

## 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 school-age 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

	Pre-primary education (aged 3 and older)	Primary education	Secondary 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 (private and public) as a percentage of GDP				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

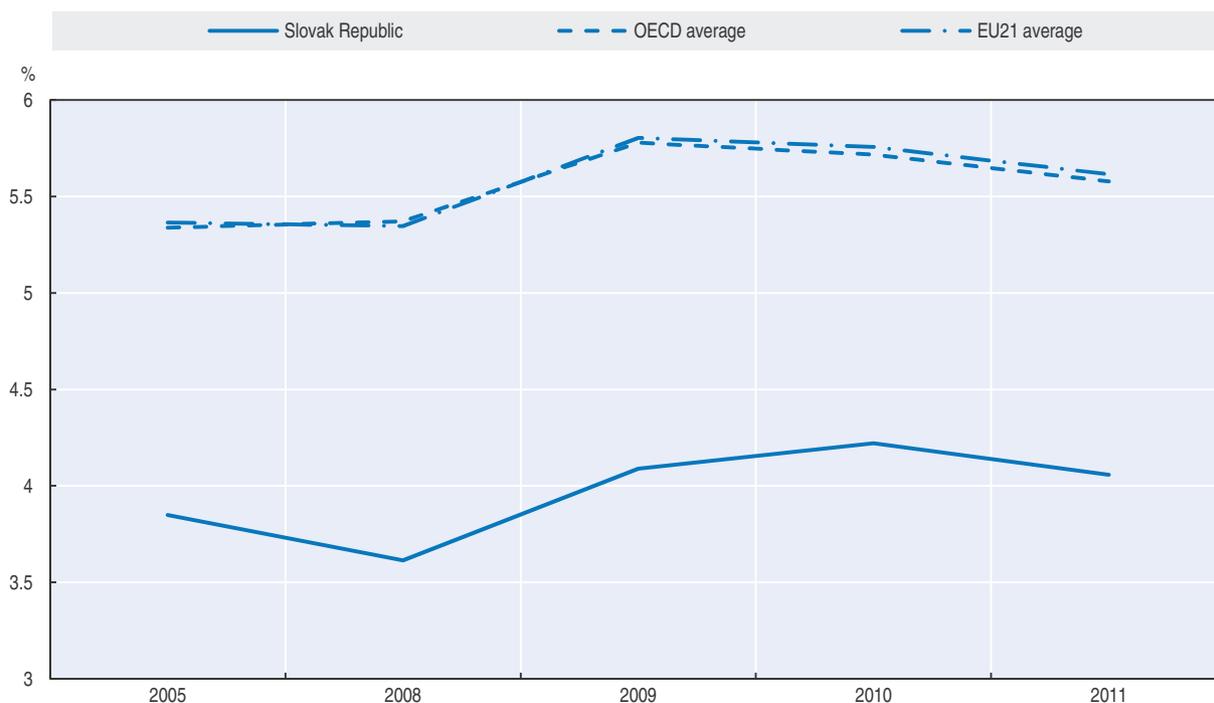
Notes: Data for Hungary include public institutions only. Public expenditure on education considered as a percentage of total public expenditure includes public subsidies to households such as grants and scholarships. EU21 average is the unweighted mean for the 21 countries that are members of both the 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**

