonomous decision of the school leader, significant flexibility in the use of resources may be achieved under this arrangement. Box 2.2 provides the example of school consolidation in Portugal which was greatly based on the creation of school clusters.

Box 2.2. "Communities of schools" in Belgium (Flemish Community) and school clusters in Portugal

In the Flemish Community of Belgium, communities of schools for primary and secondary education have been promoted by the government, starting in 1999. The objective was to make schools work in collaboration by sharing resources, rationalise the supply of courses and promote cost savings across schools. The government's aspirations were that this new system would enable the enhancement of student guidance systems, particularly in relation to their educational career trajectories; the lessening of the managerial-administrative burden on school directors so that they become pedagogical leaders; the increased use of ICT; and the rationalisation of resource use both in relation to staff recruitment, functioning and evaluation and in relation to co-operation in curriculum. The government incentivises participation of schools in these communities by allocating additional staffing and other resources (e.g. "envelopes" of teaching hours) specifically to be used through collective decision making processes established freely by the communities of schools. Overall, communities of schools have been successful in strengthening co-operation in an environment based on school choice and competition. The evaluation undertaken for secondary school communities shows that communities have strengthened co-operation in developing common personnel policies and policies to allocate human resources across the schools involved and there seems to be informal co-operation with other school levels such as primary schools and special education. Yet there is still scope for co-operation in rationalising education supply and infrastructure across schools and in providing effective guidance for students. The OECD Review of school leadership provides several country examples of school collaboration (see Pont et al., 2008, Table 2.1: 57).

In Portugal, about 2 500 schools closed between 2005 and 2008 compared with 1 000 in the previous 10 years. Rural areas were dominated by small schools with poor facilities, while urban areas had overcrowded schools with double shift education. Research showed inefficiencies, lower academic performance in smaller schools, higher teacher turnover and variable quality in rural areas. The government determined that small schools with year repetition rates higher than the national average were to be closed during 2005/06 and clusters of schools should be created. The reorganisation and redeployment programme had several instrumental features: i) there was a clear central vision about what type of schools should replace the closing schools, which were larger school centres with a minimum of 150 students at more than one level and full-day school with extracurricular activities; ii) it was recognised that parents needed to be convinced that the outcomes for them and their children would be better and incentives, including free transportation, were provided; iii) municipalities needed incentives to invest in new provision; and iv) the consultation and decision making processes needed to be applied carefully as previous attempts to close schools had failed. In general, the reorganisation process brought about innovations and improved efficiency of the schools, reduced isolation of teachers, improved socialisation of underprivileged or isolated students, and fostered a collaborative approach between the Ministry of Education (centrally and regionally), municipalities, schools and other stakeholders (Ares Abalde, 2014).

Sources: Pont, B., D. Nusche and H. Moorman (2008), Improving School Leadership, Volume 1: Policy and Practice, http://dx.doi.org/10.1787/9789264044715-en; and Ares Abalde, M. (2014), "School Size Policies: A Literature Review", OECD Education Working Papers, No. 106, http://dx.doi.org/10.1787/5jxt472ddkjl-en.

Introduce effective co-ordination and planning mechanisms to manage the school network

Given the current efficiency challenges in managing the school network, the establishment of a systematic strategic reflection on the development of institutional mechanisms for school network co-ordination and planning is suggested. The regional differences stressed in the previous section and the specificities of each region imply that the strategic reflection on effective school network co-ordination and planning should have a strong regional dimension with the general goal of "regionalising" school network design and planning.

The strategic reflection on effective regional school network co-ordination and planning should raise the question of the nature of the planning process, as well as the role of self-governing regions and municipalities in the process. The OECD review team considers that regional school network planning, given the key role of self-governing regions and municipalities as founders of schools, should increasingly be a process based on social consultation and deliberation, that is, it cannot be purely a technical/administrative process managed fully by the national authorities and their regional units (regional state authorities). It is assumed that a systematic strategic reflection on regional school network co-ordination and planning will lead to the recognition of the need to create a regional planning platform.

The creation of regional planning platforms covering all levels of school education, with the involvement of all relevant stakeholders (including municipalities, self-governing regions, the regional representatives of the world of work, regional state authorities and also the representatives of national authorities) could be a first step towards improving co-ordination of decisions concerning the school network. The OECD review team recommends the creation of such a planning platform initially in one or two self-governing regions, on the basis of voluntary participation. These pilots could test one or two models of regional planning of school education and, on the basis of a few years of experience, a national framework of regional educational planning could be established, supported by relevant legislation. It is important to stress that this process should not be an isolated education sector exercise but should be strongly connected to the overall system of regional development. It is also important that the development of regional planning of education is followed, in its pilot period, by continuous monitoring and supported by research, both feeding a national debate on the role of regional co-ordination in school education. This should be supported by the development of relevant analytical capacities in order to make planning an intelligent process supporting innovative solutions and evidence based policymaking.

Improved regional educational planning could benefit from the strengthening of the role of the education offices of the regional state authorities. An obstacle to this, however, is the recent integration of the regional education sector administrative services into the regional state authorities which are subordinated to the Ministry of Interior (and not the Ministry of Education). This is likely to hinder the potential of education offices of the regional state authorities for playing a key co-ordination role in regional planning. Given the importance of educational planning at the regional level in the Slovak Republic, bringing back regional education offices representing the state to the subordination of the Ministry of Education could be reconsidered.

The OECD review team sees two possible scenarios for the future development of regional co-ordination and planning. In one scenario of the regionalisation of school network design, planning remains the remit of the national Ministry and its regional units (regional state authorities) and the self-governing regions and municipalities play only a consultative role. This could be called the "nationalised regional planning scenario". In the second scenario self-governing regions become the key players, with significant co-ordination responsibilities and gaining control over the planning process. This could be called the "nationally-supported regional planning scenario". The term "nationally-supported" is important to underline that even if the second scenario is realised, the national authorities (the Ministry of Education and the regional state authorities) must have a strong role of co-ordination, support and capacity building. In the second scenario the co-ordination and planning potential of self-governing regions can be realised and effective policy outcomes can be expected only if the Ministry of Education provides strong support to the regional planners through appropriate guidelines, data, monitoring and, where appropriate, direct interventions.

The OECD review team expects that in both scenarios the Ministry of Education remains the strongest player in the field of school network design and planning even if the actual processes of regionalisation are different in these scenarios. The role and the responsibility of local municipalities are also expected to become stronger in both scenarios. The planning process should also encourage more horizontal co-operation between municipalities, especially in the case of those of smaller size, in both scenarios (see below).

The planning at the regional level could involve, among other things:

- A prospective analysis of needs for education services within the region: the demand (i.e. potential enrolment, preferences of students); the supply (i.e. capacity constraints, quality); and the current and future trends and needs of the region's economy and society. This should involve an assessment of the long-term infrastructure needs in light of the prospective demand and regional development objectives.
- An analysis of inefficiencies in education provision within the region, including through the identification of instances of high unit costs and low quality of education provision.
- Mandatory agreements between school founders (self-governing regions, municipalities, regional state authorities) establishing principles for the provision of school services (e.g. quality standards, minimum school size, minimum class size, maximum distance for a student to travel to school, sharing of resources, basis for establishing school clusters).
- The creation of incentives for voluntary collaboration between school founders (e.g. between municipalities, between regions and regional state authorities for the provision of education special needs services).
- The facilitation of bilateral or multilateral agreements between school founders to establish school mergers, school clusters and the sharing of resources.

Build synergies across education subsystems

The OECD review team considers that the efficiency of the Slovak education system could be significantly increased though diminishing the relative isolation of its subsystems and through encouraging more resource sharing (including human, financial and also knowledge resources) between them. More resource sharing could be realised between: i) pre-primary education and basic education; ii) special needs schools and mainstream

schools; iii) lower secondary and upper secondary education; and iv) general secondary and vocational secondary education. This requires institutional frameworks, including administrative frameworks that enhance connections and interactions between the subsystems. This could be realised, among other things, through:

- Bringing together the funding models for pre-primary education and basic education.
- Transferring the responsibility of SEN schools to larger urban municipalities and self-governing regions, possibly with the exception of some more specialised schools which need a national scale.
- Establishing regional planning mechanisms covering both lower and upper secondary education.
- Encouraging the emergence of upper secondary institutions providing both general and VET programmes.

Encourage co-operation among municipalities

The regional planning processes should also encourage more horizontal co-operation between municipalities, especially in the case of those of smaller size. Much of the potential efficiency gains of a better planned school network will occur at the lower secondary education level, which is offered by municipalities. At present, inter-municipal co-operation is not facilitated due to weak regional co-ordination and the strong role of municipalities and school directors, making co-operation for jointly provided educational or connected services very rare. Regional co-operation through the regional planning platforms suggested above might be a good arrangement to encourage inter-municipal collaboration for the provision of school services, such as co-management of basic schools across municipalities, improving transportation services and the common use of various facilities, joint purchasing, school maintenance, improving the access to professional services, etc. Box 2.3 below provides an

Box 2.3. Municipal networks for efficiency and improvement in Norway

Policymaking in Norway is characterised by a high level of respect for local ownership. School owners and schools have a high degree of autonomy regarding school policies, curriculum development and evaluation and assessment. In such a decentralised system, it is essential that different actors co-operate to share and spread good practice and thereby facilitate system learning and improvement. Networking is a common form of organisation among municipalities in Norway and there are a range of good examples where networks and partnerships have been established between different actors as a means to take collective responsibility for quality evaluation and improvement. In Norway, there are many examples of localised collaboration initiatives launched and developed by small clusters of municipalities. As an example, in 2002, in Norway, the Association of Local and Regional Authorities (KS), the Ministry of Labour and Government Administration, and the Ministry of Local Government and Regional Development set up "municipal networks for efficiency and improvement" that offer quality monitoring tools for municipal use and provide a platform for municipalities to share experience, compare data and evaluate different ways of service delivery in different sectors. For the education sector, an agreement was established between KS and the Directorate for Education and Training to allow the networks to use results from the user surveys that are part of the national quality assessment system.

Source: Nusche, D. et al. (2011), OECD Reviews of Evaluation and Assessment in Education: Norway 2011, http://dx.doi.org/10.1787/9789264117006-en.

example of arrangements for municipal co-operation in Norway (see also Wilkoszewski and Sundby, 2014, for a description of consultation approaches between the central government and municipalities in Norway). This could be undertaken in the context of the joint provision by small municipalities of broader public services as recommended by the 2014 OECD Economic Survey of the Slovak Republic (OECD, 2014c).

Use a modular approach to the co-ordination and planning of the school network

One of the conditions for more effective co-ordination and management of the school network is a sound definition of "school network". The OECD review team proposes a broad definition of this term, so that it includes all publicly funded educational services and supports what might be called "modular thinking". The school network consists not only of single entire schools that can be opened or closed but also of the wide range of education services that can be not only opened and closed, but also reduced and extended, combined and restructured or moved from one provider to another.

The OECD review team has often heard discourses about "closing schools" although in many cases the reduction of services would not necessarily imply the closing of whole institutions. The OECD review team recommends a more "modular" thinking on education policy solutions which allows the use of rationalisation techniques not in terms of whole institutions but in terms of specific services within these institutions. For example, instead of closing schools, decision-makers can consider reorganising local provision so that pre-primary classes are provided alongside primary classes (i.e. at the same school), which would facilitate the provision of education services in smaller municipalities possibly in a context where the maintenance of a full nine-year basic school is financially not sustainable. Making a clear distinction between the primary and lower secondary education levels would also reflect this "modular" thinking. Similarly, in the case of secondary VET it is suggested that thinking shifts from "institutions" to "programmes within institutions".

In the Slovak Republic, the flexible "modular" thinking on the school network is already supported by the possibility of operating basic schools with less than nine school years and providing pre-primary education alongside primary classes. The repertoire of these flexible solutions should be enriched, including solutions at higher educational levels, such as integrated vocational and general upper secondary schools. As the modularity of the system increases the possibility and the feasibility of effective reorganisations and structural adaptations will also increase.

Expand inclusive education for students with special needs by adjusting the functions of special needs schools

The OECD review team believes that the expansion of effective inclusive education will require a well elaborated strategy with several interrelated components. There are at least two key components of this strategy that are worth stressing here. One is encouraging SEN service providers (in SEN schools) to develop a new function of supporting both students with special needs being educated inclusively in mainstream schools and teachers providing inclusive education in these schools. The example of countries, such as Germany, where the number of special schools is high, and the growing demand for mainstream placements has led to rethink the role of special schools' staff, might be relevant for the Slovak Republic. In Germany an increasing number of special schools' teachers are spending part of their working time in mainstream schools not only directly

supporting children but also providing consultancy to class teachers (NESSE, 2012). Hungary, where EU funds have been massively used to transform special schools into regional support centres, is also an interesting case to study.

Turning special schools into methodological centres providing support to mainstream schools is a highly complex process of institutional change, which requires serious adaptive capacities from SEN professionals and schools and it can be implemented only slowly and gradually through pilot development projects based on voluntary participation and through the spreading of successful practices. The experiences of countries where SEN schools have been successfully transformed into methodological support centres for mainstream schools should be made available for decision makers and institutional level practitioners in the Slovak Republic. This process could use as a major asset the participation of the Slovak Republic in the work of the European Agency for Special Needs and Inclusive Education which collected a significant amount of experience and examples of good practice in the field of turning schools into institutions that are capable of providing genuine inclusive education.

The second key component of a strategy for inclusive education is enabling mainstream schools to provide effective inclusive education. This is also a slow and gradual process which, however, can be significantly accelerated by massive and effective capacity building. The practice of inclusive education requires major changes both in the professional competences and the attitudes of mainstream teachers. Only teachers capable of using a rich repertoire of innovative teaching methods and capable of creating learning environments that support personalised teaching and learning can achieve successful inclusive education. This requires a supportive institutional context characterised by an organisational culture which supports diversity and pedagogical innovations. Successful inclusive education can be realised only if massive capacity building in mainstream schools creates new capacities in these institutions and in their teachers to manage effectively classes where students with and without special needs are educated together. Institutions responsible for initial and continuous teacher education, including those providing specialised forms of training linked with specific development interventions should be strongly involved in this process.

Extracurricular activities should remain an important component of school network planning

Using the broader definition of "school network" provided earlier, the publicly funded extracurricular activities (school clubs and free time centres) are seen as part of the school network, that is, designing and planning the network should cover also these activities. In general, the OECD review team considers that the richness of extracurricular activities is a positive feature of the Slovak school system, contributing significantly to the production of social capital. A more elaborated and more effective design and planning of the school network should not lead to the weakening of these services although public funding in this area should be better targeted to those social groups that need it the most and further private contributions could be expected from more advantaged households.

Improve the processes determining public funding eligibility

In the decentralised context where the allocation of public funding to private providers and where the contribution of private partners (e.g. parents, employers) to pay for some components of public services is a normal practice, there is an increasing need to

establish a high level of transparency. This can be supported by the establishment of quality standards and through various quality evaluation development procedures. Decentralisation should also go together with continuously strengthening integrity and fighting corruption. The system of governance based on local and institutional autonomy (combined with strong national strategic steering) will be sustainable only if it is capable of achieving integrity. One possible way to achieve this goal could be to conduct an integrity assessment of the education system covering all operations and functions that allow room for corruption practices.

The current rules for accrediting schools into the school network or excluding them should gradually be made more flexible so that the nature of these decisions (allocating public funding for services provided by various providers) becomes clearer. Decisions on allocating public funding to education services should increasingly depend on needs analysis and quality assessment. Only services of proved quality should get public funding and only new services whose need has been identified should be allowed to become part of the school network. In addition, some specific requirements for operation should be re-defined for schools to enter the publicly-subsidised school network. For instance, as suggested in Chapter 3, sufficiently high minimum school size and minimum class size should be maintained for schools to enter the school network so that new schools do not increase the public unit cost of education as has been the case in recent years with the high number of private schools entering the school network with much lower class sizes than state schools.

The OECD review team proposes that, in function of the further development of the national evaluation and assessment framework – in line with the analysis and the recommendations of the associated recent OECD review (Shewbridge et al., 2014) – quality requirements are increasingly taken into account when decisions are made about the allocation or withdrawal of public funding for education services. This requires the development of relevant quality standards and effective tools to analyse current and future needs. Decisions on school mergers and reorganisations should be preceded by careful school evaluation revealing the strengths and weaknesses of particular institutions in order to avoid the loss of organisational values. The political nature of resource allocation decisions makes the involvement of relevant social partners particularly important.

Give careful attention to equity objectives as efficiency policies are implemented

In light of the low equity performance of the Slovak school system it is essential that the equity dimension remains a key feature of school network design and planning. There is a need for a continuous monitoring of the equity implications of all restructuring or rationalisation decisions. The specific needs of the socially-disadvantaged groups have to be considered and the implications of rationalisation measures especially for the integration of the Roma minority and the inclusion of students with special education needs have to be carefully analysed. It is proposed that this dimension receives the greatest attention when creating the new institutional frameworks for effective network design and planning with guarantees such as the participation of the representatives of the most vulnerable groups or the obligation of adding an equity clause to each restructuring or rationalising measure. Some service components, such as the employment of Roma teaching assistants should benefit from special protection when restructuring or rationalising measures are implemented.

More generally, there is a need for further effective equity-oriented initiatives. For example, procedures to assess the special needs of students and categorise them should be reviewed. The objective is to improve the identification of those students who should attend special needs services and ensure socio-economic disadvantage is not "medicalised". This is the natural corollary to the 30 June 2015 amendment to the School Act that stipulates that only students with an identified disability should attend a special school or a special class in a mainstream school. A clear protocol to identify the special needs of students should be established and become the basis for the supervision of the State Schools Inspectorate to the services provided by Pedagogical and Psychological Consulting and Prevention Centres.

This should be accompanied with intensive capacity development programmes for mainstream teachers in order to improve their skills to use advanced pedagogical methods enhancing work in heterogeneous student groups and more personalised teaching (see also below, in relation to the use of EU funds). In this spirit, the government should reconsider the permission given to schools to create a Year 0 for those students who are deemed not ready to attend Year 1. Bringing children up to the level required in Year 1 can be accomplished with extra individual support in Year 1, for instance through extra instruction by regular teachers or extra help by teaching assistants within the classroom. This would avoid the potential stigmatisation associated with Year 0, prevent children from falling behind at an early age and grant more equal opportunities for disadvantaged children as they start school (by providing extra resources to children with extra needs). Also, as recommended previously by the OECD, the government should make steps to delay the age at which first selection into education tracks is made (OECD, 2007; OECD, 2012). The intention to limit access to 8-year aymnasiums to at most 5% of the students who complete primary education (now planned to be introduced in 2016-17) is narrow in its scope and risks strengthening the elitist character of 8-year gymnasiums.

The OECD review team also recommends that all initiatives aimed at improving the efficiency of resource use should give specific attention to the Slovak Republic's strategy for the integration of the Roma community (Government of the Slovak Republic, 2011). One of the key components of this strategy is the establishment of relevant indicators and the regular monitoring based on these indicators. In general the principles of the early school leaving strategy of the European Union⁸ can be applied in this area, including the combination of measures of prevention, intervention and compensation and the use of macro- and micro-level data to support the evidence-based policy approach. The careful impact analysis of development interventions in this area is particularly important.

Also, as recommended by an OECD review on the Slovak VET system, the government should use VET in general, and work-based learning and recognition of informal learning in particular, to integrate groups at risk, including the Roma, into the labour market. This should be accompanied by the expansion of second-chance education opportunities based on provision of formal certification and on-the-job learning (Fazekas and Kurekova, 2016).

Strengthen capacity at all governance levels

Evaluating system efficiency and designing policy interventions to improve efficiency are extremely complex endeavours that require both advanced analytical capacities and the availability of relevant data. Strengthening analytical capacities is a key element of the public administration reform in the Slovak Republic, also strongly supported by the relevant OECD documents (OECD, 2014b). In several specific cases the OECD review team

had the impression that the simple development of cognitive models that describe policy challenges and support policy interventions or the use of more sophisticated technical solutions could lead to significant improvement.

In the Slovak Republic, there are considerable efforts to develop databases that can support policy decisions. The quality of the data on education will be improving with the transition to a data collection system based on student- and teacher-level data (planned for September 2015). There are, however, some areas where enriching the database could lead to significant efficiency improvements. The OECD review team recommends, for example, the gradual development of a programme level graduate tracking survey system for secondary VET and the use of such data to support local and regional decisions on specific VET programme capacities (as also strongly recommended in Fazekas and Kurekova, 2016). The strengthening of regional planning and the increasing role of regional stakeholders in this process will create new demands for new and better regional data which will have to be made available also for the regional and local stakeholders involved in planning processes. Analytical capacities should be strengthened not only at the national level but also at the level of self-governing regions and larger cities responsible for larger local school systems. The development of the analytical and planning capacities of self-governing regions and larger cities could be supported by special development interventions either in the framework of EU-funded development programmes of the education sector or in the framework of the programmes targeted at supporting administrative and public management capacities. An interesting model is the Local Learning initiative in Germany (see Box 2.4). In general, capacity building should become a key policy instrument in a policy environment where, as in the Slovak Republic, the decisions of local players have an increasing impact on policy outcomes. This should reach not only self-governing regions and local municipalities but also institutional level "lay" actors, such as the members of schools boards.

Place more emphasis on the implementation aspects of education policy

There is a clear need in the Slovak Republic to widen the repertoire of policy instruments and to go beyond legal regulations and mandatory solutions whenever possible. There are many policy goals that require the use of more sophisticated, often "soft" policy instruments. For example the change of regulations which are now making schools responsible for the development of their own pedagogical profile and curriculum in accordance with their local context will not automatically make these schools capable of assuming this new task nor will it automatically make teachers ready to teach according to the revised curricula. This not only requires strong support mechanisms and capacity building but also the acceptance that some schools will become capable of developing effective school-based curriculum quicker than other schools. This requires greater flexibility in regulations allowing some schools to develop faster than others while targeting support to those that are still lacking the appropriate capacities. In general there is a need to shift the focus of education policymaking from the adoption of legal texts to the implementation processes and to strengthen the "implementation intelligence" of the education policy system. Strengthening the role of ex ante and ex post impact assessment is one possible way to do this (see below).

Box 2.4. The Local Learning initiative in Germany

The "Local Learning" initiative (Lernen vor Ort – LvO) programme was initiated in 2009 by the German Federal Ministry for Education and Research. The aim of the programme is to enable local policy makers in municipalities and cities to develop a coherent education management approach. The focus is on local capacity building. It is expected that the participating local municipalities and cities will have increased managerial and problem solving capacities, including the use of data for enhanced evidence-based policymaking.

The programme addresses not only the questions of classical education, but also issues related to lifelong learning and employability. According to the Federal Ministry for Education and Research the specific goals are:

- Increase the participation in education.
- Improve employability.
- Improve quality and quantity of education and training options at the local level.
- Make the education system and its offers more transparent to its users.
- Improve the transition across various education phases.
- Increase the access to education.
- Strengthen the democratic culture.
- Tackle the challenges of demographic change.

The programme is co-funded by the European Social Fund (more than EUR 100 million for 6 years). The programme attracted substantial interest among the municipalities: about half of all 407 German districts and independent cities applied for participation. About 40 of these were selected through a nationwide competition and are participating in the framework. After the end of the main phase of the programme in 2014, the municipalities are expected to continue the activities through their own funds.

Sources: Busemeyer, M. and J. Vossiek (2015), "Reforming Education Governance Through Local Capacity-building: A Case Study of the 'Learning Locally' Programme in Germany", http://dx.doi.org/10.1787/5js6bhl2mxjg-en; and Wilkoszewski, H. and E. Sundby (2014), "Steering from the Centre: New Modes of Governance in Multi-level Education Systems", http://dx.doi.org/10.1787/5jxswcfs4s5g-en.

Strengthen the impact assessment of policy interventions

There seems to be a strong need to strengthen the impact assessment of policy interventions in the education sector in the Slovak Republic. The development interventions co-funded by the European Union could provide a favourable context for such efforts, not only given the fact that impact assessment is a formal requirement in the case of EU development support but also that the European Commission can provide a theoretical and practical basis for this. It is important to stress in this context that given the complexity of policy interventions in the social areas, including education, preliminary considerations, even if they are based on rich evidence and hard data, cannot provide sufficiently reliable answers to policy questions. Beyond *ex ante* evaluations typically based on intervention theories, and beyond *ex post* evaluations based on data gained from the monitoring of actual interventions, there is a strong need to also use pilots and experimentations to check the feasibility and assess the impact of policies and interventions.

"Experimental verification" is already recognised in the Slovak Republic as a way to introduce changes, including new organisational forms of providing education and it is conceived as a process regulated by the Ministry of Education (Educational Policy Institute, 2015). The OECD review team recommends the further strengthening of this approach and the continuous consideration, whenever feasible, of the use of pilots in the case of the adoption of policies that require major behavioural changes of individuals or institutions. For

example the shift towards more inclusive education and the related changes in the functions and operation of special education schools could be made through pilots that allow first a limited number of these institutions to develop a new profile.

Consider the use of EU funds to support strategies to improve the efficiency of the school system

In the past few years the use of the structural and investment funds of the European Union has become a key strategic policy tool in the Slovak Republic, similarly to other Central and Eastern European EU member countries. This trend will continue in the coming decade. The EU funds can be used not only to support specific target groups, as in the case of the European Social Fund supporting vulnerable social groups, but also to enhance systemic and structural reforms, including those that improve system efficiency. The OECD review team recommends a systematic review of the possible uses of the EU structural and investment funds, within the framework of the Partnership Agreement between the European Commission and the Slovak Republic for the programming period 2014-20, to support strategies to improve the efficiency of the school system.

For example, these funds can be used effectively to create the necessary institutional and human conditions for inclusive education. They can be used to support the adjustment of SEN schools' functions with the development of new methodological service centres providing individual services to mainstream schools which are integrating students with special needs (including the support to teachers) and personalised services to students with special needs. The OECD review team recommends the creation of a specific action line in the 2014-20 programming period of the European Social Fund that would support the implementation of a comprehensive strategy for inclusive education.

The use of EU structural and investment funds for supporting the implementation of the strategy of the Slovak Republic for the integration of the Roma community should remain a priority. In accordance with the 2014 National Reform Programme of the Slovak Republic (Ministry of Finance of the Slovak Republic, 2014) the optimisation of the school network should be accompanied by targeted development interventions aimed at improving the integration of marginalised Roma communities. This includes, among others, the expansion of pre-primary education so that by 2020 all children from disadvantaged communities have access to high quality pre-primary education, preferably from the age of three, and the expansion of full day's schooling especially for children from these communities.

The European structural and investment funds can also be used to support local reorganisations of provision aiming at improving efficiency and at reconciling efficiency and quality goals. In those municipalities where the school population is expected to decrease the EU funds can be used, for example, to create appropriate conditions for school transportation. The OECD review team also recommends the use of EU funds to support networks of municipalities and self-governing regions to design and to implement education development plans that improve the efficiency of resource utilisation, including moves towards a more rational design of provision. The OECD review team recommends the creation of a specific action line in the 2014-20 programming period of the European Social Fund that would support the creation of a school network planning platform in one or two regions, including a careful monitoring of the process. The OECD review team also recommends a better alignment between infrastructure developments and programmes aimed at capacity and human resource development.

Notes

- 1. See the website entitled "Mapa regionálneho školstva" (http://mapaskol.iedu.sk).
- 2. See the school portal of the Institute for Economic and Social Reforms (INEKO) (http://skoly.ineko.sk).
- 3. Data provided to the OECD review team by the Ministry of Education, Science, Research and Sports.
- 4. Resilient students are those who are achieving significantly higher than expected given their socio-economic background.
- 5. The dispersion of regional GDP is zero when the GDP per capita in all regions of a country is identical, and it rises if there is an increase in the distance between a region's GDP per capita and the country mean (see Ecostat: http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=TSDEC220).
- 6. The payment ratio equals the amount of payment for costs actually incurred for grants or contracts in 2007-13 divided by the budget available for 2007-13.
- 7. The contracting ratio equals the amount of actual contracted grants in 2007-13 divided by the budget available for 2007-13.
- 8. See the recommendation of the Council of the European Union on policies to reduce early school leaving (Official Journal of the European Union. 1.7.2011).

References

- Alfoldiova, B. (2008), "Assessment of social impact of policies in the Slovak Republic", Host Country Report, Ministry of Labour, Social Affairs and Family of the Slovak Republic, http://ec.europa.eu/social/BlobServlet?docId=8438&langId=en.
- Ares Abalde, M. (2014), "School Size Policies: A Literature Review", OECD Education Working Papers, No. 106, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jxt472ddkjl-en.
- Buček, J. (2011), "Building of regional self-governments in the Slovak Republic: the first decade", Geografický Časopis/Geographical Journal, Vol. 63(1), pp. 3-27.
- Busemeyer, M. and J. Vossiek (2015), "Reforming Education Governance Through Local Capacity-building: A Case Study of the 'Learning Locally' Programme in Germany", OECD Education Working Papers, No. 113, OECD Publishing, Paris, http://dx.doi.org/10.1787/5js6bhl2mxjq-en.
- CEDEFOP (2015), "Slovakia new vocational education and training (VET) act adopted", www.cedefop.europa.eu/en/news-and-press/news/slovakia-new-vocational-education-and-training-vet-act-adopted.
- Cerna, L. (2014), Innovation, Governance and Reform in Education, Background Paper to the CERI Conference on Innovation, Governance and Reform in Education, 3-5 November 2014, Paris, www.oecd.org/edu/ceri/ceri-conference-2014.htm.
- Decade of Roma Inclusion (2013), Progress Report 2013 for Slovakia, www.romadecade.org/cms/upload/file/9762_file12_sk-2013.pdf.
- EADSNE (2012), Special Needs Education: Country Data 2012, European Agency for Development in Special Needs Education, Odense, Denmark.
- Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, Educational Policy Institute, Ministry of Education, Science, Research and Sports of the Slovak Republic, Bratislava, www.oecd.org/edu/school/schoolresourcesreview.htm.
- European Union Agency for Fundamental Rights (2011), The Racial Equality Directive: application and challenges, Vienna, http://fra.europa.eu/sites/default/files/fra_uploads/1916-FRA-RED-synthesis-report_EN.pdf.
- European Commission (2015a), "Country report Slovakia 2015", Commission Staff Working Document, COM(2015)85 final, Brussels, http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_slovakia_en.pdf.
- European Commission (2015b), "Council recommendation on the 2015 national reform programme of Slovakia and delivering a council opinion on the 2015 stability programme of Slovakia", COM(2015)274 final, Brussels, http://ec.europa.eu/europe2020/pdf/csr2015/csr2015_slovakia_en.pdf.

- European Commission (2014a), "Report on public finances in EMU", European Economy 9/2014, Directorate-General for Economic and Financial Affairs, Brussels, http://ec.europa.eu/economy_finance/publications/european_economy/2014/pdf/ee9_en.pdf.
- European Commission (2014b), Education and Training Monitor 2014: Slovakia, http://ec.europa.eu/education/tools/docs/2014/monitor2014-sk_en.pdf.
- European Commission (2013), "Report on public finances in EMU", European Economy 4/2013, Directorate-General for Economic and Financial Affairs, Brussels, http://ec.europa.eu/economy_finance/publications/european_economy/2013/pdf/ee-2013-4.pdf.
- European Commission (2012), "Fiscal sustainability report 2012", European Economy 8/2012, Directorate-General for Economic and Financial Affairs, Brussels, http://ec.europa.eu/economy_finance/publications/european_economy/2012/pdf/ee-2012-8_en.pdf.
- Fazekas, M. and L. Kurekova (2016), A Skills beyond School Review of the Slovak Republic, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, forthcoming.
- Government of the Slovak Republic (2014), Partnership Agreement of the SR for the Years 2014-2020, Bratislava, www.partnerskadohoda.gov.sk (accessed 21 October 2015).
- Government of the Slovak Republic (2011), Strategy of the Slovak Republic for Integration of Roma up to 2020, Office of the Plenipotentiary of the Slovak Republic Government for Roma communities, Bratislava, http://ec.europa.eu/justice/discrimination/files/roma_slovakia_strategy_en.pdf.
- Jedlička, J. and K. Rzentarzewska (2014), Cohesion Policy and other EU assistance programmes in 2014-2020, Special Analysis, March, Erste Corporate Banking, Prague, www.erstegroup.com/en/Press/Press-Releases/Archive/2014/3/11/EU-Cohesion-Polica-2014-20~Research-Zentral-Osteuropa.
- Jurzyca, E. (2014), How to Increase the Quality and Efficiency of Education in Slovakia, manuscript, Institute for Economic and Social Reforms (INEKO), Bratislava, www.ineko.sk/file_download/802/How+to+increase+the+quality+and+efficiency+of+education+in+Slovakia.pdf.
- KPMG (2014), EU Funds in Central and Eastern Europe: Progress Report 2007-2013, KPMG in Central and Eastern Europe, www.kpmg.com/SI/en/IssuesAndInsights/ArticlesPublications/Documents/EU-Funds-in-Central-and-Eastern-Europe.pdf.
- Kuhn, I., D. Sloboda and R. Kazda (2012), Utilization of Eurofunds in Slovakia: An Opportunity for Growth or for Corruption and Clientelism?, M.R. Štefánik Conservative Institute, Bratislava, www.konzervativizmus.sk/article.php?4560.
- Liebert, S., S.E. Condrey and D. Goncharov (2013) (eds.), Public Administration in Post-Communist Countries: Former Soviet Union, Central and Eastern Europe, and Mongolia, Public Administration and Public Policy Book Series, CRC Press.
- Matlovičová, K. et al. (2012), "The Roma population in the Slovak Republic: Basic characteristics of the Roma population with emphasis on the spatial aspects of its differentiation", in J. Penczes and Z. Radics (eds.), Roma Population on the Peripheries of the Visegrad Countries: Spatial Trends and Social Challenges, Debrecen.
- Methodological Centre for VET (2008), Overview of VET System in Lithuania in 2007: Thematic Overview, ReferNet, European Centre for the Development of Vocational Training (CEDEFOP), www.kpmpc.lt/refernet/wp-content/uploads/2012/12/OVERVIEW-OF-VET-SYSTEM-IN-LITHUANIA-IN-2007.pdf.
- Methodological Centre for VET (2003), Recent Developments in Education, Training and Employment Policy in Lithuania: Country report, National Observatory in Lithuania at the Methodological Centre for Vocational Education and Training, www.kpmpc.lt/PMIT/doc/SC-REPORT-2002_LT.pdf.
- Ministry of Education of the Slovak Republic (2007), Operational Programme Education, NSRR SR 2007-13, Bratislava, www.nsrr.sk/en/operational-programmes/education/.
- Ministry of Finance of the Slovak Republic (2014), National Reform Programme of the Slovak Republic 2014 (including an "Action Plan of the National Reform Programme of SR 2014"), www.finance.gov.sk/en/Default.aspx?CatID=450.
- Ministry of Labour, Social Affairs and Family of the Slovak Republic (2014), Operational Programme Human Resources for the Programming Period of 2014-2020, Ministry of Labour, Social Affairs and Family of the Slovak Republic, Managing Authority for the Operational Programme Human Resources, Bratislava, www.minedu.sk/data/att/7342.pdf.
- Mourshed, M., C. Chijioke and M. Barber (2010), How the World's Most Improved School Systems Keep Getting Better, McKinsey&Company, www.mckinsey.com/client_service/social_sector/latest_thinking/worlds most improved schools.

- NESSE (2012), "Education and disability/special needs: policies and practices in education, training and employment for students with disabilities and special educational needs in the EU", An independent report prepared for the European Commission by the NESSE network of experts. www.nesse.fr/nesse/activities/reports/activities/reports/disability-special-needs-1.
- Nusche, D. et al. (2011), OECD Reviews of Evaluation and Assessment in Education: Norway 2011, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264117006-en.
- OECD (2014a), Education at a Glance 2014: OECD Indicators, OECD Publishing, Paris, http://dx.doi.org/10.1787/eaq-2014-en.
- OECD (2014b), Slovak Republic: Developing a Sustainable Strategic Framework for Public Administration Reform, OECD Public Governance Reviews, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264212640-en.
- OECD (2014c), OECD Economic Surveys: Slovak Republic 2014, OECD Publishing, Paris. http://dx.doi.org/10.1787/eco_surveys-svk-2014-en.
- OECD (2014d), Job Creation and Local Economic Development, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264215009-en.
- OECD (2013), PISA 2012 Results: Excellence through Equity (Volume II): Giving Every Student the Chance to Succeed, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201132-en.
- OECD (2012), OECD Economic Surveys: Slovak Republic 2012, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-svk-2012-en.
- OECD (2007), OECD Economic Surveys: Slovak Republic 2007, OECD Publishing, Paris, http://dx.doi.org/ 10.1787/eco_surveys-suk-2007-en.
- Office of the Ombudsman (2013), Mimoriadna správa verejného ochrancu práv o skutočnostiach nasvedčujúcich závažnému porušeniu základných práv a slobôd konaním niektorých orgánov (Special report of the Ombudsman on facts indicating a serious breach of fundamental rights and the freedom of action of some organs) (main report), Bratislava, www.vop.gov.sk/files/Mimoriadna%20sprava%20VOP.pdf.
- Pont, B., D. Nusche and H. Moorman (2008), *Improving School Leadership*, Volume 1: Policy and Practice, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264044715-en.
- ReferNet Slovakia (2013), Slovakia: VET in Europe Country Report 2013, European Centre for the Development of Vocational Training (Cedefop), www.refernet.sk/narodne-spravy-OVP.
- ReferNet Slovakia (2011), Slovakia: VET in Europe Country Report 2011, European Centre for the Development of Vocational Training (Cedefop), www.refernet.sk/narodne-spravy-OVP.
- ReferNet Slovakia (2010), A Bridge to the Future: European Policy for Vocational Education and Training 2002-10, National Policy Report Slovakia 2010, European Centre for the Development of Vocational Training (Cedefop), www.refernet.sk/spravy-o-politikach-ovp.
- Shewbridge, C. et al. (2014), OECD Reviews of Evaluation and Assessment in Education: Slovak Republic 2014, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264117044-en.
- UNDP (2014), Atlas Rómskych Komunít Na Slovensku 2013 (The Atlas of the Roma Communities in Slovakia 2013), United Nations Development Programme (UNDP) Europe and the CIS, Bratislava Regional Centre, www.minv.sk/?atlas_2013.
- UNDP (2012a), Report on the Living Conditions of Roma Households in Slovakia 2010, United Nations Development Programme (UNDP) Europe and the CIS, Bratislava Regional Centre, www.undp.org/content/dam/rbec/docs/Report-on-the-living-conditions-of-Roma-households-in-Slovakia-2010.pdf.
- UNDP (2012b), "Roma education in comparative perspective: Findings from the UNDP/World Bank/EC Regional Roma Survey", Roma Inclusion Working Papers, United Nations Development Programme (UNDP) Europe and the CIS, Bratislava Regional Centre, www.eurasia.undp.org/content/dam/rbec/docs/Roma-education-in-comparative-perspective.pdf.
- Vaňo, B. (2005), "The demographics of Roma children", in A. Salner (ed.), Roma Children in the Slovak Education System, Slovak Governance Institute, Bratislava, pp. 26-33.
- Wilkoszewski, H. and E. Sundby (2014), "Steering from the Centre: New Modes of Governance in Multi-level Education Systems", OECD Education Working Papers, No. 109, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jxswcfs4s5g-en.
- World Bank (2006), Fiscal Efficiency and Vocational Education in the EU8 Countries, Washington, DC, http://siteresources.worldbank.org/INTECA/Resources/EU8_FiscalEfficiency_Sep06.pdf.

Chapter 3

Funding of school education in the Slovak Republic

This chapter is about the funding of school education. It deals with the level of resources available for school education and revenue sources. Furthermore, it discusses budget planning, the monitoring of funds' use as well as incentives for the effective use of school funding. The chapter places particular emphasis on areas of priority for the Slovak Republic such as the low levels of public expenditure on education, funding incentives to improve the effectiveness of the school network, equity implications of funding approaches, and the public funding of non-state schools. Special attention is given to the analysis of the formula used to fund individual schools in the Slovak Republic. The chapter also reviews the autonomy of schools in the use of their funding, the management of school budgets and parental contributions.

This chapter is about the funding of school education. It deals with the level of resources available for school education and revenue sources. Furthermore, it discusses the planning of resource use (e.g. definition of priorities and targets, distribution of responsibilities for school funding); the monitoring of funds' use (e.g. audit systems); transparency and reporting; as well as incentives for the effective use of school funding. In addition, it analyses the distribution of funding between the different levels of the administration (e.g. central, regional and municipal) and between individual schools (e.g. through funding formulae). In addition, the chapter places special emphasis on funding incentives to improve the effectiveness of the school network while analysing the equity implications of funding approaches.

