ISSN 1648-2603 (print)
ISSN 2029-2872 (online)

VIEŠOJI POLITIKA IR ADMINISTRAVIMAS
PUBLIC POLICY AND ADMINISTRATION
2012, T. 11, Nr. 2 / 2012, Vol. 11, No 2, p. 171–186

Efficiency of Public Spending on Education

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Abstract. *The aim of the article is to describe the indicators determining the efficiency of public spending on education, to identify problems related to the evaluation of efficiency, to compare education funding in the European Union countries, to characterise public spending on education in Latvia as well as to provide suggestions for further improvement of efficiency. It is concluded that there are a number of indicators characterising the efficiency of education financing, but there is no unified approach to their evaluation, and it should be taken into account that efficiency indicators are continuously influenced by environmental factors. The author points out that financing amount per one learner in different types of education allows assessing the efficiency of public spending. It is proposed to pay special attention to the issue of special education financing in Latvia, by evaluating possibilities to improve the financing principles of special education and increasing its efficiency.*

Keywords: *spending on education, efficiency, monetary and non-monetary indicators, PISA results, financing amount per one learner, special education.*

Raktažodžiai: *Išlaidos švietimui, efektyvymas, finansiniai ir nefinansiniai rodikliai, PISA rezultatai, lėšos vienam mokiniui, specialusis ugdymas*

Introduction

Continuous and sustainable financing of education system is a topical problem in any country. In particular, it worsens during the periods of economic crisis and thereafter, when it is necessary to optimise the expenses of the state and municipal budgets and at the same time ensure access to education and its quality. This can be done by increasing the efficiency of public spending on education.

Scientists use different methods to evaluate efficiency. At the same time, though, they emphasise that the diversity of the evaluation criteria and methods has made the issue of the efficient use of state and municipal budgets controversial and ambiguous. This is the reason why it is necessary to evaluate the options to determine efficiency, and along with

their application to compare the efficiency of public spending on education in the European Union countries and in Latvia.

The aim of the article is to describe the indicators determining the efficiency of public spending on education, to identify problems related to the evaluation of efficiency, to compare education funding in the European Union countries, to characterise public spending on education in Latvia as well as to provide suggestions for further improvement of efficiency.

The author of the article has described the options proposed by the scientific literature for the evaluation of spending efficiency, analysed the efficiency of public spending on education in the European Union countries by comparing them and has presented one of the education financing indicators in Latvia, which allows determining the types of education in which the use of financing is less effective, compared to other types of education.

In the article statistical and econometric analysis has been applied, as well as the works of other authors related to the determination of education spending efficiency have been analysed.

The author points out that the article presents only some issues related to the efficiency analysis and that the work on this topic should be continued.

Purpose of public spending on education and possibilities to evaluate its efficiency

The task of the public sector as the element of the macroeconomic flow model is to "produce" public goods and services primarily for collective consumption – the so-called public good [21]. A public good has a collective nature. Moreover, when used by one person, others who have not been engaged in consumption benefit from it as well, which means that the external effect has been created.

Education can be mentioned as one of the best examples of the external effect. Educated individuals benefit the society as a whole, since as employees they can cooperate with each other more successfully, which increases their productivity. The need for public good arises from the nature of the external effect: individuals are not interested in paying for the benefit that has the external effect or if the benefit is used by the society as a whole. As a result, the private sector is not interested in producing it for the society in sufficient amounts or is unwilling to produce it at all. This is the reason why the production of public good cannot take place without governmental involvement.

It should be noted that the private sector can produce public good products, especially in the field of education. Therefore, a strict line cannot be drawn between public good and the goods and services that can be offered by the private sector. Economists [2] [16] believe that there is no unambiguous criterion to distinguish between the functions of public and private sector, thus complicating the analysis.

In order to produce a public good the government should invest financial resources. The amount of financial contribution is set by the common government policy on the basis

of the priority directions of the socio-economic policy [22]. It is crucial for any country to achieve balanced economic development and maximum utilisation of its resources. State-owned financial resources are limited; therefore, the efficiency of public spending is one of the conditions of balanced economy.

The main sources of financing the education system are state and municipal budgets of different levels. Thus, one of the most pressing issues in regulating the investment for the education process has become effective and efficient use of the state budget. However, evaluation of the public spending efficiency is not carried out on a regular basis. The reason for that is the lack of a uniform methodology. The diversity of efficiency evaluation criteria and methods has made the issue of the efficient use of state budget resources controversial and ambiguous.

Public sources of funds | Private sources of funds | Private funds publicly subsidised

	Spending on educational institutions (e.g. schools, universities, educational administration and student welfare services)	**Spending on education outside educational institutions** (e.g. private purchases of educational goods and services, including private tutoring)
Spending on core educational services	e.g. public spending on instructional services in educational institutions	e.g. subsidised private spending on books
	e.g. subsidised private spending on instructional services in educational institutions	e.g. private spending on books and other school materials or private tutoring
	e.g. private spending on tuition fees	
Spending on research and development	e.g. public spending on university research	
	e.g. funds from private industry for research and development in educational institutions	
Spending on educational services other than instruction	e.g. public spending on ancillary services such as meals, transport to schools, or housing on the campus	e.g. subsidised private spending on student living costs or reduced prices for transport
	e.g. private spending on fees for ancillary services	e.g. private spending on student living costs or transport

Figure 1. Classification of spending on education [19, p.204]

Each country has its own model for budgetary resource management, which is partly determined by the efficient use of these resources. Overall, one can distinguish two fundamentally different approaches: the expenditure-driven and results-oriented [3].

