

WAYS OF FINANCING THE TASKS OF THE EDUCATIONAL SYSTEM

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Summary: The article describes the principles of functioning of and financing the tasks of education in Poland. Attention was paid to the problems faced by the bodies running schools. A comparison of their competence connected with running schools of different types was made. An analysis of expenses of territorial self-government units related to school running with reference to the received subvention was carried out. Conclusions were drawn.

Keywords: educational system, territorial self-government, education financing.

1. Introduction

The paper presents particular financial tasks of educational system, discusses the model of calculation of subvention and example of implementation the model. The is a part of research of the project "Creation the cluster initiatives in education system". The project is being carried out between 2010 and 2012 in Silesian University of Technology in Poland, in Faculty of Organization and Management, Institute of Production Engineering and is financed by Ministry of Science and Higher Education (no 0193/B/H03/2010/39).

The rules of financing educational system on the school level influences on the whole educational processes (also at universities) and on economy. Inadequately finances education force local governments to reduce educational costs and to co-finance with their own budgets. That causes, among others, the creation of big classes, closing vocational schools (unpopular schools among pupils), not modernizing the infrastructure. On the other hand employers and labor market is looking for qualified workers – with particular occupation and skills but not only with bachelor or masters diploma. Quality of education on school level has also influence on engineering education. Limited school programs of math's and natural sciences causes that students are not as good prepare to study on technical universities as it was before educational system reform.

2. Principles of functioning of the educational system in Poland

The process of the decentralization of the public finance began at the beginning of the 1990s by accomplishing the reform of the administrative system. Three levels of territorial self-government came into existence: communes (gminy), districts (powiaty) and voivodeships (województwa) [1]. The aforementioned categories of self-government units, by participating in exercising the public authority, perform the tasks and competence defined by law. The decentralization of competence of public administration is fundamental to the distribution of the state budget funds to individual levels of public administration with respect to the tasks performed by them [2]. New territorial self-government units (JST) took over most of the tasks so far performed by voivodes and departments (tab.1), taking at

the same time responsibility "for financial security of an important sphere of public services, that is education" [3].

Tab. 1. Competence connected with establishing and running educational units (own study)

Type of school JST	Preschools	Primary and lower secondary schools	Upper secondary schools	Public teacher training establishments	Experimental schools	Other
Commune	<ul style="list-style-type: none"> • public • with integration classes 	special				
District		-public -special	-public with integration classes -sports, sports championship -art			Institutions: -educational and pedagogical -of after-school work -of lifelong learning -psychological and pedagogical rehabilitation counseling service -specialist counseling service -adoption and care centers -centers supporting alternative forms of family upbringing
Voivodeship		schools of regional significance				institutions of regional significance
Department of education		specialist				

3. Financing education from the state budget

Together with changes in the structure of the educational system new principles of financing schools by territorial self-government units (JST) were introduced on 1 January 2000; the principles are based on a uniform system of division of educational subvention allotted to tasks performed by primary schools, lower secondary schools and upper secondary schools. Every year in the budget act the Minister of Finance establishes, according to art. 28 of the act on revenues of territorial self-government units, the so-called total amount of the educational part of the general subvention [4]. In 2008 it amounted to 30-910-553 zloty, in 2009 the amount of the educational part of the general subvention increased compared to 2008 in nominal terms by 8.1% and amounted to 33-399-798 zloty, whereas in 2010 it increased by 4.8% in comparison to the previous year, reaching 35-009-865 zloty (tab. 2).

The annually established total amount of the educational general subvention, taking into account the correction by the amount of other expenses due to the change in scope and structure of the educational tasks performed by JST, shall not be smaller than the amount approved in the previous year (called the base year) [5]. An example is the increase of the educational subvention in 2010 that takes into consideration:

- teachers' pay rise from 2009,
- changes in the levels of teachers' promotion,
- planned rise in average remunerations of teachers mentioned in art. 30 of the KN act [6],
- 7% rise in a base amount for teachers from 1 September 2010,
- cost of remunerations of teachers involved in conducting the oral part of the Matura examination,
- financial implications associated with the implementation of free learning of the Polish language for people subject to compulsory education who do not know the Polish language (or who know it to an extent insufficient to participate in education) [7].

Tab. 2. The amount of the educational part of the general subvention (own study on the base given MEN)

Financial year	Amount of the educational subvention (in thousands of zlotys)	Percentage growth rate compared to the previous year
2010	35 009 865	4.8
2009	33 399 798	8.1
2008	30 910 553	9.6
2007	28 204 949	5.6
2006	26 663 243	2.9
2005	25 917 111	3.3
2004	25 082 854	9.0

Established by the Ministry of Finance amount of the part of the general subvention, before dividing it between self-government bodies, is reduced by an amount of the so-called educational reserve which in the previous three years developed as follows: in 2010 it constituted 0.6% of the general amount of the subvention, in 2009 - 0.25%, whereas in

2008, just as in 2010, it constituted 0.6% of the general amount of the subvention. The disposer of the reserve of the educational part of the general subvention is an appropriate minister, among others, of finances who, before allocating the reserve, consults an appropriate minister, among others, of education and upbringing, as well as the representatives of the territorial self-government units [4]. The division of the general amount of the educational subvention (reduced by the amount of the educational reserve) between individual JSTs in the previous three years was carried out according to the following principle: communes received 59.8% of the amount of the subvention, districts - 38.2%, and self-government bodies of voivodeships - 2%. The amounts of the subvention are presented in tab. 3.