Context and features

The main features of the funding of school education in the Slovak Republic are that the level of expenditure is relatively low by OECD standards and there is a high degree of decentralisation, with schools' budget allocations being determined by a formula, which is largely dependent on the number of students. Both the source of funding for school education and its distribution to individual schools are centralised – central government provides around 70% of funding and the formula operated by the Ministry of Education determines the budgets of individual schools, with only limited scope for locally determined variation. There is a considerable degree of school financial autonomy as budget management is the responsibility of the school director. Since 2003, when formula funding was introduced, state, church and private schools all receive per student funding from the state budget, creating a market environment for schools, especially at the secondary level (see Chapter 1). The increased entry of schools from the non-state sector has occurred over a period when the number of schoolage children drastically declined. Between 2000 and 2013 there was a 34% fall in the number of basic school students and a 20% reduction in the number of secondary students. Pre-primary education numbers also declined but have been recovering since 2010 to almost return to 2000 levels (see Annex 1.A1 of Chapter 1).

Expenditure on school education

Expenditure per student is considerably lower than the OECD average at all stages of school education in the Slovak Republic and at most stages below that of Poland and the Czech Republic (see Table 3.1). However, in 2011, expenditure per student for primary and secondary education was 54% higher in real terms than in 2005, due in part to an 18% decline in the total number of students over that period (OECD, 2014).

This level of education expenditure means that by OECD standards the percentage of GDP spent on school education is quite low – at 2.8% compared with the OECD average of 3.8% and the EU21 average of 3.6% (see Table 3.2). Public expenditure on education as a percentage of total public expenditure is also low in international comparison: 6.8% for primary, secondary and post-secondary non-tertiary education against an OECD average of 8.4% (see Table 3.2).

Table 3.1. Expenditure per student in the Slovak Republic and selected countries, 2011

In equivalent USD converted using PPPs, based on full-time equivalents

				Secondary education			
	Pre-primary education (aged 3 and older)	Primary education	Lower secondary education	Upper secondary education	All secondary education		
Slovak Republic	3 707	4 700	4 426	4 117	4 264		
Czech Republic	4 074	4 258	7 189	6 419	6 770		
Hungary	3 736	3 952	4 124	4 049	4 084		
Poland	6 110	6 204	5 971	5 739	5 846		
OECD average	6 984	7 521	8 601	8 714	8 499		
EU21 average	7 707	8 078	9 432	9 172	9 304		

Notes: Data for Hungary and Poland include public institutions only. EU21 average is calculated as the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which data are available or can be estimated. Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

Table 3.2. Education expenditure as a percentage of GDP and public expenditure in the Slovak Republic and selected countries, 2011

		Education expenditure as a percent	Public expenditure on education as a percentage of total public expenditure			
	Pre-primary education (aged 3 and older)	All primary, secondary and post-secondary non-tertiary education	Primary and lower secondary education	Upper secondary education	Pre-primary education (aged 3 and older)	Primary, secondary and post-secondary non-tertiary education
Slovak Republic	0.5	2.8	1.8	1.0	1.1	6.8
Czech Republic	0.5	2.9	1.8	1.1	1.1	6.2
Hungary	0.6	2.6	1.5	1.0	1.3	5.4
Poland	0.7	3.4	2.4	1.0	1.2	7.5
OECD average	0.6	3.8	2.5	1.2	1.1	8.4
EU21 average	0.6	3.6	2.4	1.2	1.1	7.4

Notes: Data for Hungary include public institutions only. Public expenditure on education considered as a percentage of total public expenditure includes public subsidies to households such as grants and scholarships. EU21 average is the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which the data are available or can be estimated. Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

Taking into account all levels of education (including tertiary education), between 2005 and 2011, public expenditure on education in the Slovak Republic fluctuated between 3.6% and 4.2% of GDP. Between 2008 and 2010, it rose as the economy contracted (see Figure 3.1). Overall public education spending as a percentage of total public spending has increased from 10.1% in 2005 to 10.6% in 2011 (see Figure 3.2). Both public education spending as a percentage of GDP and public education spending as percentage of total public expenditure are below both the OECD and EU21 averages (see Figures 3.1 and 3.2).

Sources of funding

The vast proportion of funding for school education comes from the public sector – 84.0% for pre-primary education and 88.6% for primary and secondary education, percentages which are similar to the OECD average, though lower than the EU21 average, as can be seen from Table 3.3.

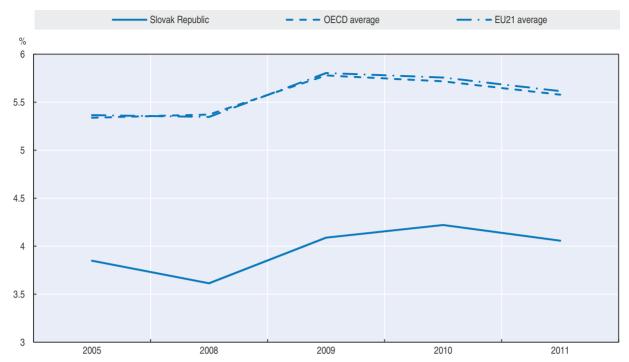


Figure 3.1. Public expenditure on education as a percentage of GDP, 2005-11

Notes: Public expenditure on education includes pre-primary, primary, secondary and tertiary education. It also includes public subsidies to households for living costs (scholarships and grants to students/households and students loans), which are not spent on educational institutions. EU21 average is the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which the data are available or can be estimated.

Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

While public funds covered 88% of expenditure on educational institutions (EUR 1.97 billion) in 2011, foreign funds (mainly from the European Union) made up the remaining 12% (EUR 273 million) and private resources amounted to only around EUR 340 000 (Educational Policy Institute, 2015).

Allocation of funding responsibilities between levels of government and school founders

There are five types of school founders, as listed in Table 3.4 (see also Chapter 1). When the competency to provide a type of education service is deemed to be original, the municipality or self-governing region is responsible for funding this from their own sources of revenue. When it is a transferred competency from central government, the founder receives funding from the state budget for this purpose. The law defines a category of education as a "systematic preparation for an occupation": this includes basic and secondary education, but not pre-primary education, language and arts schools (which provide part-time extension activities) or school facilities such as dormitories and catering which are mainly funded by municipalities and self-governing regions from their own revenues. The state budget is only required to fund those services that contribute to a "systematic preparation for an occupation", though it does provide some funding for other forms of education provision.

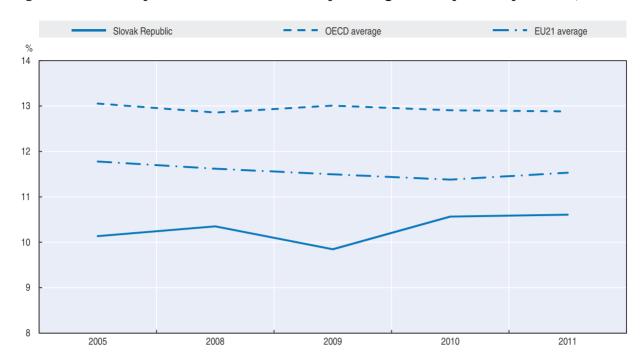


Figure 3.2. Public expenditure on education as a percentage of total public expenditure, 2005-11

Notes: Public expenditure on education includes pre-primary, primary, secondary and tertiary education. It also includes public subsidies to households for living costs (scholarships and grants to students/households and students loans), which are not spent on educational institutions. EU21 average is the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which the data are available or can be estimated.

Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

Table 3.3. Shares of public and private funding of education in the Slovak Republic and selected countries, 2011

		Pre-primary education			Pr	rimary, secondary and post-secondary non-tertiary education		
	Dublia	Private	sources	Private:	Dublia	Private sources		Private:
	Public sources	Household expenditure	All private sources	of which, subsidies	Public sources	Household expenditure	All private sources	of which, subsidies
Slovak Republic	84.0	15.5	16.0	0.7	88.6	9.8	11.4	1.7
Czech Republic	92.0	6.7	8.0	n	90.9	7.2	9.1	n
Poland	76.1	23.9	23.9	n	93.9	6.1	6.1	m
OECD average	81.6	m	18.7	2.8	91.4	m	8.6	0.9
EU21 average	87.1	m	12.9	2.8	93.9	m	6.1	1.1

Notes: "m" indicates data are not available and "n" indicates that magnitude is either negligible or zero. "All private sources" includes subsidies to educational institutions received from public sources. No data for Hungary are available. EU21 average is the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which the data are available or can be estimated.

Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

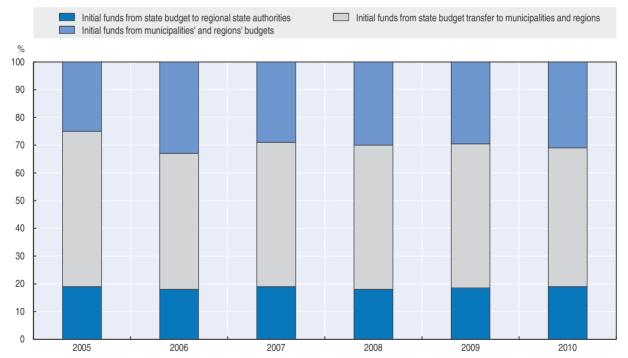
Table 3.4. Forms of education provided by school founders

		School type				
Type of school founder	Pre-primary education	Basic education	Upper secondary education	Special schools	Language, arts schools, etc.	(e.g. dormitories, catering)
Municipality	Original competency	Transferred competency	-	-	Original competency	Original competency
Self-governing Region	-	-	Transferred competency	-	Original competency	Original competency
Regional state authority	-	-	-	Founder	-	Founder
Church	Founder	Founder	Founder	Founder	Founder	Founder
Private	Founder	Founder	Founder	Founder	Founder	Founder

Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

Most public funding originates from central government but as it is largely channelled through municipalities and self-governing regions, it is mainly dispensed at local level. As shown in Figure 3.3, around 30% of funding is initially derived from local budgets and a further 50% is transferred to municipalities and self-governing regions from the central government budget; 19% of funding comes from the state budget and is spent by the regional state authorities.

Figure 3.3. Public funding of school education by initial source



Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

Funding individual schools

The funding of basic and secondary schools is organised on a two-level model. The money is transferred from the state budget to the founder (of the types listed in Table 3.4) and then passed on by the founder to its schools. The education budget for schools is divided into two parts. The main part is referred to as "normative" expenditure (or "normative" funding, determined by a funding formula) and the rest is "non-normative" expenditure (or "non-normative" funding).

The funding formula

The normative amount per school is determined by a formula, introduced in 2003. It is devised and operated by the Ministry of Education and consists of two parts: the largest portion is for personnel costs (personnel or salary normative) and the second part for operating costs (operations or operating cost normative). The formula does not determine the total amount of normative funding available for schools; rather it is a set of rules for dividing up an education budget, which is determined by negotiations between the Ministry of Education and the Ministry of Finance. It is dependent on macroeconomic conditions, the government's fiscal stance and decisions regarding the allocation of the state budget between competing public sector spending needs. The money is channelled to founders through the Ministry of the Interior as it now has administrative responsibility for local governments (through regional state authorities). However, the Ministry of Education holds the data base that enables it to calculate each school's and, by aggregating these, each founder's allocation of normative funding.

All types of founders – state, church and private – are funded by the same formula and therefore receive the same amount per student if they have the same values for the indicators in the formula. This student-driven funding formula and its application to church and private schools has created a market environment for schools. The founder is required to pass on at least 95% of the salary allocation to schools and at least 80% of the operating costs allocation and can reallocate the remaining portion between its schools. A founder with just one school has to pass on the entire normative allocation.

A school's formula allocation largely depends on the number of students, though the normative per student varies by type of school and programme of study. Different categories of students are given different weights for the purpose of calculating the appropriate salary normative per student. These differences in weights reflect differences in personnel costs per student that depend on the staff student ratios for both teachers and non-teaching staff assumed for each type of school (referred to as "personnel intensity"). The Euro value of the salary norm for the lowest weighted student category (normalised to a weight of 1) is found by dividing the total amount available in the education budget for salaries by the total number of weighted students in all basic and upper secondary schools. The Euro value of the salary norm for each school type is the base norm multiplied by the school category weight. The salary normative is calculated for 24 different school categories as shown in Table 3.5.

The salary norm applies to all students at a particular school according to which category the school belongs. Additionally the number of weighted students at each school is calculated by taking into account a further set of student specific factors each with its own weight. These are given in Table 3.6. To the total number of all students at a school is added the sum of all the other student categories multiplied by their respective weights. This total is further weighted by a coefficient that reflects differences in the salaries of each school's teachers due to variations in their qualifications (but not experience).

Table 3.5. Salary normative in formula by school category, 2014

School category	Salary norm (EUR)			
Basic schools (including Years 1-4 of 8-year gymnasiums)	963.77			
Gymnasiums	1 110.07			
Sport gymnasiums	2 095.14			
Conservatoires	3 950.71			
15 different categories of vocational secondary schools	Between 1 268.15 and 2 529.83			
Apprenticeship centres	609.97			
Special basic schools	1 490.08			
Special secondary schools	2 199.20			
Special secondary vocational schools	2 772.24			
Apprenticeship schools and practical schools	3 056.57			

Source: Data provided to the OEGD review team by the Ministry of Education, Science, Research and Sports.

Table 3.6. Weights for specific student categories, 2014

Student category	Coefficient
Students learning in non-Slovak language of instruction	0.080
Students taking bilingual programmes	0.250
Students in Year Zero of basic school	1.000
Students on evening courses	-0.600
Other student programmes	-0.900
Students on programmes with 40% of time spent at the workplace	-0.400
Students on programmes with 20% of time spent at the workplace	-0.200
Students attending a school in hospital (Group 1)	-0.150
Students attending a school in hospital (Group 2)	-0.350
Students attending a school in hospital (Group 3)	0.100
2-year-old children in pre-primary education	1.000
Students attending a school club at special schools	1.500
Students with special needs in mainstream basic schools (in special or regular classes) (Group 1)	0.500
Students with special needs in mainstream basic schools (in special or regular classes) (Group 2)	0.930
Students with special needs in mainstream basic schools (in special or regular classes) (Group 3)	1.265
Students with special needs in mainstream basic schools (in special or regular classes) (Group 4)	1.710
Students with special needs in mainstream basic schools (in special or regular classes) (Group 5)	2.390
Students with special needs in mainstream basic schools (in special or regular classes) (Group 6)	5.790
Students with special needs integrated in mainstream upper secondary classes (Category 1)	0.700
Students with special needs integrated in mainstream upper secondary classes (Category 2)	1.200
Students with special needs integrated in mainstream upper secondary classes (Category 3)	1.700
Advanced teaching – sports	0.080
Dormitories	4.000
Students attending a pre-primary school in hospital	-0.100
Students in custody – classroom activities	2.000
Students in custody – individual training	-0.700
Children with autism, multiple disabilities and deaf-blind children in pre-primary education	1.000
Students attending a school club for children in hospital (Group 1)	-0.340
Students attending a school club for children in hospital (Group 2)	-0.480
Students attending a school club for children in hospital (Group 3)	-0.120
Kindergarten – regular children	-0.600

Note: The coefficients are the fraction by which the student weight is higher or lower than the unit weight. Source: Data provided to the OECD review team by the Ministry of Education, Science, Research and Sports.

The operating cost normative is differentiated according to structural cost differences and different weights are applied for:

- Heating where the coefficient reflects eight different temperature zones in the Slovak Republic.
- The personnel needs of the educational process for a given school category.²
- Professional development which is 0.015 of the school's salary norm.
- Operational costs other than heating, which has six school categories.

The formula also finances school facilities run by regional state authorities for which there are separate normatives reflecting cost differences, as shown in Table 3.7.

Table 3.7. Normatives for school facilities run by regional state authorities, 2014

Category of school facility	Normative (EUR)
Centres for professional experience	674.05
School of economy	674.05
Leisure centres	173.04
School children's clubs	348.95
School clubs for children in special schools	872.37
Centres for pedagogical and psychological counselling – clients	7.96
Centres for pedagogical and psychological counselling – performance	9.94
Centres for special counselling – clients	30.27
Centres for special counselling – performance	0.35
External catering for students	92.70
Catering for students	92.70
Medical and educational sanatoriums	8 126.07
Diagnostic centres	10 172.92
Re-education centres	8 760.61

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

Non-normative funding

Funding that is not part of the normative budget makes up 10% of the total basic and upper secondary schools' budget (see Table 3.8) and consists of the following:

- Pre-primary education for children one year before the start of compulsory schooling at six years old which is provided free of charge.
- Retirement benefits.
- Teaching assistants (TAs) for students with disabilities and gifted students (see Chapter 4). These are funded directly from the state budget and the Ministry of Education determines the allocation of posts in response to founders' requests. In 2014, 1 640 TA posts were funded.
- Transportation costs.
- Travel costs for students in compulsory education.
- School grants to support the education of socially-disadvantaged students.
- Education vouchers, which students can redeem to cover the costs of extracurricular activities organised by a wide range of providers.
- Emergency funding mainly to cover unexpected school building repairs and for which founders make applications to the Ministry of Education.

Table 3.8. Normative and non-normative budget 2014, thousands of EUR

	Total budget	Budget chapter of the Ministry of Education	Budget chapter of the Ministry of Interio
Basic schools and secondary schools (budget chapters total)	1 461 078	444 244	949 829
Normative expenditures	1 285 951	395 151	890 799
Non-normative expenditures (total)	142 838	24 986	50 847
Non-normative expenditures (according to the Act 597/2003)	53 587	6 696	46 891
Pre-primary education for children 5 and above (free of charge)	8 027	0	8 027
Retirement benefits	2 900	1 190	1 710
Teaching assistants	4 770	40	4 730
Students' travel costs	7 974	25	7 949
Socially-disadvantaged background	6 622	10	6 612
Extraordinary student performance	830	387	443
Educational vouchers	18 145	4 701	13 444
Emergency situations (current expenditures)	4 266	293	3 973
Other	54	50	4
Non-normative expenditures (not included in Act 597/2003)	89 251	18 290	3 956
Textbooks	8 148	8 148	0
Infovek	6 739	6 739	0
Student competitions	1 607	652	956
Emergency situations (capital expenditures)	4 500	1 500	3 000
Development projects	1 151	1 151	0
Other	67 105	100	0

Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

- Textbooks: these are approved and supplied to schools by the Ministry of Education.
- *Infovek*, which is a programme supplying schools with Internet connections, computers and training of school staff in ICT.
- Student competitions.
- Development projects.

The flow of funding from central government to basic schools via municipalities and to upper secondary schools via self-governing regions and the resources that each type of funding stream purchases are shown in Figure 3.4.

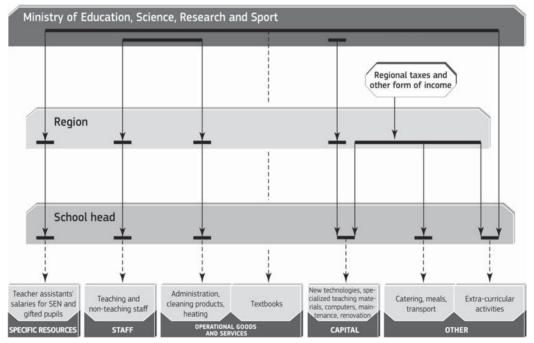
Management of school budgets

The school director is responsible for the effective and efficient management of the school budget and school assets. In practice, this is often done in collaboration with the founder, especially for municipal schools as usually a municipality maintains only a few schools, often only one. Naturally, the degree of co-operation between a school and its municipality can vary, as the OECD review team was able to observe. The school director prepares an annual budget, which the municipality or the self-governing region approves. Decisions on how to spend school budgets are the responsibility of the school director, who has considerable discretion over the involvement of other stakeholders in addition to the municipality or the region. The great majority of current school resources is purchased from the school budget, including teaching assistants for which earmarked funding is allocated outside the formula. An exception is textbooks which are supplied by the Ministry of Education. Schools are required to spend the personnel normative on staff and the operations normative on non-staff costs and require founder's agreement to switch

Primary and lower secondary school¹ Ministry of Education, Science, Research and Sport Ministry of Interior Local taxes and other form of municipal income Municipality School head Teacher assistants' Administration, Teaching and Catering, meals, salaries for SEN and Textbooks cleaning products n-teaching staff activities gifted pupils heating

Figure 3.4. Flow of funding from central government to basic and upper secondary schools

Gymnázia (general upper secondary school)²



- 1. The diagram shows the situation of the 74% of primary and lower secondary schools that have the status of a "legal body". For primary and lower secondary schools without this status, funding goes directly to the schools from the municipality and not to the school head as shown in the diagram.
 - Alternatively to what is shown in the diagram, the Ministry of Education, Science, Research and Sport can distribute funding for specific resources directly to schools instead of allocating it through the municipality.
- 2. All upper secondary schools have the status of "legal body".
 - Alternatively to what is shown in the diagram, the Ministry of Education, Science, Research and Sport can distribute funding for specific resources directly to schools instead of allocating it through the region.

Source: Eurydice (2014), Financing Schools in Europe: Mechanisms, Methods and Criteria in Public Funding, http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/170en.pdf.

expenditure between the two. Teaching and administrative staff are appointed by the school (see Chapter 4), which also funds current operational costs from its budget. For capital expenditure schools must rely on other sources than its budget, in particular EU funded projects and support from the founder.

The school board acts in an advisory capacity with respect to the school budget. The school director presents the school budget plan to the board for its consideration and is also required to submit an annual school economic report.

Funding of infrastructure

Larger capital projects are often funded from EU projects, otherwise by the founder and, in some instances, from the non-normative state budget. As of the end of 2013, 781 EU projects of about EUR 547 million of EU funding were contracted for improving the infrastructure in pre-primary, primary and secondary schools (within the Regional Operational Programme) which is expected to benefit up to 300 000 students. The majority of these EU projects will contribute also to modernising school equipment including ICT (Ministry of Agriculture and Rural Development, 2013).

Funding of extracurricular activities

Extracurricular activities, including languages, music, sport and other leisure and cultural activities have an important role in the Slovak education system (see Chapter 1). They are funded largely by municipalities and self-governing regions in the context of their original competences and also by central government vouchers. Schools may provide such activities themselves, or private providers may use school or other premises.

In 2013, the public funding provided for free time centres (not attached to a specific school and which are open to all children and which constitute an important part of the provision of extracurricular activities) was changed. Funding municipalities per student attending free time centres (as part of the general transfers from the state to municipalities and, in fact, not earmarked) was replaced by funding according to the number of resident children aged 5-15, regardless of their attendance; while the amount per child was reduced. As the new funding rule provides no financial incentive for municipalities to organise or encourage extracurricular provision, its quantity and quality may well decline.³

Strengths

The formula is well designed, adapts to new needs and is supported by major efforts to collect quality data

A number of objectives can be used to evaluate a funding formula (Levačić and Ross, 1999), in particular efficiency, equity, integrity, administrative cost, accountability and transparency, and sensitivity to local conditions. Thus, there is no single best practice funding formula – the balance struck between the various objectives should reflect the government's policy preferences. For example, a formula that emphasises efficiency by allocating funding according to the number of students is weak on sensitivity to local conditions if it makes rural small schools financially unviable. These considerations apply to the Slovak funding formula.

The funding system is well established and accepted. Schools and founders in the main are satisfied with it and their reservations concern specific issues. The formula is well designed because it has integrity as it takes into account a range of differences in schools' structural costs (i.e. costs that schools cannot affect by their own decisions, such as student instruction hours and assumed, not actual, student-staff ratios).

In addition, the funding system has shown itself to be adaptable. Over the years, the Ministry of Education has adjusted the formula in response to stakeholders' communications of their requirements. Therefore, the formula has become more complex, but the Ministry of Education has personnel with the capacity to operate a complex formula.

There is also extensive collection of data at school level to support the formula calculations. This has been further developed in 2014, through a pilot project, to collect data at individual student and teacher level. Most schools maintain computer data bases and can export their data electronically to the Ministry of Education, however there are some that still record data on paper and send these to the Ministry. A large and complex set of data is used to calculate each school's budget allocation which are then aggregated for distribution to school founders. These data are revised annually.

The formula encourages efficiency

The concept of efficiency used in this analysis is restricted to "internal efficiency" (Lockheed and Hanushek, 1994) which when applied to education refers to achieving the lowest cost per student consistent with maintaining or improving current educational standards. The formula provides efficiency incentives as funding depends on the number of students, but this is partially offset by the compensation factor which provides some protection for small schools and is thus sensitive to local needs. On balance, the formula has promoted efficiency as it has encouraged some consolidation of state schools since its introduction in 2003. As shown in Table 3.9, the number of basic schools has fallen by about 10%, while vocational schools have declined by 27%. Also, as shown in Table 3.16, the number of basic schools in municipalities with 1 000 or fewer inhabitants has decreased from 669 in 2009 to 602 in 2013. However, while state schools have been consolidated, the number of church and private schools has been rising. Overall, the number of gymnasiums has grown, reflecting a shift in students from vocational schools to gymnasiums and a growth of provision by the church and private sectors.

There is flexibility to respond to local needs

There is flexibility in the funding system to respond to difficulties schools experience in financing all their costs from the amount allocated by the formula. Founders can redistribute funding between their schools – up to 5% of the salary normative and up to 20% of the operational costs normative. In addition, schools make requests to the founder and via them to the Ministry of Education for financial assistance. In 2013, the central government budget provided EUR 8 766 million in current and capital emergency expenditures (0.6% of the entire basic and secondary schools central government budget). The Ministry of Education has in the past provided additional funding to support small minority language classes. Municipalities and self-governing regions in 2012 spent an additional EUR 4.9 million from their own funds for school repairs and refurbishment. In principle, there is flexibility for founders to co-fund schools (e.g. self-governing region to fund an aspect of basic school provision) but no examples of this were found. While the compensation component of the formula is sensitive to local needs because it enables

Table 3.9. Change in number of schools by type, 2003 to 2013

	2003	2013	Change in number	Percentage change
Basic schools				
State	2 272	2 003	-269	-11.8
Private	11	42	31	281.8
Church	104	114	10	9.6
Total	2 387	2 159	-228	-9.6
Gymnasiums				
State	158	151	-7	-4.4
Private	19	38	19	100.0
Church	46	57	11	23.9
Total	223	246	23	10.3
Vocational schools				
State	567	357	-210	-37.0
Private	46	83	37	80.4
Church	15	20	5	33.3
Total	628	460	-168	-26.8
Conservatoires				
State	6	6	0	0.0
Private	2	8	6	300.0
Church	1	1	0	0.0
Total	9	15	6	66.7

Note: Data for special schools are not included.

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

those small schools that are needed in order to maintain student access to continue in existence, at the same time it does not encourage school consolidation in areas where this would provide a more cost effective school network.

School choice is promoted

The funding system encourages school choice, not only between state schools but also between them and church and private schools as their students are funded the same amount as state schools. In addition, church and private founders must receive for school facilities 88% of the per student amount spent by municipalities and self-governing regions on their equivalent facilities (Educational Policy Institute, 2015). This has encouraged the growth of private involvement in the education system, and increased the diversity of institutions from which innovative pedagogical strategies can be drawn. As can be seen from Table 3.9, the number of church and private schools has grown since the funding reforms of 2003; there has been a particularly large percentage increase in non-church private provision in all phases of education. However, state provision still dominates. Municipalities are founders of more than 90% of pre-primary schools and basic schools, and church and private founders of the other 10% (see Tables 1.2 and 1.3 in Chapter 1). Self-governing regions run almost 70% of secondary schools and private founders and churches the rest (see Tables 1.4 and 1.5 in Chapter 1). Municipalities are founders of 65% of free time centres; 35% are run by church and private founders (Educational Policy Institute, 2015).

Distribution of funding has some provisions to address equity challenges

The formula includes some components aimed at achieving a more equitable distribution of funding in relation to student needs. As shown in Table 3.6, there are six weights of increasing size for students with special needs attending a mainstream basic school, as well as three categories of funding for students with special needs integrated in mainstream upper secondary classes.

Outside the formula (i.e. outside the normatives) there is an allocation of EUR 100 per student (raised to this in 2012) for students from socially-disadvantaged backgrounds, defined for funding purposes as families receiving benefits for material need or having an average monthly income for the last consecutive six months below the subsistence minimum (put outside the normatives in 2011) (Educational Policy Institute, 2015). New legislation adopted on 30 June 2015 stipulates that this allocation can only be provided to schools for socially-disadvantaged students attending regular classes. Basic schools with at least 100 socially-disadvantaged students must use at least 50% of this funding for teaching assistants (TAs). Schools can also apply for TAs for special educational needs (SEN) students who have been identified as needing this support. The term "special needs" in the Slovak context includes students with physical and mental disabilities as well as students categorised as "gifted". The regional state authority checks and then forwards these applications to the Ministry of Education, which decides (given the budget for TAs) which applications to approve. In 2013, the Ministry funded 328 TAs for socially-disadvantaged students. From September 2014, 1 640 teaching assistants are placed in a school, which satisfies the demand of founders for the first time (Educational Policy Institute, 2015).

The system appears to be highly equitable horizontally in the state sector as municipalities and self-governing regions add very little to basic and secondary school budgets from their own resources. In 2012 municipalities and self-governing regions reported that they spent EUR 5.2 million and EUR 7.2 million respectively from their own resources on schools, which is only 1.1% of the budget spent on school education. Thus 99% of the current budget spent on school education is distributed via the national funding formula that is calculated for individual schools and from which the founders can only deviate by 8%⁵ at most. The 30% or so of education spending funded by local governments, reported in Figure 3.1 is for the most part devoted to their original competences. Table 3.10 shows the average expenditure per student from the state budget for basic and secondary schools in the eight regions of the Slovak Republic. The largest difference between highest and lowest spending regions is for basic schools where the difference is 20% compared to over 7% for secondary schools. Only for basic schools can the differences in spending per student be attributed largely to differences in average school size. Bratislava Region is the only exception where expenditure per student is relatively high while school size is the largest. Here, additional spending per student may well be because teachers are more highly paid due to their qualifications and career levels, which would indicate a degree of regional inequity (some indications of this are visible in Table 4.5 in Chapter 4, which provides career levels by size of municipality).

There is an appropriate allocation between current and capital expenditure

The Slovak Republic's division of education expenditure between current and capital is in line with OECD and EU21 benchmarks for primary education – as demonstrated in Table 3.11 but capital expenditure is slightly lower for secondary education. As already noted, Slovak schools rely heavily on EU funds for capital projects and equipment.

Table 3.10. Average expenditure per student and average school size by region, 2013

	Basic s	Basic schools		Gymnasiums		Vocational schools	
Region	Average expenditure per student (EUR)	Average school size	Average expenditure per student (EUR)	Average school size	Average expenditure per student (EUR)	Average school size	
Banská Bystrica	1 471	215	1 559	319	2 052	366	
Bratislava	1 414	295	1 566	391	1 963	322	
Košice	1 287	286	1 622	442	2 120	462	
Nitra	1 613	175	1 523	352	2 032	389	
Prešov	1 591	195	1 615	443	2 122	371	
Trenčín	1 398	250	1 606	490	2 132	485	
Trnava	1 501	191	1 598	344	2 067	378	
Žilina	1 487	242	1 501	443	2 050	460	
Difference between							
highest and lowest (%)	20.2	41	7.4	35	7.9	34	

Note: Data for special schools are not included. School size refers to the average number of students per school. Source: Data provided to the OECD review team by the Ministry of Education, Science, Research and Sports.

Table 3.11. Distribution of education spending between capital and current expenditure, 2011

	Primary 6	education	Secondary education		
	Current (%)	Capital (%)	Current (%)	Capital (%)	
Slovak Republic	92.6	7.4	94.8	5.2	
OECD average	92.3	7.7	92.9	7.1	
EU21 average	93.1	6.9	93.8	6.2	

Note: EU21 average is calculated as the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which data are available or can be estimated.

Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

Schools have considerable autonomy in the use of their funding and financial management is conducted in the context of school development plans

There is a high degree of school autonomy in making spending decisions. Until recently the formula-determined budget allocations were distributed to schools as a block grant (i.e. schools could determine how much to spend on salaries and how much on goods and services). This freedom has now been restricted and schools require founder approval to reallocate money from salaries to operational costs. The school director is responsible for managing the school budget and determines the employment of teachers and other staff (see Chapter 4). School directors, as far as could be ascertained from school visits by the OECD review team, have a good support for financial management from a person acting as school accountant and, usually, from the finance department of the municipality. Schools are able to carry over unspent funds to the next financial year – but only for three months – after which the founder can retain any school budget surplus.

Procedures that are recognised internationally as necessary for the effective and efficient management of school budgets and resources (Ainscow et. al., 2012; Education Funding Agency, 2015) are in place. In order to manage the school's finances efficiently it is necessary to plan their use in order to support measures to sustain and improve the school; these are developed with the school community and expressed in a School Development Plan (SDP) which links the school's education priorities with its spending intentions. In the

Slovak Republic school directors are required to submit a two-year school development plan, which may extend to five years, to the founder for approval and to the school board for discussion (Educational Policy Institute, 2015). Often candidates for school director posts are asked by the school board to submit a SDP or concept plan for the school as part of the selection process. Progress with the SDP should be evaluated annually and the school leader should include this in the annual school report submitted to the board and founder. Additionally there is a legal requirement for schools to prepare and submit to the founder a school economic report, which reports sources of revenue and use of funds for the calendar year.

Funding is transparent and the scope for misuse of funds is limited

The funding system is transparent. For example, the Excel version of the funding formula is available on the Ministry of Education website. Schools produce quarterly financial reports, which are submitted to the founder. Founders are required to aggregate the economic reports from all their schools and school facilities and submit these to the regional state authority, which in turn prepares a summary report for submission to the Ministry of Education. Church and private founders are required to submit economic reports only of the use of public funds; consequently, there is a lack of transparency and data on private funds spent on educational services.

Comprehensive audit regulations are in place (termed in the Slovak Republic preliminary audit). Although there are very limited resources at state central or regional level to audit school accounts and schools visited by the OECD review team had infrequent audits from state employed auditors, there are mitigating factors. In particular, municipality auditors audit municipal schools. The small number of schools per founder and the presence of community members on school boards make for local transparency of school spending. Also, schools have limited possibilities for the misuse of funds as over 80% goes on salaries and schools run on tight budgets for their other needs. Schools and municipalities also publish invoices of their purchases on their websites. It is therefore concluded that, in practice, the scope for misuse of school funds is limited.

Challenges

This section considers the challenges faced by the school funding system in the Slovak Republic. The main one is the low level of funding, which is exacerbated by inefficiencies due to small schools and classes. Though the formula funding's promotion of competition by permitting new entry may be regarded as a strength of the system, it has occurred at the cost of a less efficient school network in terms of higher cost per student as average school size has diminished. Given the lack of value added performance data, it is not possible to form judgments about the "external efficiency" of the school system in terms of educational outputs per Euro spent, though the worsening PISA results do not suggest that increased competition has improved learning outcomes for the system as a whole (see Chapter 1). While elements of the funding system do promote equity, the extent to which social disadvantage is associated with poorer learning outcomes to a greater extent than on average for PISA countries (see Chapter 1), indicates that more remains to be done to redistribute spending towards socially-disadvantaged students. It is doubtful that providing extra funding to gifted students is either equitable or yields value for money in a country with a tightly constrained education budget.

Public expenditure on education is low

The relatively low level of expenditure has already been noted. A particularly good indicator of a country's relative effort in resourcing education is the amount spent per student as a percentage of GDP per capita compared with other countries, since this takes account of differences in per capita GDP. From Table 3.12 it can be seen that the Slovak Republic spends between 1 and 2 percentage points less as a proportion of GDP per capita than the international benchmark on pre-primary education, the same percentage on primary education and considerably less on secondary education. This relatively low level of spending translates into inadequate spending on teacher and school leader salaries (see Chapters 4 and 5) and on learning materials, including textbooks, and failure to meet the demand for pre-primary education places.

Table 3.12. Annual expenditure per student by educational institutions relative to GDP per capita, 2011

	Pre-primary	Duimanu	Secondary education			
	education (3 years and older)	Primary education	Lower secondary education	Upper secondary education	All secondary education	
Slovak Republic	19	22	20	19	20	
Czech Republic	16	17	29	25	27	
Hungary	20	20	21	20	20	
Poland	29	29	28	26	27	
OECD average	21	23	26	27	26	
EU21 average	20	22	26	27	26	

Notes: Data for Hungary and Poland include public institutions only. EU21 average is calculated as the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which data are available or can be estimated.

Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

Teacher salaries are low

Teacher salaries in 2012 were the lowest in the OECD in relation to the earnings of fellow tertiary educated workers, as graphically demonstrated in Figure 4.5 (see Chapter 4). The Slovak Republic is the only OECD country where teachers earn less than half of the remuneration of similarly educated workers. In real terms Slovak teachers were about 5% better paid in 2012 than in 2005 (OECD, 2014) and in addition received five per cent salary increases in 2013, in 2014 and in 2015, though this will not greatly alter the situation depicted in Figure 4.5.

International research evidence indicates that teacher salaries have a positive impact on student performance (Dolton and Marcenaro-Gutierrez, 2011). According to this research, a 15% increase in teacher pay would give rise to around a 6-8% increase in student performance. Likewise, a 5% increase in the relative position of teachers in the salary distribution would increase student performance by around 6-8%. In the Slovak Republic the low pay of teachers impacts negatively on the quality of entrants into teaching and on public perceptions of the teaching profession (see also Chapter 4). One consequence of low teachers' pay is that teaching in the Slovak Republic is highly feminised (see Chapter 4). However, the age profile of teachers is similar to that of OECD countries on average, so that there is not an over representation of older teachers in the workforce, despite Slovak teachers in receipt of pensions also being able to work for a full-time salary.

The provision of pre-primary education is inadequate

Another consequence of low funding is the inability to meet the demand for pre-primary education places. Although the number of children enrolled at pre-primary schools has increased since 2008 (Educational Policy Institute, 2015) – when pre-primary education became free of charge for one year before the start of compulsory schooling – demand for pre-primary education places exceeds supply. From 2007 to 2013 the number of rejected applications for a pre-primary school place increased more than fivefold, from 1 760 to 9 600. The number of applications for pre-primary education is expected to grow until 2017 (Educational Policy Institute, 2015). Overall, rates of enrolment in pre-primary education remain low in international comparison (see Chapter 1). Furthermore, attendance of children from socially deprived groups is low. More than half (59%) of children from the non-Roma population aged 3-6 attended pre-primary education. At the same time, only 28% of their Roma peers did so (see Figure 2.4 in Chapter 2). Moreover, compared to Bulgaria, the Czech Republic, Hungary and Romania, the relative percentage of Roma children attending pre-primary education in the Slovak Republic is rather low (see Figure 2.4 in Chapter 2).

Pre-primary education is an original municipal competence and so is funded from municipal revenues, as well as from central government non-normative financing for the pre-primary school year provided free of charge in the year before children start compulsory education. Municipalities are not obliged to provide pre-primary school places. At the same time pre-primary schools are required to give priority to children attending the year right before compulsory education. Given this situation, municipalities either do not have or do not devote sufficient resources to provide pre-primary education places for all children aged 3-6. The problem is being addressed partly through support from EU funds (see also Chapter 2).

Expenditure on learning materials and professional development is insufficient

Compared to the OECD benchmark of 23% and 21.5% of the current primary and secondary education budgets respectively spent on non-staff items, the Slovak percentages of 19% and 18% for basic schools and gymnasiums are on the low side. Only vocational schools, with their requirements for practical materials and equipment, exceed the OECD benchmark (see Table 3.13). Schools visited by the OECD review team indicated that the operations budget has to be managed very carefully to cover essentials such as utilities and that there is little to spare for learning materials and equipment, for which schools rely heavily on EU-funded projects. As analysed in Chapter 4, Slovak school directors identify the inadequacy of instructional materials as the main resource issue hindering the school's capacity to provide quality instruction (see Figure 4.6).

Teachers reported instances of being unable to attend professional development activities because the school budget could not pay for replacement teachers, travel costs or course fees. As analysed in Chapter 4, teachers perceive the unaffordability of professional development activities as the main barrier to engage in such activities (see Figure 4.9 in Chapter 4). The formula includes an amount equivalent to 1.5% of the salary normative in the operating cost normative for professional development but this is distributed within a block grant for all operational expenses, which is 16-17% of the total normative allocation.

Table 3.13. Percentage of education budget spent on personnel and operational expenditure, 2013

	Personnel expenditures			Operational expenditures				
School type	Salaries	Insurance and transfers to individuals	Total personnel costs	Utilities (e.g. energy, water)	Materials	Maintenance	Other non-personnel costs	Total operational costs
Basic schools	58.7	22.4	81.0	7.3	4.2	3.0	4.4	19.0
Gymnasiums	59.6	22.3	81.9	6.8	2.4	2.1	6.8	18.1
Vocational schools	56.1	21.2	77.4	8.0	4.3	2.8	7.5	22.6
Special basic schools	61.9	22.8	84.8	4.8	3.4	2.3	4.6	15.2
Special secondary schools	60.9	22.3	83.2	7.1	3.3	1.7	4.6	16.8
OECD average								
Primary education			77.0					23.0
Secondary education			78.5					21.5

Notes: All expenditures are considered: from state budget; from contributions by students and parents; and from budgets of municipalities and self-governing regions.