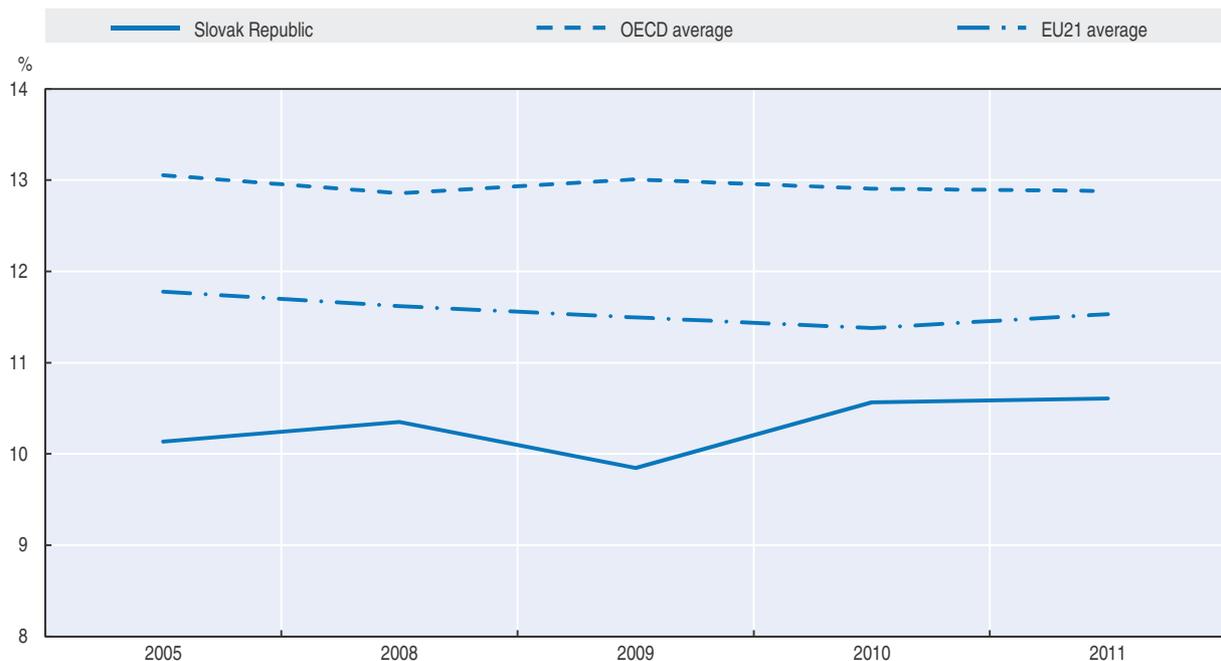
Notes: Public expenditure on education includes pre-primary, primary, secondary and tertiary education. It also includes public subsidies to households for living costs (scholarships and grants to students/households and students loans), which are not spent on educational institutions. EU21 average is 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				Primary, secondary and post-secondary non-tertiary education			
	Public sources	Private sources		Private: of which, subsidies	Public sources	Private sources		Private: of which, subsidies
		Household expenditure	All private sources			Household expenditure	All private sources	
Slovak Republic	<b>84.0</b>	15.5	<b>16.0</b>	0.7	<b>88.6</b>	9.8	<b>11.4</b>	1.7
Czech Republic	<b>92.0</b>	6.7	<b>8.0</b>	n	<b>90.9</b>	7.2	<b>9.1</b>	n
Poland	<b>76.1</b>	23.9	<b>23.9</b>	n	<b>93.9</b>	6.1	<b>6.1</b>	m
OECD average	<b>81.6</b>	m	<b>18.7</b>	2.8	<b>91.4</b>	m	<b>8.6</b>	0.9
EU21 average	<b>87.1</b>	m	<b>12.9</b>	2.8	<b>93.9</b>	m	<b>6.1</b>	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.