Applying the results-oriented approach the management of budgetary resources takes place by managing and controlling the results to be achieved under certain spending limits. The beneficiary fulfils certain quantitative and qualitative objectives within the limits of the available financial resources. As a result of optimisation, the saved resources can be used for

the needs of other beneficiaries. This mechanism helps to balance the interests of sponsors and budgetary resource beneficiaries. Application of the results-oriented approach to the financial planning of state and municipal budgets allows beneficiaries take independent decisions, at the same time ensuring the evaluation of the efficiency of spending.

The expenditure-driven approach excludes the beneficiary's independence in decision-making on the use of the allocated financing. At the same time, there are no performance indicators to be achieved by financial means, as a result the efficiency of the use is not evaluated.

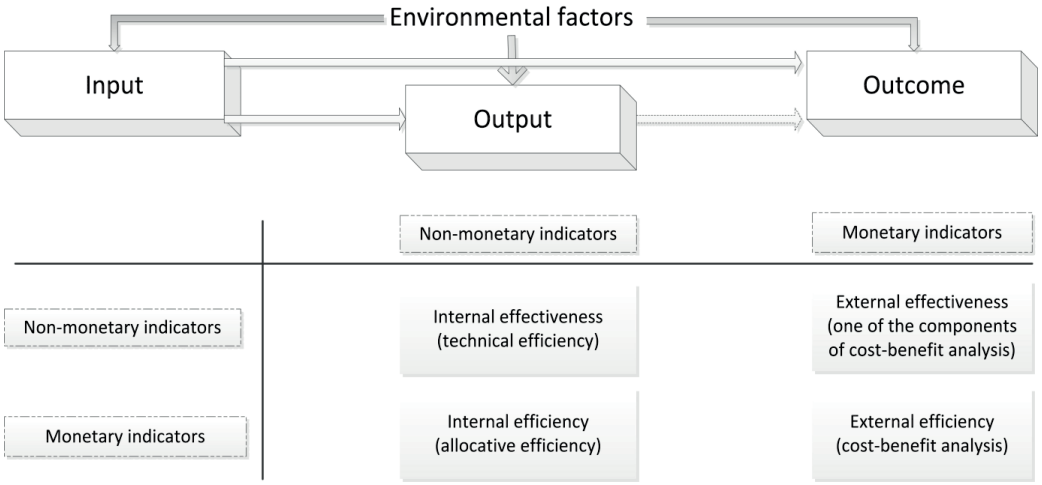


Figure 2. Schematic correlations between input, output and outcome [15, p.4], [17, p.3]

The analysis of efficiency and effectiveness can be carried out by using the correlations between input, output and outcome. It has been researched by various authors [14] [15] [17], but the efficiency of public spending on education is still among the points under discussion. It is problematic due to the number of objectives of public spending and because their products are not sold on the open market, so there are not enough indicators to clearly measure the financial implementation of the results [17].

The efficiency and effectiveness of public spending can be described by a schematic representation of the relationship among "input", "output" and "outcome" (Figure 2). On the basis of the efficiency and effectiveness evaluation lie the "input" and "output" ratio [17], which can be measured by means of monetary or non-monetary approach. By applying the non-monetary approach, Afonso [1] specifically emphasises the evaluation of indirect costs, such as the opportunities to use government-owned real estate as well as tax revenue fluctuations to provide education. The non-monetary approach allows using such indicators as the number of state officials or the number of officials' working hours to perform a particular task, or in relation to education, the number of learners per number of teachers, the number of learners in a group or the number of foreseen instructional hours in

a programme. In its turn, the monetary approach consists of cost items expressed in figures, such as public spending on education.

When analysing spending on education, expenditure efficiency and effectiveness are distinguished. Levin [14] indicates that regarding education the most effective contribution does not necessarily mean the most efficient one. Lockheed and Marlaine [15] characterize the differences between efficiency and effectiveness, as well as between the internal and external efficiency and effectiveness through the correlation of "input" and "output". The "input" used for the analysis determines whether the term "efficiency" or "effectiveness" will be used, while the "outcome" of the analysis indicates whether efficiency and effectiveness will be characterised as external or internal factors.

Lockheed and Marlaine use internal effectiveness to describe the non-monetary outcome of education, which is formed as a ratio between the indicators characterising the level of education and the intangible "input" of the education system, basically such as the organisational structure of educational institution, pedagogical practice, the time and skills invested in teachers' work. Levin, however, calls the internal effectiveness technical efficiency, or such use of the existing "input", which allows for the production of maximum amount of "output".

Lockheed and Marlaine characterise internal efficiency as a non-monetary outcome of education which is formed as a ratio between educational level indicators and "input" costs of education. The analysis is focused on cost-effectiveness or the maximum educational "output" with the use of the given amounts of expenditure. Levin characterises internal efficiency as allocative efficiency or price efficiency.