Sources: Data provided to the OECD review team by the Ministry of Education, Science, Research and Sports; and OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

The provision of textbooks is inadequate

Teachers can use both textbooks approved (or recommended) by the Ministry of Education, which are supplied by the Ministry (typically one approved textbook per subject which is provided to schools free of charge), as well as other textbooks provided they are in line with the National Education Programme. However, the latter do not have to be covered by the state budget. In general, teachers consider the approved textbooks to be insufficient in both quality and quantity, commenting to the OECD review team that many of the existing textbooks are out of date. There are still topics introduced in the latest curriculum reform for which no textbooks have so far been produced. If schools were to purchase teaching materials to supplement the textbooks received from the Ministry of Education. the money would have to be found from the operational part of the school budget. Usually teaching materials cannot be afforded from the school budget as other items have a higher priority. Given the lack of effective demand for textbooks other than those supplied by the government, the market for textbooks is very underdeveloped. A small improvement has recently occurred with a EUR 1.6 million earmarked allocation for English language textbooks. Basic schools are to receive EUR 10 per student in Years 3-5 to purchase an English language textbook chosen by the school.

Incentives for an efficient school network are limited

Although the funding formula is largely student driven and can be credited with encouraging rationalisation of the state school network through a decrease in the number of state schools, the funding system stimulated entry from church and private providers (see Table 3.9). Furthermore, the compensation component for founders with fewer than 250 students enables small schools to remain within the network. Consequently, over the last decade the average size of schools has decreased. Smaller schools tend to have higher per student costs as fixed costs are spread over fewer students. Small schools generally have small classes which education research has found do not generally boost student attainment except for the youngest and most socially-disadvantaged students (OECD, 2013; Department for Education, 2011).

The decline in average school size overall and in the state sector is shown in Table 3.14 (see also Figures 1.A1.3 and 1.A1.5 of Annex 1.A1 of Chapter 1). Only pre-primary education schools where attendance has risen have experienced a growth in average size. *Gymnasiums* have experienced the largest overall decline of 31%, even in the church and private sectors. Rationalising the school network is hampered by the number of founders with few schools – more than 70% of basic schools are the founder's only school. There are 1 763 founders of which 1 564 have basic schools with Slovak language of instruction. Of these 1 345 have fewer than 250 students and so qualify for the compensation factor in the formula. In addition, there are about 120 founders with only non-Slovak language students. In all, there are 271 founders with basic school students not instructed in Slovak language of which 249 qualify for the compensation allocation (data provided to the OECD review team by the Ministry of Education).

Table 3.14. Change in average school size, 2003 to 2013

	2003	2013	Change in number	Percentage change
Pre-primary schools				
State	47.1	53.6	6	13.8
Private	28.9	44.6	16	54.3
Church	35.4	55.3	20	56.2
Total	47.0	53.3	6	13.6
Basic schools				
State	244.3	199.6	-45	-18.3
Private	45.7	116.0	70	153.8
Church	243.3	199.5	-44	-18.0
Total	243.3	198.0	-45	-18.6
Gymnasiums				
State	526.4	401.0	-125	-23.8
Private	256.1	111.7	-144	-56.4
Church	298.8	218.2	-81	-27.0
Total	456.5	314.0	-143	-31.2
Vocational schools				
State	393.0	386.1	-7	-1.7
Private	234.4	201.6	-33	-14.0
Church	275.3	239.4	-36	-13.1
Total	378.5	346.4	-32	-8.5
Conservatoires				
State	263.2	307.7	45	16.9
Private	151.5	112.3	-39	-25.9
Church	131.0	196.0	65	49.6
Total	223.7	196.0	-28	-12.4

Note: School size refers to the average number of students per school. Students attending lower-secondary education at 8-year gymnasiums are taken into account under "Gymnasiums". Data for special schools are not included. For gymnasiums and vocational schools, part-time students are included.

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

Because of concerns regarding the excess supply of upper secondary classes, from the 2014-15 school year self-governing regions were empowered to determine the number of Year 10 classes a state, church or private founder can open at a school. However, it is of concern that a self-governing region can set barriers to entry in a sector in which it also participates as a school founder, thus potentially suppressing competition from rival providers.

In line with the decline in the number of students per school, average class size has fallen in all school phases except pre-primary education, as shown in Table 3.15 (see also Figures 1.A1.4 and 1.A1.6 of Annex 1.A1 of Chapter 1). State and church basic schools have experienced a fall in average class size. Though class size has risen in private basic schools, it is still considerably below that of state and church schools. Gymnasiums have suffered the most drastic decline of about 21% followed by that in vocational schools of about 16%.

Table 3.15. Change in average class size, 2003 to 2013

	_	_		
	2003	2013	Change in number	Percentage change
Pre-primary schools				
State	20.1	20.4	0.3	1.5
Private	16.7	17.0	0.3	1.8
Church	21.7	21.1	-0.5	-2.5
Total	20.1	20.3	0.2	1.0
Basic schools				
State	21.3	18.5	-2.8	-13.0
of which:				
Years 1-4	19.8	17.8	-2.0	-9.9
Years 5-8 (9)	22.6		-3.4	-14.8
Private	12.0	14.2	2.2	18.3
of which:				
Years 1-4	12.5	14.4	1.9	14.9
Years 5-8 (9)	9.8	13.9	4.2	42.7
Church	21.1	18.2	-2.9	-13.9
of which:				
Years 1-4	20.0	17.7	-2.4	-11.9
Years 5-8 (9)	22.0	18.7	-3.3	-15.0
Total	21.3	18.5	-2.8	-13.3
of which:				
Years 1-4	19.8	17.8	-2.0	-10.2
Years 5-8 (9)	22.6	19.2	-3.4	-15.1
Gymnasiums				
State	30.6	25.2	-5.4	-17.6
Private	23.1	15.0	-8.1	-35.2
Church	30.3	23.2	-7.1	-23.7
Total	30.2	24.0	-6.2	-20.5
Vocational schools				
State	26.3	22.7	-3.6	-13.9
Private	22.1	18.0	-4.1	-18.7
Church	26.9	20.8	-6.1	-22.8
Total	26.2	22.1	-4.1	-15.6

Note: Class size refers to the average number of students per class. Students attending lower-secondary education at 8-year gymnasiums are taken into account under "Gymnasiums". Data for special schools are not included. For gymnasiums and vocational schools, part-time students are not included.

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

As could be expected, class size is smaller in schools located in smaller municipalities. As shown in Table 3.16, in basic education, while average class size is 20.4 in schools located in municipalities with over 5 000 inhabitants, it stands at 13.3 in schools located in municipalities with fewer than 1 000 inhabitants (see Table 3.16). The same relationship, even if to a lesser extent, also exists for pre-primary education.

Table 3.16. Average class size, student-teacher ratio and number of schools by size of municipality, pre-primary and basic education, 2009 and 2013

	2009	2013	2009	2013				
		Class size by size of municipality						
	Pre-prima	ry schools	Basic s	schools				
Size of municipality								
<= 1 000	15.9	17.0	13.9	13.3				
> 1 000 and <= 2 000	18.3	19.5	16.2	15.5				
> 2 000 and <= 3 000	20.4	20.6	18.6	17.7				
> 3 000 and <= 4 000	20.7	21.2	19.0	18.5				
> 4 000 and <= 5 000	20.2	20.4	20.1	19.4				
> 5 000	21.0	21.4	21.0	20.4				
Total	19.61	20.34	19.05	18.46				
Size of municipality								
<= 1 000	8.9	9.4	11.3	10.6				
> 1 000 and <= 2 000	10.1	10.4	12.5	11.9				
> 2 000 and <= 3 000	10.9	11.0	14.1	13.3				
> 3 000 and <= 4 000	11.0	11.0	14.6	14.2				
> 4 000 and <= 5 000	10.4	10.8	15.5	14.7				
> 5 000	10.2	10.4	15.4	14.8				
Total	10.08	10.31	14.33	13.73				
Size of municipality								
<= 1 000	1 093	1 048	669	602				
> 1 000 and <= 2 000	580	582	561	553				
> 2 000 and <= 3 000	188	201	186	200				
> 3 000 and <= 4 000	91	78	89	79				
> 4 000 and <= 5 000	50	58	42	48				
> 5 000	871	903	677	677				
Total	2 873	2 870	2 224	2 159				

Source: Data supplied to the OECD review team by the Ministry of Education, Science, Research and Sports.

Compared to neighbouring countries and the OECD and EU data (see Table 3.17), classes are smaller in the Slovak Republic reinforcing the message that efficiency would be improved if the number of students per class were increased.

Table 3.17. Class size in the Slovak Republic and selected countries, 2011

	Primary education			Lower secondary education (general programmes)		
	Public institutions	Private institutions	Total: Public and private institutions	Public institutions	Private institutions	Total: Public and private institutions
Slovak Republic	17	16	17	20	18	20
Czech Republic	20	15	20	21	19	21
Hungary	21	20	21	21	20	21
Poland	19	12	18	23	18	22
OECD average	21	21	21	24	22	24
EU21 average	20	19	20	21	21	21

Note: EU21 average is calculated as the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which data are available or can be estimated.

Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

However, despite lower class sizes than neighbouring countries, the Slovak Republic has higher primary student-teacher ratios (STR) than neighbouring countries (except the Czech Republic) and higher or equal secondary STRs. Only in pre-primary education are STRs lower (except Hungary). STRs for the Slovak Republic tend to be around the OECD average (see Table 3.18).

Table 3.18. Student-teacher ratios in the Slovak Republic and selected countries, 2011

	Pre-primar	Pre-primary education		Secondary education		
	Students to contact staff	Students to teaching staff	Primary education	Lower secondary education	Upper secondary education	All secondary education
Slovak Republic	12	12	17	13	14	13
Czech Republic	14	14	19	11	11	11
Hungary	m	11	11	11	12	12
Poland	m	16	11	10	11	10
OECD average	13	14	15	14	14	13
EU21 average	11	13	14	11	13	12

Note: EU21 average is calculated as the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which data are available or can be estimated.

Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

These differences arise because the student-teacher ratio does not depend only on class size since it is calculated as:

$$STR = \frac{class\ size\ ^*\ hours\ of\ teaching\ per\ teacher}{hours\ of\ instruction\ per\ student}$$

The Slovak Republic has lower student instruction hours in the classroom than OECD and EU21 averages, as shown in Table 3.19, which can explain why it has similar STRs to international benchmark values while having lower average class size. Slovak pre-primary and primary teachers spend slightly more hours in the classroom than the neighbouring countries and secondary teachers less than the OECD and EU21 averages (see Table 3.20).

Table 3.19. Student instruction time in the Slovak Republic and selected countries, 2014

	Primary education	Lower secondary education
	Compulsory instruction time – average hours per year	Compulsory instruction time – average hours per year
Slovak Republic	680	828
Czech Republic	676	874
Hungary	616	710
Poland	635	810
OECD average	794	905
EU21 average	768	882

Note: EU21 average is calculated as the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which data are available or can be estimated.

 $Source: \ OECD \ (2014), \ Education \ at \ a \ Glance \ 2014: \ OECD \ Indicators, \ http://dx.doi.org/10.1787/eag-2014-en.$

Table 3.20. **Teachers' working time in the Slovak Republic** and selected countries, 2012

	Net	Net teaching time (hours per year)				Total statutory working time (hours per year)		
	Pre-primary education	Primary education	Lower secondary education	Upper secondary education	Pre-primary education	Primary education	Lower secondary education	Upper secondary education
Slovak Republic	1 035	819	635	607	1 575	1 575	1 575	1 575
Czech Republic	1 166	827	620	592	1 776	1 776	1 776	1 776
Hungary	1 158	604	604	604	1 864	1 864	1 864	1 864
Poland	1 149	633	561	558	1 816	1 520	1 504	1 488
OECD average	1 001	782	694	655	1 654	1 649	1 649	1 643
EU21 average	988	754	653	622	1 615	1 592	1 591	1 577

Notes: Data for the Czech Republic and the Slovak Republic refer to typical teaching time. Data for Hungary refer to minimum teaching time and data for Poland refer to actual teaching time. EU21 average is calculated as the unweighted mean for the 21 countries that are members of both the European Union and the OECD and for which data are available or can be estimated.

Source: OECD (2014), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

The class size problem is also compounded by Ministry of Education regulations on maximum class size, which forces schools to create a second class once this maximum is reached, though additional funding is per student not per class, which creates financial difficulties for some schools. Table 3.21 gives the current maximum class sizes, which were reduced for basic schools in 2008. Given the international evidence for developed countries that smaller classes do not significantly improve student attainment, except for younger children and those from socially-disadvantaged backgrounds, the value for money achieved by having smaller classes for intellectually gifted students, which is reflected in the salary normative, is highly questionable.

Table 3.21. Maximum class size rules, 2014

		•
	Maximum class size	Modification of rules
Pre-primary schools		
3-4 years old	20	Can be increased by 3 if more students join the class after the start
4-5 years old	21	of the school year due to change of address and other reasons.
5-6 years old	22	
3-6 years old mixed class	21	
Basic schools		
Year 0	16	Maximum class size decreases by 2 for each special needs student
Year 1	22	integrated into the class.
Years 2-4	25	Can be increased by 3 if more students join the class after the start
Years 5-9	29	of the school year due to change of address and other reasons.
Combined multiyear class in Years 1-4	24	
Intellectually gifted, Years 1-4	12	
Intellectually gifted, Years 5-9	16	
Secondary schools		
All years	31	Can be increased by 3 if more students join the class after the start
Intellectually gifted	22	of the school year due to change of address or other reasons.

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

Home to school transport is not organised in an effective way

Under current rules, parents are reimbursed for their child's home to basic school transport costs if the school is in a different municipality to their home, but not if the school is in the municipality in which they reside. This can be inequitable as a school in the same municipality as the parents' residence can require longer distance and more costly travel than to a school in another municipality. Furthermore, it is the regional state authority that organises home to school transport for which parents initially pay and are then reimbursed by the Ministry of Education via the municipality and school. These arrangements are ineffective in that they hinder municipalities in reaching agreement on school consolidation as they are not in direct control of the consequent bus transportation arrangements. An additional problem with students paying for travel up front is that it discourages school attendance by students from poor families. There is further inequity in that students have to pay for transport to upper secondary school, which is a deterrent to continuing education for socially marginalised young people, as illustrated by the extremely high proportion of the Roma population aged 18-24 in the Slovak Republic with at most lower secondary education and not in further education or training (83% according to a survey by the European Union Agency for Fundamental Rights, 2014).

School student admission procedures are inefficient

Student admission procedures are inefficient for basic schools. Parents apply directly to each basic school and may make multiple applications. Since there is no central clearinghouse for information on which school place parents have accepted, schools do not know until the start of the school year how many students will actually enrol. This uncertainty about student numbers makes it difficult to plan staff deployment and the school budget. The situation is different for upper secondary schools, which set admission tests. Students apply to schools through a central clearing system, which allocates places according to students' school choices, their test results, with higher-ranked students getting their first choice. After the initial round, further rounds take place until all students are matched to remaining vacant places or until all places are filled.

The funding system seems to have led to a substantial increase of students categorised as having special educational needs

Since the formula funding system was introduced in 2003, the number of special basic schools has declined by about 21% while the number of special secondary schools has risen (see Table 3.22) by about 57%. Despite the decline in the school-age population, the number of basic and secondary age students attending special schools or integrated into mainstream schools has soared.

The funding system, linked perhaps to competition for students, appears to be encouraging mainstream schools to have more children identified as having special educational needs while the number of students in special basic and secondary schools has increased rather than declined. As shown in Table 3.23, the number of students in special basic schools and special secondary schools has increased by 11% and 18% respectively between 2002 and 2013. The spurt in the number of special needs students attending mainstream schools and so attracting additional funding has risen spectacularly by 250% in basic schools and in secondary schools from a mere 195 in 2003 by over 3 000%. While the additional normatives for students with special educational needs were noted as a strength in terms of equity, the response of the school system and the professionals who have identified so many more children as having special educational needs is a matter of concern.

Table 3.22. Change in the number of special schools, 2002 to 2013

	2002	2013	Change in number	Percentage change
Special pre-primary schools				
State	65	41	-24	-36.9
Private	0	7		
Church	2	3	1	50.0
Total	67	51	-16	-23.9
Special basic schools				
State	288	208	-80	-27.8
Private	1	16	15	1 500.0
Church	4	9	5	125.0
Total	293	233	-60	-20.5
Special secondary schools				
State	84	124	40	47.6
Private	1	4	3	300.0
Church	0	5	5	-
Total	85	133	48	56.5

Notes: Base year 2002 was chosen because the number of special schools peaked then.

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

Table 3.23. Students with special educational needs (SEN) by learning setting, 2002 and 2013

	2002	2013	Change in number	Percentage change				
Number of students in special schools								
Special pre-primary schools	1 460	1 105	-355	-24.3				
Special basic schools	25 737	28 625	2 888	11.2				
Special secondary schools	5 297	6 255	958	18.1				
Proportion of students in special school	ls (as a percentage of to	tal number of students						
Special pre-primary schools	1.0	0.7						
Special basic schools	4.1	6.3						
Special secondary schools	1.7	2.7						
Number of SEN students attending main	nstream schools							
Pre-primary schools	776	513	-263	-33.9				
Basic schools	6 450	22 576	16 126	250.0				
Secondary schools	195	6 887	6 692	3 431.8				
Proportion of SEN students attending mainstream schools (as a percentage of total number of students)								
Pre-primary schools	0.5	0.3						
Basic schools	1.1	5.0						
Secondary schools	0.1	2.9						

Note: SEN students attending mainstream schools consider students with disabilities only.

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

The management of school budgets is undertaken with little capacity

There are weaknesses in school budget planning by some school leaders who do not link the school conceptual (development) plan to the budget. For instance, one school leader had developed a conceptual plan (the equivalent of a school development plan) but it contained no links to the school budget. In other schools visited, where the conceptual plan did require financial action, this was restricted to equipment and maintenance and there was no apparent linkage to educational priorities for improvements in student learning. School budget planning tended to be restricted to an account's perspective of how

to finance staff salaries, utilities, and repairs and school accounting staff played a dominant role in advising on such expenditures. Consequently, the school budget plan was not primarily driven by educational objectives. Indicative of this was the lack of integration between a school development plan, focused on improving student learning, and the school budget as a key means to implement this plan. School leaders appeared to lack familiarity with this approach (Ainscow et al., 2012) which is not surprising, as according to school leaders interviewed, the functional training for school leaders does not include school financial and resource management.

The absence of value-added measures of school performance limits strategic budget planning and the publication of raw test results might increase social segregation between schools

There is a lack of sufficient and appropriate data analysis of the quality of student outcomes taking into account the social or prior attainment factors that determine these outcomes. Without such value added analysis of student outcomes at individual student level and school level, it is impossible to judge the contribution of a school to its student outcomes and hence to make a fair and reasonably accurate assessment of the quality of the school. Due to the lack of such information, schools are not able to evaluate their strengths and weaknesses fully and identify appropriate improvements as part of budget planning. There is also inadequate data to determine which VET school programmes provide their graduates with good labour market prospects (see also Chapter 2).

The ranking of schools by raw (i.e. unadjusted for value added) test results provides students and parents with distorted information about the quality of schools. Because of school choice and per capita funding raw results ranking may incentivise schools to avoid enrolling students whose performance will lower the schools' raw test results. If this occurs then further social segregation between schools is likely which harms students from socially-disadvantaged backgrounds.

There are limitations in the operation of the schools' market

Apart from offering parents greater school choice, other benefits of the way the schools' market operates in the Slovak Republic are elusive. As demonstrated above, new entry by private and church schools, encouraged by the funding system, has resulted in smaller schools and class sizes and hence a higher-cost school system with no evident increase in student learning outcomes.

Some stakeholders consider that the schools' market, combined with the decline in the overall number of students, has resulted in a reduction in the quality of student learning. This is cited with respect to the lowering of entry standards for *gymnasiums* as they compete for students and admit students who some years ago could only have gained admission to vocational schools. It is claimed that consequently students have less incentive to get good marks at the end of Year 9 and that the marginal *gymnasium* students are ill-advised to have a general *gymnasium* education rather than follow a vocational track which would give them better employment opportunities. The evidence for the consequences of widening access to four-year *gymnasiums* has not been presented. It could be argued that extending access to *gymnasium* education to all who want it is inclusive and beneficial. Nevertheless, in 2014 the Ministry of Education issued a regulation requiring *gymnasiums* to set a threshold mark of at least 2 for *gymnasium* entry (the average for all

students being 2.7). This regulation was withdrawn after the Constitutional Court ruled that preventing students from entering general upper secondary education because of low marks is unconstitutional.

Also, competition between state and non-state schools is unfair in several respects. Private and church schools receive the state school student normative and can charge fees without any reduction in state funding. Church and private schools can add funding from charitable donations, though all schools may raise donations from up to 2% of tax payments. These donations are not paid directly to schools but to a not-for-profit organisation associated with the school. In 2013, 1 880 educational institutions (e.g. schools, school facilities, parents' associations) received donations from tax payments (Institute for Financial Policy, 2015, table on p. 5).

Parental contributions are not transparent

Financial contributions from parents in state schools are not sufficiently transparent with respect to the items they fund and how they are recorded. According to a study published in 2007 between 70% and 90% of parents pay for various services, such as school events, extracurricular activities or teaching materials (Kubán et al., 2007). There is also some anecdotal evidence that suggests that some schools place pressure on parents to pay such contributions, which is inequitable (Educational Policy Institute, 2015). Households in the Slovak Republic contribute 15% of pre-primary education expenditure and 10% of primary and secondary expenditure (OECD, 2014). Private contributions to public services should be encouraged, in general, but this makes it necessary to increase attention to integrity and equity considerations.

Restrictions on schools' ability to carry over budget savings from one year to the next do not provide incentives for school efficiencies

Schools are unable to save money from running a budget surplus for more than three months into the next financial year. This limitation can result in inefficient spending as schools seek to spend their annual budget within the time limit rather than wait and spend on items that are more useful for the school. Another disadvantage of not being able fully to carry over unspent funds is that schools are unable to save for large capital projects, though this would require the ability to carry over unspent surpluses for several years. However, allowing unregulated carry-over of budget surpluses can lead some schools to accumulate excessively large balances and consequently not spend money that was intended for the current generation of students.⁷

The funding formula does not meet the costs of experienced teachers

Teachers' salaries rise with years of service (see Chapter 4) but the salary normative is adjusted only for differences between schools in teacher salaries due to qualifications. This means that schools with longer serving teachers are more stretched in paying for their salaries costs than similar sized schools with younger staff. In countries where funding levels are more generous, such as England, the funding formulae used by local authorities do not take account of salary differences but with much tighter budgets as in the Slovak Republic, there is more need for the funding formula to reflect teacher salary differences.

There is a lack of audit capacity

For follow-up auditing the Ministry of Education Control department has 18 staff for auditing all types of education spending. They do not have sufficient staff to check schools' accounts. Apart from the local auditor, schools' accounts are infrequently audited. For example, the Prešov regional state authority does ten planned school audits a year and only one or two unplanned audits in response to concerns. Much greater concern was expressed about the lack of follow-up audit of public money received by church and private schools. Absence of auditing of data on student numbers, which schools and founders have incentives to inflate, should be of greater concern than the auditing of school budgets. The only checks done on student numbers are statistical checks and it seems that state personnel (e.g. inspectors) do not check student enrolment data at schools. However, the new method of collecting individual student data, with each student having an identity number, will make it more difficult to inflate student numbers than when aggregate data only were collected from schools.

Policy recommendations

Increase overall public spending on education, while addressing key efficiency concerns

The Slovak Government should continue efforts to increase the amount spent on school education in real terms and as a percentage of GDP as can be afforded, given general economic conditions and government fiscal policy. Priorities for increased real terms funding are early childhood education and increasing teacher and school leader salaries (see also Chapters 4 and 5). It is also desirable to enable schools to increase both the amount and proportion of school budgets spent on learning materials and equipment. A general increase in the total amount allocated to school budgets would enable schools to spend more on both staff and learning materials/equipment. For schools to be able to spend a higher proportion of their budgets on learning materials/equipment than at present, the growth in school budgets would have to exceed the amount needed to pay higher teacher and school leader remuneration. Given the constraints on increasing the real value of education expenditure, it is all the more vital to secure efficiencies within the existing education budget, as proposed below by rationalising the school network so as to reduce the number of small schools and small classes.

Maintain the main features of the funding formula

The current funding system has many strong features and should not be drastically changed. Some stakeholders wish to see a class size element added to the funding formula but have differing views on its purpose. For some stakeholders it is a way to protect schools with small classes due to low student enrolments or schools that have to divide a class once the maximum size set by regulations is reached.

Clearly, a funding formula should not take into account the actual number of classes as this would create a strong incentive for inefficiency as founders and school leaders would have no incentive to reduce the number of classes by raising class size. To avoid this, the formula would need to calculate the appropriate class size for each year level in each school, given student numbers in each year level and fund the school according to the "normative" number of classes thus calculated. The appropriate class size criteria would be those set by the Ministry of Education. Such a class size element in the formula satisfies the objective of fairness since funding per student is better matched to actual costs and

would replace the current compensation weight for founders with fewer than 250 students studying in a specific language of instruction, which serves the same objective. A normative class size element is consistent with the ethos of school autonomy of leaving decisions on class organisation to the school leader and school board, who can best judge whether it is in the interests of the students to spend money on extra teachers or on alternative modes of learning support.

However, formula elements that sustain small classes do not promote efficiency unless the schools thus protected are only those that must be retained to ensure student access to schools which teach in their language of instruction. Given political pressures from stakeholders, it is likely that such a class size component for additional funding would make it difficult to put pressure on founders to create more efficient-sized schools and classes in locations where such schools could be restructured without harming student access. Even with the current compensation component removed, adding a class size component would greatly complicate an already complex formula since the database would need to contain information on the numbers of students by language of instruction in each year level in each school in order to work out the normative number of classes for each school. The complexity of doing this is well illustrated by the revised Estonian school funding formula (see Levačić, 2011). Since small schools and, in particular, small classes for minority languages are already protected by the size compensation weighting and the upper secondary year levels' need for split classes is already reflected in the student-teacher ratio assumed for the school type in the formula, there is little reason to include an even more complex class size element in the formula.

An alternative type of class size element in the formula is the specification of a threshold class size or average school class size below which students would not be additionally funded or, alternatively, would not even qualify for any funding, unless the school is identified as meriting "protection" in order to maintain student access in remoter areas or to a minority language of instruction. This would promote class consolidation if the minimum class size specified is sufficiently high, though such a rule might well face considerable opposition from some stakeholders. A normative class size element in a funding formula is not a common feature for protecting small schools – for example, formulae in Australia, England and New Zealand do not contain such an element for mainstream schools. Australia and New Zealand have included in their school funding formula an isolation index for schools in remoter areas which need to remain funded in order to ensure student access.

Create stronger financial incentives for school rationalisation and class consolidation

Given the tight financial constraints on education spending, it is vital for the system to use available resources as efficiently as possible. During the period in which funding by formula has been in place, the school network has become less efficient in cost terms as school and class sizes, except for pre-primary schools, have declined in the face of a continuing fall in student enrolment, though this is now coming to an end for a while with rising numbers of young children. The funding system has permitted inefficiency to increase due to encouraging entry by church and private providers and continuing to fund a very large number of founders with low enrolments who, thanks to the compensation component, are able to maintain small schools and small classes. While it is commonly thought that small classes improve student learning, this popular assumption is not supported by international research evidence, except for very young and socially

Box 3.1. How important is class size?

The evidence base on the link between class size and attainment, taken as a whole, finds that a smaller class size has a positive impact on attainment and behaviour in the early years of school, but this effect tends to be small and diminishes after a few years (Department for Education, 2011).

Research findings from England show that in smaller classes, individual students are the focus of a teacher's attention for more time; there is more active interaction between students and teachers; and more student engagement. In larger classes, there is more time spent by students interacting with each other; more time spent by teachers teaching the substantive content of the subject knowledge; and more time spent on non-teaching tasks like taking registers (Department for Education, 2011).

Smaller classes have been found to lead to a small increase in the number of years a student spends in post-compulsory education. A study from Denmark estimated that a reduction in class size during the whole of compulsory schooling by 5% (from an average class size of 18) provides a rise in post-compulsory education by approximately eight days (Department for Education, 2011). In other words, a 5% reduction in class size during the whole period a student is in compulsory education results in the student spending eight more days in post-compulsory education than if class size had not risen by 5%.

A study by Hattie (2009) found the impact of reducing class size on attainment to be smaller than the impact of other interventions. Hattie argues that value for money in raising attainment in schools is better achieved through other interventions than class size reduction. This is supported by research from Rivkin et al. (2005) which finds that increasing teacher effectiveness has greater value for money than reducing class sizes, while Hanushek (2011) suggests assigning the most effective teachers to the largest classes to maximize the potential benefit.

According to OECD (2013), while some research shows that smaller classes can improve non-cognitive skills (Dee and West, 2011), research on class size has generally found a weak relationship between small classes and better performance (Ehrenberg et al., 2001; Piketty and Valdenaire, 2006). Class size seems to be more important in the earlier years of schooling than it is for 15 year-olds (Finn, 1998; Chetty et al., 2011; Dynarski, Hyman and Schanzenbach, 2011).

disadvantaged students. Rather, research has shown that unless classes are exceptionally large, money is better spent on other ways of supporting student learning, in particular in improving the quality of the teaching (see Box 3.1).

As far as the funding system is concerned, the large number of founders with low student enrolments is a given structural factor that can only be changed through public governance reforms. However, there are a number of modifications to the funding system that would provide better efficiency incentives for school founders, school leaders and boards to rationalise schools and consolidate classes.

To encourage further consolidation, the Ministry of Education should define an average minimum class size below which a school is not funded from the state budget if the school's average class size remains consistently below the threshold size for a given number of years – three years, for example. Average class size would be measured as the average number of students (of a specific language of instruction)⁹ per year level, since a small school would not be forming more than one class per year level. Founders would be

informed after the first year of below-threshold class size that if this continues funding will be withdrawn. To give additional protection to minority language students, a smaller class size threshold would apply than for classes in the Slovak language of instruction. Different class size thresholds should be defined for different education levels and rural locations. Primary age classes, in particular in Years 1 to 5, need to be smaller in rural areas than classes for secondary aged students, who are capable of travelling longer distances to school. The definition of minimum class sizes would replace the current power for self-governing regions to decide which founder's Year 10 classes to fund. A class size threshold would, to some extent, limit the number of students that could be admitted to aymnasiums, especially if combined with a maximum class size limit. If a minimum average class size threshold is introduced, then the current compensation weighting would not apply to students who are in schools where the actual average class size is below the minimum threshold class size. However, the compensation weighting would apply to the number of students of the same founder in schools with average class size above the threshold class size. ¹⁰ The same rules should apply to church and private founders already included in the network of schools. The Ministry of Education is due to issue minimum class size regulations from September 2016 and these are summarised in Table 3.24. However, it is not clear how far these rules will be enforced, or if, as recommended here, these rules will be applied in the funding formula so that schools with fewer students than below the minimum have funding withdrawn.

Table 3.24. Minimum class size rules to be introduced from September 2016

	Minimum class size	Modification of rules
Basic schools		
Year 0 (school offers fewer than 9 year levels)	6	Can be decreased by 2 in a school with both official language
Year 0 (school offers Years 1-9)	8	and minority language of instruction or in a municipality
Year 1	11	with 2 or more schools with different languages
Years 2-4	13	of instruction.
Years 5-9	15	Founder can reduce minimum class size: if students
Combined multiyear class in Years 1-4	12	would have to travel more than 6 km; for minority language
Secondary schools		students if no school teaching in that language is available
All years	17	within 6 km from home; and more than 80% of students are socially-disadvantaged; other reasons.
Vocational schools: for study programmes whose graduates are in excess demand in the labour market	13	are socially usauvalitageu, utilet reasons.

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

As an alternative to introducing a minimum class size threshold, further measures could be taken to put financial pressure on founders with small schools and classes by modifying the existing compensation allocation. For example, the existing weighting for founders with fewer than 150 students could be reduced below 1.495 rather than remain constant at 1.495, as at present in the formula. The weighting could, for example, be reduced to 1 (i.e. removed) when the founder has fewer than 150 students or gradually reduced to one, say between 150 and 100 students.

The minimum number of students required before a school is approved for inclusion in the network should be raised to an average class size of 20 for Years 1-9 and 25 for Years 10-13. At present it is only 30 students for a school offering only the 1st stage of basic education (Years 1-4) which is 7 to 8 per single year level class and 150 for a basic school (Years 1-9) or 16-17 per single year level class (Educational Policy Institute, 2015).

Maintaining a sufficiently high class size threshold before schools could be included in the network would go some way to address the problem that new entry from the private sector, stimulated by receiving the same per student formula allocation as state schools, has resulted in reducing average school size and thus the efficiency of the school system.

Financial pressure on schools having to split classes to prevent a breach of maximum class size rules would be eased by making maximum class size rules more flexible so that schools have more freedom to decide on their own class and teaching group formations, given their educational objectives and budget constraints. Maximum sizes should be increased and schools allowed to raise them further after obtaining permission from a relevant authority or even abolished altogether. In England, for example, there are no maximum class size rules except a student-teacher ratio of 30 for children aged five to seven. Schools manage their own budgets and are free to determine class sizes for all other year levels.

Per capita funding alone is generally not sufficient for school rationalisation as was concluded by a World Bank study of six transition states that had introduced formula funding of general education:

"Regarding the rationalization of school networks, the country case studies demonstrate that the closure of under-enrolled schools is by no means an automatic corollary of putting in place per capita funding and that local governments play a key role." (Alonso and Sanchez, 2011: xix)

In addition to the financial incentives provided by an appropriately designed funding formula, the government needs to implement other policy measures to encourage or enforce school and class rationalisation. The cited World Bank study singled out two of the six case-study countries as more successful than the others in achieving school consolidation.

"Lithuania succeeded in rationalizing its school network by a combination of the incentives inherent in a funding formula as well as the obligation imposed on all municipalities by the central government to adopt network consolidation strategies."

"Georgia, on the other hand, conducted a centrally mandated massive school network consolidation process in preparation for and as a precursor to implementation of per capita funding." (Alonso and Sanchez, 2011: xix-xx)

Expand the equity components of the formula

At present, some funding for special educational needs and socially-disadvantaged students in mainstream schools is included in the non-normative budget. It would simplify the funding system and make the formula more comprehensive to include within it all the funds intended for improving vertical equity. Thus, around 13% of non-normative funding currently allocated for teaching assistants and socially-disadvantaged students would be switched into normative funding and allocated via formula. One advantage of this change is that the number of students assessed as having "special needs", which is currently used as the indicator for allocating special needs funding to mainstream schools, could be replaced by indicators of the incidence of special needs students, which are not capable of being manipulated by schools. Examples of such indicators are variables measuring social disadvantage (such as poverty, unemployment, poor housing, and low education level) in the immediate community of the school, which are correlated with the incidence of special needs in schools. The relationship between community social indicators, often derived from census data, and the incidence of special needs students can be established by

research evidence, using methods such as those pioneered by Ross (1983). Further consideration should be given to including an additional component within the formula for Roma students allocated according to their number and year level or, alternatively, in relation to a measure of broader social disadvantage of the school's students – as in the New Zealand school funding formula described below.

In order to provide schools with additional funding to enhance the education of children whose learning needs stem from social disadvantage, there is no need to identify individuals. All that is needed are indicators of social disadvantage of the area that correlate with the incidence of students needing additional learning support in individual schools. 11 Identifying individual students as having special needs in order to secure funding has a number of disadvantages: individuals are labelled as "special needs" which may cause them distress or be an inappropriate categorisation. It can also lead to inequity in funding if some schools are better than others at getting students categorised as having special needs and, as observed in a number of countries including the Slovak Republic, this procedure also sets in motion a steady growth in the number of students thus categorised and funded. By using social indicators in the allocation of funding to support the education of special needs students, the number that need to be individually identified through assessment procedures can be reduced to a very small percentage (2-3%). When the criteria used for assessing students as having physical or learning impairments are transparent, unambiguous and applied impartially by educational psychologists, inflation of the numbers of students thus identified over time and inconsistent categorisations are much less likely to arise.

Another way of reducing the incentive for schools to identify individuals as special needs students in order to get more resources is to allocate some of the funding for special needs to all basic schools, as a fixed percentage of their formula budget. This is based on the premise that all non-selective state schools have a proportion of students requiring additional support. This should assist in decreasing the number of such students classified as having special needs – as recommended below. Another option for achieving this is to use indicators of social and economic disadvantage in self-governing regions or districts (i.e. areas larger than municipalities) for the allocation of additional funding for these authorities to redistribute to schools in their areas according to locally-agreed criteria that do not involve the identification of individual students.

Countries with well-established formulae include a range of indicators within the formula for allocating additional funds for students with various forms of disadvantage. Hill and Ross (1999) propose as the main dimensions for addressing vertical equity in a school funding formula:

- Socio-economic disadvantage.
- Non-fluency in the language of instruction.
- Low educational attainment at a previous stage of education (which can be predicted from indicators of social disadvantage).
- Disabilities, impairments and learning difficulties.

Since the mid-1990s New Zealand has operated a school funding formula which allocates funds from central government directly to schools. Its measurement of social disadvantage using census data from the areas in which students live gives the formula

high integrity as schools cannot manipulate the indicator by identifying students as having learning difficulties in order to receive funding. Instead, the incidence of student need for additional support is predicted by the area social disadvantage indicator (Ross, 1983).

In New Zealand, there are two distinct allocations to address vertical equity:

- Special Education Grant (SEG): extra assistance to students with moderate learning needs.
- Targeted Funding for Educational Achievement (TFEA): to overcome the barriers to educational achievement associated with low socio-economic status.

Both are allocated according to the decile of social disadvantage to which the school's students belong (see Table 3.25). A school's social disadvantage score is derived from indicators measured in the household census for the enumeration areas in which the students live. The social disadvantage indicators are:

- Household income.
- Occupation of parents.
- Household crowding.
- Educational qualifications of parents.
- Income support.

Table 3.25. Amounts of formula components for special educational need and social disadvantage in New Zealand

Per student amount (NZD)

	Targeted funding for educational achie	vement	Special education grant	
Decile	Categories	Per student amount	Per student amount	
Decile 1	A	905.81	73.94	
	В	842.11	73.94	
	С	731.30	73.94	
Decile 2	D	617.80	71.83	
	E	507.01	71.83	
	F	420.54	71.83	
Decile 3	G	350.25	67.61	
	Н	277.32	67.61	
	I	220.59	67.61	
Decile 4	J	182.74	63.38	
	К	149.99	63.38	
	L	135.12	63.38	
Decile 5	M	115.76	59.16	
Decile 6	N	93.71	54.93	
Decile 7	0	71.64	50.72	
Decile 8	Р	46.86	46.50	
Decile 9	Q	28.93	42.26	
Decile 10	Z	0.00	38.05	
	Base amou	nts per student		
Year level		Per stude	ent amount	
V.1. V.C		0.0	-0.07	

Year level	Per student amount
Y 1 – Y 6	853.27
Y 7 – Y 8	956.63
Y 9 –Y 10	1 090.99
Y 11 – Y 15	1 210.61

Source: Ministry of Education of New Zealand (2015), Operational Funding Rates, www.education.govt.nz/school/running-a-school/resourcing/operational-funding/operational-funding-rates-for-2014-and-2015/.

Using the formula to allocate funding intended to support students with special needs rather than providing resources in kind, such as teaching assistants, gives schools autonomy in deciding how best to spend the money on supporting students with special needs. Different students in different school contexts benefit from different ways of using the additional funding: teaching assistants are not always the best resource. Schools are also able to identify individual students or groups of students who would benefit from additional support so there is no need for a process of categorising individual students in order to secure funding for special needs, a good proportion of which can be allocated using social indicators. If schools have greater autonomy in spending funds intended to support students with special needs, they should be required to demonstrate how this funding has been used to additionally support the education of students with special needs (e.g. to be documented in school annual reports; to be audited as part of school inspection). Another approach to accountability would be to collect and analyse data on students' prior and later attainment in order to measure and compare the progress of special needs students in comparable schools, but this would require the establishment of objective comparative measures of student progress in learning.

Include a weighting for teacher experience in the formula

Consideration should be given to including a weighting in the formula for higher teacher salaries due to experience. As the formula already includes a weighting for teacher qualifications, on the grounds that schools with higher qualified teachers should not be penalised for having higher per teacher costs, so the same argument applies to higher per teacher costs due to experience, unless the data on years of teacher experience are difficult to collect. A further consideration that would militate against this proposal is if the Ministry of Education wishes to give schools a financial incentive to employ younger teachers, especially given the provision that retired teachers can continue in post without foregoing any pension.