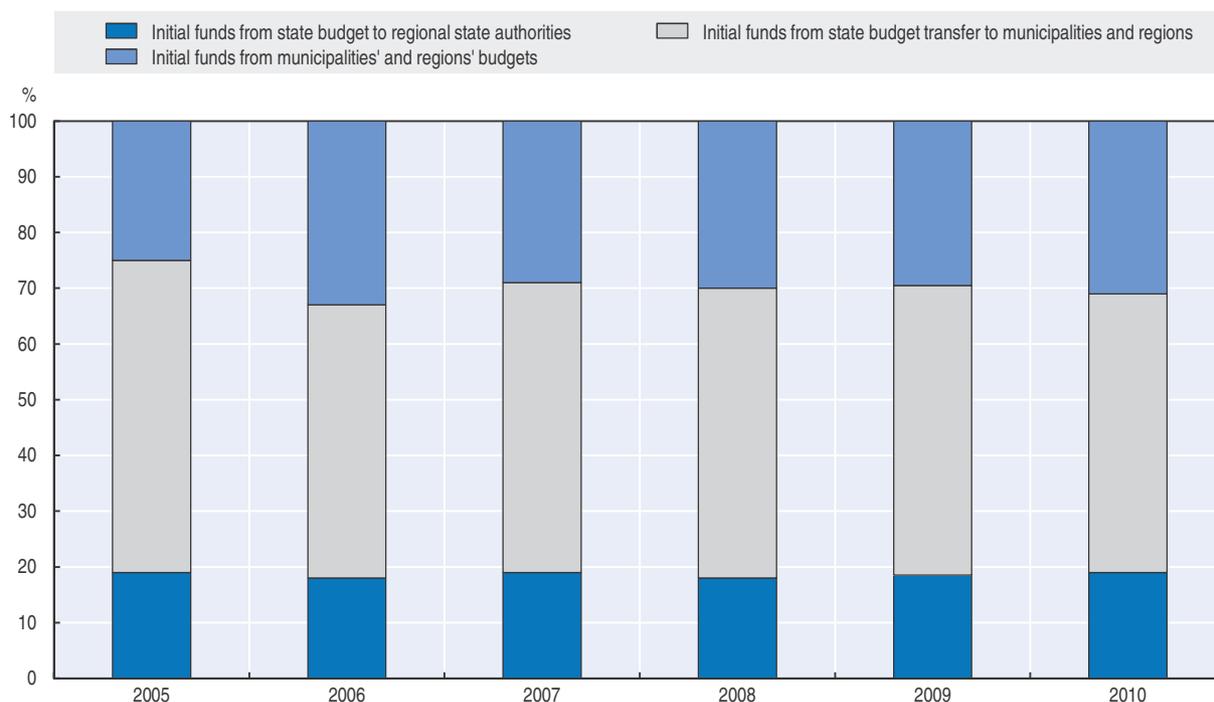
Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, <http://dx.doi.org/10.1787/eag-2014-en>.

Table 3.4. **Forms of education provided by school founders**

Type of school founder	School type					School facilities (e.g. dormitories, catering)
	Pre-primary education	Basic education	Upper secondary education	Special schools	Language, arts schools, etc.	
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](http://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](http://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.<sup>1</sup> 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 OECD 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.<sup>2</sup>
- 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 Interior
<b>Basic schools and secondary schools (budget chapters total)</b>	<b>1 461 078</b>	<b>444 244</b>	<b>949 829</b>
Normative expenditures	1 285 951	395 151	890 799
Non-normative expenditures (total)	142 838	24 986	50 847
<b>Non-normative expenditures (according to the Act 597/2003)</b>	<b>53 587</b>	<b>6 696</b>	<b>46 891</b>
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
<b>Non-normative expenditures (not included in Act 597/2003)</b>	<b>89 251</b>	<b>18 290</b>	<b>3 956</b>
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