External effectiveness is characterised as the ratio of non-monetary "input" and monetary "output". By way of a good example in education the effect of various pedagogical methods used in educational institutions on student salary levels after graduation can be mentioned. This analysis can also be used as one of the components of the cost-benefit analysis.

External efficiency is the cost-benefit analysis or the analysis of monetary "input" and monetary "output" ratio. To a large extent, it allows determining the effectiveness of spending in various positions of public spending and deciding on the best type of investment. It also enables answering the question as to the types of education to be developed in a particular country.

When evaluating the "input", "output" and "outcome" analysis it should be considered that they are continuously influenced by environmental factors. These may be institutional factors, structural peculiarities, or the specific characteristics of the country that must be taken into account when comparing some countries. In this case, public administration may be regarded as an institution affecting "input", producing "output" and having a major impact on the results of governmental policy, thus state administration may influence the efficiency and effectiveness of spending.

Public spending on education in the European Union countries

In order to evaluate public spending in different countries, it is necessary to use comparable indicators. However, unlike the private sector, where very detailed information is usually available for the characterisation of activities, information on the expenditure of public sector resources cannot be easily acquired. It is inevitable that the expenditure structure in each country will depend on a variety of principles of state budget formation there and distribution of functions between the state, municipal and private sectors.

The European education system is mostly publicly financed. The amount of public financing depends on the structural principles of an education system in the country. For example, in Sweden, educational services are offered by the publicly-financed private sector, while the major founders of the Latvian educational institutions and payers of maintenance costs are municipalities, but teachers' salaries are paid by the state. Countries also have different routes for transmitting public financing to the recipient: direct state and municipal expenditures, state and municipal transfers to households, taxes and other expenses. Financing routes may have an impact on education "output", for instance, transfer of financing to households may increase competition between educational institutions and affect the quality of education, while financing through tax expenditures may encourage people for further training [17, p.19].

The leading indicator of economic growth is skilled workforce. Gonand has concluded that at constant "input", a 10% increase on educational output, which is equivalent to one additional year of education, might raise Gross Domestic Product (hereinafter – GDP) by, on average, 3% to 6% in the long run [10, p.5].

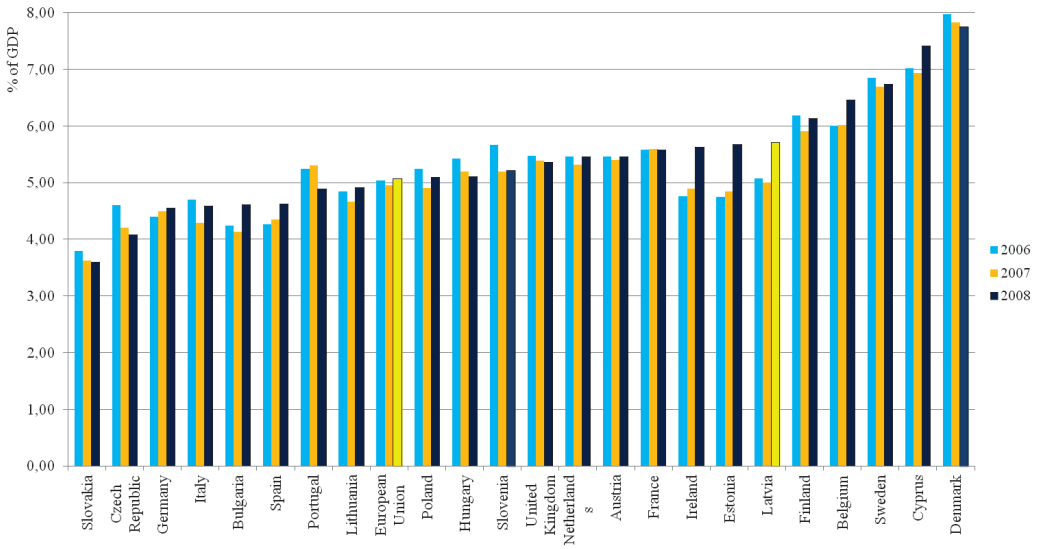


Figure 3. Public (state and municipal budgets) spending on education (in 2006, 2007 and 2008) as a percentage of GDP [8]

The average pre-crisis public spending on education in the European Union (hereinafter – the EU) Member States (Figure 3) ranged from 5.04 percent of GDP in 2006 to 5.07 percent of GDP in 2008. No significant increase in public spending has been observed in the EU countries in 2008, compared to 2006. In 2008, the Latvian government spent 0.64 percentage points more on education than the EU average and almost as much as the Estonian government.