Introduce grants for socially-disadvantaged students to attend upper secondary schools

Students from socially-disadvantaged backgrounds should be supported by a maintenance grant to cover some of the expenses of attending school, such as transportation costs, equipment and foregone earnings. This would be contingent on regular school attendance and satisfactory progress. An example of such a grant is the United Kingdom's Education Maintenance Allowance (replaced, in England, in 2011 by a 16-19 bursary scheme) (see NIDirect, 2014), which evaluation studies showed to be effective (Middleton et. al., 2003).

Invest in pre-primary education

An expansion of pre-primary education, especially for socially-disadvantaged communities is required. At present, the Ministry of Education is addressing this problem through capital projects with EU support. In regions with high concentrations of Roma, a further 15 modular schools were built in 2014. Another project, "Development of educational infrastructure for marginalised Roma communities" has available EUR 47 million for 82 municipalities to expand pre-primary provision. In addition, the state budget for 2015 allocated EUR 14.5 million to pre-primary education capital works and to assist the municipalities with the highest pre-primary education needs (see Chapter 2). Also, as

described in Chapter 2, the agreement between the European Commission and the Slovak Republic for the programming period 2014-20 gives high priority to the expansion of pre-primary education. Such projects need to be expanded until the demand for places can be satisfied.

The current financing of pre-primary provision also requires reform, with the ultimate aim that all children aged 3-5 can attend if their parents so wish and no child is prevented from attending because their parents cannot afford the fees. Since pre-primary education is so important in preparing a child for basic education it should be changed from an "original" to a "transferred" responsibility and become fully funded by the Ministry of Education through appropriate normatives (see also Chapter 2). Such a move would also contribute to a better monitoring of the sufficiency of places offered in relation to demand for them.

Improve the funding of teacher professional development

Although 1.5% is added to the salary normative, teachers reported difficulties in accessing professional development due to a lack of financial support from the school budget. They often had to attend free courses provided by the Methodology and Pedagogy Centre, which some teachers thought not relevant, nor of high quality. A solution to these challenges is to fund professional development so that it is demand driven by the needs of the school and its teachers and so that the costs are borne less by teachers than at present (see also Chapter 4). One way would be to earmark a certain percentage of the salary normative for professional development; another would be to indicate strong expectations of this proportion being spent on professional development or alternatively to give each teacher a personal allowance which could be spent over several years. The budget allocated to the Methodology and Pedagogy Centre could be partly or wholly put into school budgets so that the Centre has to earn its income by producing professional development that is demanded by teachers. EU funding that is available for professional development projects could be transferred to school budgets.

Create a textbook market

In order to improve the quality and relevance of textbooks and teaching materials, the money for these should be transferred to school budgets (possibly earmarked) and a regulated market created in textbooks and teaching materials. Given that the Ministry of Education sets in law learning objectives and competencies to be attained by students and that this is externally assessed, there is no need also to regulate the input of textbooks in the learning process. This should go alongside procedures for the Ministry to accredit textbooks as valid options for schools to choose from. Where the market in the Slovak Republic for a potential textbook is too small to be financially viable, teachers and students could be provided with downloadable on-line materials. Teachers should be encouraged to share self-created teaching materials, especially if there are insufficient funds for the Ministry of Education to commission such materials from experts. Nonetheless, the latter option would also be valid in case a specific learning area is not covered by the market. Given the complexity of creating a textbook market, it is recommended that the Ministry commissions a dedicated study prior to engage in this direction. Finally, in view of some shortages in the supply of textbooks to schools in recent years, efforts are needed to ensure sufficient funding for textbooks.

Review the identification and funding of students with special educational needs

The data presented in Table 3.23 demonstrate that the additional funding normatives for integrating students with special educational needs (SEN) in mainstream schools has not been as successful as desired in shifting students from special schools to mainstream schools. Instead, both categories of SEN students of compulsory school age have grown over the last 10 years at a rate that should set alarm bells ringing. In 2013, 6% of Year 1-9 students were in special schools and 5% were attending mainstream schools (see also Chapter 2). In contrast in England the percentage of identified students with statements of SEN, which entitle them to additional funding either in mainstream or special school, has been static since 2009 at 2.8% and the percentage identified as having SEN at school level but without statements has been declining over the last five years and in 2013 was 16% (Department for Education, 2013a).¹³

As also suggested in Chapter 2, a rigorous review is needed of teachers', school leaders' and educational psychologists' practices in identifying students for special school attendance or integration to discover to what extent this increase has been driven by the attractions of additional funding and the intention to place socially-disadvantaged children, in particular Roma, in special schools. The Ministry of Education needs to be more proactive in ensuring that assessment for SEN categorisation and hence funding is carried out using consistent criteria and is not motivated by other considerations such as obtaining increased funding or little motivation to include certain students groups in mainstream education. This relates to the implementation of 30 June 2015 amendment to the School Act that stipulates that only students with an identified disability should attend a special school or a special class in a mainstream school (see Chapter 2). Also, one way to remove the financial incentive for SEN categorisation is to make the funding for SEN dependent on factors outside the school's control (such as social deprivation indicators for the local community) and also to provide a fixed percentage of funding for all basic schools to spend on those students it considers require additional support (as suggested above).

In a school system which is notably inequitable (see Chapter 1 and Shewbridge et al., 2014) identifying gifted students, who are already intellectually privileged, for additional funding seems unlikely to secure value for money or reduce educational inequalities. The Ministry of Education should consider removing at least part of such additional funding for gifted students and instead focus on ensuring an appropriate and differentiated curriculum for able and talented students within the regular classroom.

Improve arrangements for home to school transport

Home to school transport should be funded and provided directly by municipalities, self-governing regions or regional state authorities to replace reimbursement of fares paid initially by parents. This would remove a bias against poor parents who find it difficult to find ready cash and also prevent students misspending the bus fare money on other items. Free home-to-school transport should also be provided for upper secondary school students from low-income families, so that their participation in upper secondary education is not inhibited by transport costs. The organisation of home-to-school transport should be better co-ordinated in order to make school consolidation involving several municipalities easier to achieve. Given the small number of schools that most municipal founders maintain, rather than expect several municipalities to self-co-ordinate home-to-school transport, a more efficient solution is that self-governing regions continue to undertake this task but with greater involvement of municipalities when planning

school consolidations. It is not necessary to provide dedicated school buses as a cheaper alternative but, in the absence of suitable public transport, an option is contracting private bus operators to provide home to school services.

Introduce a central clearing-house for school admissions

Central-clearing procedures for admissions in basic schools, especially to the initial year level of each phase (i.e. Years 1 and 5 in particular), should be introduced in order to reduce schools' uncertainty about enrolment at the beginning of the school year. This would facilitate school budget planning by creating greater certainty about revenues and spending needs in the coming school year. Organisations for co-ordinating schools' admissions would need to be identified: these could be large cities, groups of rural municipalities, self-governing regions or regional state authorities. For example, in England, local authorities are legally required to co-ordinate admissions applications for all parents living in their designated area even if the parent applies for a state funded school not maintained by their local authority.

Greater consistency and transparency in schools' admissions criteria operated for selecting students is desirable, especially for schools where the number of applicants exceeds the number of places (over-subscription). This would also apply to secondary schools. Non-state schools receiving state funding should be required to adhere to the same admissions rules and be included in arrangements for co-ordinating schools' decisions on which students to admit. An example of a legally mandated Admissions Code from England is given in Box 3.2, which displays selected extracts from the code.

Adjust the public funding of non-state schools

The national government should reconsider its policy of providing non-state schools exactly the same amount of money that is spent on students in state schools given that non-state schools are allowed to charge tuition fees. Providing such substantial subsidies to generally wealthier households to opt out of the state school system raises equity issues and over the longer term quality issues by depriving state schools of the input of potentially more engaged parents and students. It also runs against the state's objective of consolidating the system into schools of an effective scale and in this light can be considered counter-productive. Alternatively, non-state schools could receive the same amount of public subsidy as long as they do not charge tuition fees. In such a system, non-state schools would see their public subsidy reduced in proportion to the level of the tuition fees they charge. In addition to making the system more equitable (ensuring similar levels of funding per student across schools in the Slovak Republic), this approach would assist in providing additional funds to raising teacher salaries thereby potentially increasing teacher quality.

In case the national government maintains the current approach to the public funding of non-state schools, it should at the very least undertake the monitoring of the uses by non-state schools of the funds raised through tuition fees. It is vital to assess whether such funds are indeed invested in the educational services provided by the schools and not kept as "profits" by the school founders.

Improve transparency of parental contributions and fees

It should be made clear, via regulations if necessary, that state schools should not put any pressure on parents to pay voluntary contributions and these should be entirely at the

Box 3.2. Schools Admissions Code in England

- ... (d) Parents apply to the local authority in which they live for places at their preferred schools. Parents are able to express a preference for at least three schools. ...a parent can apply for a place for their child at any state funded school in any area. If a school is undersubscribed, any parent that applies must be offered a place. When oversubscribed, a school's admission authority must rank applications in order against its published oversubscription criteria and send that list back to the local authority.
- 1.6. The admission authority for the school must set out in their arrangements the criteria against which places will be allocated at the school. ...All children whose statement of special educational needs (SEN) or Education, Health and Care (EHC) plan names the school must be admitted.
 - 1.7. All schools must have oversubscription criteria.
- 1.8. Oversubscription criteria must be reasonable, clear, objective, procedurally fair, and comply with all relevant legislation, including equalities legislation. Admission authorities must ensure that their arrangements will not disadvantage unfairly, either directly or indirectly, a child from a particular social or racial group, or a child with a disability or special educational needs, and that other policies around school uniform or school trips do not discourage parents from applying for a place for their child.
 - 1.9. It is for admission authorities to formulate their admission arrangements, but they must not:
- a) place any conditions on the consideration of any application other than those in the oversubscription criteria published in their admission arrangements
- b) take into account any previous schools attended, unless it is a named feeder school
- c) give extra priority to children whose parents rank preferred schools
- d) introduce any new selection by ability
- e) give priority to children on the basis of any practical or financial support parents may give to the school or any associated organisation, including any religious authority
- f) give priority to children according to the occupational, marital, financial or educational status of parents applying
- g) take account of reports from previous schools about children's past behaviour, attendance, attitude or achievement, or that of any other children in the family
- h) discriminate against or disadvantage disabled children, those with special educational needs, or those applying for admission outside their normal age group where an admission authority has agreed to this.
- i) prioritise children on the basis of their own or their parents' past or current hobbies or activities (schools which have been designated as having a religious character may take account of religious activities)
- j) in designated grammar schools that rank all children according to a pre-determined pass mark and then allocate places to those who score highest, give priority to siblings of current or former pupils
- k) in the case of schools with boarding places, rank children on the basis of a child's suitability for boarding
- 1) name fee-paying independent schools as feeder schools
- m) interview children or parents
- n) request financial contributions (either in the form of voluntary contributions, donations or deposits (even if refundable)) as any part of the admissions process.
- 1.10. This Code does not give a definitive list of acceptable oversubscription criteria. It is for admission authorities to decide which criteria would be most suitable to the school according to the local circumstances. The most common are set out below.
- 1.11. Siblings at the school. Admission authorities must state clearly in their arrangements what they mean by "sibling".

Box 3.2. Schools Admissions Code in England (cont.)

- 1.13. Distance from the school. Admission authorities must clearly set out how distance from home to the school will be measured, making clear how the "home" address will be determined and the point in the school from which all distances are measured.
 - 1.14. Catchment areas must be designed so that they are reasonable and clearly defined.
- 1.15. Feeder school. The selection of a feeder school or schools as an oversubscription criterion must be transparent and made on reasonable grounds.
- 1.16. Social and medical need. Admission authorities ... must set out in their arrangements how they will define this need and give clear details about what supporting evidence will be required. All selective schools must publish the entry requirements for a selective place and the process for such selection.
- 1.18. Only designated grammar schools are permitted to select their entire intake on the basis of high academic ability. They do not have to fill all of their places if applicants have not reached the required standard. Where arrangements for pupils are wholly based on selection by reference to ability and provide for only those pupils who score highest in any selection test to be admitted, no priority needs to be given to looked-after children or previously looked-after children.
- 1.21. Partially selective schools select a proportion of their intake by ability. Where schools can partially select, they must publish the entry requirements for a selective place, and the process for such selection. They must offer places to other children if there are insufficient applicants who have satisfied the published entry requirements for a selective place.

Note: A school has a "feeder school" if it has an arrangement with that school that its students can automatically progress to it once they have completed the last Year in the feeder school and the next Year of schooling is the school's entry year level. Feeder schools in England only exist when the school to which the students' progress does not select its students by ability tests, e.g. a comprehensive secondary school (entry at Year 7) can have feeder primary schools (final year is 6).

Source: Department for Education (2014), School Admissions Code: Statutory Guidance for Admission Authorities, Governing Bodies, Local Authorities, Schools Adjudicators and Admission Appeals Panels, www.gov.uk/government/uploads/system/uploads/attachment_data/file/389388/School_Admissions_Code_2014_-_19_Dec.pdf.

discretion of parents. Schools' annual economic reports should also show clearly the amount of parental contributions collected and on what they have been spent. The amount collected annually in parental contributions should be published by the school, whether or not these contributions are part of the school budget or held in separate accounts or as cash in hand. Private schools in receipt of state funding should be required to be transparent not only on the expenditure of state funding but on their other sources of revenue and how these have been spent.

Extend budget carry over provisions

In order to prevent last minute end-of-year spending of a potential surplus budget balance and to enable schools to save for longer term high-cost items, schools should be able to carry over any budget surplus for at least one year or longer with the agreement of the founder provided that the surplus is earmarked for some specific expenditure deemed of benefit to students.

Include financial and resource management in school leaders' functional training

From conversations with school leaders, it appears that they do not necessarily link the priorities in the school development plan to the school's budget plan but devise these plans separately, often relying extensively on the school accountant to propose the school's pattern of spending (see also Chapter 5). It is difficult to manage a school budget effectively

and efficiently with the aim of obtaining the best feasible learning outcomes for students without an explicit linkage between the school's educational priorities and its spending decisions. This lack of expertise would be remedied by including financial and resource management in the professional development of school directors (see also Chapter 5). For instance, in England, the Education Funding Agency (2015) has a Schools' Financial Value Standard with 25 criteria in the form of questions with which state schools are expected to comply. One of these is "Is there a clear and demonstrable link between the school's budgeting and its plan for raising standards and attainment?" The mandatory professional development for school leaders (National Professional Qualification for Headship) includes financial management, as described in Box 3.3.

Box 3.3. National Professional Qualification for Headship in England

The National Professional Qualification for Headship in England offers three major modules: i) Leading and Improving Teaching; ii) Leading an Effective School; and iii) Succeeding in Headship. The "Leading an Effective School" module involves learning about the key management systems required in an effective school, particularly teacher performance, student behaviour and financial management. As part of this module, the following areas are covered:

- The main management processes (including behaviour, personnel and financial management).
- Strategic financial planning and operational budget management.
- Governing body and headship accountabilities.
- Managing performance, professional development and sustained school improvement.
- Managing misconduct and grievance.
- Behaviour management.
- Human Resources law, including pay and conditions, and employee rights.
- Health and safety in schools and child protection.

Source: National College for Teaching and Leadership (2014), National Professional Qualification for Headship (NPQH), www.gov.uk/guidance/national-professional-qualification-for-headship-npqh.

Improve audit of student enrolment data

The dependency of school funding on student numbers, inevitably creates an incentive for school leaders and founders to inflate the number of students reported to the Ministry of Education. Currently data on the number of students enrolled at a school is reported in aggregated form. The reliability of data on student enrolment and the auditing of these data would be improved by the introduction of the proposed information system as it would collect data on individual students and teachers, which are more difficult to falsify and easier to verify than aggregated data. Hence, it is essential that the plans to fully implement the collection of individual-level data as of September 2015 (following the 2014 pilot exercise) are realised. Additionally, school inspectors could report on school-level student enrolment data as part of their evaluation of schools.

Strengthen the role of the school board in budget management

Despite the lack of human resources for follow-up audit of school budgets, there appear to be sufficient formal and informal monitoring activities in the system to prevent widespread misspending of school budgets. Allocating more resources to financial auditing in an education system as financially constrained as the Slovak Republic's would not be an effective use of scarce resources. School boards currently play a valuable role in keeping an eye on how the school leader spends the school budget but this role is dependent on the quality of local relationships between the board and the school leader. To strengthen this role, school boards should be encouraged and even required to play a more active part in the management of the school budget. Even if it is not appropriate in the Slovak Republic to go to the extent of making the school board accountable for the school budget, its role should be developed to be more than advisory. For example, the school board's formal approval for the school's annual budget plan covering all expenditures should be required as well as its being mandatory for the school leader to present quarterly finance reports for discussion by the school board.

In England the governing bodies of schools maintained by local authorities and funded by them via the state budget are responsible for the management of the school budget and the school's resources. Each local authority issues standard financial regulations for schools. Those for Milton Keynes Council include in section 3 that: "Each school will be allocated an annual budget share in accordance with the formula set locally under section 47 of the School Standards and Framework Act 1998"; and "Each governing body, in consultation with the head teacher, must prepare and approve a financial plan for the relevant year" (Milton Keynes Council, 2011).

Implement a value added system of school performance assessment

A fair assessment of school performance in terms of test or examination results must take account of the factors that influence students' test scores, other than the education provided by the school. Such a system requires the collection of data on students' characteristics and prior attainment as well as their test scores by which the school is being evaluated. Data must be gathered from a large sample of schools or all schools and appropriate statistical techniques must be employed to produce robust measures of value added school performance. Statistical explanation and interpretation is required for education professionals and lay users of value added measures of school effectiveness. Developing such a system requires several years and a commitment by the government to maintaining investment in data collection, analysis and dissemination. These measures are being increasingly used internationally to evaluate schools (e.g. Department for Education, 2013b) and are also applied in analyses of PISA data (Sammons and Luyten, 2009; Harris, 2011; Visscher and Coe, 2013; Reynolds et al., 2014). Without such measures of school effectiveness, it is not possible for schools to assess their performance and use this information for making resource allocation decisions.

Notes

- 1. Regulations also require municipalities and the self-governing regions to provide non-state founders of school facilities with at least 88% of the per-student funding which they spend on salaries and operations in their own school facilities.
- 2. It should be noted that some stakeholders criticised this element of the operating cost normative for being based on salary costs.
- 3. The OECD review team was told that a reason for the change in the funding rule was the difficulty of verifying the number of children attending extracurricular activities.
- 4. As is often the case, there are no data to assess the social value of the output of the Slovak education system per Euro spent, which is required for an assessment of "external efficiency".
- 5. Five per cent of 80%, which is the salary budget, plus 20% of the operations budget (around 20%).
- 6. It may be that private school classes are smaller than those in state and church schools because parents typically pay a fee and expect smaller classes in return.
- 7. This problem occurred in England and prompted the government to introduce budget surplus "claw-back" provisions for budget balances that schools had not earmarked for specific projects.
- 8. The number of children aged 6-9 is expected to grow until around 2020 and those aged 10-14 until around 2025.
- 9. In this context, language of instruction means the language used in the majority of instruction time (e.g. excluding foreign languages).
- 10. For example, the minimum class size threshold is 10. A basic school with five year levels with 45 students has an average class size of 9 and so does not qualify for compensation. If the respective founder has in total 240 students of whom 195 are in schools with 10 or more students per year level, it would receive compensation for 195 students.
- 11. A possible downside to the proposal to allocate at least some of the funding for special needs according to indicators other than identified individual students with special needs, is that schools would refuse to admit such students. Such a reaction can be countered in basic schools receiving state funding by a condition that to receive funding from the state budget the school's admission criteria must include accepting all children resident in the school's specified "catchment" area who apply to the school.
- 12. This is a feature of English funding formulae introduced to dampen incentives for schools to label individual students as having "special needs".
- 13. Schools in England identify children internally as in need of additional action which is funded out of the school budget which includes a universally applied allocation for this.

References

- Ainscow, M. et al. (2012), Creating the Conditions for School Improvement: A Handbook of Staff Development, Routledge, Abingdon.
- Alonso, J.D. and A. Sanchez (eds.) (2011), Reforming Education Finance in Transition Countries: Six Case Studies in Per Capita Financing Systems, The World Bank, Washington, DC, http://elibrary.worldbank.org/doi/abs/10.1596/978-0-8213-8783-2#.
- Chetty, R. et al. (2011), "How does your kindergarten classroom affect your earnings? Evidence from Project STAR", The Quarterly Journal of Economics, Vol. 126, No. 4, pp. 1593-1660.
- Dee, T.S. and M.R. West (2011), "The non-cognitive returns to class size", Educational Evaluation and Policy Analysis, Vol. 33, No. 1, pp. 23-46.
- Department for Education (2014), School Admissions Code: Statutory Guidance for Admission Authorities, Governing Bodies, Local Authorities, Schools Adjudicators and Admission Appeals Panels, London, www.gov.uk/government/uploads/system/uploads/attachment_data/file/389388/School_Admissions_Code_2014_-_19_Dec.pdf.
- Department for Education (2013a), "Special Educational Needs in England: January 2013", Statistical Release, London, www.gov.uk/government/statistics/special-educational-needs-in-england-january-2013.

- Department for Education (2013b), Reforming the Accountability System for Secondary Schools: Government Response to the February to May 2013 Consultation on Secondary School Accountability, London, www.gov.uk/government/uploads/system/uploads/attachment_data/file/249893/Consultation_response_Secondary_School_Accountability_Consultation_14-Oct-13_v3.pdf.
- Department for Education (2011), "Class size and education in England: evidence report", Research Report DFE-RR169, Economics, Evaluation and Appraisal Team, Education Standards Analysis and Research Division, www.gov.uk/government/uploads/system/uploads/attachment_data/file/183364/DFE-RR169.pdf.
- Dolton, P. and O. Marcenaro-Gutierrez (2011), "If you pay peanuts do you get monkeys? A cross country analysis of teacher pay and pupil performance", Economic Policy, Vol. 26(65), pp. 5-55.
- Dynarski, S., J.M. Hyman and D.W. Schanzenbach (2011), "Experimental evidence on the effect of childhood investments on postsecondary attainment and degree completion", Working Paper, No. 17533, National Bureau of Economic Research.
- Education Funding Agency (2015), Schools financial value standard (SFVS): support notes, London, www.gov.uk/guidance/schools-financial-value-standard-and-assurance-sfvs.
- Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, Educational Policy Institute, Ministry of Education, Science, Research and Sports of the Slovak Republic, Bratislava, www.oecd.org/edu/school/schoolresourcesreview.htm.
- Ehrenberg, R. et al. (2001), "Class size and student achievement", Psychological Science in the Public Interest, Vol. 2, No. 1, pp. 1-30.
- European Union Agency for Fundamental Rights (2014), "Education: the situation of Roma in 11 EU member states", Roma survey Data in focus, Vienna, http://fra.europa.eu/sites/default/files/fra-2014_roma-survey_education_tk0113748enc.pdf.
- Eurydice (2014), Financing Schools in Europe: Mechanisms, Methods and Criteria in Public Funding, Education, Audiovisual and Culture Executive Agency (EACEA), Publications Office of the European Union, Luxembourg, http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/170en.pdf.
- Finn, J. (1998), Class Size and Students at Risk: What is Known? What is Next?, US Department of Education, Office of Educational Research and Improvement, National Institute on the Education of At-Risk Students, Washington, DC.
- Hanushek, E.A. (2011), "The economic value of higher teacher quality", Economics of Education Review, Vol. 30, pp. 466-479.
- Harris, D.N. (2011), Value-Added Measures in Education: What Every Educator Needs To Know, Harvard Education Press, Cambridge, MA.
- Hattie, J. (2009), Visible Learning: A Synthesis of Over 800 Meta-analyses Relating to Achievement, Routledge, London.
- Hill, P.W. and K.N. Ross (1999), "Component 3: Student supplementary educational needs", Chapter 5, in K.N. Ross and R. Levačić (eds.), Needs-based Resource Allocation in Education via Formula Funding of Schools, International Institute for Educational Planning (IIEP), UNESCO, Paris, http://unesdoc.unesco.org/images/0011/001184/118426eb.pdf.
- Institute for Financial Policy (2015), Due percentá informácií o asignácii, Komentár 2015/05 [Commentary about the two percent assignation 2015/05], Inštitút Finančnej politiky, Ministry of Finance of the Slovak Republic, Bratislava, www.finance.gov.sk/Default.aspx?CatID=10126.
- Kubán, J. et al. (2007), Parental Informal Payments in Education Study: Slovakia, www.edupolicy.net/images/pubs/reports/slovakia.pdf.
- Levačić, R. (2011), "Per capita financing of education in Estonia", Chapter 3, in J.D. Alonso and A. Sanchez (eds.) (2011), Reforming Education Finance in Transition Countries: Six Case Studies in Per Capita Financing Systems, The World Bank, Washington, DC, http://elibrary.worldbank.org/doi/abs/10.1596/978-0-8213-8783-2#.
- Levačić, R. and K.N. Ross (1999), "Principles for designing needs-based school funding formulae", Chapter 3, in K.N. Ross and R. Levačić (eds.), Needs-based Resource Allocation in Education via Formula Funding of Schools, International Institute for Educational Planning (IIEP), UNESCO, Paris, http://unesdoc.unesco.org/images/0011/001184/118426eb.pdf.
- Lockheed, M. and E. Hanushek (1994), "Concepts of educational efficiency and effectiveness", in H.T. Húsen and T.N. Postlethwaite (eds.), International Encyclopaedia of Education (2nd edition), Pergamon Press, Oxford, pp. 1779-1784.

- Middleton, S. et al. (2003), "The evaluation of education maintenance allowance pilots: Three years evidence, a quantitative evaluation", Research Report RR499, Department for Education and Skills, London.
- Milton Keynes Council (2011), Financial Regulations for Schools, www.milton-keynes.gov.uk/schools-and-lifelong-learning/information-for-schools/lms/lms-scheme.
- Ministry of Agriculture and Rural Development (2013), "Annual report on the implementation of the Regional Operational Programme in 2013", Bratislava, www.ropka.sk/sk/vyrocne-spravy.
- Ministry of Education of New Zealand (2015), Operational Funding Rates, www.education.govt.nz/school/running-a-school/resourcing/operational-funding/operational-funding-rates-for-2014-and-2015/.
- National College for Teaching and Leadership (2014), National Professional Qualification for Headship (NPQH), www.gov.uk/guidance/national-professional-qualification-for-headship-npqh.
- NIDirect (2014), How to Apply for Money to Learn Education: Maintenance Allowance, NIDirect Government services, www.nidirect.gov.uk/how-to-apply-for-a-money-to-learn-education-maintenance-allowance.
- OECD (2014), Education at a Glance 2014: OECD Indicators, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.
- OECD (2013), PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.
- Piketty, T. and M. Valdenaire (2006), L'impact de la taille des classes sur la réussite scolaire dans les écoles, collèges et lycées français: Estimations à partir du panel primaire 1997 et du panel secondaire 1995, ministère de l'Éducation nationale, de l'Enseignement supérieur et de la Recherche, Direction de l'évaluation et de la prospective, Paris.
- Reynolds, D. et al. (2014), "Educational effectiveness research (EER): a state-of-the-art review", School Effectiveness and School Improvement: An International Journal of Research, Policy and Practice, Vol. 25, Issue 2, Routledge, pp. 197-230.
- Rivkin, S.G., E.A. Hanushek and J.F. Kain (2005), "Teachers, schools, and academic achievement", Econometrica, Vol. 73, No. 2, pp. 417-458.
- Ross, K. (1983), "Social area indicators of educational need: A study of the use of census descriptions of school neighbourhoods in guiding decisions concerning the allocation of resources to educationally disadvantaged schools in Australia", ACER Research Monograph, No. 20, Australian Council for Educational Research (ACER).
- Sammons, P. and H. Luyten (2009), "Editorial article for special issue on alternative methods for assessing school effects and schooling effects", School Effectiveness and School Improvement: An International Journal of Research, Policy and Practice, Vol. 20, Issue 2, pp. 133-143.
- Shewbridge, C. et al. (2014), OECD Reviews of Evaluation and Assessment in Education: Slovak Republic 2014, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264117044-en.
- Visscher, A.J. and R. Coe (eds.) (2013), School Improvement through Performance Feedback, Abingdon, Routledge.

Chapter 4

The teaching workforce in the Slovak Republic

This chapter is about policies to improve the effectiveness of the teaching workforce. It deals with the size of the teaching workforce and its geographical distribution. Furthermore, it discusses teacher preparation, recruitment, career development and use of time. The chapter places particular emphasis on areas of priority for the Slovak Republic such as the low status of the teaching profession, teacher salary levels, teacher professional development and the certification process for teachers. The chapter also reviews school autonomy in the management of the teaching workforce, teacher appraisal processes, teacher compensation and the use of teaching assistants.

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.

This chapter addresses policies to improve the effectiveness of the teaching workforce. Among other things, it analyses the size of the teaching workforce and its geographical distribution; how teachers are prepared and improve their skills while in the profession (e.g. initial preparation, professional development); how teachers are recruited and distributed across individual schools; how teacher resources and teaching time are allocated to students so that they optimally respond to improvement priorities (e.g. class size, teacher-student ratios, use of teachers' time); and how teachers are given incentives to perform at a high level (e.g. teacher appraisal, teacher certification, recognition and compensation).

Context and features

Profile of the teaching workforce

Size of the teaching workforce and its main characteristics

In 2013, 72 909 teachers worked in mainstream schools (pre-primary education, basic education, general secondary education, vocational secondary education, conservatoires) while 5 345 teachers worked in special schools (pre-primary education, basic education, secondary education) (see Tables 4.1 and 4.2). Between 2005 and 2013, the number of teachers working in mainstream schools (not taking into account conservatoires) dropped 7.8%, while the number of teachers in special schools increased by 18.0% (see Tables 4.1 and 4.2). During this period, the fall in teacher numbers was more pronounced in vocational secondary education (21.7%) and general secondary education (12.1%) while more moderate in basic education (7.1%). By contrast, in this period, the number of teachers increased in pre-primary education (12.4%), special pre-primary education (40.9%), special basic education (16.1%) and special secondary education (23.0%) (see Tables 4.1 and 4.2). Figures 4.A1.1 and 4.A1.2 in Annex 4.A1 show teacher growth by provider. About one in five teachers works part-time in both general and vocational secondary education.

A major feature of the teaching profession in the Slovak Republic is its high degree of feminisation: the proportion of females in 2012 reached 100% in pre-primary education (against an OECD average of 97%), 89% in primary education (OECD average of 82%), 78% in lower secondary education (67% within the OECD), 74% in general upper secondary education (OECD average of 59%) and 71% in vocational upper secondary education (OECD average of 53%). In upper secondary education, the Slovak Republic had the 2nd highest proportion of female teachers among OECD countries, while in lower secondary education it had the 5th highest such proportion (OECD, 2014a).

The age distribution of the teaching profession is similar to that of the OECD average country. In 2012, the proportion of teachers aged less than 30 was 11%, 15% and 12% in primary, lower secondary, and upper secondary education respectively, against OECD averages of 13%, 11% and 9%. The proportion of teachers aged 50 and over was 26%, 37% and 39% in primary, lower secondary, and upper secondary education respectively,

Table 4.1. Number of teachers, by level and type of education, 2005, 2009 and 2013, mainstream schools

	2005	2009	2013	Change between 200 and 2013 (%)
Pre-primary education				
State	12 989	13 238	14 001	7.8
Private	80	295	505	531.3
Church	132	208	335	153.8
Total	13 201	13 741	14 841	12.4
Basic education				
State	35 566	32 791	32 344	-9.1
Private	190	484	660	247.4
Church	1 934	1 896	2 002	3.5
Total	37 690	35 171	35 006	-7.1
General secondary education				
State	6 490	6 095	5 344	-17.7
Private	542	691	722	33.2
Church	1 372	1 439	1 321	-3.7
Total	8 404	8 225	7 387	-12.1
Vocational secondary education				
State	16 163	14 136	12 154	-24.8
Private	1 903	1 992	1 902	-0.1
Church	581	563	549	-5.5
Total	18 647	16 691	14 605	-21.7
Conservatoires				
State	604	568	678	12.3
Private	182	274	328	80.2
Church	63	69	64	1.6
Total	849	911	1 070	26.0
All levels and types of education except conservatoires				
State	71 208	66 260	63 843	-10.3
Private	2 715	3 462	3 789	39.6
Church	4 019	4 106	4 207	4.7
Total	77 942	73 828	71 839	-7.8

Note: Based on head counts. Teachers at primary schools of art and language schools are included in the total number of teachers.

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

against OECD averages of 30%, 34% and 38%. The main concern is that there is a clear ageing trend. The proportion of secondary teachers aged 50 and over increased by 28% to 38% between 2002 and 2012 (OECD, 2014a). In 2014, the average age of teachers was 45.4, which reflects an increase of four years since 2009 (Educational Policy Institute, 2015). In 2014, 6.7% of teachers were working at an age above the typical retirement age (62 years) (Educational Policy Institute, 2015).

Table 4.2. Number of teachers, by level and type of education, 2005, 2009 and 2013, special schools

	2005	2009	2013	Change between 2005 and 2013 (%)
Special pre-primary education				
State	180	193	226	25.6
Private	0	19	26	
Church	6	8	10	66.7
Total	186	220	262	40.9
Special basic education				
State	3 686	4 100	4 118	11.7
Private	6	96	176	2 833.3
Church	73	89	77	5.5
Total	3 765	4 285	4 371	16.1
Special secondary education				
State	572	746	660	15.4
Private	2	5	25	1 150.0
Church	5	18	27	440.0
Total	579	769	712	23.0
All levels of education				
State	4 438	5 039	5 004	12.8
Private	8	120	227	2 737.5
Church	84	115	114	35.7
Total	4 530	5 274	5 345	18.0

Note: Based on head counts. Teachers at primary schools of art and language schools are included in the total number of teachers.

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

Class size and student-teacher ratio

In 2012, class size was relatively low in the Slovak Republic at 17 and 20 for primary and general lower secondary education respectively (the OECD average was 21 and 24 for the same educational levels, OECD, 2014a). This hides some variation across sectors, as the respective averages for the non-state sector were 16 and 18 (OECD, 2014a). As suggested by Figure 1.A1.6 of Chapter 1, class size seems to be considerably smaller in the private sector while church schools have class sizes only slightly below those of state schools (except in pre-primary education, where they are slightly higher). Also, the same figure shows that class size has decreased considerably in the last decade across school sectors for all educational levels except for pre-primary education (where it has remained constant).

Average class size at special schools is considerably smaller, as it could be expected given their specialisms. In 2013, it stood at 7.5 in pre-primary education, 8.2 in basic education, 17.5 in general secondary education (where larger classes are allowed for gifted children) and 6.8 in vocational secondary education. The low figures reflect much lower class size limits than in mainstream schools, imposed by legislation to take into account the populations served by special schools. These have only slightly decreased in the last five to seven years (Educational Policy Institute, 2015).

Interestingly, student-teacher ratios are closer to those of the average OECD country. In 2012, the average student-teacher ratio was 12, 17, 13 and 14 in pre-primary, primary, lower secondary and upper secondary education respectively, which compare to the following OECD country averages: 14, 15, 14 and 14.

Qualifications of teachers

In the Slovak Republic the vast majority of teachers meet the required qualifications across all school types. In 2014, the share of qualified teachers in the school system reached 96.1% in pre-primary education, 96.2% in basic education, 97.1% in general secondary education, 94.8% in vocational secondary education, 85.0% in conservatoires and 88.7% in special schools (see Table 4.3). However, in the last five years the share of qualified teachers slightly decreased in all school types except for basic education and special schools (in 2009, it stood at about 99% in pre-primary education, 98% in general secondary education and 95% in vocational secondary education) (see Table 4.3).

Table 4.3. Number of teachers by qualification status, 2005, 2009 and 2014

	2005	2009	2014		2005	2009	2014
Pre-pri	imary education	on		Bas	ic education		
Total number of teachers	10 907	13 799	14 459	Total number of teachers 42 578 35 811			34 212
of which:				of which:			
Qualified teachers	10 650	13 622	13 896	Qualified teachers	36 489	34 059	32 907
Unqualified teachers	257	177	482	Unqualified teachers	6 089	1 752	1 083
Of unknown qualification			81	Of unknown qualification			222
% of qualified teachers	97.6	98.7	96.1	% of qualified teachers	85.7	95.1	96.2
General secondary education				Vocational secondary education			
Total number of teachers	7 801	7 999	6 959	Total number of teachers 17 772 16 283		16 283	13 779
of which:				of which:			
Qualified teachers	7 062	7 856	6 757	Qualified teachers	14 646	15 448	13 067
Unqualified teachers	739	143	70	Unqualified teachers	3 126	835	417
Of unknown qualification			132	Of unknown qualification			295
% of qualified teachers	90.5	98.2	97.1	% of qualified teachers	82.4	94.9	94.8
Col	nservatoires			Spe	cial schools		
Total number of teachers		800	829	Total number of teachers	3 947	4 207	5 099
of which:				of which:			
Qualified teachers		718	705	Qualified teachers 2 376 3 382		3 382	4 524
Unqualified teachers		82	124	Unqualified teachers 1 571 825 4			
Of unknown qualification			0	Of unknown qualification			93
% of qualified teachers		89.8	85.0	% of qualified teachers	60.2	80.4	88.7

Note: Number of teachers is based on head counts.

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

In international comparison, Slovak teachers are highly qualified. According to TALIS (OECD Teaching and Learning International Survey)* data, in 2013, 97.5% of Slovak lower secondary teachers had a university degree (ISCED 5A) or higher, the 6th largest figure among the 34 TALIS participating countries (against a TALIS average of 89.5%). However, this is not the case in pre-primary education because the minimum required qualification at this educational level is at upper secondary level (ISCED 3A, see below).

* TALIS is the OECD Teaching and Learning International Survey, which was implemented in 2008 and in 2013, covering lower secondary education and with the participation of 24 and 34 countries respectively. TALIS 2013 enabled countries to also conduct the survey in their primary and upper secondary schools. The Slovak Republic participated in both editions of TALIS with a sample of teachers restricted to lower secondary education. The results derived from TALIS are based on self-reports from teachers and directors and therefore represent their opinions, perceptions, beliefs and their accounts of their activities. Further information is available at www.oecd.org/edu/school/talis.htm.

Initial preparation

As explained by Shewbridge et al. (2014), initial teacher education for basic and secondary school teachers takes place at the universities. Upon completing the school-leaving examination at secondary schools, there are three different ways for students to obtain a teaching qualification: i) students may enrol at teacher education faculties, where they can complete bachelor's and master's level teacher education - the length of study is five years. After the defence of a thesis and completion of the state final examination they receive a pedagogical qualification; ii) students may enrol in a different study field and concurrently complete supplementary pedagogical study. Upon completion of both programmes, they may obtain a professional qualification and a pedagogical qualification; and iii) students may complete supplementary pedagogical studies after completing a qualification in another field (Shewbridge et al., 2014). The latter two options are also available from pedagogical departments within non-education faculties. In order to teach a given subject, teachers are required to obtain a master's degree in the relevant field of study. In 2013, pedagogy graduates represented 9.3% of all bachelor's and master's graduates from state universities. Once in school, at least half of the teaching load needs to be in the fields of study for which teachers acquired qualifications (but the employer can reduce this requirement to a third if the concerned school is not able to find a qualified teacher for some subjects) (Educational Policy Institute, 2015).

Qualification requirements for pre-primary education teachers are distinct. The minimum qualification level for a teacher in a pre-primary school (children from age three) is an upper secondary vocational degree with school-leaving examination (ISCED 3A programme), which typically lasts four years. The Slovak Republic is the only OECD country where the minimum qualification requirements for pre-primary education teachers are established at upper secondary level (ISCED 3). In most OECD countries, the minimum qualification is a higher education degree (ISCED 5 level) (OECD, 2014a). In the Slovak Republic, some universities already offer bachelor's and master's level teacher education degrees for pre-primary education. In nursery schools (children up to age three), which are under the authority of the Ministry of Labour, Social Affairs and Family, there is no minimum qualification requirement for teaching staff even if, in practice, providers aim to employ nurses with specialisation in childcare, which used to be provided in secondary vocational education and is now acquired in tertiary education.

Recruitment into teaching

The main requirement to apply for a job as a teacher is to hold a teaching degree for the relevant level of education and field of study. Teachers are hired into schools through an open recruitment procedure organised at the school level and led by the school director. Schools have autonomy in teacher appointment, deployment and dismissal. However, schools need to observe the Act on Pedagogical Employees and Specialist Employees regarding teacher required standard qualifications and procedures for job placement. As of 2012, in order to improve the transparency of recruitment processes, both school founders and individual schools are required to publicise their vacancies on their websites. Aggregate information at the regional level must also be published by regional state authorities. In 2013, a national website – www.edujobs.sk – providing information about teacher vacancies in the entire country as well as information about teachers seeking a job,

was created. It seeks to bring together the demand for and supply of teachers. Teachers apply directly to schools and the hiring procedure typically involves interviews at the school with a panel organised at the school level.