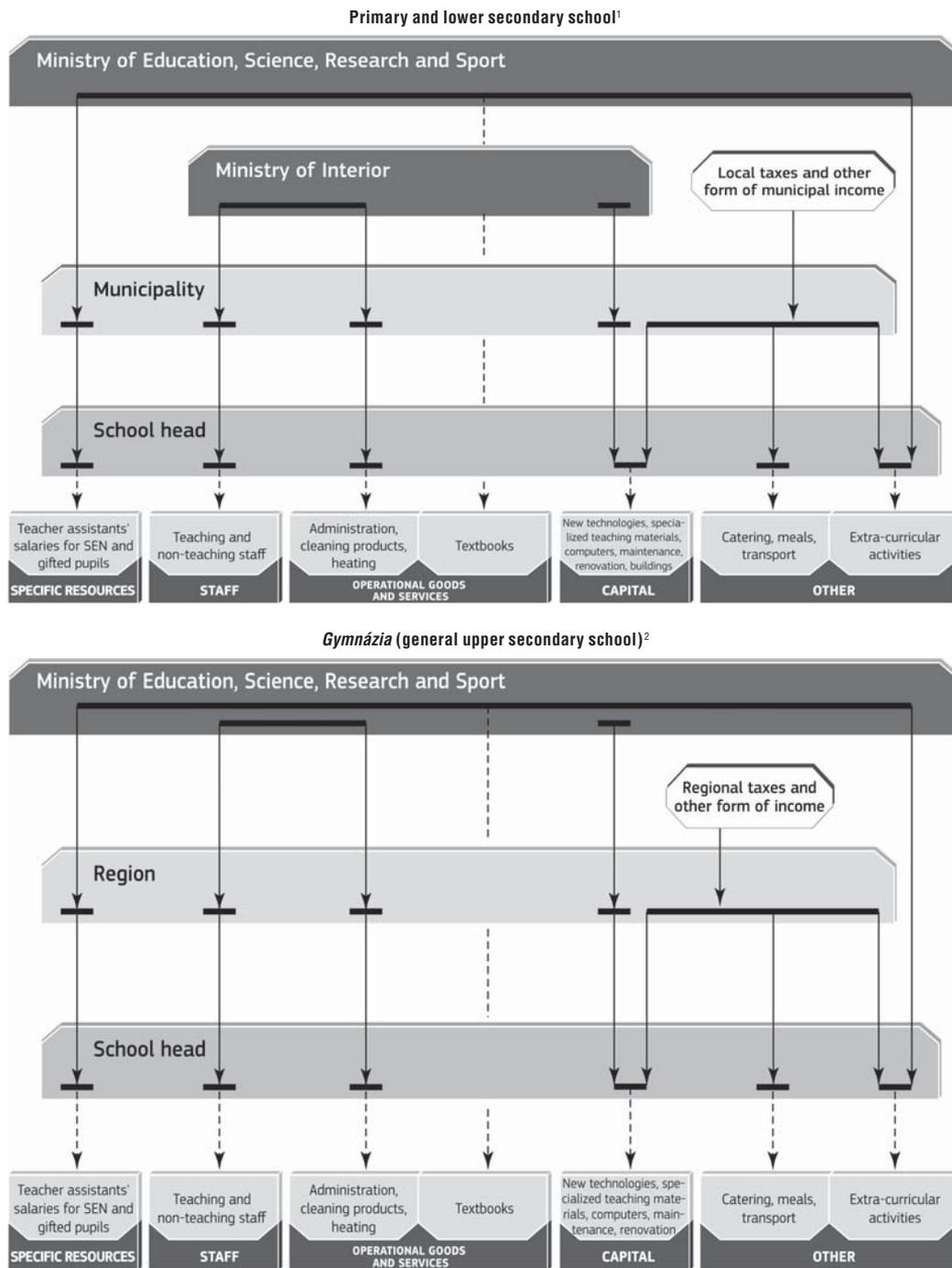
Source: Educational Policy Institute (2015), *OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic*, [www.oecd.org/edu/school/schoolresourcesreview.htm](http://www.oecd.org/edu/school/schoolresourcesreview.htm).

- 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

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

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](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.<sup>3</sup>

## **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.<sup>4</sup> 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
<b>Basic schools</b>				
State	2 272	2 003	-269	-11.8
Private	11	42	31	281.8
Church	104	114	10	9.6
<b>Total</b>	<b>2 387</b>	<b>2 159</b>	<b>-228</b>	<b>-9.6</b>
<b>Gymnasiums</b>				
State	158	151	-7	-4.4
Private	19	38	19	100.0
Church	46	57	11	23.9
<b>Total</b>	<b>223</b>	<b>246</b>	<b>23</b>	<b>10.3</b>
<b>Vocational schools</b>				
State	567	357	-210	-37.0
Private	46	83	37	80.4
Church	15	20	5	33.3
<b>Total</b>	<b>628</b>	<b>460</b>	<b>-168</b>	<b>-26.8</b>
<b>Conservatoires</b>				
State	6	6	0	0.0
Private	2	8	6	300.0
Church	1	1	0	0.0
<b>Total</b>	<b>9</b>	<b>15</b>	<b>6</b>	<b>66.7</b>

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%<sup>5</sup> 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**