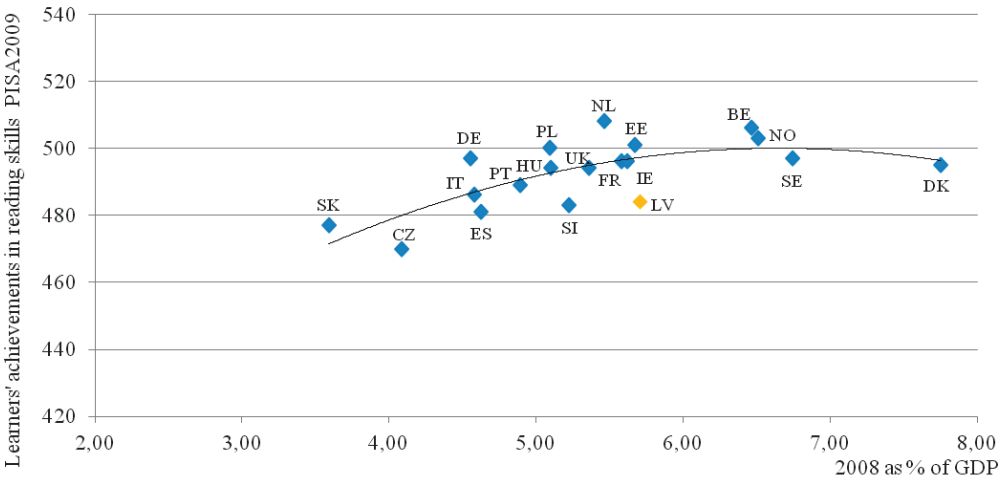


Figure 4. Public (state and municipal budgets) spending on education in 2008 as percentage of GDP and learners' achievements in reading skills — PISA2009 [8] [20, p.56] [the author's calculation]

The Organisation for Economic Co-operation and Development (hereinafter – the OECD) uses the results of the Programme for International Student Assessment (hereinafter – PISA) to characterise the "output" of educational process – 15-year-old learners' level of training for real life, through reading, knowledge in mathematics and natural sciences as well as problem solution [20]. OECD admits that the "output" indicator of education system introduced by them does not cover the "outcome" of the entire education system, but it is sufficient to characterise it [17].

Regression analysis allows concluding that there is a rather close positive correlation (correlation coefficient = 0.729383301) between public (state and municipal budgets) spending on education as a percentage of GDP in 2008 and learners' achievement in reading skills in 2009 (PISA 2009 results were affected by spending on education, which was done in the previous period) (Figure 4). Such a correlation is formed when the countries with the highest and lowest performance in reading skills are excluded from the analysis. This has been demonstrated by the Finnish and Bulgarian learners, respectively. Following Finland, the highest results in reading skills among the OECD countries have been demonstrated

by the Dutch, Belgian and Norwegian learners, whereas the lowest results are those of the Bulgarian learners, despite the fact that the Bulgarian public spending is much higher than the Slovakian and Czech contribution to education [8] [20]. Latvia is situated below the regression curve, which shows insufficient spending efficiency, compared with the average indicators of the EU countries.

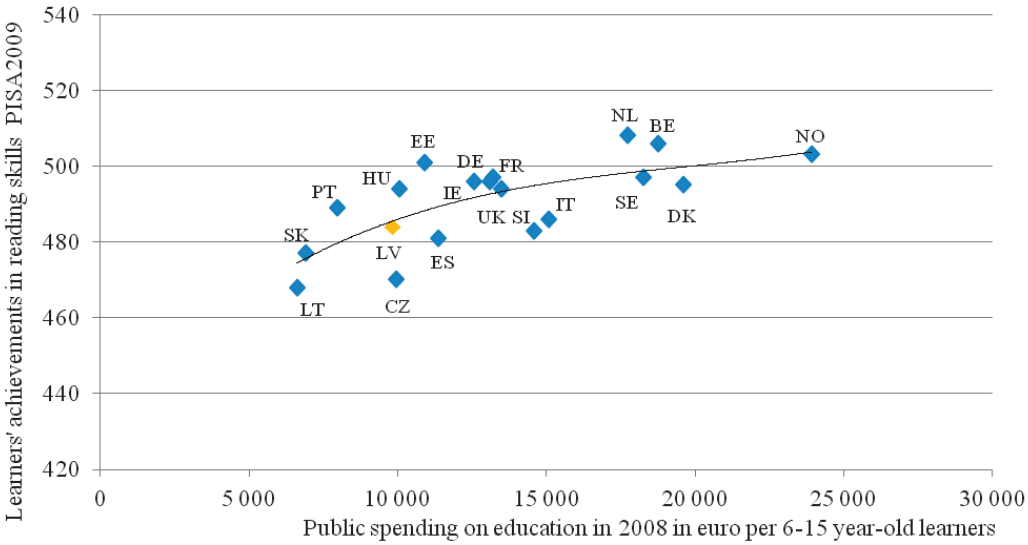


Figure 5. Public (state and municipal budgets) spending on education in 2008 in euro per 6-15 year-old learners and learners' achievements in reading skills — PISA2009 [8] [20, p.56] [the author's calculation]

When analysing the correlation between public (state and municipal budgets) spending on education as a percentage of GDP in 2008 and learners' achievement in reading skills in 2009, the total public spending was taken into consideration, including financing for secondary, higher as well as further education which do not have direct impact on the results of the 15-year-old children reading skills. Therefore, we will evaluate the correlation between public (state and municipal budgets) spending on education in 2008 in euros per 6-15 year-old learners and learners' achievements in reading skills in 2009.