Career structure

Teachers in the Slovak Republic are public servants. Conditions of service are set out in the Labour Code and the 2009 Act on Pedagogical Employees and Specialist Employees. The majority of teachers have tenure (indefinite length of position) but there are also teachers on fixed-term contracts, mainly as substitutes for teachers who are absent for a long time (Shewbridge et al., 2014). According to TALIS data, in 2013, 80.9% of lower secondary teachers had tenure (against a TALIS average of 82.5%).

The teaching profession is differentiated both vertically and horizontally through a multi-step career structure and a range of specialised career position respectively. There is a clearly defined career structure for teachers with four career grades. These reflect different levels of professional competencies and experience:

Beginning teacher

Upon entry into teaching, a teacher is placed in the "beginning teacher" category. Teachers undertake a mentoring programme, to be completed within two years, consisting of "adaptation courses" and the supervision of a mentor teacher at the school. This adaptation education is organised by the employer in line with the framework programme for adaptation education issued by the Ministry. The progression to the "independent teacher" category requires passing a school-level evaluation at the end of the first two years of employment or earlier. During this period, in addition to the regular activities of a teacher, a beginning teacher can only perform "Class Teacher" as a specialised activity (see below).

• Independent teacher

At this grade, teachers perform teaching activities independently. In addition to these, they are also allowed to perform the specialised activities described below except for mentor teacher. In order to progress to the next grade, teachers either have to pass the 1st certification examination or hold a doctorate in a field of study related to his or her pedagogical activities (provided the teacher has at least three years of teaching experience). Eligibility to pass the 1st certification examination is acquired either by accumulating 60 professional development credits or by accumulating 30 such credits and completing a specific preparatory training programme. The teacher may indefinitely remain an "independent teacher" with no need for re-certification.

• Teacher with the first certification

At this grade, teachers are competent to perform the following additional activities: mentor teacher; teacher at training schools or school facilities; teacher-leader; trainer of professional development courses (provided the teacher has at least seven years of experience); member of examination committee for completion of "adaptation course"; and member of examination committee for 1st certification. In order to progress to the next grade, teachers either have to pass the 2nd certification examination (and hold at least a master's degree) or hold a doctorate in a field of study related to his or her pedagogical activities (provided the teacher has at least six years of teaching experience). Access to the 2nd certification requires holding the 1st certification. As in the previous grade, eligibility to pass the 2nd certification examination involves the

acquisition of 60 professional development credits or the accumulation of 30 such credits together with a specific preparatory training programme. The teacher may remain indefinitely at the first certification level with no need for re-certification.

• Teacher with the second certification

At this grade, teachers are competent to perform the following activities in addition to the ones performed at the previous grade: sponsor of a professional development programme; member of examination committee for 2nd certification; member of national and international expert committees; and research and analytical activities to improve education practices in the school system. Once the teacher obtains the second certification, the teacher remains indefinitely at this stage.

Hence, teachers' career advancement is partly linked to their accumulation of credits through the completion of continuous professional development. The terms for obtaining credits are determined through the 2009 Act on Pedagogical Employees and Specialist Employees. The 2015 amendment to the Act specifies that teachers may obtain credits for: completing an accredited programme of professional development; passing a doctoral examination; passing a national foreign language examination; completing education related to pedagogical or specialist activities directly abroad (i.e. not through distance learning); and authoring or co-authoring approved or recommended textbooks and workbooks.

Table 4.4 provides the distribution of teachers across certification levels by level and type of education in 2014. The great majority of teachers are at the "independent" level or have reached 1st certification. Typically 1st certification is the stage at which more teachers are categorised except in pre-primary education and conservatoires. The proportion of teachers at the 2nd certification level is highest in general and vocational secondary education (about 15%) while less than 1% of pre-primary education teachers have reached that level. Table 4.5 provides the distribution of teachers across certification

Table 4.4. Distribution of teachers across career levels, by level and type of education, 2014

Percentage of teachers in each career level

		•				
Pre-primary educat	ion	Basic education		General secondary education		
Total number of teachers	13 862	Total number of teachers	35 766	Total number of teachers	6 816	
Unknown career level	0.0	Unknown career level	0.0	Unknown career level	0.3	
Unqualified	1.7	Unqualified	1.8	Unqualified	0.5	
Beginner	4.8	Beginner	3.6	Beginner	3.2	
Independent	88.9	Independent	38.5	Independent	34.8	
1st certification	4.0	1st certification	1st certification 46.2		45.8	
2nd certification	0.6	2nd certification	2nd certification 9.8 2nd certification		15.4	
Vocational secondary ed	ducation	Conservatoires		Special schools		
Total number of teachers	13 816	Total number of teachers	818	Total number of teachers	4 198	
Unknown career level	0.7	Unknown career level	0.0	Unknown career level	0.2	
Unqualified	2.4	Unqualified	13.1	Unqualified	4.4	
Beginner	3.7	Beginner	3.3	Beginner	3.0	
Independent	29.7	Independent	56.8	Independent	36.0	
1st certification	48.7	1st certification	20.0	1st certification	44.5	
2nd certification	14.7	2nd certification	6.7	2nd certification	11.8	

Note: Number of teachers is based on head counts.

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

Table 4.5. Distribution of teachers across career levels (%), by school sector and size of municipality, 2014

	Unknown career level	Unqualified	Beginner	Independent	1st certification	2nd certification	Total number of teachers
		Career	levels by sch	ool sector			
School sector/career level							
State	0.20	2.3	3.5	46.9	37.7	9.4	72 282
Church	0.05	1.7	5.0	49.0	36.6	7.8	4 366
Private	0.17	6.5	9.8	58.3	19.3	6.0	4 705
Total	0.19	2.5	3.9	47.6	36.6	9.1	81 353
		Career lev	els by size of	municipality			
Size of municipality/career	level						
<= 1 000	0.07	3.2	5.3	60.3	26.2	5.0	5 438
> 1 000 and <= 2 000	0.09	2.7	4.6	52.6	33.5	6.5	9 230
> 2 000 and <= 3 000	-	2.8	4.5	50.6	35.4	6.7	5 047
> 3 000 and <= 4 000	0.04	3.8	3.5	49.9	34.5	8.3	2 706
> 4 000 and <= 5 000	0.17	3.2	3.9	48.9	34.6	9.2	2 365
> 5 000	0.24	2.3	3.7	45.2	38.4	10.2	56 567
Total	0.19	2.5	3.9	47.6	36.6	9.1	81 353

Note: Number of teachers is based on head counts. Teachers at primary schools of art and language schools are included.

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

levels by school sector and size of municipality in 2014 (in contrast to Table 4.4, it includes teachers at primary schools of art and language schools). It shows that the proportion of teachers at the two top career levels is considerably smaller in the private sector while the distribution of teachers across career levels is similar in the state and church sectors. Table 4.5 also shows that the average proportion of teachers at the two top career levels decreases as the size of the municipality decreases.

Horizontal differentiation in the profession is articulated through access to a range of specialised career positions. The structure and assignment of career positions is decided by the school director. Typical career positions are:

- Class teacher: consists of taking co-ordination and communication responsibilities for one specific class. This involves guidance, maintaining pedagogical documentation, and communicating with parents.
- Mentor teacher: mentors beginning teachers during their "adaptation" period.
- Educational advisor: provides consulting services, including methodological assistance.
- Career advisor: provides students with career guidance and counselling.
- Head of subject committee (or study area), Head of methodology association (or study programme): takes responsibility for pedagogical work at the school either focussed on a given subject (or study area) or on pedagogy more generally, with involvement in project, advisory and evaluative work.
- ICT co-ordinator: co-ordinates use of ICT in the teaching and learning process.
- Co-ordinator of specific work, as work with special needs children and children from a socially-disadvantaged background.

Teachers may also specialise as chief pedagogical employees or be appointed, by the school director, to roles such as deputy director. To access most specialised career positions, teachers need to comply with given qualification requirements and need to undergo "specialisation training". Specialised career positions typically involve a dedicated salary allowance (see below).

Compensation

Teacher salary scales are based on the Law Code on employees performing public service. They are typically the subject of collective negotiations between the government and teacher unions. Teachers' compensation includes their basic salary, compensation for professional development credits and special allowances. The basic salary depends on the teacher's public service category (which depends on teacher qualifications and career grade), the type of class taught (mainstream or class for special education children), and years of experience.

Since 2009, the salary scale consists of seven salary grades for teachers at schools and school facilities, which depend on qualifications and career grade. The salary scale is also organised according to two distinct classes: i) teachers working in regular classes (Class 1); and ii) teachers working in special classes and special schools (Class 2). Each salary grade, for each class, has 32 stages which correspond to years of experience. Table 4.6 provides the salary scales in 2014 while Table 4.7 shows the salary grade according to qualifications and career grade.

Table 4.6. Monthly salary scale for teachers at schools and school facilities, 2014

Class 1 – General classes										
Salary grade	6	7	8	9	10	11	12			
Salary (EUR)	408	452.5	501.5	561	612.5	686.5	769			
Years of experience		Salary increase (EUR)								
1	4.5	5	5.5	6	6.5	7	8			
2	8.5	9.5	10.5	11.5	12.5	14	15.5			
3	12.5	14	15.5	17	18.5	21	23.5			
30	94	104.5	115.5	129.5	141	158	177			
31	96	106.5	118	132	144	161.5	181			
32	98	109	120.5	135	147	165	185			
		Class 2	– Special class	es						
Salary grade	6	7	8	9	10	11	12			
Salary (EUR)	436.5	484.5	535.5	599.5	654	732.5	820.5			
Years of experience			Sal	ary increase (El	JR)					
1	4.5	5	5.5	6	7	7.5	8.5			
2	9	10	11	12	13.5	15	16.5			
3	13.5	15	16.5	18	20	22	25			
30	100.5	111.5	123.5	138	150.5	168.5	189			
31	103	114	126	141	154	172.5	193			
32	105	116.5	129	144	157	176	197			

Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

Table 4.7. Assignment of salary grade, 2014

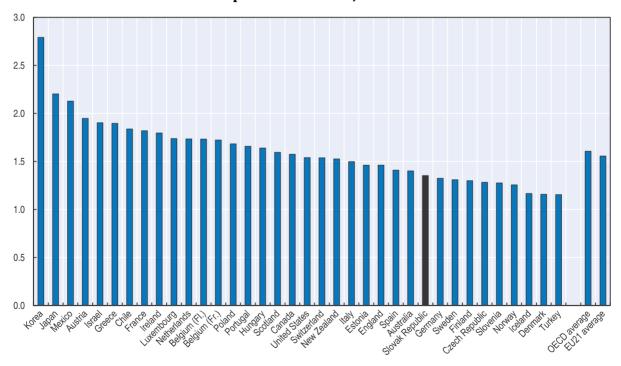
			Qualifications		
Career grade	Not qualified	Beginning teacher	Independent teacher	Teacher with 1st certification	Teacher with 2nd certification
Teacher in basic school and secondary school					
Master's degree	9	9	10	11	12
Teacher in pre-primary education					
Master's degree	9	9	10	11	12
Bachelor's degree	8	8	9	10	-
Secondary vocational degree	7	7	8	9	-

Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

As can be seen in Figure 4.1, the ratio of salary at top of scale to starting salary is modest in international comparison (1.35 against an OECD average of 1.61). This is in addition to the fact that reaching the top of the scale takes 32 years, considerably above the OECD average (24 years) (OECD, 2014a).

There is also a direct link between the accumulation of professional development credits and teachers' salary: for each 30 credits obtained, teachers receive a 6% bonus (to a maximum of a 12% bonus for 60 credits), which is valid for seven years. Until recently, school directors were legally obliged to provide this financial compensation to all teachers having obtained the required amount of credits. From 2012 onwards, however, this link is

Figure 4.1. Ratio of salary at top of scale to starting salary, lower secondary education, public institutions, 2012



Notes: Data refer to statutory salaries for teachers with minimum qualifications. For Hungary, Sweden and the United States, data refer to actual salaries. For Sweden, reference year is 2011.

Source: OECD (2014a), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

no longer automatic and school directors are given a degree of discretion in this regard. All schools must create an internal school regulation specifying the conditions under which the school director approves the credit salary rise. For example, if the training is not considered relevant for school development, then these credits may not be considered in decisions on possible salary rises (Shewbridge et al., 2014).

In addition, teachers also receive special allowances for a variety of reasons, including:

- Personal allowance: It can be given for good performance and for the fulfilment of tasks above job responsibilities. Its maximum amount corresponds to 24% of the basic salary.
 Decisions on personal allowances are taken at the school level by the school director.
- Allowance for Class teachers: Class teachers in charge of one class receive a 5% allowance while those in charge of two or more classes receive a 10% allowance (calculated on the basis of the basic salary increased by 24%).
- Allowance for Mentor teachers: Mentor teachers supervising a beginner teacher receive a 4% allowance while those supervising two or more beginning teachers receive an 8% allowance (calculated on the basis of the basic salary increased by 24%).
- Allowance for managerial activities: These involve a given allowance (calculated as a proportion of the basic salary increased by 24%) which depends on the founder's competence (i.e. local, district, regional, nationwide).
- Allowance for beginning teachers: During their adaptation education, beginning teachers receive an allowance which corresponds to 6% of their basic salary.
- Allowance for working with students with disabilities and students from a socially-disadvantaged background: It is paid to a basic school teacher working in a class where at least 30% of the maximum class size are individually integrated students with disabilities or from a socially-disadvantaged background. The allowance has a ceiling of 2.5% of salary grade 12 of Class 1. Eligibility requires the teacher to teach this specific class at least four lessons a week with no teaching assistant. The allowance level is defined by internal school regulations.

The teacher can receive, at the school's discretion, allowances in other instances such as "constrained working environment" and extra pay to work in the evenings, Saturdays or Sundays, or overtime.

In the Slovak Republic, teacher employment 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. The total annual number of statutory working hours is 1 575 for all education levels, slightly below the OECD averages of 1 654 (pre-primary education), 1 649 (primary education), 1 649 (lower secondary education) and 1 643 (general upper secondary education) (OECD, 2014a). Figure 4.2 reflects self-reports of lower secondary teachers regarding actual hours worked during a week, positioning Slovak teachers around the TALIS average. Teaching time is also regulated, being set at 1 035 annual hours in pre-primary education (above the OECD average of 1 001 hours), 819 hours in primary education (above the OECD average of 782 hours), 635 hours in lower secondary education (below the OECD average of 694 hours) and 607 hours in general upper secondary education (below the OECD average of 655 hours) (OECD, 2014a).

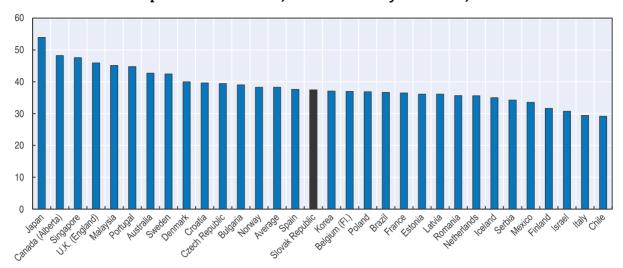


Figure 4.2. Average number of hours teachers report having worked during the most recent complete calendar week, lower secondary education, 2013

Notes: A "complete" calendar week is one that was not shortened by breaks, public holidays, sick leave, etc. Also includes hours worked during weekends, evenings or other off-classroom hours. The sum of hours spent on different tasks (shown in Figure 4.3) may not be equal to the number of total working hours because teachers were asked about these elements separately. It is also important to note that data presented represent the averages from all the teachers surveyed, including part-time teachers.

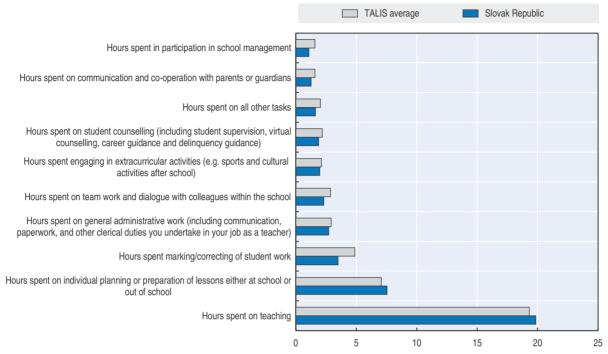
Source: OECD (2014b), TALIS 2013 Results: An International Perspective on Teaching and Learning, http://dx.doi.org/10.1787/9789264196261-en.

Regulations stipulate that, for all educational levels, in addition to teaching, the following tasks are expected to be undertaken at the school by teachers while not specifying the associated required time (OECD, 2014a):

- individual planning or preparing lessons (can be performed outside school, at the discretion of the school)
- teamwork and dialogue with colleagues
- marking student work (except in pre-primary education) (can be performed outside school, at the discretion of the school)
- supervising students during breaks
- providing counselling and guidance to students
- participating in school management
- general administrative communication and paperwork (can be performed outside school, at the discretion of the school)
- communicating and co-operating with parents or guardians
- engaging in professional development activities (can be performed outside school, at the discretion of the school).

Figure 4.3 shows the average number of hours lower secondary teachers report having spent on a variety of tasks for both the Slovak Republic and the average among TALIS countries. It highlights the fact that Slovak teachers spent relatively more time than teachers in other countries on the core aspects of a teacher's work such as teaching itself and preparing lessons while they spend relatively less time in other tasks such as participation in school management, communication with parents or student counselling (OECD, 2014b).

Figure 4.3. Average number of hours lower secondary education teachers report having spent on the following activities during the most recent complete calendar week, the Slovak Republic and TALIS average, 2013



Notes: A "complete" calendar week is one that was not shortened by breaks, public holidays, sick leave, etc. Also includes tasks that took place during weekends, evenings or other off-classroom hours. The sum of hours spent on different tasks may not be equal to the number of total working hours (shown in Figure 4.2) because teachers were asked about these elements separately. It is also important to note that data presented represent the averages from all the teachers surveyed, including part-time teachers.

Source: OECD (2014b), TALIS 2013 Results: An International Perspective on Teaching and Learning, http://dx.doi.org/10.1787/9789264196261-en.

Generally, school directors do not require teachers to stay at the school for the whole stipulated working hours, as part of their tasks can be performed outside the school. Collaboration and co-ordination among teachers and between teachers and the school leadership are mainly organised through the Pedagogical Board and the methodology bodies (Methodology Associations and Subject Commissions). The Pedagogical Board brings together school leadership and pedagogical staff to provide advice on pedagogical organisation issues such as individual teachers' timetables, school's student assessment policy, preparation of school education programmes and internal teacher appraisal. The Methodology Association (1st stage of basic school) and the Subject Committees (2nd stage of basic school) bring together pedagogical staff of the school (organised by subject in the 2nd stage of basic school) to discuss teaching and learning processes, internal quality assurance and evaluation and assessment procedures.

Teacher appraisal

Appraisal at the end of mentoring programme

The school director determines the beginning teacher's completion of the adaptation education programme. To complete the programme, beginning teachers are observed in class by a three-member examination board appointed by the school director (the school director acts as chairman of the board) and this is followed by an evaluation dialogue. The teacher's competencies are evaluated in relation to what they have learned in the

adaptation education programme. If a beginning teacher does not complete the adaptation education within the first two years of employment, his or her contract is terminated by the employer (Shewbridge et al., 2014).

Regular appraisal for performance management

According to the 2008 School Act, school directors are required to regularly appraise their pedagogical staff. The Act prescribes that teacher appraisal should be undertaken once a year, at the end of the academic year. The school director is responsible for regular internal appraisal, but may delegate this authority to lower positions in the school, such as the deputy school director. Other individuals, including the chairs of subject committees and methodology associations, may also participate in the process, depending on the size and organisational structure of the school (Shewbridge et al., 2014).

The legislation does not prescribe the procedures to be used for teacher appraisal and schools have a high degree of autonomy in the way they implement regular teacher appraisal for performance management. School directors are expected to specify the aims, criteria and methods of appraisal in the internal school regulations, while accounting for the school's specific context, educational programme and priorities. The appraisal generally involves classroom observation. At the end of the year, school directors write an evaluation report regarding the performance of each teacher, which is stored within the teacher's file but not forwarded to any other level of the education system (Shewbridge et al., 2014).

The primary aim of this internal teacher appraisal process is formative, i.e. the appraisal should provide feedback on the teacher's performance and inform teachers' competency development. School directors are required to establish professional development plans for the following academic year, which should reflect the appraisal results of their teaching staff. At the same time, appraisal results may also influence teachers' salary levels through a personal allowance attributed based on extra tasks and performance (see above). However, school directors appear to have little room for manoeuvre in awarding such bonus payments due to resource constraints at the school level (Shewbridge et al., 2014). Sanctions are only applied in rare cases. If teachers underperform on the internal appraisal, school directors are more likely to provide recommendations for improvement measures and give time to the teacher to develop and show improvement. In cases of serious underperformance or violation of legal regulations, it is possible for the school leader to dismiss teachers (Shewbridge et al., 2014).

External appraisal for certification

Once teachers have accumulated the required amount of credits, they can apply for certification. For teachers to move up on the career ladder towards the first and second certification level (see above), they need to pass an external appraisal, which includes the defence of a thesis (also referred to as a "certification examination") before a certification committee made up of organisations responsible for continuous teacher education. These organisations are set up by the Ministry of Education (Shewbridge et al., 2014). In 2013, 1 149 and 702 teachers applied to 1st and 2nd certification, respectively, with a rate of success of about 80% (22.0% and 21.7% of applicants failed the 1st and 2nd certification examinations respectively) (data provided to the OECD review team by the Ministry of Education, Science, Research and Sports).

Appraisal for specialised positions

As described above, teachers may also specialise in different types of positions such as class teacher, educational advisor or mentor teacher. Generally, there is no special appraisal procedure for this, but school directors decide on whether or not teachers obtain specialisation. In some cases, teachers may qualify for specialisation by taking particular professional development courses. The appraisal format is dependent on specific conditions defined by the accreditation of the particular educational programme (Shewbridge et al., 2014).

Other forms of feedback to teachers

Once a year, a national teacher's day is organised in the Slovak Republic. On this day, outstanding teachers are celebrated and rewarded. This day can be an opportunity to provide a moral award for high performing teachers. Also, teachers typically receive feedback from the inspectors as part of the visits of the Slovak State Schools Inspectorate. The Inspectorate has developed an observation form with a list of indicators that are used by all inspectors in their classroom visits. After the observed lesson, teachers are invited to undertake a self-evaluation. Based on both the inspectors' observation and the teacher's self-evaluation, inspectors typically provide individual feedback to teachers in the presence of the school director. However, the purpose of classroom observations by the Inspectorate is to evaluate teaching quality of the school as a whole rather than to appraise individual teachers (Shewbridge et al., 2014).

Teacher professional development

In the Slovak Republic, there is no mandatory requirement for teachers to undertake professional development but incentives are strong as professional development activities give teachers credits which are necessary for career advancement and to be eligible for a salary allowance (see above).

School directors are responsible for the professional development of teaching staff. They prepare a professional development plan for the school pedagogic employees, which they have to submit to the school founder. The plan should include key priorities, a time schedule and a budget proposal for professional development activities in the coming year at the school. Teachers typically apply for professional development they would like to undertake through the school leader. The school leader is in charge of prioritising teachers' training requests in line with the educational and pedagogical needs and conditions of the school. Based on this judgement, the school leader submits requests for teachers' admission into professional development programmes (Shewbridge et al., 2014).

Professional development activities which are undertaken in the context of school development plans are free of charge for teachers. Teachers are also given five working days to take courses which prepare them for the 1st and 2nd certification examinations. The following types of professional development exist: adaptation programmes, specialisation programmes, functional programmes, updating programmes and innovation programmes. Adaptation programmes are for beginning teachers to acquire professional competencies necessary to perform the tasks of an independent teacher. Specialisation programmes equip teachers with competencies necessary to perform specialised activities. Functional programmes equip teachers with managerial competencies for their new functions as school leaders. Updating programmes seek to

maintain teachers' competencies for conducting their activities and can serve as preparation for certification. Innovation programmes seek to advance and improve teaching practices. Traditionally, the training provided has been mostly individual, but since 2011 there has been a shift towards more focus on group training.

Professional development is provided by a range of different institutions including higher education institutions and educational organisations of the Ministry of Education (the National Institute of Education, the Methodology and Pedagogy Centre and the National Institute of Vocational Education). The largest provider of professional development is the Methodology and Pedagogy Centre (MPC). It provides courses free of charge. The Centre has about 150 pedagogical employees and is organised in one head office plus three regional offices. The main role of MPC is to develop and provide in-service education and training to teachers, but it also has other responsibilities such as developing support materials for teachers, developing the national teaching standards and conducting a project on school self-evaluation (Shewbridge et al., 2014). Programmes of professional development are accredited by the Accreditation Council, which is part of the Ministry of Education. The Ministry also publishes a list of accredited providers on its website.

Other school staff

In Slovak schools, two other types of staff provide support for student learning: teaching assistants and specialist employees. Teaching assistants are typically hired to support the education of students with special needs (in mainstream schools) and students from a disadvantaged socio-economic background (in both mainstream and special schools), mostly at the basic school level. The number of teaching assistants to support the learning of students with disabilities and gifted children has been increasing in the last few years, from 786 in 2009 to 1 640 in 2014 (Educational Policy Institute, 2015). This is the result of a growing demand by school founders. Between 2011 and 2013, the number of teaching assistants for students from a disadvantaged socio-economic background has fluctuated between 278 and 335 (Educational Policy Institute, 2015). As part of non-normative funding, specific funding streams support the hiring of teaching assistants: a process of applications to the Ministry for extra funding for teaching assistants for students with special needs in mainstream education and a per-student extra amount for each student identified as from a disadvantaged socio-economic background (see Chapter 3). In the latter case, the contribution is used by the school to cover the cost of a teaching assistant and for class equipment, didactic technology and teaching materials. The founder of a basic school with more than 100 sociallydisadvantaged students must use at least 50% of the total contribution to cover the cost of teaching assistants (Educational Policy Institute, 2015).

Schools can also directly employ specialist employees such as a psychologist, a special educator or a speech therapist. In 2012, mainstream schools employed 204 school psychologists (6 in pre-primary education, 112 in basic education, 49 in vocational secondary education, 35 in general secondary education, 2 in conservatoires). Special schools employed 43 school psychologists (36 in pre-primary and basic education, 7 in secondary education). For the same year, 496 special educators were employed in mainstream schools and only one in special schools (Educational Policy Institute, 2015).

Strengths

Efforts made to increase teacher salaries send important signals about the importance of teaching

In recent years, there have been efforts on the part of the Slovak Government to increase teacher salaries. Salaries were increased by 5% in 2013, 2014 and 2015, reflecting a commitment to bring teacher salaries to more adequate levels. There is a clear awareness that the salaries of Slovak teachers remain the lowest within the OECD area, both at the start of the career and at the top of the scale (see Figure 4.4). Even more striking, salaries of Slovak teachers relative to those of tertiary-educated workers in the Slovak Republic are the lowest in the OECD area (see Figure 4.5): for lower secondary teachers, they only reach 43% of the average salary of tertiary-educated workers against an OECD average of 88% (OECD, 2014a).

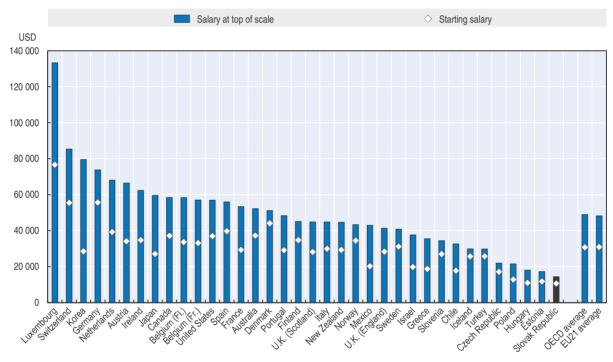


Figure 4.4. Teacher annual salaries at start of career and at top of the scale, lower secondary education, public institutions, 2012

Notes: Salaries are in equivalent US dollars (USD) converted using PPPs for private consumption. Data refer to statutory salaries for teachers with minimum qualifications. For Hungary, Sweden and the United States, data refer to actual salaries. For Sweden, reference year is 2011.

Source: OECD (2014a), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

While there is no general shortage of teachers in the Slovak school system, low salaries have clear detrimental effects on the motivation levels of teachers (see below) and limit considerably the ability of the system to attract high-quality entrants and more males into the profession (OECD, 2005). There is also some evidence that a significant proportion of graduates from initial teacher education end up not entering the teaching profession, limiting its ability to refresh itself. This is reflected in the current ageing trend of the teaching workforce, which results from a low entry rate of new graduates.

Hence, it is commendable that the Slovak Government is committed to improve teachers' salary conditions. Given the tight budget constraints, as efficiency gains are achieved in the school system, the Ministry of Education improves its negotiation position $vis-\dot{a}-vis$ the Ministry of Finance in order to further improve teacher salaries.

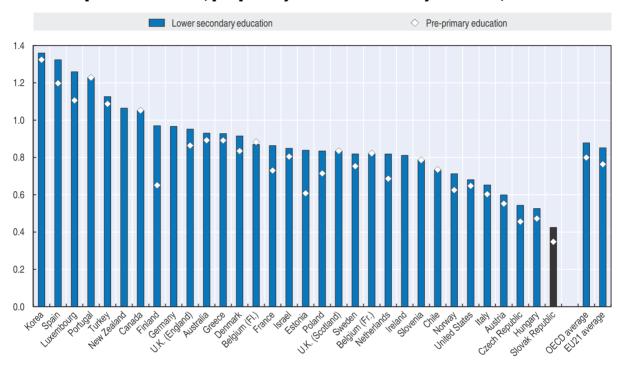


Figure 4.5. Teachers' salaries relative to earnings for tertiary-educated workers aged 25-64, public institutions, pre-primary and lower secondary education, 2012

Notes: Data refer to actual salaries except for the following countries, for which statutory salaries were used: Austria, Canada, Ireland, Korea, Portugal, the Slovak Republic, Slovenia, Spain and Turkey. The "Actual" method refers to the ratio of average actual salary, including bonuses and allowances, for teachers aged 25-64 to earnings for full-time, full-year workers with tertiary education aged 25-64. The "Statutory" method refers to the ratio of teachers' statutory salary after 15 years of experience and minimum training (regardless of age) to earnings for full-time, full-year workers with tertiary education aged 25-64. For Belgium (French Community), Belgium (Flemish Community), England and Scotland, data on earnings for full-time, full-year workers with tertiary education refer to Belgium and the United Kingdom respectively. Scotland includes all teachers, irrespective of their age. For Sweden, average actual teachers' salaries do not include bonuses and allowances.

Source: OECD (2014a), Education at a Glance 2014: OECD Indicators, http://dx.doi.org/10.1787/eag-2014-en.

Teaching standards are being developed

As part of the project Professional and Career Progress of Pedagogic Employees, the Methodology and Pedagogy Centre (MPC) is developing professional standards for teachers. This is being done in collaboration with universities and international experts (Shewbridge et al., 2014). The professional standards are differentiated for the three different career stages of independent teacher, teacher with first certification and teacher with second certification. The draft standards are further structured in three dimensions: i) the student dimension: covers teacher professional competencies focussed on understanding of students' knowledge, characteristics and conditions for development; ii) the educational process dimension: covers professional competencies focussed on processes leading to student learning and development; and iii) pedagogic employee dimension: covers competencies focussed on teachers' own development as representatives of the teaching profession and as school employees. The standards describe key competencies for each of

these three dimensions and for each level of the teacher career. The intention is that the standards guide teachers' professional development and career advancement through their link to the internal and external appraisal of teachers (Shewbridge et al., 2014). During 2014/15, the teaching standards are being discussed with school directors, founders, teacher unions, representatives of the school private sector and the State Schools Inspectorate, before their implementation.

The establishment of teaching standards that provide a clear and concise profile of what teachers are expected to know and be able to do is a very positive development. Teaching standards are essential mechanisms for clarifying expectations of what systems of teacher education and professional development should aim to achieve, offering the credible reference for making judgements about teacher competence, guiding teacher professional development, and providing the basis for career advancement. Clear, well-structured and widely supported teaching standards are a powerful mechanism for aligning the various elements involved in developing teachers' knowledge and skills (OECD, 2005). There are also indications that the standards being prepared reflect the broad range of competencies that teachers require to be effective practitioners in modern schools.

There is considerable autonomy in the management of the teaching workforce at the local level

In the Slovak Republic, there is considerable autonomy in the management of the teaching workforce at the local level. According to PISA 2012 data, 95% of 15 year-olds attended schools whose directors reported that only directors and/or teachers have a considerable responsibility for selecting teachers for hire, against an OECD average of 49% (OECD, 2013a, Figure IV.4.2). The equivalent figure for responsibility for dismissing teachers is 92%, against an OECD average of 36% (OECD, 2013a, Figure IV.4.2). This is a strength in a system where schools are individually judged on their ability to improve student learning. A direct interaction with the applicants takes place, typically through interviews, and allows the use of a more complete set of criteria to match individual applicants' characteristics to schools' specific needs. The process of open recruitment also offers advantages to applicants since they can more directly choose the school and identify with the school's educational project. As a result, the process is more likely to build a sense of commitment of teachers to the schools where they are recruited. Wöβmann (2003) used data from the Third International Mathematics and Science Study (TIMSS) to examine the relationship between different aspects of centralised and school-level decision-making and student performance. He concluded that students in schools with autonomy in deciding on the hiring of teachers performed statistically significantly better in mathematics and science, as did students in schools that could determine teacher salaries themselves.

However, it is important to note that school autonomy in teacher recruitment involves some complexity as there is the potential for an inequitable distribution of teachers (as schools with more resources and located in advantaged areas have greater potential to attract high quality teachers, see below) and opportunities for favouritism in teacher selection by schools. The latter requires transparency in recruitment processes through making information about existing teaching openings publicly available. This has now become a requirement in the Slovak Republic through the publication of job openings on websites for the school, the founder and regional state authorities.

In addition to recruitment, school leaders have considerable room to develop the competencies of their teaching bodies in agreement with school development plans. Teacher appraisal processes internal to the school are well established, are led by school directors and have important consequences for the professional development of teachers (see below). This strengthens the ability of school leaders to shape teacher professional competencies to properly respond to the needs of their educational communities. Also, the autonomy from which schools benefit to allocate their budgets to teacher resources grants them with the ability to select the optimal number and mix of school staff for their schools, including opportunities to hire non-teaching staff to support the work of teachers.

Teacher employment under a workload system improves efficiency in the teacher labour market

The conception of teacher employment in the Slovak Republic, whereby basic compensation is associated with a teacher's workload, improves efficiency in the teacher labour market. This is in contrast with countries which conceive teacher employment on the basis of a teaching load only. Employment under a workload system recognises that teachers need time for engaging in a range of other tasks, including the adequate preparation of lessons. This is likely to make the profession more attractive and to reduce the number of teachers with unreasonably high teaching loads, were pay to be directly associated with teaching only.

As explained in OECD (2005), teachers are now expected to have much broader roles. Some examples of areas of broadened teacher responsibility are: initiating and managing learning processes; responding effectively to the learning needs of individual learners; integrating formative and summative assessment; teaching in multicultural classrooms; introducing new cross-curricular emphases; integrating students with special needs; working and planning in teams; evaluation and systematic improvement planning; ICT use in teaching and administration; projects between schools; management and shared leadership; providing professional advice to parents; and building community partnerships for learning (OECD, 2005). These broaden responsibilities necessitate a conception of teacher employment which recognises the whole range of activities of a teacher in addition to teaching.

A career structure exists and teachers have opportunities to diversify their roles at schools

In the Slovak Republic, teachers benefit from a clearly established career structure with four steps associated with a teacher certification process. The existence of a career structure for the most part accomplishes two important functions: the recognition of experience and advanced teaching skills with a formal position and additional compensation; and the potential to better match teachers' skills to the roles and responsibilities needed in schools, as more experienced and accomplished teachers may be given special tasks within schools (e.g. member of examination committee, mentor teacher). These convey the important message that the guiding principle for career advancement is merit and have the benefit of rewarding teachers who choose to remain in the classroom.

Teachers, as they access higher categories of the career structure, are expected to have deeper levels of knowledge, demonstrate more sophisticated and effective teaching, take on responsibility for curricular and assessment aspects of the school, assist colleagues and

so on. Given the potential greater variety of roles in schools as the teacher goes up the career ladder, the career structure fosters greater career diversification. Such opportunities for diversification already exist in Slovak schools as with management responsibilities for teachers at schools, developers of professional development activities, members of teacher examination committees and mentoring of beginning teachers. These are likely to have a positive motivational effect.

Appropriately, access to higher categories of the career structure involves a formal certification process (certification examination). Such certification processes that are linked to career development can help provide incentives for teachers to perform at their best, bring recognition to effective teachers, support professional learning, and help recognise and spread good practice more widely. Given the high stakes of teacher certification, it is appropriate to use a national framework and standards procedures as well as an external component (members of certification committees are external to the school for the two highest categories) to ensure objectivity and fairness (Santiago and Benavides, 2009). However, as will be explained later, there are some concerns about the approach to certification.

Another positive feature of the teaching profession in the Slovak Republic is the opportunity for horizontal differentiation. This is formalised in specialised career positions such as class teacher, mentor teacher, educational advisor, ICT co-ordinator, Head of subject committee or Head of methodology association, which are proposed to teachers according to the needs of individual schools. These roles, which do not necessarily involve differentiated pay but instead release time from classroom teaching, provide more opportunities and recognition for teachers and meet school needs (OECD, 2005).

In addition, beginning teachers benefit from a clearly established mentoring programme which provides them with support and additional training as they enter the profession. Beginning teachers are assigned a more experienced colleague as a mentor. The mentor observes the teacher's classroom interactions, models effective teaching approaches, and provides advice on matters such as pedagogy, assessment and administration (Shewbridge et al., 2014). In TALIS 2013, 83% of Slovak lower secondary teachers were reportedly in schools with a formal induction programme for new teachers, compared to the international average of 66%; and 82% reportedly were in schools with informal induction activities, compared to 77% internationally (OECD, 2014b). There is ample evidence suggesting the benefits beginning teachers gain from mentoring while mentors also derive substantial benefits from the mentoring experience (OECD, 2005).

The approach to professional development has a number of strengths

Professional development is well established among Slovak teachers, benefits from a wide supply of programmes offered by a variety of providers, entails the accreditation of individual programmes, involves co-ordination between schools and their founders and benefits from dedicated budgets at schools. At the same time, MPC and other providers are expected to create professional development programmes that aim to develop the competencies required by schools. Two features are of particular importance and should be highlighted. First, teacher appraisal is used to identify the professional development needs of individual teachers. This is commendable as development is one of the main functions of teacher appraisal (OECD, 2013b). Second, taking advantage of the fact that schools organise internal processes for teacher appraisal, school leaders define individual professional development plans in alignment with school development plans. While

teachers decide on the professional development programmes they undertake, access to programmes free of charge is only granted if these are part of the school's plan for teacher professional development. Also, salary allowances for professional development credits are granted at the discretion of school leaders to allow them to assess the relevance of the professional development programmes to school development. The link between teacher professional development and school development is essential to ensure teachers give priority to acquiring those competencies that better fit the needs of the schools (OECD, 2013b).

Teacher appraisal internal to the school seems to be well consolidated

Another positive aspect of the teaching career in the Slovak Republic is the internal teacher appraisal which typically takes place in schools. In the schools visited by the OECD review team, school directors and teachers described teacher appraisal as a well-established aspect of regular practice in schools. Results from TALIS show that, in 2013, 100% of lower secondary Slovak school directors reported that appraisal was used in the school where the teacher worked, against a TALIS average of 92.6%. Internal teacher appraisal helps teachers learn about, reflect on, and improve their practice in the specific school context in which they teach. It also grants them the opportunity to identify areas for improvement. In the course of its visit, the OECD review team formed the impression that the principle of teachers being appraised is valued and accepted among teachers. According to TALIS 2013 data, 68.9% of Slovak lower secondary teachers reported a "moderate" or "large" positive change in their motivation, against a TALIS average of 64.7%.

A key strength of teacher appraisal in the Slovak Republic is that the process is clearly focused on evaluating actual teaching practices in the classroom. Results from TALIS show that, in 2013, 62% of lower secondary school directors reported that they often or very often observe instruction in the classroom, compared to an international average of 49% (OECD, 2014b). While school directors vary in their approaches to teacher appraisal, it appears that they typically operate an approach whereby they observe the classroom practice of each of their teachers at least once a year. The evaluator provides feedback for improvement and the teacher has an opportunity for self-evaluation. The process is strongly school-based and school-level professionals have ownership of methods and criteria (Shewbridge et al., 2014). Teachers interviewed by the OECD review team reported that they found classroom observations and feedback on their work valuable.