Region	Basic schools		Gymnasiums		Vocational schools	
	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
<b>Difference between highest and lowest (%)</b>	<b>20.2</b>	<b>41</b>	<b>7.4</b>	<b>35</b>	<b>7.9</b>	<b>34</b>

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 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 education (3 years and older)	Primary education	Secondary 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**

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

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.<sup>6</sup> *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
<b>Pre-primary schools</b>				
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
<b>Total</b>	<b>20.1</b>	<b>20.3</b>	<b>0.2</b>	<b>1.0</b>
<b>Basic schools</b>				
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
<b>Total</b>	<b>21.3</b>	<b>18.5</b>	<b>-2.8</b>	<b>-13.3</b>
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
<b>Gymnasiums</b>				
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
<b>Total</b>	<b>30.2</b>	<b>24.0</b>	<b>-6.2</b>	<b>-20.5</b>
<b>Vocational schools</b>				
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
<b>Total</b>	<b>26.2</b>	<b>22.1</b>	<b>-4.1</b>	<b>-15.6</b>

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-primary schools		Basic schools	
<b>Size of municipality</b>				
<= 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
<b>Total</b>	<b>19.61</b>	<b>20.34</b>	<b>19.05</b>	<b>18.46</b>
<b>Size of municipality</b>				
<= 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
<b>Total</b>	<b>10.08</b>	<b>10.31</b>	<b>14.33</b>	<b>13.73</b>
<b>Size of municipality</b>				
<= 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
<b>Total</b>	<b>2 873</b>	<b>2 870</b>	<b>2 224</b>	<b>2 159</b>

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-primary education		Primary education	Secondary education		
	Students to contact staff	Students to teaching staff		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:

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

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

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

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
<b>Number of students in special schools</b>				
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
<b>Proportion of students in special schools (as a percentage of total number of students)</b>				
Special pre-primary schools	1.0	0.7		
Special basic schools	4.1	6.3		
Special secondary schools	1.7	2.7		
<b>Number of SEN students attending mainstream schools</b>				
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
<b>Proportion of SEN students attending mainstream schools (as a percentage of total number of students)</b>				
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.<sup>7</sup>

### ***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.<sup>8</sup> 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)<sup>9</sup> 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 *gymnasiums*, 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.<sup>10</sup> 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
<b>Basic schools</b>		
Year 0 (school offers fewer than 9 year levels)	6	Can be decreased by 2 in a school with both official language and minority language of instruction or in a municipality with 2 or more schools with different languages of instruction.
Year 0 (school offers Years 1-9)	8	
Year 1	11	
Years 2-4	13	
Years 5-9	15	
Combined multiyear class in Years 1-4	12	Founder can reduce minimum class size: if students would have to travel more than 6 km; for minority language students if no school teaching in that language is available within 6 km from home; and more than 80% of students are socially-disadvantaged; other reasons.
<b>Secondary schools</b>		
All years	17	
Vocational schools: for study programmes whose graduates are in excess demand in the labour market	13	

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.<sup>11</sup> 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.<sup>12</sup> 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 achievement			Special education grant
Decile	Categories	Per student amount	Per student amount
Decile 1	A	905.81	73.94
	B	842.11	73.94
	C	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
	H	277.32	67.61
	I	220.59	67.61
Decile 4	J	182.74	63.38
	K	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	O	71.64	50.72
Decile 8	P	46.86	46.50
Decile 9	Q	28.93	42.26
Decile 10	Z	0.00	38.05
Base amounts per student			
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/](http://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).<sup>13</sup>

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 mispending 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
- l) 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](http://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](http://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

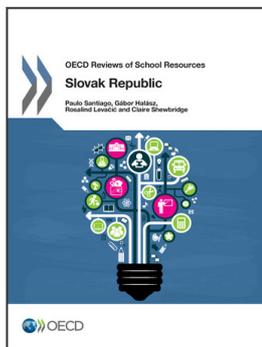
1. Regulations also require municipalities and the self-governing regions to provide non-state founders of school facilities with at least 88% of the per-student funding which they spend on salaries and operations in their own school facilities.
2. It should be noted that some stakeholders criticised 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.

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