Regression analysis suggests that among the above-mentioned figures there is also a rather close positive correlation (correlation coefficient = 0.717843994) (Figure 5). At the same time, if Figure 4 is compared to Figure 5 it can be seen that the country positions along the regression curve have changed. Financing policy on education spending is different across countries [19], therefore depending on whether the government puts greater emphasis on financial support for primary, secondary or higher education, the correlation between public spending and learners' achievements varies. It can be seen from Figure 5

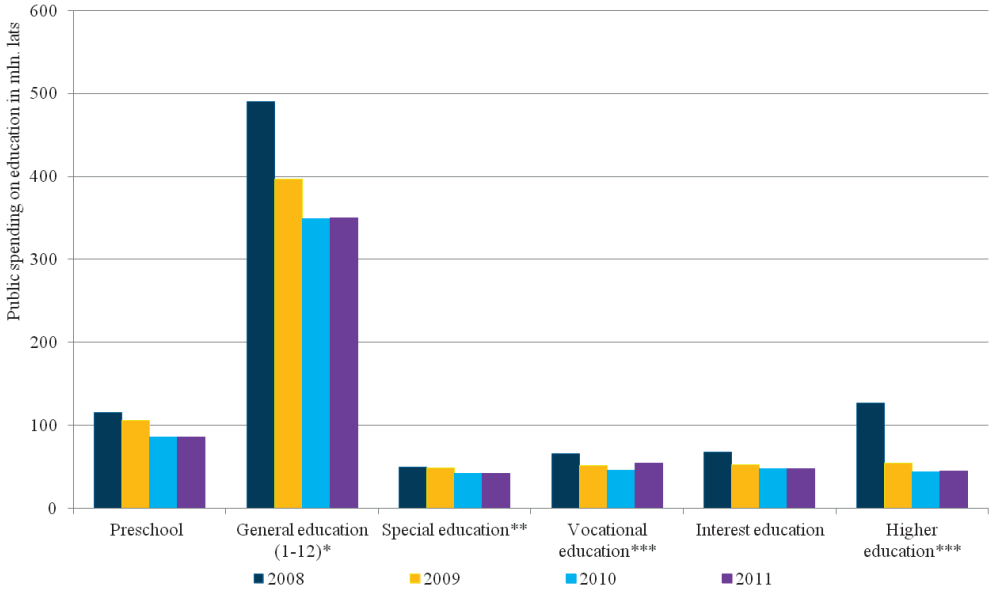
that Estonia has shown high results in reading skills with lower amount of public spending per 6-15 year-old learners, compared to the amount of spending as a percentage of GDP, whereas Latvia has stepped on the regression curve, which can be interpreted as a balanced "input" and "output" ratio, compared to other EU countries.

The correlation between PISA results and public spending leads to the conclusion that in some EU countries financing of education is not used efficiently. Yet it is only one of the many indicators that can characterise the efficiency of public spending on education. Their use makes it possible to obtain results that do not lead to unambiguous conclusions. The efficiency of spending in the education system can be characterised not only by the knowledge acquired in the education system, but also by access to education, the ability to integrate children with special needs in the education system as well as in public life later on, and through the educational institution provisions of social services.

Public spending on education in Latvia

The efficiency of public spending on education in Latvia may be characterised by the level of spending and its structure, where the separation of functions between the state and municipalities plays a significant role. The Latvian education system is characterised by the decentralisation of education functions: the autonomous function of municipalities is provision of public education, i.e., provision for obtaining the basic and general secondary education for the population, as well as ensuring places in educational institutions and child care centres for pre-school and school-age children [12].

At the same time, in spite of the decentralisation of functions, a significant part of financing of the education system is undertaken by the state. Thus, the state entirely finances salaries and the social security payments for teachers of general and vocational education (other than educational institutions implementing pre-school education programmes to educate children under 5 years of age) [7]. Despite the fact that municipalities are the founders of special educational institutions, these and also general boarding schools are fully financed by the state (excluding special educational institutions without boarding schools) [9] [4] [6]. Such financing principles are explained by the main task of the particular type of education. Thus, special educational institutions and boarding schools perform not only the educational but also their social function, at the same time by ensuring learners' access to education according to their individual needs, which is the general task of the state rather than of the municipalities.



*Including general boarding schools.

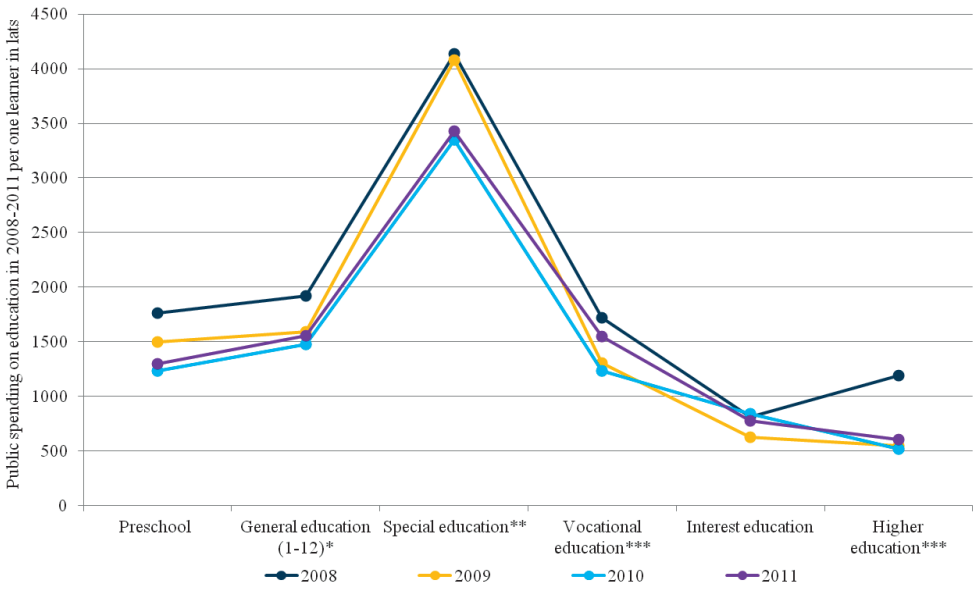
** Special boarding schools, development and rehabilitation centres registered in the Register of Educational Institutions of the Republic of Latvia, special pre-schools and special schools without boarding.