The introduction of teaching assistants fosters the ability to respond to students' individual needs

In recent years, the Slovak Republic has promoted the introduction of teaching assistants in schools to assist with the learning of students with special needs and students from a disadvantaged background. This is part of the overall strategy to improve the integration of students with special needs in mainstream schools and to support the learning of students who are at a disadvantage as a result of their socio-economic background. This is a move in the right direction in order to strengthen the ability of schools to respond to students' individual needs.

There are several mechanisms through which teaching assistants can have a positive impact on student attainment. With an additional professional in class, students receive more individual help and attention from either the teaching assistant or the teacher. Therefore, students' learning needs are more likely to be met, which is likely to lead to

greater achievement. In addition, the use of teaching assistants enables a more flexible learning environment, and groups of different size and characteristics can be created to better respond to students' needs and allow increased engagement and inclusion of children in classroom activities (Masdeu, 2015). The use of teaching assistants in schools can also contribute to a greater inclusion of students with disabilities as the required special assistance can more easily be provided.

Teaching assistants have a complementary role in regard to the teaching process, but also substitute teachers in a set of non-teaching and routine tasks, such as taking on routine teaching related tasks (e.g. lesson preparation) to reduce teachers' workloads and allow them to focus on teaching tasks. The literature also indicates that the work of teaching assistants can reduce pressure on the teacher in relation to classroom management by helping the teacher cope with student misbehaviour, thus creating a more productive atmosphere. Furthermore, teaching assistants can pair up with teachers during class in a complementary way, providing the most effective teaching in every different context (Masdeu, 2015). In the Slovak Republic, the priority has been to devote teaching assistants to support the learning of students with disabilities in mainstream basic schools while few resources have been assigned to the use of teaching assistants in more general terms as learning support staff in schools.

Challenges

The status of the teaching profession is low

Many of the stakeholders interviewed by the OECD review team commented on the low status of the teaching profession. There is an overall feeling among Slovak teachers that society does not value their work. According to TALIS 2013 data, only 4% of lower secondary Slovak teachers reported that they agree or strongly agree that the teaching profession is valued in society, the lowest figure among TALIS countries (the TALIS average being 30.9%). Similarly, only 58% of lower secondary teachers in the Slovak Republic reported that they agree or strongly agree that the advantages of being a teacher clearly outweigh the disadvantages, the 2nd lowest figure among TALIS countries (against a TALIS average of 77.4%). A significant proportion of them (45.4%) also wonder whether it would have been better to choose another profession, the third such proportion against a TALIS average of 31.6%. Nonetheless, 89.0% of Slovak lower secondary teachers also reported that they are satisfied with their job, against a TALIS average of 91.2% (OECD, 2014b).

Clearly, there are concerns about the image and status of teaching in the Slovak Republic, and teachers often feel that their work is undervalued. This is related to the low relative salaries of teachers (see above) 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 talented young people to the teaching profession and in keeping those already on the job motivated. A recent positive initiative to improve the attractiveness of teaching to young graduates was the creation of a special fund to provide loans to young teachers under favourable conditions (in 2014, 249 applications were approved for a total loan amount of EUR 2 million). There are also concerns regarding working conditions, namely in terms of benefitting from relevant professional development (see below) and accessing adequate instructional materials. These are detrimental to the status of teaching as a profession. According to TALIS 2013 data, Slovak school directors identify the inadequacy of instructional materials

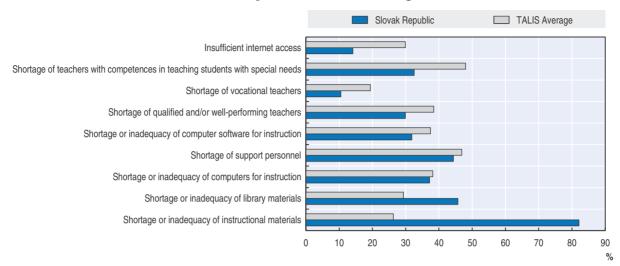


Figure 4.6. Resource issues hindering quality instruction, lower secondary education, the Slovak Republic and TALIS average, 2013

Note: Data correspond to the percentage of lower secondary teachers whose school director reports that the resource issues depicted above hindered quality instruction "a lot" or "to some extent".

Source: OECD (2014b), TALIS 2013 Results: An International Perspective on Teaching and Learning, http://dx.doi.org/10.1787/9789264196261-en.

as the main resource issue hindering the school's capacity to provide quality instruction, a problem perceived as much more acute than in other countries participating in TALIS (an issue affecting 82.1% of Slovak teachers, the highest figure among TALIS countries, with a TALIS average of 26.3%) (see Figure 4.6).

There are indications of some inequitable distribution of teachers across schools

As explained above, recruitment at the school level combined with differences in resources across schools has the risk of leading to an inequitable distribution of teachers across schools. In the Slovak Republic, there are indications of some inequitable distribution of teachers across schools. This is supported by some TALIS and PISA data. The proportion of lower secondary teachers with 5 years of teaching experience or less in schools whose directors report that more than 10% of the students have special needs is 20.4% while the proportion of such teachers in schools whose directors report that 10% or less of the students have special needs is 16.7% (OECD, 2014b). In addition, there are indications that, in schools attended by 15 year-olds, the likelihood of teacher shortages (as perceived by school directors) is considerably higher in both socio-economically disadvantaged schools and in schools located in a rural area (fewer than 3 000 people) (Table IV.3.11, OECD, 2013a). However, this situation arises in an overall context where there is no overall shortage of teachers in the Slovak Republic.

This is confirmed by some national data. As shown in Table 4.5, the proportion of experienced teachers is lower in smaller municipalities. While the proportion of teachers either at the 1st or the 2nd certification career levels is 31.2% in schools located in municipalities with 1 000 inhabitants or less, it is 48.6% in schools located in municipalities with more than 5 000 inhabitants. Schools located in smaller municipalities also have a higher proportion of hours instructed by teachers who are not qualified for the subject or field taught. As displayed in Table 4.9, while such proportion is about 7% in schools located in municipalities with more than 5 000 inhabitants, it is about 18% in schools located in the smaller municipalities (1 000 inhabitants or less).

According to national data, inequities of teacher resources across schools are, however, not as visible in terms of the qualification status of teachers (i.e. whether a teacher has a teaching degree or not) and student-teacher ratios. Figure 4.7 shows the distribution of the qualification status of teachers and student-teacher ratio across the social status of the schools, defined as the proportion of students with a socially-disadvantaged background, in basic schools in 2013. As can be seen from the figure, the qualification status of teachers does not significantly worsen for schools with a greater proportion of disadvantaged students, even if the dispersion of qualifications tends to be greater for schools with a higher proportion of disadvantaged students. The figure also shows that a higher proportion of socially-disadvantaged students is more likely to go alongside a lower student-teacher ratio. This is likely to be related to the fact that student-teacher ratios are lower in smaller municipalities.

Average - st.dev. Average △ Average + st.dev. **Teacher qualifications** Student-teacher ratio Qualification Studentcoefficient teacher ratio 12 16 1.18 15 1.16 14 1.14 13 1.12 12 亡 1.1 \Box 11 1.08 10 1.06 9 1.04 8 1.02 0 0-5 0-5 5-25 > 25 5-25 > 25

Figure 4.7. **Distribution of teacher qualifications and student-teacher ratio by social status of schools, basic education, 2013**

Notes: The horizontal axis represents basic schools of four types, depending on the proportion of socially-disadvantaged students: 0%; between 0 and 5%; between 5 and 25%; and more than 25%. In 2013, out of 2 159 basic schools, 468 had no socially-disadvantaged students, 511 schools had a proportion of socially-disadvantaged students between 0 and 5%, 680 schools between 5 and 25%, and 500 basic schools more than 25%.

Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

Teacher certification is too resource-intensive and might not concentrate on the core work of teachers

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, teacher certification is not a competency-based process, i.e. it does not directly assess whether a teacher has acquired the competencies needed to perform at the different stages of the career. Instead, as it is currently designed, teacher certification focusses on the acquisition of qualifications: eligibility to apply for certification relates to the acquisition of professional development credits and a teacher can obtain certification through the completion of a doctoral degree or of a specific thesis defended at the certification examination. As explained by Shewbridge et al. (2014), "this raises concern

because it is difficult to tell from a written thesis whether teachers know how to apply what is outlined in the thesis and have acquired effective pedagogical skills to support the learning of their students."

Second, the certification process is too resource-intensive for individual teachers and does not concentrate on the core work of teachers. Teachers have to considerably invest in the preparation of an academic piece of work to be defended at the certification examination. It is unclear whether the content of the thesis has relevance for the improvement of student learning and whether the thesis will be of any use for the subsequent work of the teacher. At the same time, the fact that the certification process is disconnected from classroom practice and does not include observation of actual teaching is of concern. As a result, teachers reach higher levels of certification with no assessment of their actual work in schools and of their ability to impact student learning.

Third, teacher certification is disconnected from other teacher appraisal processes such as those internal to the school. In part this is because they do not have a common appraisal reference (teaching standards), possibly sending conflicting messages about what is considered good teaching in the Slovak Republic. At the same time, there is little connection between teacher certification and internal teacher appraisal since they do not inform each other. In particular, information on the teacher's practice in school (as provided through internal teacher appraisal) is not used for teacher certification.

Fourth, there are no provisions for re-certification, i.e. once certified at a given stage, the teacher remains indefinitely at that stage. This implies that the teacher does not need to periodically demonstrate being fit to perform at a given certification stage, reducing his or her incentives to update knowledge and skills continuously.

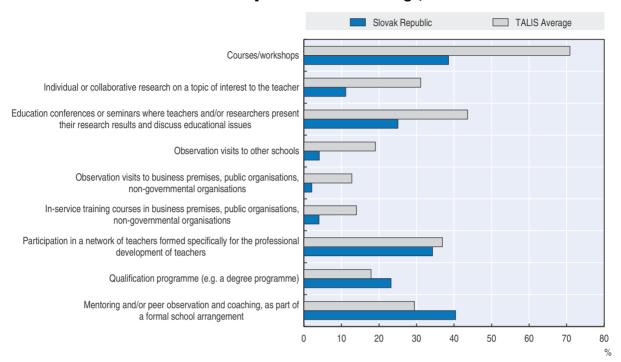
There are a number of concerns on teacher professional development

In international comparison, the participation rates in professional development of Slovak teachers appear to be low. According to TALIS 2013 data, 73.3% of Slovak lower secondary teachers reported having participated in at least one professional development activity in the previous 12 months, the 2nd lowest figure among TALIS countries, against a TALIS average of 88.4% (OECD, 2014b). There are indications that this might result from the combination of a number of factors such as the little relevance of the supply of professional development programmes, the limited entitlement to free professional development, the predominance of the financial incentive to undertake professional development and an inefficient market for professional development.

Compared to teachers in other systems, Slovak lower secondary teachers in 2013 reported the lowest levels of participation (39%) in recent professional development courses or workshops, which is by far the most common type of professional development among TALIS participating countries (see Figure 4.8). Participation rates of Slovak teachers were also among the lowest on the 2nd most common type of professional development (education conferences and seminars) (see Figure 4.8). By contrast Slovak teachers were more likely to be involved in mentoring/peer observation activities at the school level and formal qualification programmes.

At the same time, 43% of Slovak lower secondary education teachers agreed or strongly agreed that the non-relevance of the professional development offered represented a barrier to their participation in professional development, against a TALIS average of 39% (see Figure 4.9). This is consistent with the observations of the OECD review team during its visit

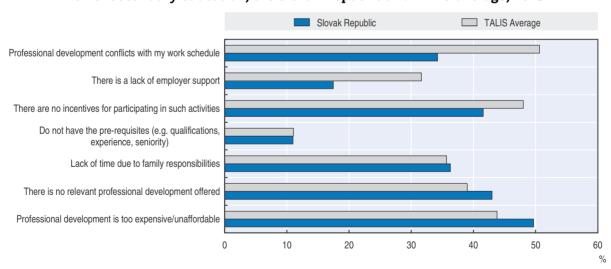
Figure 4.8. Type of professional development recently undertaken by lower secondary teachers, the Slovak Republic and TALIS average, 2013



Note: Data correspond to participation rates for each type of professional development reported to be undertaken by lower secondary education teachers in the 12 months prior to the survey.

Source: OECD (2014b), TALIS 2013 Results: An International Perspective on Teaching and Learning, http://dx.doi.org/10.1787/9789264196261-en.

Figure 4.9. Barriers to teachers' participation in professional development, lower secondary education, the Slovak Republic and TALIS average, 2013



Note: Data correspond to the percentage of lower secondary education teachers indicating that they "agree" or "strongly agree" that the reasons depicted above represent barriers to their participation in professional development.

Source: OECD (2014b), TALIS 2013 Results: An International Perspective on Teaching and Learning, http://dx.doi.org/10.1787/9789264196261-en.

as several teachers interviewed were critical about the supply of professional development, emphasising that it did not meet their needs. A survey conducted by the Slovak Chamber of Teachers reveals that over half of the surveyed teachers are not attracted to the supply of professional development programmes (SKU, 2014).

The TALIS survey also reveals that professional development being too expensive is perceived as the main barrier to professional development by Slovak lower secondary teachers. Almost 50% of surveyed teachers agreed or strongly agreed that affordability is a barrier to engaging in professional development, above the TALIS average of 43.8% (see Figure 4.9). Teachers can participate in the MPC courses free of charge, whereas they have to pay for courses offered by other providers. Schools also have a limited budget for professional development which limits their choices. This is particularly the case in smaller schools. For instance, PISA 2012 data reveal that, according to school directors' perceptions, Slovak mathematics teachers in schools in rural areas are less likely to attend a programme of professional development with a focus on mathematics during the previous three months than those in schools located in towns or cities, and this difference tends to be clearly more significant than in other OECD countries (Table IV.3.13, OECD, 2013a).

Another problematic aspect is the direct link between professional development and pay in particular through the salary allowance for professional development credits. Teachers receive a pay rise for merely attending professional development courses rather than for proving that they are changing their practice accordingly. One unintended effect of this system is the phenomenon of "credit chasing": there are concerns that teachers try and enrol in any courses they can rather than in courses that are interesting and relevant for them and their school. Given their low salaries, teachers have strong incentives to enrol in professional development to receive a salary increase (Shewbridge et al., 2014). A survey conducted by the Slovak Chamber of Teachers reveals that the salary allowance for professional development credits is the main motivation for most teachers to engage in professional development (SKU, 2014).

Finally, the market for professional development programmes does not seem to be effective. Most plans and programmes are developed centrally by the MPC. As the MPC's courses are free of charge, this puts at a competitive disadvantage other providers given that little money is available in schools' budgets for professional development. The process to accredit professional development programmes also raises concerns. Courses offered by MPC are automatically accredited, whereas other training providers need to apply and wait for accreditation of their programmes, a process that may take a considerable amount of time and reduce the ability of independent providers to respond adequately to teachers' demands (Shewbridge et al., 2014). In addition, little analysis of programme impact is undertaken by the Accreditation Council. Courses are accredited for six years with no possibility of adjustment during this period, including to introduce improvements on the basis of feedback provided by teachers who participate in specific programmes.

There is no external validation of internal teacher appraisal processes

For regular teacher appraisal internal to the school, the Ministry of Education provides appraisal forms that are available on its website. Schools may use the criteria as they are, modify them to suit the school's specific context, or create their own criteria. There is no obligation for schools to use these forms and as a result of schools' autonomy in developing their own systems, little is known nationally regarding the actual aspects appraised and criteria used across schools for teacher appraisal (Shewbridge et al., 2014).

As a result, internal teacher appraisal practices are likely to vary across schools in terms of the criteria applied and the way the results are used for professional development and teacher rewards. In this context there is a risk of potential bias or arbitrariness of teacher appraisal implemented by school directors, especially where the focus is not only on the teachers' performance but also on their personality. In the absence of widely-used teaching standards and an external validation of internal teacher appraisal processes, there are risks that teacher appraisal lacks consistency and coherence across schools.

There are some challenges to the preparation of teachers

Initial teacher education raises a range of concerns. First, there is some anecdotal evidence indicating that initial teacher education is not attracting the best candidates from school education. At their meeting with the OECD review team, teacher education institutions expressed their difficulties in attracting good enough candidates, emphasising that they have not been able to make a selection at the entry point for some years. This reflects the loss in the attractiveness of teaching as a result of low salaries, difficult working conditions and the low status of the profession. In this context, the establishment of a "motivation" scholarship in the amount of EUR 1 000 targeted at about 15% of the students in specific fields (physics, chemistry, mathematics, ICT, geography and biology) is a positive development. Second, as communicated by teacher education institutions at their meeting with the OECD review team, a very large proportion of graduates from initial teacher education seems not to actually go into teaching upon graduation. This is not surprising given the salaries of beginning teachers compared to those of other tertiary-educated individuals. This seems to indicate that, if teacher education programmes admitted fewer students, and if those admitted were more suited for teaching and more interested in a teaching career, the available resources could be used more effectively.

Third, there are concerns about the required minimum qualifications for pre-primary education teachers. The Slovak Republic is the only OECD country where such minimum qualifications are set at the upper secondary level (ISCED 3A). This is in stark contrast to the requirement of a master's level higher education qualification for teachers at the other levels of school education. There is no reason why quality standards should be lower at pre-primary education given the lasting effects of this level of education on student learning opportunities.

Fourth, a number of organisational aspects to the organisation of teacher education programmes are problematic. The OECD review team formed the impression that practical training in teacher education programmes could be strengthened through both the amount of time devoted to it and the quality of the interactions with schools. This is among the main concerns expressed by the Slovak Chamber of Teachers. In addition, teaching students with special needs and ICT skills for teaching have been identified by Slovak lower secondary teachers as their main needs for professional development, according to TALIS (see Figure 4.10), which might potentially indicate some under emphasis in these areas in teacher education programmes.

There is some lack of transparency in teacher compensation defined at the school level

There are some potential benefits of linking teacher appraisal to the personal allowance teachers receive. It can allow school directors to do proper staff planning and reward, retain and motivate teachers. However, there are concerns about the transparency and subjectivity of the criteria used to determine the individual performance-related extra

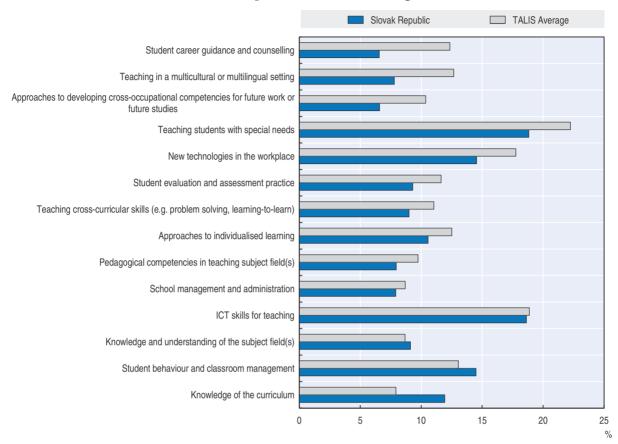


Figure 4.10. Teachers' needs for professional development, lower secondary education, the Slovak Republic and TALIS average, 2013

Note: Data correspond to the percentage of lower secondary education teachers indicating they have a high level of need for professional development in the areas displayed.

Source: OECD (2014b), TALIS 2013 Results: An International Perspective on Teaching and Learning, http://dx.doi.org/10.1787/9789264196261-en.

compensation teachers may receive at the school level. Many of the teachers the OECD review team spoke to indicated that the relationship between performance and pay was not transparent. Teachers often did not know how the extra compensation was determined and whether it was based on classroom observations or other aspects of their work. A major reason for the lack of transparency in defining teachers' personal allowance is the absence of a clear framework for appraising the performance of teachers. As indicated above, internal teacher appraisal procedures are not undertaken in schools in a consistent manner with defined reference standards and criteria. For this reason, in fact, school directors may feel inhibited to establish a closer linkage between pay and performance and limit the personal allowance to the extra responsibilities and tasks teachers assume in the school. In addition, according to some of the school directors the OECD review team spoke to, there is in fact very little scope for school directors to award performance-related extra payments because of the limited extra money available in their budgets. Therefore, in practice, the personal allowance is used predominantly as an instrument to reward additional tasks and responsibilities.

There might be some instances of shortage and out-of-field teaching

Analysis of class size and student-teacher ratios in the Slovak Republic provide indications that, compared to the situation in other OECD countries, on the whole, the Slovak Republic might be facing a slight oversupply of teachers. As described earlier, average class size is low compared to the OECD average while student-teacher ratios are around the OECD average. This discrepancy is explained by both the facts that Slovak teachers tend to have a teaching load above average (in pre-primary and primary education) and Slovak students tend to have lower instruction time. PISA 2012 data also reveal that the Slovak Republic has the 10th lowest index of teacher shortage among OECD countries (OECD, 2013a). In 2012, 5.0%, 5.3% and 2.2% of 15-year-old students were in schools whose director reported that the school's capacity to provide instruction was hindered a lot by a lack of qualified teachers in mathematics, science and language of instruction respectively (this is against OECD averages of 16.7%, 16.2% and 8.5% respectively) (Table IV.3.37, OECD, 2013a). As could have been expected, given the demographic developments, this represents an improvement relative to the 2003 situation, when the equivalent figures for the Slovak Republic were 5.7%, 9.8% and 4.9% (OECD, 2013a).

However, this does not mean that the Slovak school system is not faced with specific instances of teacher shortage. PISA 2012 data reveals that the index of teacher shortage is considerably higher in both socio-economically disadvantaged schools and in schools located in a rural area (fewer than 3 000 people) (Table IV.3.11, OECD, 2013a). This is of concern given that the Slovak Republic has been identified by PISA analysis as the second country with the strongest negative relationship between the index of teacher shortage and mathematics performance (Table IV.1.12b, OECD, 2013a).

In addition, there are some indications that out-of-field teaching might be a more serious issue than in other OECD countries. This type of "hidden shortage" is said to exist when teaching is carried out by someone who is not fully qualified to teach the field/subject and is usually measured as the proportion of teachers teaching a subject in which they are not qualified. TALIS 2013 provides data on the proportion of lower secondary teachers in given subjects who have not had formal education or training at ISCED level 4 or higher or at the professional development stage for those subjects. In the Slovak Republic, such proportions for teachers currently teaching reading, writing and literature; mathematics; science; and modern foreign languages were 13.5% (2nd highest figure among TALIS countries), 12.9% (4th highest), 15.1% (2nd highest) and 11.3% (10th highest) against TALIS averages of 5.7%, 6.6%, 7.6% and 10.5% (OECD, 2014b). However, out-of-field teaching might result not only from shortages but also from the way schools are managed. In fact, given their high levels of autonomy in the Slovak Republic, it might be the case that some school directors find that assigning teachers to teach out of their fields is often more convenient, less expensive or less time-consuming than the alternatives.

These figures are confirmed by national data, as shown in Table 4.8. In 2014, in basic education, about 12% of the instructed hours were taught by a teacher with no qualification in the field or subject taught. Figures are considerably better in secondary education where such proportion is 2.4% and 5.9% in general and vocational education respectively. Since 2005, the situation has slightly improved in terms of the instruction provided by teachers with adequate qualifications for the subject or field taught (in 2005, in basic education, almost 17% of instructed hours were taught by a teacher with no qualification for the subject or field taught). As displayed in Table 4.9, there are no major

Table 4.8. Instructed hours by teaching qualification for the subject or field taught, by level and type of education, 2005, 2009 and 2014

	2005	2009	2014
	Basic school		
Number of instructed hours	783 306	694 123	720 481
of which:			
Instructed by teachers with teaching qualification	650 687	587 701	633 911
Instructed by teachers without teaching qualification	132 619	106 422	86 570
Proportion of qualified hours (%)	83.07	84.67	87.98
Genera	al secondary school		
Number of instructed hours	141 950	156 637	131 601
of which:			
Instructed by teachers with teaching qualification	137 238	151 455	128 452
Instructed by teachers without teaching qualification	4 712	5 182	3 149
Proportion of qualified hours (%)	96.68	96.69	97.61
Vocation	nal secondary school		
Number of instructed hours	430 480	409 574	345 543
of which:			
Instructed by teachers with teaching qualification	397 197	376 114	325 160
Instructed by teachers without teaching qualification	33 283	33 460	20 383
Proportion of qualified hours (%)	92.27	91.83	94.10

Notes: Teaching qualification refers to qualifications for the subject/field taught.

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

Table 4.9. Instructed hours by teaching qualification for the subject or field taught, by school sector and size of municipality, 2014

School sector/teaching qualification	Number of instructed hours	Of which: Instructed by teachers with teaching qualification	Of which: Instructed by teachers without teaching qualification	Proportion of qualified hours (%)
By school sector				
State	1 180 288	1 067 904	112 385	90.48
Private	59 771	53 337	6 434	89.24
Church	72 520	67 107	5 413	92.54
Total	1 312 579	1 188 348	124 232	90.54
By size of municipality				
<= 1 000	61 991	50 688	11 303	81.77
> 1 000 and <= 2 000	138 510	115 667	22 843	83.51
> 2 000 and <= 3 000	81 080	68 135	12 946	84.03
> 3 000 and <= 4 000	44 353	37 234	7 120	83.95
> 4 000 and <= 5 000	35 576	31 658	3 918	88.99
> 5 000	951 069	884 967	66 102	93.05
Total	1 312 579	1 188 348	124 232	90.54

Notes: Teaching qualification refers to qualifications for the subject/field taught.

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

differences across school sectors in the proportion of hours instructed by a teacher with no qualification in the field or subject taught. As pointed earlier, however, the proportion of hours instructed by teachers without a teaching qualification for the subject or field taught tends to increase as the size of the municipality decreases, indicating a greater probability of out-of-field teaching in smaller municipalities.

Policy recommendations

Increase teacher salaries and improve the working conditions of teachers

As further resources become available to the school system and as efficiency gains are realised (see Chapter 3), a top priority for the allocation of the newly available resources should be the improvement of teachers' compensation and working conditions. The objective is to improve the status of the teaching profession, attract better candidates to teaching, ensure teacher education graduates enter the profession, make teaching more appealing to males, and ensure teachers have adequate incentives to be effective in their daily practice. This need is well recognised by the Slovak government as shown in recent efforts to improve teachers' salaries. These efforts should be sustained in the years to come, result in the significant improvement of teacher salary conditions, and go alongside efforts to improve working conditions. The latter relate, in part, to efforts to better resource individual schools so they are able to provide better instructional materials to teachers (see Chapter 3), more relevant professional development for teachers (see below), and better conditions for individual student support (e.g. extra teacher resources in disadvantaged schools, more teaching assistants to support the work of teachers).

In light of the current ageing trend, resulting from the small number of teachers currently entering the system, it is important to ensure that good qualified candidates enter the teaching profession at an adequate rate (and remain in it). Even if there appears to be no overall shortage of teachers, it is important for the school system to ensure a given 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. Hence, one option is to target greater salary increases to the early stages of the career. This is particularly important in the Slovak Republic given how low teacher salaries are relative to the salaries of other tertiary-educated graduates.

Introduce and promote the use of teaching standards across the system

The OECD review team strongly encourages the Slovak education system to pursue its efforts in introducing teacher professional standards. The expectation is that the current process led by the Methodology and Pedagogy Centre (MPC), as part of the project Professional and Career Progress of Pedagogic Employees, will lead to the introduction of teacher professional standards to guide teacher development in the school system. As explained by Shewbridge et al. (2014), "the current co-existence of the MPC's national standards, the Ministry's appraisal forms and the Inspectorate's criteria for classroom observation would benefit from being consolidated into a single set of standards so that there is a clear understanding of what is considered accomplished teaching".

These new standards, if they are clear, well-structured and widely supported, can become a powerful mechanism for aligning the various elements involved in developing teachers' knowledge and skills. They should provide a common basis for initial teacher education, appraisal of beginning teachers, regular school-based teacher appraisal, teacher certification, professional development and career advancement (Shewbridge et al., 2014). This would provide coherence for the teaching profession and a more consistent application of teacher appraisal, professional development and career advancement across teachers and schools.

The development of professional standards for teachers should include a strategy for national consultation: a variety of actors at different levels and from different contexts should participate in the consultation process, to generate knowledge and ownership of standards across the country. There is also a need to ensure appropriate feedback mechanisms: following implementation, standards can have periodical revisions to ensure that these remain aligned with other elements of the system, and that they are useful in the promotion of teacher professionalism. Another objective is that these standards are clear to teachers. This "making sense" of standards by teachers is essential to transform their practice. Extensive socialisation of standards for teachers can be done at several stages of teachers' careers (NBRC, 2010):

- During initial teacher education courses so that beginning teachers already have a clear understanding of what is expected from them.
- In mentoring programmes to ease the transition between initial education and school-level practice (Hobson, 2009).
- In-service teachers must receive training on the use of standards and their implications for classroom practice.

As school consolidation proceeds, adjust the use of human resources at schools

While there is a need to both ensure the continuous entry of new talent into the teaching profession and to constantly motivate in-service teachers, there is no need to increase the overall size of the teaching workforce. On the contrary, the needed school consolidation is likely to require a certain degree of teacher redundancy. This entails developing strategies for reallocating, redeploying and retiring teachers currently employed in schools which will be affected by school (or class) consolidation. 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.

Expand the use of learning support staff

The introduction of teaching assistants to support the learning of students with special needs and disadvantaged students is a good development. There is a clear need to develop capacity at the school level to be able to make progress with the integration of students with special needs in mainstream schools. At the same time, this should be part of an overall agenda to improve the ability of schools to provide individual support for students with learning difficulties, which calls for an expansion of the availability of teaching assistants in schools, particularly those with a high concentration of disadvantaged students.

Provide incentives to work in remote areas and disadvantaged schools

In order to address the specific instances of shortage that might still occur in rural areas and disadvantaged schools, the introduction of some incentives such as special allowances or in-kind support is recommended. These could assist rural and disadvantaged schools in making their employment conditions more attractive and could reduce the potential inequitable distribution of teachers which may result from the more decentralised approach to teacher recruitment which prevails in the Slovak Republic.

Monitor instances of out-of-field teaching

Also, the Slovak decentralised approach to human resources management, and to school decision-making more generally, requires that educational authorities play a strong role in monitoring the adequate and equitable distribution of teacher resources throughout the country. This includes not only monitoring teacher qualifications, teachers' experience levels and student-teacher ratio across schools but also monitoring out-of-field teaching as a practice that might reflect mismanagement of teaching resources at the school level. The latter could, for instance, be among the aspects monitored by the State Schools Inspectorate.

Simplify the teacher certification process and bring it closer to teaching practice Focus on the acquisition of competencies and simplify the process

The teacher certification process should remain as the component of teacher appraisal predominantly dedicated to accountability but needs to be simplified and brought closer to teaching practice. The OECD review team endorses the recommendation provided by the OECD Review of Evaluation and Assessment on revising the career advancement system (Shewbridge et al., 2014). As explained by Shewbridge et al. (2014), "the career advancement function that is currently being achieved through appraisal processes at the end of induction, credit evaluation, certification processes and appraisal for specialisation, could be brought together in a single process of teacher appraisal for career progression. This process should be associated with the existing career structure, allowing for progression within the career path as well as providing access to different specialisations and positions."

The model, as proposed by Shewbridge et al. (2014), can be summarised as follows:

- It is based on an appraisal of teacher competencies with a clear linkage to teaching practice. The appraisal for certification (or career progression) should be founded on the national framework for teaching standards, describing teacher competencies at the different stages of the career. Also, instruments used in teacher appraisal need to capture the quality of teachers' practices in the classroom, namely classroom observation and teacher portfolios providing evidence of teachers' work. This would be in contrast to the current certification examination, which involves a more academic exercise with a tenuous link to classroom practice.
- It determines career advancement, with voluntary stages and the need for re-certification Access to career levels beyond "independent teacher" could be through a voluntary application process, and teachers not applying for such promotion should be required to maintain their basic certification status as independent teacher. This would involve each permanent teacher periodically (e.g. every four years) being subject to a formal appraisal for certification, or re-certification. The purpose would be to confirm the teachers as fit for the profession. The results of the certification process should influence the speed of career and salary progression (e.g. if excellent, the teacher would progress by two salary steps; if regular, the teacher would progress by one salary step; and if poor, the teacher would remain in the same salary step). The certification appraisal should also constitute an opportunity to identify underperformance.

Further details are available in Shewbridge et al. (2014). The OECD review team is aware that there are plans by the Slovak Government to move in this direction with a new career system based on the acquisition of competencies and relying on the introduction of teacher professional standards.

Link teacher certification to school-based teacher appraisal

School-based teacher appraisal for professional development and appraisal for certification (or career progression) cannot be disconnected from each other. A possible link is that appraisal for certification needs to take into account the qualitative assessments produced through school-based teacher appraisal, including the recommendations made for areas of improvement. School-based teacher appraisal should also have a function of identifying sustained underperformance. Similarly, results of teacher certification appraisals can also inform the professional development of individual teachers.

Improve the framework for professional development provision

The OECD review team formed the view that the framework for professional development provision needs rethinking. This relates to incentives to undertake professional development, the supply of professional development opportunities for teachers and the efficiency of professional development provision. The objective is that professional development becomes a more regular practice among teachers in the Slovak Republic, with a greater diversity of relevant offerings, driven by teachers' aspirations for professional growth and adequately resourced.

Eliminate the direct link to teacher compensation

Professional development activities seek to update, develop and broaden teachers' competencies in agreement with his or her professional aspirations, needs and specific school context. Ideally, they should change teachers' practices and impact student learning. This is less likely the case if the teacher's motivation to engage in professional development is purely to achieve better salary prospects, as is currently the case for many teachers in the Slovak Republic. Clearly, a direct link between the completion of professional development activities and credit accumulation to access a salary allowance leads to the phenomenon of "credit chasing" in which the relevance of the programmes becomes secondary. Instead, professional development should be understood by teachers as the main instrument to acquire the new competencies necessary for professional growth and career advancement. It is therefore suggested that the direct link between professional development and a salary allowance is eliminated.

Improve the relevance of professional development programmes

Slovak teachers are consistent in raising doubts about the relevance of professional development programmes that are on offer. This indicates that the supply of programmes does not fit teachers' needs, possibly because providers are not successful in forming an accurate picture of the actual professional needs of teachers and schools. This is worrisome taking into account that schools prepare plans for professional development on the basis of the regular teacher appraisals they conduct. Clearly, suppliers of professional development programmes need to better connect to the professional development needs identified through school-level professional development plans. This suggests a range of possible actions: better interaction between professional development providers and individual schools; an assessment on the part of an organisation such as the State Schools Inspectorate of the professional development needs of teachers on the basis of the information collected through school inspections; or strategies to directly survey teachers about their professional development needs.

Successful professional development programmes involve teachers in learning activities that are similar to ones they will use with their students (OECD, 2005). The most effective forms of professional development seem to be those that focus on clearly articulated priorities, provide ongoing school-based support to classroom teachers, deal with subject matter content as well as suitable instructional strategies and classroom management techniques, and create opportunities for teachers to observe, experience and try new teaching methods (OECD, 2005). In this context, school-based professional development activities are particularly important and seem to receive little attention in the Slovak Republic. Professional development should create opportunities for teachers to engage in school-focused research and development. Such programmes support teachers in studying and evaluating their own teaching strategies and school programmes, and in sharing their findings with their colleagues, and through conferences and publications (see OECD, 2005, for specific examples). Areas where professional development is likely to be needed in the Slovak republic are the use of ICT, teaching students with special needs and classroom management (see Figure 4.10).

Improve the efficiency of professional development provision

Given that there is a significant degree of dissatisfaction with the current provision for professional development, it would be helpful to review the framework for funding and provision. A possible approach is to open a market for professional development provision while providing individual schools with earmarked funds for professional development or give each teacher a personal allowance which could be spent over several years (see also Chapter 3). In this situation, schools could freely choose the training and provider most suitable to meet their professional development needs. This would also require the strengthening of the accreditation system, making sure accreditation processes are effective and take into account the observed quality and relevance of programmes. This involves requiring providers to establish internal quality systems whose results are then used to subsequently improve programme provision - while ensuring external accreditation processes audit such internal quality systems. This approach would also benefit from an improved eligibility for paid professional development for individual teachers. A feature that should be kept is the co-ordination of professional development needs at the school level which ensures that individual teacher training needs are aligned with the respective school's development plan.

Maintain a focus on school-based teacher appraisal and validate it through external school evaluation

Maintain a strong focus on the developmental function of teacher appraisal

The well-embedded procedures for school-based teacher appraisal are a key strength of the Slovak approach to the management of the teaching workforce. The current system for internal appraisal benefits from a non-threatening evaluation context, focus on classroom observation, a culture of feedback, and formal links to professional and school development. This emphasis on teacher appraisal which is predominantly for teacher development should be maintained and strengthened. The introduction of teaching standards will bring the necessary reference to guide teachers through their development and will better link school-based teacher appraisal to other aspects of teacher policy such as appraisal for certification, career advancement and professional development. In addition, teacher appraisal undertaken at the school level would benefit from the enhancement of school

leaders' appraisal and evaluation competencies. As explained by Shewbridge et al. (2014), "there is a need to build the credibility and authority of school leaders as educational leaders so that they can operate effective observation, feedback and coaching for their teachers and lead whole-school evaluation processes" (see also Chapter 5).

Validate internal teacher appraisal through external school evaluation

In order to guarantee the systematic and coherent application of school-based teacher appraisal across Slovak schools, it would be important to undertake the external validation of the respective school processes. An option is for school evaluation processes conducted by the State Schools Inspectorate to include the audit of the processes in place to organise teacher appraisal, holding the school director accountable as necessary. While the introduction of teaching standards as the main reference for teacher appraisal will support the consistency of school-based teacher appraisal across schools, there is still a need to ensure these processes are appropriately conducted in all schools.

Improve the provision of initial teacher education

Make initial teacher education more selective

Overall, the Slovak Republic is not facing shortages. This is an opportunity to be more selective about those who are employed and those who enter the profession and initial teacher education. If salaries are increased, as suggested above, and better candidates are attracted to initial teacher education, it is clear that entry into preparation programmes can be much more selective to ensure only high-quality graduates fill the available teaching posts. Potentially useful initiatives include: providing more information and counselling to prospective teacher trainees so that better informed enrolment decisions are made; procedures that try to assess whether the individuals wanting to become teachers have the necessary motivation, skills, knowledge and personal qualities (specific assessments); incentive schemes to recruit candidates with high-level competencies (such as higher education grants); and flexible programme structures that provide students with school experience early in the course, and opportunities to move into other courses if their motivation towards teaching changes. This could go alongside initiatives at the starting point of the teacher's career strengthening requirements to enter the profession, in addition to better incentives for beginning teachers (as suggested earlier), to ensure high-quality graduates actually enter the teaching profession.

Upgrade minimum qualification requirements for pre-primary teachers

A higher education qualification should become the minimum requirement for entering the teaching profession at pre-primary education level. There is no reason why qualification requirements for pre-primary education teachers should be lower than those for teachers at other school levels. This is an important step to improve the status of pre-primary education teachers with potential consequences for the attractiveness of the job. At the same time, it is expected that initial teacher education standards will increase, placing greater demands on student teachers. This transition in qualification requirements will need to pay due attention to the need to keep a close link to school-level practice as student teachers obtain their degree at university. Initial preparation of pre-primary teachers at the university level should involve significant practice at schools. Overall, the objective is to improve the overall quality of pre-primary education teachers and give them the same status as teachers at other levels of school education.

Improve links to school-level practice and the preparation of teachers to support students with special education needs

The role of field experiences in schools as part of teacher education programmes could be reinforced. These should happen early in teacher education, and be framed to provide a broad experience of what it means to be a professional teacher, including actual class teaching, counselling and guidance, curriculum and school development planning, research and evaluation and collaboration with parents and external partners (OECD, 2005). The Slovak Government has already expressed the intention of moving in this direction through the commitment to increase the amount of practical training during initial teacher education in the 2014 National Reform Programme (Ministry of Finance of the Slovak Republic, 2014). In addition, in light of efforts to integrate students with special needs in mainstream schools, initial teacher education programmes need to strengthen their preparation of teachers to respond to this increasing need in schools. School systems are increasingly offering integrated education for students with disabilities and learning difficulties, and teachers are expected to develop knowledge on special education, on appropriate teaching and management processes, and in working with support personnel (OECD, 2005).

Limit teacher pay bonuses at the school level

Given that teacher certification processes, as recommended above, associate good performance to career progression, also possibly linking performance to the speed of salary step progression within career stages, an indirect link between performance and teacher compensation is established. This ensures teachers have a monetary incentive to achieve good performance. As a result, the possible use of pay bonuses for good performance at the school level (through the personal allowance) might be redundant as a monetary incentive.

In addition, the intended additional "bonus" pay element should be approached with considerable caution. The evidence of the overall impact of such extra payments is mixed and can be contentious and potentially divisive (OECD, 2005). This is even more the case when criteria to award such "bonus" payments at the school level are not transparent, as is the case in the Slovak Republic. Rewarding teachers with time allowances, sabbatical periods, opportunities for school-based research, support for post-graduate study, or opportunities for in-service education could be more appealing for many teachers (OECD, 2005).

References

Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, Educational Policy Institute, Ministry of Education, Science, Research and Sports of the Slovak Republic, Bratislava, www.oecd.org/edu/school/schoolresourcesreview.htm.

Hobson, A.J. (2009), "On being bottom of the pecking order: Beginner teachers' perceptions and experiences of support", Teacher Development: An International Journal of Teachers' Professional Development, Vol. 13, No. 4, p. 299.

Masdeu Navarro, F. (2015), "Learning support staff: A literature review", OECD Education Working Papers, No. 125, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jrnzm39w45l-en.

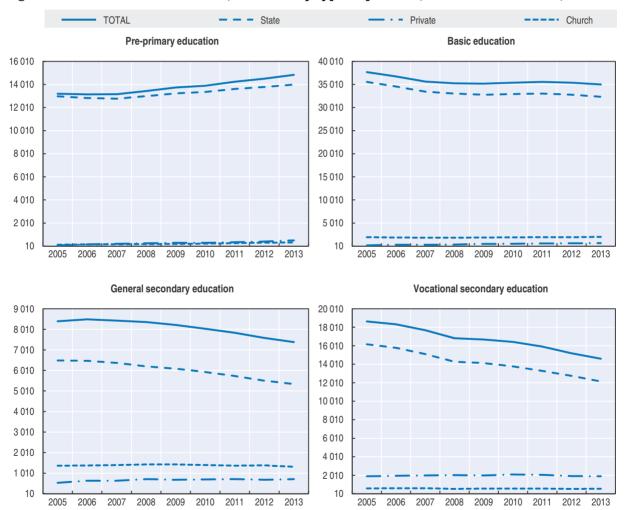
Ministry of Finance of the Slovak Republic (2014), National Reform Programme of the Slovak Republic 2014 (including an "Action Plan of the National Reform Programme of SR 2014"), www.finance.gov.sk/en/Default.aspx?CatID=450.

- NBRC (2010), A Quality Teacher in Every Classroom: Creating a Teacher Evaluation System that Works for California, National Board Resource Center, Stanford University, https://accomplishedcalifornia teachers.files.wordpress.com/2010/05/act-a-quality-teacher-in-every-classroom.pdf.
- OECD (2014a), Education at a Glance 2014: OECD Indicators, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2014-en.
- OECD (2014b), TALIS 2013 Results: An International Perspective on Teaching and Learning, TALIS, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264196261-en.
- OECD (2013a), PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.
- OECD (2013b), Synergies for Better Learning: An International Perspective on Evaluation and Assessment, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264190658-en.
- OECD (2005), Teachers Matter: Attracting, Developing and Retaining Effective Teachers, Education and Training Policy, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264018044-en.
- Santiago, P. and F. Benavides (2009), "Teacher evaluation: A conceptual framework and examples of country practices", paper presented at the OECD-Mexico Workshop "Towards a Teacher Evaluation Framework in Mexico: International Practices, Criteria and Mechanisms", Mexico City, 1-2 December 2009, OECD, Paris, www.oecd.org/edu/evaluationpolicy.
- Shewbridge, C. et al. (2014), OECD Reviews of Evaluation and Assessment in Education: Slovak Republic 2014, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264117044-en.
- SKU (2014), Vyhodnotenie dotazníka ku kariérnemu rastu a kreditovému systému [Evaluation questionnaire on the careers and credit system], SKU, Bratislava, www.komoraucitelov.org/clanok-224-vyhodnotenie-dotaznika-ku-kariernemu-rastu-a-kreditovemu-systemu-zakon-c-317-2009.html.
- Wöβmann, L. (2003), "Schooling resources, educational institutions and student performance: The international evidence", Oxford Bulletin of Economics and Statistics, Vol. 65(2), pp. 117-170.

ANNEX 4.A1

Descriptive data on teachers

Figure 4.A1.1. Number of teachers, total and by type of provider, mainstream schools, 2005-13



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

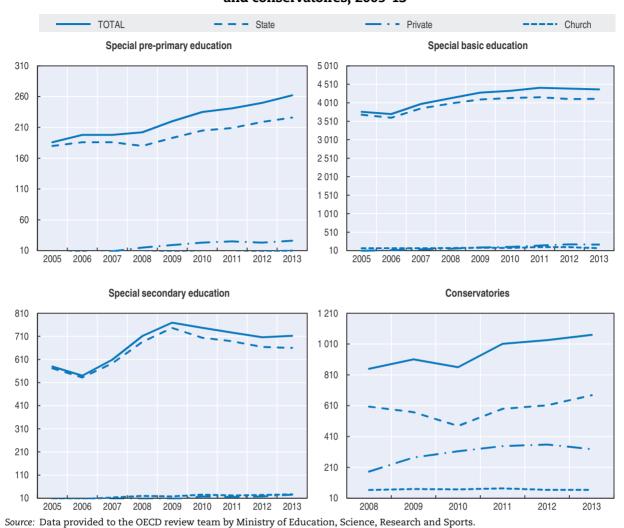


Figure 4.A1.2. Number of teachers, total and by type of provider, special schools and conservatoires, 2005-13

Chapter 5

School leaders in the Slovak Republic

This chapter is about policies to improve the effectiveness of school leadership. It analyses the profile of school leaders as well as how responsibilities for school organisation and operation are distributed in Slovak schools. Furthermore, it discusses school leader preparation, recruitment and career development. The chapter places particular emphasis on areas of priority for the Slovak Republic such as the lack of attractiveness of the school leader profession, the low salary levels, the limited capacity for school leader appraisal and the need to improve the approach to professional development. The chapter also reviews approaches to the selection of school leaders, school leaders' use of time, administrative and management support structures and links to school development.

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.

This chapter addresses policies to improve the effectiveness of schools through effective school leadership. Among other things, it analyses how responsibilities for school organisation and operation are distributed; how school leaders are prepared and improve their skills while in the profession (e.g. initial preparation, professional development); how school leaders are recruited into individual schools; how school leaders contribute to school development; and how school leaders are incentivised to perform at a high level (e.g. school leader appraisal, recognition and compensation).

Context and features

Profile and distribution of school leaders and deputy leaders

In 2014, the average age of Slovak school leaders in mainstream schools varied from 50 years in a basic school to 55 years in a vocational secondary school (Educational Policy Institute, 2015, Table 7). According to TALIS (OECD Teaching and Learning International Survey), the Slovak school leaders in schools providing lower secondary education were on average one year older than their counterparts in other countries (see Table 5.1). However, the TALIS sample also indicates a slightly higher proportion of younger school leaders in Slovak schools than on average. Among other things, this may reflect that the teaching experience requirement to become a school leader is set at five years (see Box 5.1). On average, however, school leaders in Slovak mainstream schools have 27 years of experience (Educational Policy Institute, 2015, Table 7).

While female school leaders are the majority in Slovak schools, they are not evenly distributed among different school types. Among mainstream schools, the proportion of female school leaders varies from 70% in basic schools, through 51% in *gymnasiums* and 43% in vocational secondary schools (Educational Policy Institute, 2015, Table 7). Compared to other countries, the proportion of female school leaders at the lower secondary level in the Slovak Republic is higher (by 10 percentage points) (see Table 5.1).

Table 5.1. Profile of Slovak school leaders in international comparison, lower secondary education, TALIS 2013 and 2008

	2013		2008	
	Slovak Republic (%)	Average in TALIS (%)	Slovak Republic (%)	Average in TALIS (%)
Aged 60 years and more	17.4	17.1	11.7	11.5
Aged under 40 years	9.7	7.2	4.6	9.5
Mean age	52.5 years	51.5 years	-	-
Females	60.0	49.9	60.3	47.0
ISCED 5A qualification	98.1	92.7	99.4	92.8
ISCED 6 qualification	1.9	3.3	0.6	1.3
Full-time employed and teaching	91.3	35.4	-	-
Full-time employed, but not teaching	5.0	62.4	-	-
Part-time employed and teaching	3.7	3.4	-	-

Source: OECD (2014), TALIS 2013 Results: An International Perspective on Teaching and Learning, Tables 3.8, 3.8c, 3.9c and 3.13, http://dx.doi.org/10.1787/9789264196261-en.

Box 5.1. Requirements to become a school leader (director)

School founders publish the open school leader position, including details of the selection procedure, in the press, Internet and sometimes via the radio or television. To be eligible for the position of school leader (director) a candidate must:

- hold a qualification to be able to teach
- hold at least the "1st certification" (this is a prerequisite for promotion to a higher level; see Chapter 4 for a detailed description of the procedures for certification)
- have at least five years of teaching experience.

In addition, the school leader is required to complete "functional training", which is an officially approved professional development course in specific management competencies. Functional training courses are offered by the central Methodology and Pedagogy Centre (MPC), universities and other providers (see Chapter 4). The course comprises between 160 and 200 hours of training over a two-year period (Shewbridge et al., 2014a). The course has several different modules: i) school legislation and finance; ii) pedagogical management (preparing the School Education Programme and working with the curriculum); iii) human resource management (the school as the employer); iv) conceptual management (responsibility for the school development plan and strategic issues); and v) school leader's professional development.

A school leader must complete functional training no later than three years after his/her appointment. In order to successfully complete functional training, a school leader must pass an examination and defend a written thesis in front of a three-member examination committee. Once successful, this functional training qualification is valid for a maximum of seven years.

Sources: Interview of the OECD review team with the Methodology and Pedagogy Centre (MPC); Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm; Shewbridge, C. et al. (2014a), OECD Reviews of Evaluation and Assessment in Education: Slovak Republic 2014, http://dx.doi.org/10.1787/9789264117044-en.

Typically, Slovak school leaders have an official deputy leader with whom to share responsibility. It is even more likely that a deputy leader is female (on average, 85% of deputy leaders are female). Deputy leaders, on average, have two years of experience less than school leaders (25 years of experience) and are a year younger (49 years) (Educational Policy Institute, 2015, Table 7). Depending on the size of the school, there may be more than one deputy leader. For example, roughly one in five vocational secondary schools have three or more deputy leaders (see Figure 5.1). However, school leaders in roughly one in five *gymnasiums*, conservatoires and vocational secondary schools do not have a deputy leader (see Figure 5.1). It is more common in basic schools that school leaders do not have the support of a deputy leader (this is the case for roughly two in five basic schools and is related to the size of these schools).

Employment status and compensation

School leaders in Slovak schools have civil servant status and are awarded five-year contracts (OECD, 2013a). These contracts are renewable and are linked to professional development requirements: each established school leader must successfully complete a "functional innovative training" in a maximum period of every seven years. School leaders may have different employers: in schools that are a legal entity the employer will be the school; in other cases, i.e. for schools that are not a legal entity, the employer will be the

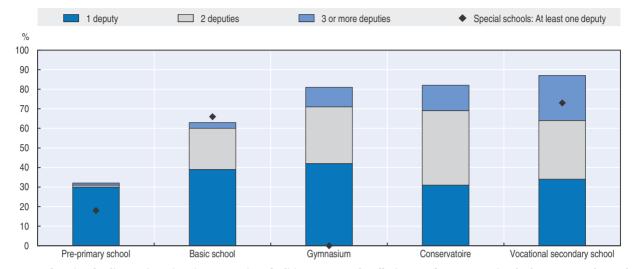


Figure 5.1. Distribution of the number of deputy leaders, by school type, 2014

Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, Table 8, www.oecd.org/edu/school/schoolresourcesreview.htm.

school founder. 74% of schools providing primary and lower secondary education and all schools providing upper secondary education have the status of "legal entity" (Educational Policy Institute, 2015, Annex No. 7). Schools that are not a legal entity tend to be small schools which are deemed not to have the capacity to deal with the administrative requirements associated with such legal status. The school founder decides on whether or not to grant individual schools the status of legal entity.

Compensation for school leaders comprises a general teaching salary or basic salary ("tariff salary") plus an "allowance for managerial activities", and possibly a "personal allowance". The general methodology to calculate the basic pay for teachers is also used to set the basic pay for school leaders (Educational Policy Institute, 2015, Annex 16 and Tables 4.6 and 4.7 in Chapter 4). This means that the basic pay for a school leader depends on his/her acquired qualifications and career grade (category/level of salary and corresponding "tariff pay") and workload (one of two work classes or the "work tariff") (see Chapter 4). However, unlike for teachers, school leaders do not receive an increase for each year worked ("tariff pay increase") and their pay level is set to the maximum amount after 32 years of experience as a teacher (Eurydice, 2015). The personal allowance is used to award extraordinary work results or additional duties and can be a maximum of 24% of the basic salary.

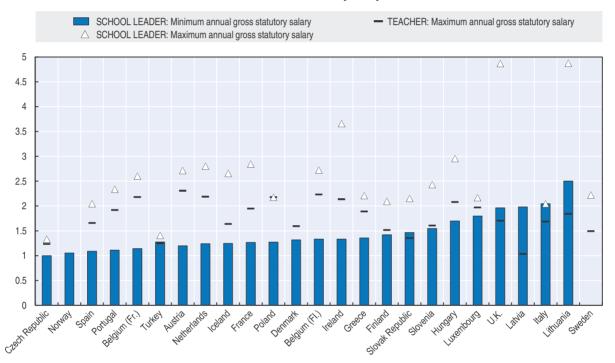
The allowance for managerial activities varies. It is an additional percentage (anything from 3% to 50%) of the school leader's basic salary increased by 24%. Various factors influence how the additional percentage is set (Act No. 317/2009 on Pedagogical Employees and Specialist Employees):

- Ultimately it remains at the discretion of the employer to set the percentage within a given range.
- The given range varies depending on:
 - The school's legal status:
 - School is a legal entity (from 12% to 50% depending on whether the school founder has local, district, regional or national authority, as defined by law).

- School is not a legal entity (from 3% to 20%, irrespective of the school founder).
- * The size of the school (number of students).

The minimum annual gross salaries of full-time and fully-qualified school leaders in Slovak state schools is reported to be EUR 9 882 and the maximum EUR 14 514 (at the upper secondary level; EUR 14 100 at the primary and lower secondary level) (Eurydice, 2015). This is, respectively, 1.47 and 2.16 times the minimum annual salary for a Slovak teacher (see Figure 5.2). However, the average actual salary for school leaders is reported to be exactly the same as that for teachers (EUR 10 994) (Eurydice, 2015).

Figure 5.2. **Relative attractiveness of school leader salaries across European countries**Ratio of salaries to minimum annual statutory salary for teachers, 2013-14



Notes: Countries are presented in ascending order of ratio of minimum school leader salary to minimum teacher salary. For Sweden, salaries are negotiated and a value for "Minimum annual gross statutory salary of a school leader" is not available.

Source: Calculated from data in Eurydice (2015), Teachers' and School Heads' Salaries and Allowances in Europe, 2013/14, Eurydice Facts and Figures, http://eacea.ec.europa.eu/education/eurydice/documents/facts_and_figures/salaries.pdf

School leader appointment and dismissal

The school founder officially appoints and dismisses the school leader. However, in each case there are procedures in place to ensure input from other stakeholders.

For appointment, both the School Board and the State Schools Inspectorate (ŠŠI) play a leading role in the selection process. An inspector from the ŠŠI must be a member of the school board's selection committee in basic and secondary schools. In the case of state schools, until June 2015, the school founder (i.e. self-governing region, municipality or regional state authority) was obliged to accept the candidate nominated by the school board for the position of school leader (director). This was changed as part of an amendment to the School Act approved on 15 June 2015. State founders can now reject the candidate proposed by the school board twice. On the first instance of rejection, the state founder must provide a justification in writing (and then the selection committee led by

the school board proposes a second candidate). The second instance of rejection must be approved by a three-fifths majority of the members of the municipality's or the region's council (this requirement does not exist in the case of regional state authorities). Following the second rejection, the founder is required to form a selection committee with at least three members, whose composition is entirely at its discretion. This selection committee makes the final choice and the founder cannot override its decision. In the case of private and church schools, the school founder is not obliged to appoint the candidate nominated by the school board and can ask the school board to nominate a different candidate. In the scenario that the second nomination by the school board is deemed unsuitable, the founder may appoint the candidate of its choice.

For dismissal, the school founder takes responsibility but only within the given set of cases defined by legislation. The ŠŠI may play a role and the school board also carries influence. As part of the system of external school evaluation (inspection) of Slovak schools, the ŠŠI identifies schools with shortcomings, e.g. the school violates a particular regulation or has poor quality in a certain area of the central inspection framework (Shewbridge et al., 2014a). In such a case there is a system of "follow-up inspections", where school inspectors return to the school to verify if and how the identified shortcomings have been addressed. If inspectors note that serious problems persist, the ŠŠI can issue a binding recommendation to the school founder to postpone the re-appointment of the school leader at the end of his/her five-year contract or even to dismiss the school leader. For all schools, the ŠŠI has the right to ask the school founder to replace a school leader who does not meet the qualification requirements (see Box 5.1). This includes the requirement for a school leader to successfully complete "functional innovative training" within a maximum period of seven years (60 hours of professional development). The school board may also submit a proposal to dismiss a school leader and has the right, in certain circumstances, to comment on a school founder's proposal to dismiss a school leader (if no comment is submitted within 15 days the school founder can dismiss the school leader) (Educational Policy Institute, 2015: 28).

More specifically, the founder should dismiss the school leader: i) if the school leader has been convicted of an intentional criminal act; ii) if there was a violation of some obligations or laws (e.g. budget law), following consultation of the school board; iii) if the school is closed down; and iv) on the proposal of the Head School Inspector. The founder can dismiss the school leader: i) on a proposal from the school board; ii) if the school leader fails to complete functional training or functional innovation training, following consultation of the school board; and iii) on the proposal of the Minister of Education (if they are significant violations of some obligations or laws), following consultation of the school board.

Responsibilities and evaluation

Slovak school leaders are responsible for teaching duties and management activities. Teaching duties vary from 5 to 18 hours in basic schools and from 3 to 8 hours in secondary schools. Their specific responsibilities for management include (Educational Policy Institute, 2015: 76):

- Compliance with corresponding National Education Programme (NEP).
- Development and implementation of the School Education Programme (SEP).

- Development and implementation of the yearly plan of continuing professional development.
- Compliance with binding legal regulations related to the school's activities.
- Annual evaluation of the teaching staff and specialist employees.
- The quality of the upbringing and education work of the school.
- Budget, funding and efficient use of the school's financial resources.
- Proper management of assets held or owned by school.

There are requirements for regular compliancy reporting that school leaders must meet. All school leaders must prepare a report on school upbringing and education activities (the annual school report) which includes a financial statement for the school. School leaders in schools that are a legal entity (the majority of schools) must prepare an "economic report" for the school which gives details on the sources and use of funds for the given year.

School leaders are also responsible for preparing other official documentation. In collaboration with school founders, they draw up financial management guidelines for the school which includes basic responsibilities of school managers and other school staff. School leaders are responsible for preparing and evaluating progress against a School Development Plan and development plans for staff in their schools. Finally, school leaders are responsible for leading the preparation of the School Education Programme (that is, the educational courses and content offered in the school).

There are external services to help support school leaders in performing these responsibilities. School founders provide expert and consulting activities, legal advisory services and co-operate with school leaders during the recruitment process. The regional state authority provides consulting to school founders and school leaders on matters such as the organisation of upbringing and education, catering services, activities with children and young people, free time education, and health and safety regulations (Educational Policy Institute, 2015).

Employers (in most cases, schools themselves) are legally required to appraise school leaders annually, with implications for their contract renewal (at the end of a fixed-term five-year contract), but there are no central specifications on appraisal procedures (OECD, 2013a). As representatives of employers in matters concerning school leaders, school founders take responsibility for school leader appraisal. Founders are free to set school leader appraisal procedures, e.g. regularity of appraisal, criteria used. The appraisal usually takes the form of an interview and the impact on school leader compensation is fairly low, with public recognition and the expression of gratitude being a more frequent form of reward (NÚCEM, 2012).

The State Schools Inspectorate (ŠŠI) evaluates both "pedagogical management" and the quality of upbringing and education at schools (for which school leaders are responsible) as part of regular external school evaluation procedures (Educational Policy Institute, 2015: 81). School inspection reports are provided to school founders and this can be helpful input. However, the regular cycle of school inspections is set at every seven years (Shewbridge et al., 2014a).

Strengths

Mechanisms to heighten the objectivity of school leader appointment and dismissal procedures are in place

In a system with such high autonomy at the school level, the school leader is arguably the most important resource. It follows that key tools to effectively manage school leaders are the selection, appointment and dismissal procedures. There is a transparent procedure for the announcement of a school leader position, as this must be announced publicly. The OECD review team gained the impression that the procedures for selecting a new school leader had also become more objective thanks to the promotion of a "recommended approach" by the ŠŠI. The OECD review team heard reports from different school boards on the procedures followed to select a school leader: read over applications received; check all candidates' qualifications for the position; conduct interviews of suitable candidates during which each candidate presented his/her concept of management; and finally held a secret ballot in which each member of the school board voted for his/her preferred candidate. The OECD review team also learned of an example where the district school office, in collaboration with the ŠŠI, had prepared a methodology on the school leader selection process (e.g. application deadlines, publishing requirements, etc.) and had offered targeted training to school boards. This was part of a regular district-wide approach to bring together the chairs of all school boards on an annual basis.

Giving the school board a prominent role in school leader selection is an important mechanism to heighten the objectivity of this process. During the OECD review, various representatives of school boards described the selection of the school leader as the school board's major responsibility. Slovak school boards have a broad composition with eleven members representing the three major stakeholder groups (see Table 5.2). During the OECD review, various stakeholders reported their support for the school board's leading role in selecting the school leader as this reduces opportunities for "political appointments". A relatively recent requirement (for the past two years) also sees the ŠŠI represented on the selection committee (i.e. the school board plus one or two school inspectors) in basic and secondary schools. This brings in professionalism and experience from school inspectors, who conduct an evaluation of school management against specific indicators in the school inspection framework as part of the external school evaluation process. School inspectors also heighten objectivity as they bring in a perspective both external to the school founder and to the immediate school community (as represented by the staff, parents and students).

Table 5.2. Composition of school boards in Slovak schools

	School founder	Staff	Parents/students
Pre-primary and basic schools	4 representatives.	2 teachers; 1 non-teaching staff.	4 parents.
Gymnasiums	4 representatives.	2 teachers; 1 non-teaching staff.	3 parents; 1 student.
Vocational secondary school	3 representatives; 1 employer/industry representative.	2 teachers; 1 non-teaching staff.	3 parents; 1 student.

Note: The Student School Board, in schools where it exists, nominates a student to be represented on the school board. Source: Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, www.oecd.org/edu/school/schoolresourcesreview.htm.

The current approach to school leader selection also facilitates a more coherent management of school leaders as the specific group taking the ultimate selection decision (school founder) is also in charge of the other relevant dimensions of human resource management (appraisal, development, career advancement). This should facilitate the alignment between the selection, appraisal and development of school leaders with the founder's educational objectives and financial resources. Also, in order to hold employers (mostly schools, represented by their founders in matters related to school leader employment) accountable for the use of their school leader resources, they need to take ultimate responsibility for their selection. However, the prominent role of school boards and the ŠŠI in the selection of school leaders is essential in reducing pressures for the political appointment of school leaders. In addition it adds greater capacity and levels of expertise to the decision.

The OECD review revealed examples of how active school boards can effectively manage school leaders and intervene when there are quality concerns. For example, one school board reported that it had taken a more active role in monitoring the performance of the school leader over the past ten years, including dismissing an unsuitable leader and selecting a new school leader, and had seen a notable change for the better in school climate and a growing student intake. School founders also reported examples where school boards had initiated the process to dismiss a school leader. There are also central procedures in place to intervene when there are concerns with the effectiveness of the school leader. The ŠŠI can request the school founder to dismiss and replace the school leader in the case that: the school leader does not hold adequate qualifications; and the ŠŠI has identified serious deficiencies with a school leader (although this is quite exceptional) (Educational Policy Institute, 2015).

School leaders are subject to both horizontal and vertical accountability

There are clear mechanisms for vertical accountability in Slovak schools, with well-established compliancy reporting requirements. Regarding school resource management, school founders should conduct an annual audit of the school accounts (see Chapter 3 for more details). The school leader must submit a report on the school's educational activities, results and activities (the annual school report) to the school founder for approval and to the school board for comment. School leaders have a formal annual appraisal by their employer (conducted by the school founder) and "school management" is evaluated as part of the ŠŠI inspection process (see Table 5.3).

As noted above, there are ways for the school community to give feedback to the school leader. There are also formal, "self-governing" bodies, including, notably the school board, but there may also be a students' board. The school board is an official channel to help parents, and in some cases, students and/or employers to report their opinions on activities and developments at the school (see Table 5.2). The school board has the chance to comment on all major school documentation that is prepared under the responsibility of the school leader, including compliancy reports (the annual school report and economic report) and reports and information on planned activities and resources (the School Development Plan, the draft budget, information about human resources and the draft school education programmes).

There may be an association representing the parents of children at the school, which is an informal channel to give feedback to the school leader. An earlier OECD review had noted the important and growing role of student voice in the Slovak school system

Table 5.3. State School Inspection criteria to evaluate school management, 2014-15

Evaluation criteria	Indicators
1.1. School Education Programme (SEP)	1.1.1. The school has developed a SEP. 1.1.2. The objectives set out in the SEP are intended to prepare students for further education. 1.1.3. The SEP supports the implementation of education and training in accordance with the principles and objectives in the Education Act and the relevant National Education Programmes (NEP). 1.1.4. The SEP supports the development of student key competencies in line with learning objectives in the relevant NEP. 1.1.5. The SEP provides educational opportunities for students with special educational needs. 1.1.6. Teachers, legal guardians of students and the public are familiar with the SEP.
1.2. Pedagogical management	1.2.1. Leading development of pedagogical documentation and other documentation related to the process of education, the organisation and management of the school. 1.2.2. The school leader supports the professional development of teaching staff. 1.2.3. Governance in state school and decision making in private or church schools is in accordance with the applicable law. 1.2.4. The school leader uses technical assistance from a methodology association and subject commissions in establishing a single procedure to manage education and training.
1.3. The internal control system and evaluation	1.3.1. The school leader uses consistent evaluation procedures in line with established internal control systems for student assessment and staff appraisal.
1.4. The climate and culture of the school	1.4.1. The school engages students in school and extracurricular activities significantly affecting the educational activity.1.4.2. School's educational activities promote a positive climate and culture.
1.5. School services	1.5.1. Educational counselling is provided at school.

Note: These evaluation criteria are used for all schools, but specific indicators may vary for pre-primary schools, basic schools, *gymnasiums* and vocational secondary schools. The indicators listed here are used in basic schools and *gymnasiums*.

Source: State Schools Inspectorate Evaluation criteria for school year 2014-15, www.ssiba.sk.

(Shewbridge et al., 2014a) and in 2011, 58% of upper secondary schools had a student board (Educational Policy Institute, 2015). A survey of school leaders indicated that three quarters reported that the student board made a positive contribution to governance at their school (Bieliková et al., 2012 in Educational Policy Institute, 2015).

It is expected that school leaders play a strategic and development role in the school

The school leader is responsible for developing the School Development Plan and must submit this to the school founder for approval. The School Development Plan should cover a period of two years, but often covers a five-year period corresponding to the length of the school leader's appointment at the school. The school leader is also responsible for preparing an Annual School Report and this includes a report on progress in implementing the School Development Plan. An important part of the school leader selection process is an assessment of the candidate's leadership skills. This is supported, also, by the presence of a school inspector on the selection committee who can contribute experience in judging "leadership" skills as specified in the objective criteria within the inspection framework. During the selection process, the school founder and the school board may also ask the candidate to present a five-year concept plan for the school's development (Educational Policy Institute, 2015: 79). In TALIS 2013, 96% of Slovak school leaders reported that they had worked on a professional development plan for the school, compared to 79% on average in participating countries (OECD, 2014, Table 3.3).

Most school leaders benefit from good administrative and management support structures

Slovak school leaders have a high level of responsibility and need to undertake numerous complex and different tasks. Although some smaller basic schools may not have a deputy leader, the majority of school leaders have the support of at least one deputy leader (see Figure 5.1). Typically, schools also have administrative staff to support the accomplishment of school responsibilities.

According to reports from school directors in the TALIS 2013 international survey, school directors in the Slovak Republic spend a similar amount of time on administrative and leadership tasks and meetings as their peers in other countries on average. However, they reportedly spend comparatively less time on specific administrative tasks: 48% of school directors reported they "often" or "very often" check for mistakes and errors in school administrative procedures and reports, which is lower than the OECD average of 61%; similarly, 24% reported they resolve problems with the timetable in the school, compared to 47% on average in the OECD (OECD, 2014). This corresponds to the typical situation where a school leader has a deputy. Among other duties, the deputy leader typically is responsible for preparing documents for the school budget, the school timetable and statistical summaries (Educational Policy Institute, 2015: 76). Where appropriate, there may be a deputy leader responsible for a distinct type or level of education offered within the school. For example, the OECD review team visited a vocational secondary school that had one deputy leader for general education and one for vocational education and a basic/pre-primary school that had one deputy leader for the pre-primary section and one for pedagogical activities in the basic school.

Also, each school typically employs administrative staff responsible for regular administrative arrangements (Educational Policy Institute, 2015: 76). All schools visited by the OECD review team had a member of staff with responsibility for administering the school budget. Larger schools have both an "economist" and an "accountant". The economist assumes responsibility for the payroll, planning the school budget for staff salaries and the accountant assumes responsibility for operational costs, planning the school budget for goods and services. Smaller schools may merge the functions of the economist and accountant into one administrative position or employ two members of staff on a part-time basis. Such support seems invaluable to school leaders in meeting their overall responsibility for the school budget. Larger schools visited by the OECD review team also employed a secretary to help with administrative support.

School leaders may also benefit from different advisory bodies to support their work. Given the responsibility for each Slovak school to develop School Education Programmes, the schools visited during the OECD review all had structures in place to support this: for the development of the pedagogical programmes in the school overall (pedagogical board); and in some schools, for the oversight of education in particular sub-groups within the school, including all teachers of students in Years 0 to 4 (methodological associations) or all teachers of students in Years 5 to 9 in specific subject areas (subject committee). Each subject committee has a Head who may also help school leaders and deputy leaders with classroom observation in that particular subject. The most recent State Schools Inspection criteria include an indicator on whether the school leader uses such support mechanisms (see Table 5.3). At the lower secondary level, international data indicate that the majority

(around 70%) of Slovak school leaders share responsibility for choosing learning materials and determining the programmes offered and their content and this is a more regular practice than in schools in other countries.²

The importance of managerial professional development is underpinned legally

The Slovak Republic requires school leaders – both newly-appointed and well-established – to undertake specific professional development to support their management responsibilities. This is known as the "functional training" requirement, that a newly-appointed school leader must complete within the first three years of his/her appointment, and the "functional innovative training" requirement that every school leader must undertake at least every seven years. Both requirements are an essential part of the school leader's "qualification validity" and this information must be submitted by the school as part of the annual school compliance reporting. During the OECD review, the Methodology and Pedagogy Centre (MPC) reported that there was a high rate of success on the functional training courses (around 95% of school leaders successfully complete this). However, newly-appointed school leaders who do not successfully complete the course do not have valid qualifications and must be dismissed by the school founder.

In TALIS 2013, 96% of Slovak school leaders at the lower secondary level reported having completed a school administration or school leadership training programme or course as part of their formal education, compared to 85% on average in participating countries (OECD, 2014, Table 3.10). 58% reported they had undertaken such training after taking up the position of school leader (compared to 38% on average); 18% before taking up the position (compared to 25% on average) and about 20% both before and after taking up the position (compared to 22% on average). The functional training aims to develop: basic managerial competencies in managing staff, teams and workload/stress; expert managerial competencies for specific projects and using different management tools, e.g. auditing (Educational Policy Institute, 2015: 77; see also Box 5.1).

The functional innovative training aims to update managerial competencies in these areas. During the OECD review, the MPC reported that the demand for functional innovative training is fairly high (which, of course, results from its mandatory nature). The MPC offers training to ensure existing school leaders are up to date with new legal requirements. For example, there is currently more focus on teacher appraisal procedures. The MPC also reported that demand for functional innovative training is more focused on real needs that school leaders have identified in their work. As such, the MPC offers functional innovative training courses for particular school types, e.g. for basic schools, for vocational secondary schools, etc. This format of course also brings together school leaders with common interests and provides a platform for professional exchange.

There are professional standards for school leaders

An initial set of professional standards for the teaching profession was developed by the MPC in 2006. The MPC standards included defined knowledge and competencies for school leaders, e.g. being familiar with the operation of a school. A research study in Austria, the Czech Republic, Hungary, the Slovak Republic and Slovenia in 2009 highlighted that the Slovak Republic was leading in this area, as the one system in which such professional standards for school leaders had been developed (Tempus Public Foundation, 2009). In general, the existence of a set of professional standards is desirable, as it can serve as a basis for the development of professional training and provide a common reference for

Table 5.4. Mapping of school leader functional training to school leader standards

Initial competency areas in school leader standards (Tempus Public Foundation, 2009)	School leader functional training module
1.1) Take decisions in accordance with regulations (school law, acts, ministry direction, etc.) 1.2) Manage the development/implementation of the school strategic plan 1.3) Develop various projects of/for the school	School legislation and finance Conceptual management (responsibility for the school development plan and strategic issues)
2.1) Develop a School Educational Programme (SEP) 2.2) Establish a SEP 2.3) Evaluate a SEP	Pedagogical management (preparing the school educational programme and working with the curriculum)
3.1) Create a teacher's job specification and define expectations for a specific teacher position 3.2) Develop a school's teacher appraisal system 3.3) Develop a system of human resources at the school	3) Human resource management (the school as the employer)
4.1) Demonstrate one's managerial improvement;4.2) Identify oneself with a leader position and to represent the school	5) School leader's professional development

Sources: Interview of the OECD review team with the Methodology and Pedagogy Centre (MPC); and Tempus Public Foundation (2009), The Role of School Leadership in the Improvement of Learning – Country Reports and Case Studies of a Central-European Project 2009, www.schoolleadership.eu/sites/default/files/the_role_of_school_leadership_in_the_improvement_of_learning__tpf_2009_9.pdf.

school leader appraisal (OECD, 2013a). In fact, the different modules in the school leader functional training are closely mapped to the competency areas in the initial school leader standards (see Table 5.4).

An updated set of professional standards for the teaching profession as a whole has been developed over a number of years by the MPC and universities (Shewbridge et al., 2014a, see also Chapter 4). This was part of the European Social Fund project "Professional and career progress of pedagogic employees". At the time of the OECD review, the professional standards were undergoing a review exercise (see Chapter 4). The updated standards for school leaders include "efficient resource management" and "strategic school management" (Educational Policy Institute, 2015: 77).

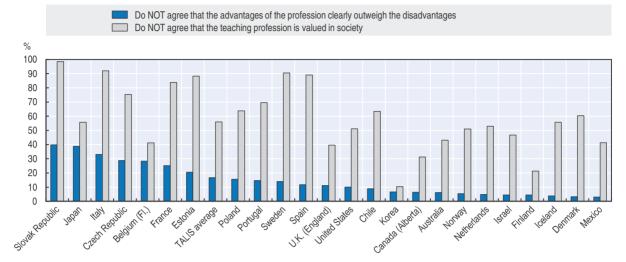
Challenges

The position of "school leader" is perceived as unattractive and not a distinct career

The OECD review team noted during the review a general perception that the position of "school leader" is not particularly appreciated. The use of the term "position" rather than "profession" is deliberate. As noted below, the position of "school leader" is rather an extension of "teacher" and does not adequately enjoy a distinct professional status. Reports from lower secondary school leaders in OECD TALIS 2013 indicate Slovak school leaders are satisfied working in their schools (99% reported this), but that a significant proportion report misgivings about their profession. Forty per cent of school leaders did not agree that the advantages of the profession clearly outweigh the disadvantages and 98% did not agree that society values the teaching profession (see Figure 5.3). Results also indicate a stronger level of job dissatisfaction among male school leaders (OECD, 2014, Table 3.20). This is an additional challenge in trying to attract males to take up leadership positions, in particular in schools where they are currently severely underrepresented: only 30% of basic school leaders are male and there are no male leaders in pre-primary schools; in general, only 15% of deputy school leaders are male (Educational Policy Institute, 2015, Table 7).

Figure 5.3. School leaders' perception of their profession

Percentage of school leaders in TALIS 2013 reporting that they:



Sources: Table 3.26 on www.oecd.org/edu/school/talis.htm; OECD (2014), TALIS 2013 Results: An International Perspective on Teaching and Learning, http://dx.doi.org/10.1787/9789264196261-en.

The OECD review team notes that there is currently no distinct career structure for Slovak school leaders. A school leader is conceptualised as "a teacher who performs specialised activities" and receives additional salary allowances that correspond to these activities (an allowance for managerial activities) (Educational Policy Institute, 2015: 74). The compulsory "functional training" for each newly-appointed school leader aims to provide training in the skills required to perform this function over and above his/her duty as a teacher. Although professional standards were developed for school leaders, these are only a subsystem of a higher-level complex system of standards covering all categories of teaching staff and school specialists (Tempus Public Foundation, 2009).

Salaries are low in the education sector and compensation for management responsibilities is inadequate

The basic statutory salary for school leaders in primary, lower and upper secondary education is EUR 9 882; with 32 years' experience plus management allowances, the maximum school leader salary is EUR 14 100 in primary and lower secondary education and EUR 14 514 in upper secondary education (Eurydice, 2015). According to these data, the maximum school leader salary is around the level of the Slovak GDP per capita (see Figure 5.4). The minimum school leader salary is only 75% of Slovak GDP per capita. The Slovak Republic is one of only six European countries where the minimum school leader salary is below GDP per capita. On this indicator, the position of school leader is not financially attractive and, indeed, this may add to the reported perception of school leaders that it is not an attractive career (see above).

Given that the "management allowance", among other factors, depends on the size of the school (the normative system pays per student), school founders or the school (depending on the legal status of the school) have a limited ability to compensate management responsibilities in small schools. During the OECD review, representatives from the Association of State Gymnasium School Leaders reported that it is quite typical for a school leader to be paid less than some teachers in his/her school. As such, despite the

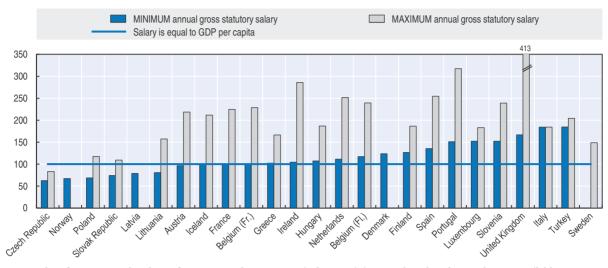


Figure 5.4. School leader salaries as a percentage of GDP per capita across European countries, 2013-14

Note: GDP data for Greece and Turkey refer to 2012 and 2011 respectively. No minimum salary data for Sweden are available. Sources: Calculated from data in Eurydice database (http://eacea.ec.europa.eu/education/eurydice); and Eurydice (2015), Teachers' and School Heads' Salaries and Allowances in Europe, 2013/14, Eurydice Facts and Figures, http://eacea.ec.europa.eu/education/eurydice/documents/facts_and_figures/salaries.pdf.

fact that the minimum school leader salary is reportedly 1.47 times more than the minimum teacher salary (see Figure 5.2), there may still be little financial incentive for some teachers to take on the responsibility of deputy school leader or school leader. Representatives from the Association of Self-governing Schools reported that there is a political element involved for compensation of school leaders in basic schools, as the municipal mayor could decide to allocate an additional personal allowance to school leaders. However, school founders generally reported that there was a limited margin for them to reward school leaders (due to the general drop in student numbers and thus funding received by the school) and that any financial bonus would come from savings made by the school.

Time and capacity to undertake management and leadership responsibilities raise some concerns

Typically, Slovak school leaders have teaching responsibilities in addition to their specific management responsibilities. In fact, at the lower secondary level, 91% of Slovak school leaders working full time reported in TALIS 2013 that they had teaching obligations, as compared to 35% on average in the OECD (see Table 5.1). Teaching responsibilities may prove a challenge to leadership responsibilities particularly in small schools. The number of hours that a school leader teaches each week is set in function of the number of classes at the school, ranging from 5 to 18 hours at a basic school and 3 to 8 hours at a secondary school. A school leader in a basic school with only one class would need to teach 18 hours per week (Educational Policy Institute, 2015: 72). The OECD review team visited two basic schools each with around 180 students (the average size being 198 students in 2013, Educational Policy Institute, 2015: 53). In each school, the school leader would teach 7 hours per week and the deputy leader would teach 12 hours per week (one of the schools had two deputies). Again depending on the number of classes, a deputy leader could teach from 8 to 12 hours at a basic school and from 5 to 11 hours at a secondary school. Roughly two in five basic schools

and one in five secondary schools do not employ a deputy school leader (see Figure 5.1). This would likely mean that the school leader would be fully responsible for managerial activities and also teaching the maximum number of teaching hours.