*** In 2011, including financing from the Climate Change Financing Instrument for project implementation.

Figure 6. Latvian public (state and municipal budgets) spending on education in 2008-2011 distributed by education types (million lats) [18] [the author's calculation]

In comparison with 2008, the subsequent years show the decline of state and municipal spending on education per all types of education (Figure 6). The exception is financing of vocational and higher education in 2011, when public spending was complemented by the financing of the Climate Change Financing Instrument for educational institution insulation projects (1.8 million lats for vocational education, 2.4 million lats for higher education (colleges)) [13]. At the same time, if compared to 2008, in 2011 financing per one learner decreased for all types of education (Figure 7).

Financing amount per one learner in different types of education allows assessing the efficiency of public spending. Despite the highest overall amount of spending, financing per one learner in general education in 2008 only slightly exceeded this figure in vocational education and in 2011 both indicators levelled out. Thus, the cost of one pupil's (learner's) education in both general and vocational education is nearly the same, indicating the equivalence of the efficiency of this financing. In its turn, the amount of financing for special education in absolute figures is the lowest at the highest financing amount per one learner. This imbalance points to a possible inefficient use of financing.



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*** In 2011, including financing from the Climate Change Financing Instrument for project implementation.

Figure 7. Latvian public (state and municipal budgets) spending on education in 2008-2011 per one learner (in lats, in 2008 base prices) [18] [the author's calculation]

Financing of special education in Latvia

In Latvia, special education may be obtained in special schools (without boarding), special boarding schools, development and rehabilitation centres registered in the Register of Educational Institutions of the Republic of Latvia (hereinafter – the rehabilitation centres), special pre-school educational institutions (all together hereinafter – special educational institutions), special education classes and groups in general educational institutions, as well as general education classes and groups, which have a licensed special educational programme for the appropriate learner needs. On 1 January 2012 Latvia had 6 special schools (without boarding), 49 special boarding schools, 6 rehabilitation centres and 41 special preschool educational institution [18].

In the last 5 years, the number of learners attending special educational institutions has barely changed, decreasing slightly from 10,937 children in 2007 to 10,629 children in 2011, but their share in primary and general secondary educational institutions (including the preparation of 5 and 6-year-old children) has increased by the number of learners from 3.8 to 4.4 percent, respectively. In its turn, the number of learners attending special classes

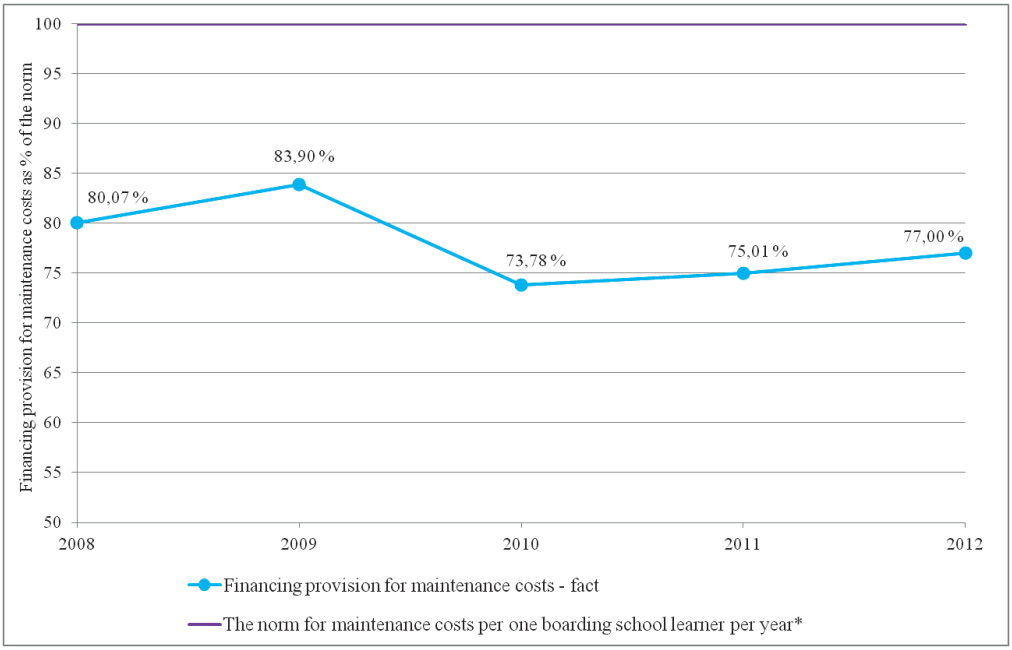
and groups in general educational institution, as well as those integrated in general classes has increased from 2,023 children in 2008 to 3,380 children in 2012, at the same time the proportion of integrated children has increased as well [18].

The state fully finances maintenance costs of special educational institutions (excluding special schools without boarding) [6]. Financing is calculated taking into account the number of learners in special education programmes and the norms of their maintenance costs. Maintenance costs of learners having special needs and attending general educational institutions are financed from the respective municipal budget.

State budget financing for the maintenance costs of special educational institutions varies depending on the number of learners and change of norms. Norms for maintenance costs were approved at the end of 2001 and were 1,070.42 lats per year per one learner in a boarding school [5]; this amount was increased in 2008 to 2,220 lats and reduced for rehabilitation centres in 2010 [6]. In developing the norms, the calculation was based on the actual needs of maintenance costs in special educational institutions. However, from 2008 they have not been financed in full (Figure 8).

As of 1 September 2010, state budget financing per one learner is the same both for special boarding schools and rehabilitation centres. There are no criteria distinguishing the range of services provided by special boarding schools and those by rehabilitation centres. In both types of institutions, children are provided with education and treatment according to their needs. Rehabilitation centres have taken over the functions of the former sanatorium-type schools, while the services they offer in all special educational institutions differ greatly: children with different diagnoses are accommodated there, they are taught according to different educational programmes and they receive different treatment and rehabilitation as well. In some special educational institutions, children with serious diagnoses are offered a wide range of medical services, which enable children to strengthen their health in spite of the serious medical diagnoses. To ensure the availability of such services, these educational institutions require additional maintenance resources. This suggests for the need to differentiate the norms of maintenance costs depending on the programme implemented in the educational institution. In addition, it should be noted that basically the state budget spending, which is intended to provide medical services, cannot be separated from educational spending, but it would be incorrect to count them together without decrypting.

It can be concluded that, first, the functions of special educational institutions should be defined so that it would be possible to define clearly to the type of special education of one or another institution. Second, depending on the functions of each individual educational institution a differentiated approach should be ensured to determine their maintenance cost norms.



* The norm for maintenance costs per one boarding school learner who receives the services of the boarding school is 2,220 lats per year, per learner in a special boarding school and for the rehabilitation centre the coefficient of 1.35 is applied, but the coefficient per learner not receiving the services of the boarding school is 0.85.

Figure 8. State budget financing provision for maintenance costs of special educational institutions in percentage terms at the end of the years 2008 to 2011 and at the beginning of 2012 [18] [the author's calculation]

Another part of the state budget spending that is applicable to the financing of special educational institutions is the pay and social security payments for teachers working there. In contrast to the financing in general educational institutions, where as of 1 September 2009, teachers' pay is calculated according to the financing principle "money follows the pupil", teachers' pay in special educational institutions (with boarding schools) is calculated according to the number of pedagogical rates provided by educational institutions. According to the data available on 1 December 2011, there were 4.3 learners in special pre-schools per one pedagogical rate on average, 1.9 learners in special boarding schools per one pedagogical rate on average and 2.7 learners in rehabilitation centres per one pedagogical rate on average [18] (the following fixed number of learners per one pedagogical work rate (21 hours per week) is foreseen in general educational institutions: 8 learners in the districts and 10.2 learners in the cities [4]). Considering that the aforementioned educational institutions determine the required number of pedagogical staff units on their own, the question arises whether, for example, in special boarding schools the existing number of learners per one pedagogical rate is large or small, and whether it is possible to ensure

the implementation of educational programmes with a larger number of learners per one pedagogical rate, thus increasing the efficiency of the state budget contribution. These are the issues that require further research.

Financing of special education system is a socially sensitive issue, which, however, should be re-evaluated in subsequent years. At the same time, it should be realised that special education will always be more expensive than general or vocational education, as financing is a means for ensuring equal opportunities [11, p.208], therefore, financing requirements for children with special needs will always be higher as well.

Conclusions

1. Having assessed the issues reflected in the scientific literature, it is concluded that there are a number of indicators characterising the efficiency of education financing, but there is no uniform approach to their evaluation.

2. Evaluating the comparison of public spending on education by countries the correlation between public spending on education can be analysed as a percentage of GDP in 2008 and learners' achievements in reading skills in 2009, as well as between public spending on education in 2008 in euros for learners aged between 6 and 15 years and learners' achievements in reading skills in 2009. It is concluded that in both cases there is a rather close positive correlation between the indicators, at the same time it is observed that in Latvia there is a balanced "input" and "output" ratio, compared to other EU countries.

3. Having assessed the Latvian public spending on education between 2008 and 2011, distributed by types of education (in millions of lats) and per one learner (in lats, in 2008 base prices) it is concluded that the costs of both general and vocational education per one pupil (learner) is almost the same, suggesting that the efficiency of the contributed funds is equivalent. In its turn, the amount of financing for special education in absolute figures is the lowest at the highest financing amount per learner. This imbalance points to a possible inefficient use of financing.

4. It is necessary to continue the analysis of the efficiency of public spending on education, in order to look for the most appropriate indicators for the evaluation of the Latvian education financing system.