At the same time, compared internationally, there is a high level of autonomy and responsibility for school leadership in Slovak schools. In the area of school resource management, Slovak school leaders report a much greater degree of responsibility lies fully within the school, either for the school leader and/or shared with teachers (see Figure 5.5). The majority of Slovak school leaders report that they assume full responsibility for these school resource management responsibilities and do not share these tasks: 57% appointing teachers; 62% dismissing teachers; 66% determining teachers' salary increases; 75% establishing teachers' starting salaries. However, the notable exception is in the area of deciding budget allocations within the school, where 37% of Slovak school leaders report they share this responsibility. As described above, each school typically has an economist and/or accountant to offer administrative support on budget issues. Also, school leaders discuss the draft allocation of central funds and the annual school report including budget information with the school founder (Educational Policy Institute, 2015).

Another part of the Slovak school leaders' responsibility for human resource management includes the regular appraisal of teachers and other staff in their school. An OECD review of evaluation and assessment in Slovak schools noted concerns about the appraisal competencies of school leaders (Shewbridge et al., 2014a). In particular, the OECD review noted that the teacher appraisal process appeared to be overly focused on bureaucratic and administrative matters, such as creating mandatory professional development plans for teachers, rather than on the core aim of improving teaching and learning. This was despite the very positive feature of an open-door culture in schools, where school leaders or other members of the management team would observe classroom instruction (see also Figure 5.6). The OECD review, therefore, concluded that a culture of pedagogical leadership had not fully developed due to other pressing responsibilities (Shewbridge et al., 2014a).

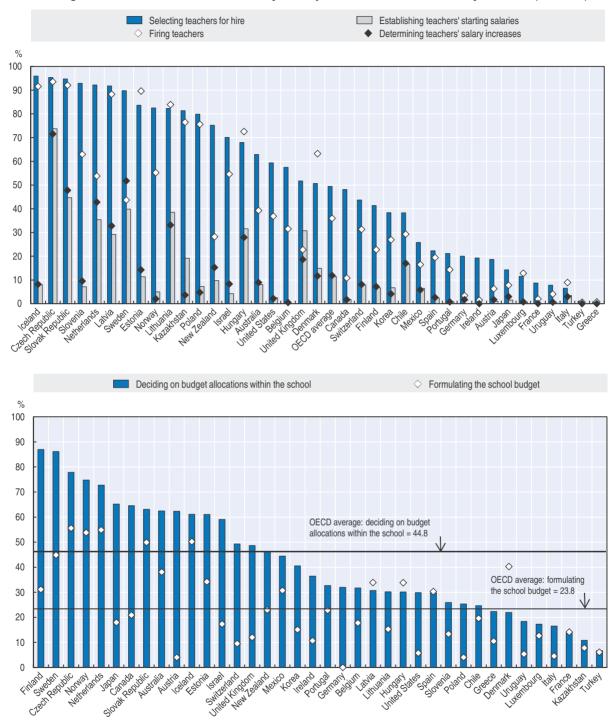
Although the existence of a set of professional teaching standards is an important element in making teacher appraisal practices more objective and coherent (OECD, 2013a), the initial set of professional standards for the teaching profession was not adequately communicated and as a result was not widely used by schools (Shewbridge et al., 2014a).

Capacity for and approach to school leader appraisal varies among school founders

In the Slovak Republic there is a legal requirement that the school leader undergoes a formal appraisal process on an annual basis. All representatives of school founders (which take responsibility for school leader appraisal) during the OECD review reported that this official appraisal was undertaken normally at the end of the academic year. Common elements included the attention to official documentation that the school leader is legally responsible for (annual school reports, economic reports) and a discussion of the school budget.

However, procedures and criteria used for school leader appraisal varied among different school founders. For founders with only a few schools there would be more regular contact with the school board and parents. Such feedback, in addition to the regular audit of finances, is deemed adequate information to feed into school leader appraisal. For founders with a larger number of schools, the OECD review team learned of different procedures used to gather more regular information, for example meeting once or twice a

Figure 5.5. School leader reports on school responsibility for resource management, 2012 Percentage of students in schools whose leader reports only he/she and/or teachers are responsible for (PISA 2012)



Switch the Lender Note: Kazakhstan, Lithuania and Uruguay, which are not OECD Members, are participating in the OECD School Resources Review. Source: Data from OECD (2013b), PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices, Figure IV.4.2, http://dx.doi.org/10.1787/9789264201156-en.

Swite land,

ila and chia start

S. Sparia

... atria Lithiania

Beldium

his land this

V. Globogo

Tingury Oldo

Juguay

Yalakistan.

LUT ARCE

and Austria

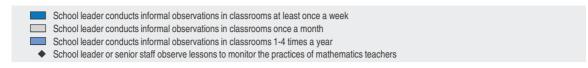
0

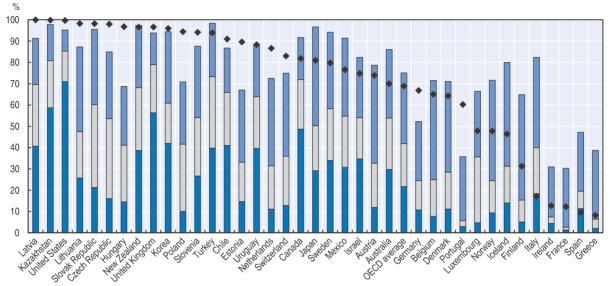
Welterlands Welterlands

JUNION BY

Figure 5.6. School leader reports on classroom observation

Percentage of 15-year-old students in schools where leaders reported the following practices (PISA 2012)





Note: Kazakhstan, Lithuania and Uruguay, which are not OECD Members, are participating in the OECD School Resources Review. Sources: PISA 2012 Compendium for the School Questionnaire (www.pisa.oecd.org); and OECD (2013b), PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices, Figure IV.4.16, http://dx.doi.org/10.1787/9789264201156-en.

year at each school and/or the use of a standard questionnaire to gather feedback from school leaders. Different criteria identified during the OECD review ranged from a general perception of community satisfaction with the school or an assessment of school progress against goals in the School Development Plan, to a specific set of criteria established by the founder, such as the size of the school and evidence on school performance (student examination results, indicators of students' further studies after school or entry into the labour market, student success in Olympiads).

The capacity to conduct school leader appraisal varies enormously among different school founders. Some founders may have a specific department with responsibility for schools, but the number of employees will vary and may be only one. One of the larger school founders the OECD review team visited had four people in the Education Department, each responsible for a particular group of schools (basic schools, *gymnasiums*, vocational secondary, school facilities).

The current professional development approach has some limitations

As noted above, the OECD review team considers the Slovak approach to set professional development requirements for school leaders – and to ensure that school leaders meet these requirements – as a considerable strength. However, there are certain aspects that could be improved to better meet the needs of professionals. During the OECD review, representatives of school leaders did not think the seven-year requirement for professional development (functional innovative training) was sufficient. Professionals

need to adapt more quickly to regular changes in legislation and other areas. Also, the "theory" of functional innovative training was behind the practice and the day-to-day challenges and solutions identified by school leaders.

NÚCEM (2012) identifies concerns with professional development training for school leaders to develop competencies and skills in evaluating the quality of the teaching at their schools. This is not adequately addressed in the functional training courses and has only marginal treatment in programmes of other training providers. The OECD review team heard feedback from school leader representatives that while the compulsory professional development for new or aspiring school leaders (functional training) had extremely useful content, it could sometimes be better tailored to challenges in different school types and include specific content on resource management and budgeting (see also Chapter 3). Finally, the time commitment for functional training is challenging as it requires the participant to be absent for several days from his/her school.

All school leader representatives were unanimous in their feedback that the greatest perceived benefit of professional development was the opportunity to meet with other professionals and to share experience. However, the functional training and functional innovative training courses reportedly did not actively promote collaborative exchanges and this rather came from the initiative of participants.

Policy recommendations

The OECD review team notes several strengths in the Slovak approach to the recruitment, development and management of school leaders. There are many mechanisms in place to support appraisal and professional development and also (quite rare in international comparison) to help distribute leadership responsibilities. The challenge is to make more effective use of these, to bring together existing tools and procedures and to make sure that these are relevant and justify the time invested in them. However, the major challenge remains the need to make the school leader position more attractive and this requires a re-thinking of the school leader career and finding ways to make leadership positions more financially attractive.

Make the school leader position more attractive

Slovak school leaders enjoy a high level of autonomy and responsibility. They have direct responsibility for leading the implementation of several key policies, e.g. the development of the School Education Programme, teacher appraisal and professional development opportunities, and hold overall responsibility for the efficient use of school resources. Leithwood et al. (2004) argued that given their potential impact on policy implementation, efforts to improve school leader recruitment and career advancement, including appraisal and ongoing professional development, can constitute highly cost-effective measures for making education policies effective and for improving teaching and learning for all students. In fact, several countries recognised the potential high rates of return on investments in improving school leadership during the 2012 International Summit on the Teaching Profession (Asia Society, 2012; Schleicher, 2012).

The OECD review team has noted a general perception that the position of school leader is not an attractive option among Slovak teachers and that, in general, the teaching profession is not adequately respected in society, in large part due to the low salaries (see Chapter 4). The Slovak Republic is faced with the challenge of attracting new talent to

prepare for and eventually take up school leader positions. The OECD project on Improving School Leadership by Pont et al. (2008) highlighted the impact of a heavy workload coupled with a lack of adequate support and remuneration and uncertain career advancement prospects as some of the reasons for a lack of attracting talented new school leaders. The Slovak Republic does not have a distinct career structure for school leaders. There are no possibilities for advancement to different positions with different levels of responsibility. School leader salaries are based on the pay scales used for all teachers. As the OECD project on school leadership suggested, career development prospects as well as salary scales for school leaders that are separate from teachers' salary scales and that reflect leadership structures and school-level factors may help attract high performing leaders to all schools (Pont et al., 2008).

The mapping out of current responsibilities is an important part of developing professional standards (see Box 5.2). The OECD review team has noted that the updated set of professional standards should include "efficient resource management" (see also Chapter 3). The competencies defined in the professional standards should also underpin qualification requirements for the recruitment of new school leaders. Current requirements for school leader recruitment do not include competencies to manage resources, despite this being a major part of their management responsibilities.

Box 5.2. Developing a set of professional standards for school leaders

A set of professional standards for school leaders should be informed by research evidence and involve school leaders in its development. Professional standards should:

- Map out what school leaders are expected to know, be able to do and how: reflecting the complexity of school leaders' tasks and responsibilities; providing a concise statement of the core elements of successful leadership.
- **Provide a multi-level career structure:** distinguishing between different levels of experience, development needs and leadership positions; guiding the appraisal of all school leadership positions.
- Provide a central reference that can be adapted to local needs: for defining individual
 objectives and/or the selection of appraisal aspects and criteria; for informing selection
 and recruitment processes and initial school leadership preparation and induction
 programmes; for informing ongoing in-service training and professional development
 opportunities and career advancement.
- Highlight the importance of school leadership for evaluation and assessment: practices related to monitoring, evaluation and appraisal, e.g. supporting and observing teachers, and observing students and classrooms.

Source: OECD (2013a), Synergies for Better Learning: An International Perspective on Evaluation and Assessment, http://dx.doi.org/10.1787/9789264190658-en.

In sum, the OECD review team recommends the following to help make the school leader position more attractive:

 A distinct career structure for school leadership: Link career progression to specific leadership responsibilities as underpinned in the school leader professional standards.
 This will give teachers greater incentive to take on leadership responsibilities. For example, the OECD had recommended that all Slovak schools have a member of staff with clear responsibility for the development and implementation of a plan for designing and developing self-evaluation instruments, as a way to further promote an effective self-evaluation culture in schools (Shewbridge et al., 2014a). A career structure could recognise and promote "system leadership", that is, school leaders who take responsibility for and work toward the success of other schools as well as their own in order to foster improvement across the Slovak school system (Hopkins, 2008).

- An independent salary scale for school leadership (see Box 5.3 for examples in Australia and the United Kingdom).
- Greater flexibility in teaching hour requirements: The school leader would be able to
 decide on how much teaching is required according to his/her professional judgement of
 the school's needs and what the school can afford.
- Appraisal results to inform career advancement: Although there is limited research on the effects of such systems, there is a need to ensure fair and objective processes. This requires clear appraisal aspects and criteria, reliable indicators and understanding of the school context (see below).

Support a more coherent approach to school leader appraisal and heighten its objectivity

The use of a central reference on which to base school leader appraisal is highly desirable in increasing the objectivity of appraisal procedures. This is why the existence of professional standards is a clear strength (see Box 5.2). The OECD Review of Evaluation and Assessment in Education examined research and practices in OECD countries and recommended different procedures to improve the objectivity of school leader appraisal (see Box 5.4). An important finding is the importance of adapting school leader appraisal to local needs. In general, there are two contextual factors that are prevalent in Slovak schools: the perception that the position of school leader is not an attractive career option; and the high level of responsibilities, and accordingly workload, for school leaders. These indicate a need to emphasise the developmental purpose of appraisal and to ensure that it is does not introduce excessive demands on school leaders' time. The challenge is to develop appraisal processes, frameworks and conditions that do not require an excessive investment of time and effort, that serve as an effective tool for improving practices and that are perceived as useful and relevant by school leaders (OECD, 2013a).

In the Slovak Republic there is an established set of documentation that the school leader is responsible for developing. Given the time commitment required to develop these and the fact that they have a common format/legal basis, these are obvious instruments to feed into school leader appraisal. Indeed, the OECD review team learned of appraisal processes that would involve the discussion of the school annual report and financial information. There are also cases where the School Development Plan is linked with the five-year contract of the school leader and the school leader's vision for school development plays an important part in the selection process.

The challenge is to ensure that these can be optimised as tools for improvement of teaching and learning. An earlier OECD review noted that annual school reports were "statistical in nature" and perceived as simply a bureaucratic process (Shewbridge et al., 2014a; NÚCEM, 2012). Developing a central list of suggested content for annual school reports could be of significant help to schools if it: speaks significantly to the teaching and learning process (and not simply the more easily reported financial and

Box 5.3. Dedicated salary structures for school leaders in Victoria (Australia) and England and Wales (United Kingdom)

In the **state of Victoria (Australia)**, school leaders benefit from a specific career structure. The "principal class" structure reflects Victoria's commitment to excellence in educational leadership and management as a key factor in school improvement. Principal class employees have a significant responsibility in the delivery of a high quality school education to the community of Victoria, and to strategically manage people, financial and physical resources within a strong accountability framework. The principal class comprises the following levels:

- principal
- assistant principal
- liaison principal (typically at the district level in non-school locations).

Each of these levels has its own salary structure. The "principal" level has six remuneration ranges. The remuneration range of a principal position is determined on the position becoming vacant but will not be less than the remuneration range determined by the school budget (i.e. the school budget establishes the minimum range level). The "assistant principal" level has four remuneration ranges while the "liaison principal" has six remuneration ranges. The remuneration and/or remuneration range of a principal class employee is reviewed each year in the context of any changes to the work value of the position and the performance of the principal class employee. The performance of a principal class employee is assessed annually based on demonstrated achievement against school priorities and criteria established by Victoria's Department of Education and Training.

In **England and Wales (United Kingdom)**, all members of the leadership group (head teacher, deputy head teacher, assistant head teacher) are paid on the leadership pay spine, which has 43 points divided into eight head teacher groups, based on school size. There are fixed differentials between pay for head, deputy and assistant head teachers. The key features are as follows:

Head teachers: The governing body determines the school's head teacher group based on the number of students for each education stage and the number of students with special educational needs. Then governing bodies set a seven-point individual school range constrained by pay of any deputy or assistant head teacher in the school and the "notional" salary of the highest paid classroom teacher. On appointment, the head teacher must be placed on one of the bottom four points on the range. Governing bodies can then decide if any discretionary payments are payable and may award further payments only in specified circumstances (such as a school causing concern; if there are substantial recruitment and retention difficulties; if a head takes on additional responsibilities).

Deputy and assistant head teachers: The governing body determines a five-point deputy head teacher pay range, constrained by the head's pay range and any assistant head teacher or the highest paid classroom teacher. For assistant head teachers, the process is very similar to that for a deputy head teacher, but constrained by the highest paid classroom teacher; the lowest point of the head's pay range, and by any deputy head pay range. A report by the School Teachers' Review Body analyses the salary structure for school leaders in England and Wales and provides recommendations for further development (STRB, 2014).

Sources: Department of Education and Training (2015), Career Structure – Teaching Service, Victoria State Government, Victoria, www.education.vic.gov.au/hrweb/careers/Pages/career_structure_ts.aspx; and STRB (School Teachers' Review Body) (2014), School Teachers' Review Body: Twenty-Third Report – 2014, www.gov.uk/government/uploads/system/uploads/attachment_data/file/279038/140207_23rd_Rpt_CM_8813.pdf.

Box 5.4. OECD recommendations on procedures for school leader appraisal

Promote the appraisal of pedagogical leadership together with scope for local adaptation

A focus on pedagogical leadership is essential to encourage school leaders to take direct responsibility for the quality of learning and teaching in their school. However, a focus on pedagogical leadership in appraisal must:

- Be manageable and relevant: local selection of criteria in line with central/state guidance that emphasise the importance of pedagogical leadership; focus on priority areas relevant to a particular school and the leadership required in that context; promote individual as well as school needs, e.g. through the mandatory use of a range of reference standards and documents, such as individual job descriptions and school development plans; recognise that successful school leadership requires choices on time investment and management and administration-oriented tasks may at times be equally important as pedagogical leadership tasks.
- Recognise the need for and promote professional development: ensuring access to high-quality, targeted and relevant professional development opportunities to develop pedagogical leadership; embedding appraisal for pedagogical leadership within a comprehensive leadership development framework; providing an opportunity for feedback and identifying areas for school leader's development.

Promote the appraisal of school leaders' competencies for monitoring, evaluation and assessment

School leaders play a key role for the effectiveness of evaluation and assessment frameworks, particularly for teacher appraisal and school evaluation. Therefore, school leader appraisal should address their ability to:

- Manage internal teacher appraisal processes, e.g. through evaluating school leaders' competencies to manage staff; to authentically evaluate teaching and learning; to understand, observe and recognise good teaching; and to give developmental feedback to teachers.
- **Lead the school's self-evaluation processes,** e.g. ensuring their school's collaboration during external evaluations, and communicating external evaluation results to their school community.

It should also lead to opportunities to improve these competencies. For example, with professional development in how to observe classrooms and interview teachers; how to analyse data; how to use school evaluation results; how to develop school improvement plans; how to involve teachers, students and parents in school self-evaluation.

Promote the use of multiple instruments and sources of evidence

Research has increasingly stressed the benefits of using multiple tools to form a fair, valid and reliable picture of a school leader's performance from a comprehensive perspective. Limited research has provided some insights into the benefits of different tools and the caution needed when using others:

- The use of school leader portfolios, if embedded within wider support structures, may ensure a school leader's views are adequately represented in the appraisal process and help strengthen the formative dimension of appraisal.
- The use of stakeholder surveys requires an awareness among evaluators of the politics that appraisal may involve. Teachers' views may add most value to an appraisal process considering their close insights into a school's daily routine.
- Given the wide range of factors that influence student outcomes within and outside schools, and
 persistent evidence that the impact of school leaders on student learning is mainly indirect and
 mediated through others, holding school leaders directly accountable for improved student test scores
 or the value added by the teachers in their school faces serious challenges and risks.

Source: OECD (2013a), Synergies for Better Learning: An International Perspective on Evaluation and Assessment, http://dx.doi.org/10.1787/9789264190658-en.

summative assessment aspects); is open enough for schools to elaborate and develop these aspects autonomously to best fit their development needs and strategy; and, critically, is connected to a clear concept and framework for self-evaluation (Shewbridge et al., 2014a).

Many OECD countries have promoted the use of the central school inspection framework by schools as a basis for their self-evaluation activities (OECD, 2013a). Since 2011, the ŠŠI inspection framework is published on its website (Shewbridge et al., 2014a). The ŠŠI inspection framework includes a set of quality indicators to evaluate "school management" (see Table 5.3). These can serve as a basis for employers to undertake annual school leader appraisal. The ŠŠI quality indicators are available for pre-primary schools, basic schools, gymnasiums and vocational secondary schools. These pay attention to the school leader's responsibility for teacher appraisal (as recommended in Box 5.4) and also to the leader's responsibility for developing pedagogical documentation.

There is also room to strengthen the role of the school board in school leader appraisal. The school board could conduct an annual interview with the school leader, analyse student outcomes at the school and review school leadership processes. Also, consideration could be given to promoting (or perhaps introducing a requirement) for school boards to publish a written statement about the annual school report on the school's website or on paper (Shewbridge et al., 2014a). In such a statement the school board can outline its own priorities for the school's further development, independent from the priorities stated by the school leadership. In future reports, the school board can reflect on how and to what extent the school leadership has addressed its stated priorities for school development, and indeed, the extent of progress made towards the stated goals in the School Development Plan.

Underline the importance of distributed leadership

Without negating the important role of the school leader, research has recognised the value of leadership as an organisational quality that can be undertaken by a range of actors and not just the official school leader (e.g. Bennett et al., 2003 for an overview; Pont et al., 2008; Schleicher, 2012). Given the diversity and complexity of conflicting demands on school leaders' time, there are pressing needs to effectively share management responsibilities (OECD, 2014).

Although in many OECD countries, formal arrangements for distributed leadership are rare (OECD, 2013a), Slovak schools have structures in place that allow teachers to take more responsibility and to collaborate. The pedagogical board – although largely comprised of the school leadership team – provides a vehicle for oversight of School Education Programmes, teacher professional development activities and other key areas related to school pedagogy. At the same time, basic schools benefit from official bodies that assume responsibility for pedagogical matters in particular levels of schooling (methodology association) or specific subjects (subject committee). These foster collaboration among sub-groups of teachers and provide opportunities to take the lead in particular pedagogical areas. If used effectively, such bodies can support a distributed responsibility for the pedagogical leadership of the school. While research on how to effectively distribute leadership and how this influences school outcomes is scarce (Harris and Spillane, 2008), Mulford (2008) highlights the need for school leaders to create conditions to enable teachers to assume more leadership and to provide ongoing support for this (see Pont et al., 2008, and OECD, 2013a, for further analysis on distributed leadership).

To this end, school leader appraisal should pay attention to how the school leader distributes leadership and devolves responsibilities to teachers (see Box 5.5). For example, the ŠŠI inspection framework includes a quality indicator for the evaluation of school management that evaluates the school leader's use of technical assistance from the methodology association and subject committees (see Table 5.3). Another broad indicator could be the extent to which the school leader provides teachers with the opportunities to take on more responsibility and to develop their leadership skills.

Box 5.5. Promoting shared leadership via school leader appraisal

The OECD Review of Evaluation and Assessment in Education underlined the role that school leader appraisal could play in promoting a more effective sharing of management responsibilities. School leader appraisal could consider how leadership responsibilities are shared within the school and beyond the school by:

- Examining the ways in which school leaders foster distributed leadership in their schools (e.g. school leaders' competencies for building structural capacity, school leaders' efforts to create opportunities for teacher leadership, school leaders' ability to enhance their teaching staff's capacity to lead, school leaders' ability to foster succession planning).
- Providing feedback on the arrangements of distributed leadership. It may help inform
 professional development and wider support structures. It may also provide an
 opportunity to provide feedback to school leaders on their efforts to enhance teacher
 leadership in their schools.
- Reflecting the growing importance of leadership tasks beyond school borders as a way of sharing expertise for system wide improvement.

Source: OECD (2013a), Synergies for Better Learning: An International Perspective on Evaluation and Assessment, http://dx.doi.org/10.1787/9789264190658-en.

Promote and support greater flexibility in professional development activities

The OECD review team noted a demand for a more flexible offer of professional development. There is demand to conceptualise this more broadly than an offer of training courses and more as the offer of opportunities for professional collaboration and exchange. There is an opportunity to make use of European Structural Funds to this end. New programmes should integrate school leadership and there could be ways to promote and support more systematic collaboration among school leaders from different schools, for example, through peer evaluation activities. However, any such programmes should be designed in collaboration with the major associations representing school leaders, some of which have already been developing systems to promote collaboration among their members. For example, the Association of Self-Governing Schools has taken a greater role in promoting collaborative discussions and professional exchanges among school leaders in basic schools. School leaders have many demands on their time, but also report the benefit of professional exchange. With this in mind, they are best placed to help design programmes that would be most responsive to their needs.

The OECD review team notes an existing practice that is effective for developing the evaluative competencies of school leadership and should be further supported. There is a mechanism for school leaders to join school inspectors as part of a complex inspection team.

During the OECD review, the ŠŠI reported it gets very good feedback from participants. This matches findings in the OECD Review of Evaluation and Assessment in Education. The Education and Training Inspectorate in Northern Ireland recruits "associate assessors" from school leadership and senior teachers. There is high demand to participate in this process and participants appreciate this as highly relevant professional development (Shewbridge et al., 2014b). In addition to bringing the practical experiences from school leaders to the inspection process, the associate assessors develop capacity to monitor, evaluate and improve teaching and learning in their own schools (OECD, 2013a, Box 6.9).

Notes

- 1. Lower secondary education (ISCED 2) comprises Years 5 to 9 in the Slovak school system and thus can be offered in basic schools, *gymnasiums*, vocational secondary schools, as well as specialised schools (e.g. conservatoires). However, special education schools are not included in the OECD TALIS sample.
- 2. Percentage of lower secondary school leaders reporting they shared responsibility for: choosing learning materials (Slovak Republic 69%; average 45%); determining course content (Slovak Republic 71%; average 35%); deciding which courses are offered (Slovak Republic 77%; average 52%) (OECD, 2014, Table 3.4). The international survey asked school leaders whether they shared responsibility in these areas with either other members of the school management, teachers, school governing board, or local, municipal or regional authorities.

References

- Asia Society (2012), "Teaching and leadership for the twenty-first century the 2012 international summit on the teaching profession", report prepared by the Asia Society, http://asiasociety.org/files/2012teachingsummit.pdf.
- Bennett, N. et al. (2003), Distributed Leadership: A Review of Literature, National College for School Leadership, Nottingham.
- Bieliková, M. et al. (2012), Žiacka samospráva na stredných školách [Self-government in secondary schools], UIPS, Bratislava, www.uips.sk/sub/uips.sk/images/OddMladezASport/Vyskum/vystupy/2013/clanok_sr2012.pdf.
- Department of Education and Training (2015), Career Structure Teaching Service, Victoria State Government, Victoria, www.education.vic.gov.au/hrweb/careers/Pages/career_structure_ts.aspx.
- Educational Policy Institute (2015), OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic, Educational Policy Institute, Ministry of Education, Science, Research and Sports of the Slovak Republic, Bratislava, www.oecd.org/edu/school/schoolresourcesreview.htm.
- Eurydice (2015), Teachers' and School Heads' Salaries and Allowances in Europe, 2013/14, Eurydice Facts and Figures, Education, Audiovisual and Culture Executive Agency (EACEA), Publications Office of the European Union, Luxembourg, http://eacea.ec.europa.eu/education/eurydice/documents/facts_and_figures/salaries.pdf.
- Harris, A. and J.P. Spillane (2008), "Distributed leadership through the looking glass", Management in Education, Vol. 22, No. 31, pp. 31-34.
- Hopkins, D. (2008), "Realising the potential of system leadership", in OECD/SSAT, Improving School Leadership, Volume 2: Case Studies on System Leadership, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264039551-en.
- Leithwood, K. et al. (2004), "How leadership influences student learning", a report commissioned by the Wallace Foundation, University of Minnesota, University of Toronto, www.wallacefoundation.org/knowledge-center/school-leadership/key-research/Documents/How-Leadership-Influences-Student-Learning.pdf.
- Mulford, B. (2008), "The leadership challenge: Improving learning in schools", Australian Education Review, No. 53, Australian Council for Educational Research, Camberwell, Victoria, http://research.acer.edu.au/aer/2/.

- NÚCEM (2012), OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes: Country Background Report for the Slovak Republic, National Institute for Certified Educational Measurements, Bratislava, www.oecd.org/edu/evaluationpolicy.
- OECD (2014), TALIS 2013 Results: An International Perspective on Teaching and Learning, TALIS, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264196261-en.
- OECD (2013a), Synergies for Better Learning: An International Perspective on Evaluation and Assessment, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264190658-en.
- OECD (2013b), PISA 2012 Results: What Makes Schools Successful (Volume IV): Resources, Policies and Practices, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201156-en.
- Pont, B., D. Nusche and H. Moorman (2008), *Improving School Leadership*, Volume 1: Policy and Practice, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264044715-en.
- Schleicher, A. (ed.) (2012), Preparing Teachers and Developing School Leaders for the 21st Century: Lessons from around the World, OECD Publishing, Paris, www.oecd.org/site/eduistp2012/49850576.pdf.
- Shewbridge, C. et al. (2014a), OECD Reviews of Evaluation and Assessment in Education: Slovak Republic 2014, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264117044-en.
- Shewbridge, C. et al. (2014b), OECD Reviews of Evaluation and Assessment in Education: Northern Ireland, United Kingdom, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264207707-en.
- STRB (2014), School Teachers' Review Body: Twenty-Third Report 2014, School Teachers' Review Body, London, www.gov.uk/government/uploads/system/uploads/attachment_data/file/279038/140207_23rd_Rpt_CM_8813.pdf.
- Tempus Public Foundation (2009), The Role of School Leadership in the Improvement of Learning Country Reports and Case Studies of a Central-European Project 2009, Tempus Public Foundation, www.schoolleadership.eu/sites/default/files/the_role_of_school_leadership_in_the_improvement_of_learning_-_tpf_2009_9.pdf.

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, Czech Republic, Denmark, Estonia, Iceland, Kazakhstan, Lithuania, Luxembourg, the Slovak Republic, Spain, Sweden and Uruguay. A series of thematic comparative reports from the OECD review, bringing together lessons from all countries, will be launched as of late 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.

ANNEX B

Composition of the OECD Review Team

Gábor Halász, a Hungarian national, is doctor of the Hungarian Academy of Sciences and professor of education at the Faculty of Pedagogy and Psychology of the University Eötvös Loránd in Budapest where he is leading the Centre for Higher Educational Management. He teaches, among others, education policy, education and European integration and global trends in education. He is the former Director-General of the National Institute for Public Education in Budapest (now Institute for Educational Research and Development) where he is now scientific advisor. His research fields are education policy and administration, comparative and international education, educational research and innovation and the theory of education systems. As an education policy expert and policy adviser, he took an active part in Hungary's educational-change process in the 1990s. He is one of the founders and president of the Board of the Hungarian School for Education Management. He actively participates in the professional training of Hungarian school leaders. He has worked as an expert consultant for a number of international organisations, particularly the OECD, the European Commission, the World Bank, and the Council of Europe.

Rosalind Levačić is Emeritus Professor of Economics and Finance of Education at the Institute of Education, University of London. She has taught, researched and published extensively on school finance. She has worked as a consultant for 20 years on school finance reform projects mainly in transition states but also in Asia. These include 2 PHARE projects in Poland (1995-99), World Bank projects in Bosnia and Herzegovina (2003), Montenegro (2004), Azerbaijan (2005-7), Serbia (2010), Kosovo (2008-12) and Moldova (2011 and 2013). She has also advised on World Bank Development Policy Loans for school finance reform in Bulgaria (2008) and Romania (2010). Much of this work has concerned per student funding formulae, as is her current project on implementing non-salary budgets for schools in Punjab. She is a British citizen.

Paulo Santiago, a Portuguese national, is a Senior Analyst in the OECD Directorate for Education and Skills, where he has been since 2000. He is currently the co-ordinator of the OECD School Resources Review. He has previously assumed responsibility for three major cross-country reviews, each with the participation of over twenty countries: a review of teacher policy (2002-05), leading to the OECD publication "Teachers Matter"; the thematic review of tertiary education (2005-08), leading to the OECD publication "Tertiary Education for the Knowledge Society"; and a review of evaluation and assessment policy at the school level (2009-13), leading to the OECD publication "Synergies for Better Learning". He has also led reviews of teacher policy, tertiary education policy and educational evaluation policy in

over 25 countries. He holds a Ph.D. in Economics from Northwestern University, the United States, where he also lectured. He co-ordinated the Review and the preparation of this report.

Claire Shewbridge, a British national, 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" (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.

ANNEX C

Visit programme

Tuesday, 7 Octo	ber 2014, Bratislava
08:30-09:30	Strategy and Policy Development Ministry of Education, Science, Research and Sports (MESRS) • Director-General of the Regional Education Section (RES) • Department of Basic Schools, RES • Department of Gymnasiums and Language Schools, RES • Department of Vocational upper secondary schools, RES
09:30-10:15	Budget Planning and Funding, Financial Control Ministry of Education, Science, Research and Sports Director-General of the Funding and Budget Section (FBS) Director of the Department of Conceptual Funding, RES Director of the Department of Regional Education Funding, FBS Director of the Department of Control Head of the Department of Consecutive Financial Control
10:15-11:00	Steering Committee for new Funding Law Ministry of Education, Science, Research and Sports Head of the Steering Committee for new Funding Law Director-General of the Funding and Budget Section (FBS) Director of the Department of Conceptual Funding, RES Director of the Department of Regional Education Funding, FBS Director of the Educational Policy Institute
11:00-12:00	Department of the School Network and Teacher Resources Ministry of Education, Science, Research and Sports • Director, Department of Vocational Education, School Network, RES
12:00-13:00	Department of Special Schools, Unit of Roma education and the Plenipotentiary Office for Roma Children • Director of the Department of Special Schools, RES, MESRS • Head of the Unit of Roma Education and Schools with Language of Instruction of National Minorities, RES, MESRS • Director of the Department of Concepts, Analysis and Regional Co-ordination, Plenipotentiary Office for Roma Children
14:00-14:45	Section of Information Systems Ministry of Education, Science, Research and Sports • Department of Central Information System
14:45-15:30	Department in charge of EU funds for education: i.e. Operational Programme (OP) Education, future OP Human Resources Ministry of Education, Science, Research and Sports • Director, Department of Operational Programme Education, Structural Funds Section (SFS)
15:30-16:30	School External evaluation State Schools Inspectorate Deputy Director for Inspection Operations Head of the Unit of Methodological Operations, Section of Inspection Operations
16:30-17:15	Centre of Scientific and Technical Information (CVTI) Director of the Department of Methodology and Production of Information in Education Head of the Unit of Information Systems, Economy and School Funding Head of the Unit of Statistics and Services Head of the Unit of Regional Education
17:15-18:00	National Institute for Certified Educational Measurements (NÚCEM) Head of the Department of National Student Assessment International Student Assessment (OECD PISA) Analyst

Tuesday, 7 Octo	ber 2014, Bratislava (cont.)
18:00-18:45	Association of Private Schools and School Facilities President of the Association of Private Schools and School Facilities Headmaster of Private Gymnasium in Bratislava
19:00	Dinner with State Secretary, Juraj Draxler
Wednesday, 8 O	ctober 2014, Bratislava
08:00-08:45	National Institute of Education • Director of the National Institute of Education • Deputy Directors of the National Institute of Education
08:45-09:30	National Institute of Vocational Education Deputy Director of the National Institute of Vocational Education
09:45-12:10	School Visit 1 – Bratislava City: Základná škola, Ružová dolina 29, Bratislava (Basic school) Management Group Group of teachers Members of the School Board
13:30-14:30	Association of State Gymnasium School Leaders; Association of Self-Governing Schools Chairman of the Association of Self-Governing Schools Chairman of the Association of State Gymnasium School Leaders
14:30-15:15	Accreditation Council for professional development programmes for teachers and school leaders, Ministry of Education, Science, Research and Sports Chairman of the Basic Schools Section Vocational Schools Section Secretary
15:15-16:00	Trade Union of Employees of Education and Science Chairman of the Trade Union of Employees of Education and Science Deputy Chairman of the Trade Union of Employees of Education and Science Head of the Union's Office
16:00-16:45	Slovak Chamber of Teachers Executive Director for the Bratislava Region Member of Executive Management for the Bratislava Region
17:00-17:45	Organisations which represent the interests of children with special needs Association for Helping People with Mental Disabilities Society for the Help of People with Autism Union of Parents and Friends of deaf and blind Children Union of the Blind and Weak-Sighted
17:45-18:30	Organisations which represent the interests of Roma children • Director of Roma Institute
Thursday, 9 Oct	ober 2014, Prešov
13:15-15:45	School Visit 2 – Prešov City: Stredná priemyselná škola elektrotechnická, Plzenská 1, Prešov (Secondary vocational school) Management Group Group of students Group of teachers Members of the School Board
16:00-18:00	Prešov regional authorities Head of the Department of Education Finance Department
18:00-19:00	Regional state authority of the Prešov Region Head of the Department of Education Head of the Department of Methodical Activities Head of the Department of Financial Analysis and Control Activities

Friday, 10 Octob	per 2014, Svit and Šuňava
08:00-10:15	School Visit 3 – Špeciálna základná škola, Mierová 166, Svit (Special basic school) Management group Group of teachers Group of students Members of School Board
10:30-12:00	Svit municipality Budget Department Head of the Department of education
13:00-15:10	School Visit 4 – Základná škola s materskou školou, SNP 469, Šuňava (Basic school with pre-school) Group of Students Management Group Group of teachers Members of the School Board
15:30-17:00	Municipality of Šuňava • City Mayor • Economist
Monday, 13 Oct	ober 2014, Jelenec and Bratislava
08:30-10:50	School Visit 5 – Základná škola s vyučovacím jazykom maďarským – Alapiskola, Školská 330, Jelenec (Basic school with some classes with instruction in Hungarian) Management group Group of teachers Group of students Members of the School Board
11:00-12:30	Municipality of Jelenec City Mayor Accountant
13:30-14:20	Ministry of Finance, Departments in charge of state budget and overseeing regional/municipal governments' spending • Meeting scheduled but did not take place
14:30-15:30	Methodology and Pedagogy Centre Co-ordinator of national programmes Deputy Director for International Co-operation, Dissemination and Analysis
15:45-16:30	Association of Catholic Schools Chairman Deputy Chairman Board Member
16:30-17:15	Organisations which represent the interests of children with special needs Centre for the Gifted Organisation for Special and Curative Education
17:15-18:00	Representatives of businesses and employers Federation of Employers' Associations Slovak Association of Small Enterprises The National Union of Employers
18:00-19:30	Slovak individual researchers who conduct research relevant for the Review Ms Marcela Veselková, Slovak Governance Institute (SGI) Mr Miroslav Štefánik, Institute of Economic Research, Slovak Academy of Science Mr Michal Páleník, Employment Institute Mr Juraj Vantuch, education consultant (previously with Comenius University) Mr Jozef Miškolci, Slovak Governance Institute (SGI) Mr Eugen Jurzyca, Institute for Economic and Social Reforms (INEKO)

Tuesday, 14 October 2014, Bratislava		
08:00-10:30	School Visit 6 – Bratislava City: Gymnázium Sv. Uršule, Nedbalova 6, Bratislava (Private gymnasium – general secondary education) • Management group • Group of students • Group of teachers	
11:00-12:00	Association of Municipalities (ZMOS); Association of Self-governing Regions (SK 8) Chairman of ZMOS Director of the Department of Education, ZMOS Head of the Department of Education and Culture, Nitra self-governing region	
12:00-13:00	Representatives of providers of initial teacher education and professional development for teachers and school leaders (other than MPC) Slovak University of Technology in Bratislava (STUBA) University of Economics in Bratislava (EUBA) Faculty of Natural Sciences at Comenius University (PRIFUK)	
14:00-15:30	Final Delivery – Presentation by the OECD review team of preliminary conclusions • Ministry of Education, Science, Research and Sports • Mr Juraj Draxler, State Secretary • Director-General of the Regional Education Section (RES) • Director of the Educational Policy Institute	

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

Slovak Republic

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 the Slovak Republic
- Chapter 2. Governance of schooling and the school network in the Slovak Republic
- Chapter 3. Funding of school education in the Slovak Republic
- Chapter 4. The teaching workforce in the Slovak Republic
- Chapter 5. School leaders in the Slovak Republic

Consult this publication on line at http://dx.doi.org/10.1787/9789264247567-en.

This work is published on the OECD iLibrary, which gathers all OECD books, periodicals and statistical databases. Visit **www.oecd-ilibrary.org** for more information.







ISBN 978-92-64-24755-0 91 2015 08 1 P