5. The Latvian Government should pay special attention to the issue of special education financing, by evaluating the possibilities to improve the financing principles of special education and increasing its efficiency.

References

1. Afonso A., Aubyn M. Non-parametric approaches to education and health efficiency in OECD countries. Journal of Applied Economics, November, VIII, 002, Universidad del CEMA, Buenos Aires, Argentina, 2005, 227-246.

2. Bergstrom, T., Blume, L., Varian, H. On the private provision of public goods. Journal of Public Economics, (Feb. 1986), Vol.29, Issue 1, 5-49, http://www.sciencedirect.com/science/article/pii/0047272786900241 [10.12.2011].
3. Budžeta reformas —Valsts budžeta veidošanas attīstības tendences Latvijā un pasaulē, Valsts kancelejas Politikas koordinācijas departaments, 2003.
4. Cabinet Regulations No.1616, 22.12.2009. Riga: Cabinet of Ministers http://www.likumi.lv [21.11.2011.]
5. Cabinet Regulations No.493 (n longer in force), 20.11.2001. Riga: Cabinet of Ministers http://www.likumi.lv [08.02.2012.].
6. Cabinet Regulations No.825, 31.08.2010. Rīga: Cabinet of Ministers http://www.likumi.lv [21.11.2011.]
7. Education Law. 22.11.1998. (with amendments) Riga: LR Saeima.] http://www.likumi.lv [08.08.2011].
8. Eurostat. http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database [25.11.2011].
9. General Education Law. 10.06.1999. (with amendments) Riga: LR Saeima. http://www.likumi.lv [29.11.2011].
10. Gonand F. The Impact on Growth of Higher Efficiency of Public Spending on Schools, OECD Economics Department Working Papers, No.547, OECD, 2007. http://dx.doi.org/10.1787/283634243573 [26.11.2011].
11. Jay-Woong Kim, Financing and Implementing Education Development Plans: From Theory to Practice in Implementing and Financing Education for All, Education, policies and strategies 6, UNESCO, 2004, pp.193-212.
12. Law on Self-governments. 19.05.1994. (with amendments) Riga: LR Saeima. http://www.likumi.lv [21.11.2011].
13. Law on State Budget for the Year 2011. 20.12.2010. (as amended) Riga: LR Saeima http://www.likumi.lv [22.11.2011.]
14. Levin J., Glass and Meister G. Cost-effectiveness of four education interventions. Stanford, CA: Institute for Research of Education Finance and Governance, 1984.
15. Lockheed M., Marlaine E. The Measurement of Educational Efficiency and Effectiveness. In: Paper presented at the Annual Meeting of the American Educational Research, New Orleans, LA, April 5-9, 1989.
16. Makris M. Private provision of discrete public goods. Games and Economic Behaviour, (Sep. 2009) Vol.67, Issue 1, 292-299, http://www.sciencedirect.com/science/article/pii/S0899825608002030 [10.12.2011].
17. Mandl U., Dierx A., Ilzkovitz F. The effectiveness and efficiency of public spending. Economic paper 301, (Feb. 2008), European Communities, 2008.
18. Ministry of Education and Science of Latvia - not published information.
19. OECD (2011), Education at a Glance 2011: OECD Indicators, OECD Publishing. http://dx.doi.org/10.1787/eag-2011-en [08.11.2011].
20. OECD, PISA 2009 Results: What Students Know and Can Do – Student Performance in Reading, Mathematics and Science, Vol.1, 2010. http://dx.doi.org/10.1787/9789264091450-en [05.11.2011].

21. Samuelson, P. A. The Pure Theory of Public Expenditure. The Review of Economics and Statistics (Nov., 1954), Vol.36, No.4, 387-389, The MIT Press, http://www.jstor.org/stable/1925895 [17.12.2011].
22. Улюкаев А. В. Проблемы государственной бюджетной политики. Дело, 2004.

Svetlana Batare

Viešųjų išlaidų švietimui skyrimo efektyvumas

Anotacija

Straipsnio tikslas yra aprašyti rodiklius, lemiančius viešųjų išlaidų švietimui efektyvumą, identifikuoti problemas, susijusias su efektyvumo įvertinimu, palyginti švietimo finansavimą Europos Sąjungos šalyse, charakterizuoti viešųjų išlaidų skyrimą švietimui Latvijoje, taip pat pateikti pasiūlymus dėl tolesnio efektyvumo gerinimo. Išvadoje teigiama, kad yra daug rodiklių, kurie charakterizuoja švietimo finansavimo efektyvumą, tačiau nėra vieno būdo tai įgyvendinti. Svarbu pažymėti, kad efektyvumo rodikliams dažnai įtakos turi išoriniai veiksniai. Autorė pažymi, kad finansavimas, skiriant lėšas vienam mokiniui pagal skirtingus švietimo tipus, leidžia pasiekti švietimo finansavimo efektyvumą. Siūloma ypatingą dėmesį skirti specialiajam ugdymui Latvijoje, įvertinant galimybes pagerinti finansavimo principus šiame ugdyme ir taip pagerinti jo efektyvumą.

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Straipsnis įteiktas redakcijai 2012 m. balandžio mėn.; recenzuotas; parengtas spaudai 2012 m. balandžio mėn.