Tab. 3. Educational general subvention (own study on the basis of writing systems MEN Nr DE-III-JJ-337-14/09; Nr DKOW-WJST-33-337-6/10)

Territorial self-government unit	Subvention amount (in thousands of zlotys)		
	2010	2009	2008
communes	20 811 217	19 860 178	18 509 304
districts	13 306 999	12 684 437	11 605 780
self-government bodies of voivodeship	681 588	654 782	610 004
Total subvention:	34 799 804	33 199 397	30 725 088

4. Algorithm of calculating the educational subvention

The final amounts of the educational general subvention (SO) for individual territorial self-government units are determined annually on the basis of the algorithm of the division of the educational subvention [8] and depend on the scope and structure of the performed tasks measured with the number of pupils and taking into consideration the levels of teachers' promotion. In the algorithm of the division of the subvention (1) the following amounts are taken into consideration: the base amount of the subvention (SOA) calculated according to the financial standard A of the division of the educational part of the subvention, supplementary amount (SOB) of P scales increasing the standard A for the implementation of the educational tasks and the amount for the implementation of the after-school tasks (SOC). The algorithm establishing the total amount of the educational part of the general subvention for territorial self-government units:

$$SO = \sum_{i=1}^n SO_i = \sum_{i=1}^n (SOA_i + SOB_i + SOC_i) \quad (1)$$

The SOA base amount of the educational part of the subvention is established for individual territorial self-government units running or subsidizing schools according to the algorithm (2):

$$SOA = \sum_{i=1}^n SOA_i = \sum_{i=1}^n (A * U_{r,i}) \quad (2)$$

where: $U_{r,i}$ - stands for the statistical number of pupils established on the basis of the reports prepared by GUS (Central Statistical Office) for the base school year preceding the financial year.

The SOB supplementary amount of the educational part of the subvention is established for individual territorial self-government units running or subsidizing schools according to the algorithm (3):

$$SOB = \sum_{i=1}^n SOB_i = \sum_{i=1}^n (A * U_{u,i}) \quad (3)$$

where: $U_{u,i}$ is the supplementary number of pupils in the base school year preceding the financial year in the scope of educational tasks, calculated according to the algorithm: $U_{u,i} = P_1 \times N_{1,i} + P_2 \times N_{2,i} + \dots + P_{23} \times N_{23,i}$.

The SOC amount of the educational part of the subvention for after-school tasks is established for the territorial self-government unit according to the conversion number of tasks $U_{z,i}$ in relation to the unit value of the standard A of the division of the subvention, according to the algorithm (4):

$$SOC = \sum_{i=1}^n SOC_i = \sum_{i=1}^n (A * U_{z,i}) \quad (4)$$

where: $U_{z,i}$ stands for the conversion number of pupils in the base school year preceding the financial year, in the scope of after-school tasks, calculated according to the algorithm: $U_{z,i} = P_{24} \times N_{24,i} + P_{25} \times N_{25,i} + \dots + P_{33} \times N_{33,i}$.

The amount of the educational subvention is established for every financial year according to the presented algorithm. The algorithm of the educational subvention points out to the preferences for, among others, special, rural, lower secondary and sports championship schools consisting in a conventional overestimation of the indicator of the number of pupils (as defined with P scales); as a result, the subsidized amount is increased [9]. The annually introduced changes in the parameters used to determine the subsidy are a debatable issue. The lack of stability of criteria for calculating the algorithm makes it difficult for territorial self-government units to conduct their educational policy that aims at receiving a larger amount of subvention in another financial year through, among others, optimizing the size of departments, forming integration classes, rationalizing the school network. As Ofiarski [10] notices, the principles of calculating the educational subvention should not be frequently changed. The author points out to the importance of stability of the revenue system of JST by referring to the constitutional regulation of sources of revenues of territorial self-government units that results from art. 167 of the act 3 of the Constitution of the Republic of Poland, which in the case of the principles of educational subvention calculation is partly not retained due to the annual establishment of subvention amounts and the possibility of regulation of detailed principles in annually announced secondary legislation to an act [11]. The amount of the educational subvention given to the bodies

running schools often does not cover the expenses related to the maintenance of the educational units. Self-government bodies get the remaining amount from their own budgets. Since the funds provided by the state are insufficient, territorial self-government units get the money necessary for the implementation of their own, as well as commissioned, tasks from their own revenues, such as a property tax [7]. Some sources point out that subvention is a form of supplement to units' own revenues and emphasize "its incongruity with expenses incurred by communes" [12].

In 2009 the expenses for education and upbringing amounted to 53.1 bln zlotys, which constituted 3.9% of GDP [13]. In 2009 the expenses from the state budget for that purpose amounted to 35.7 bln zlotys; the educational part of the general subvention given to schools via territorial self-government units constituted 33.2 bln zlotys of the total amount (93%). The remaining amount of 2.5 bln zlotys from the state budget allotted to education was spent on, among others, art schools - 23.6%, functioning of educational superintendents' offices - 6% and the rest of the educational and upbringing activity - 12.6%.

5. Financing education by territorial self-government units

Total expenses from JST budgets for education and upbringing as well as educational care (including the funds from the state budget) amounted to 51.4 bln zlotys. The contribution of budgetary resources of bodies running schools incurred in connection with the maintenance of schools and preschools is presented in tab. 4.

Tab. 4. The expenses for education from JST budget in 2009 (own study on the basis of the Report GUS- school year 2009/2010)

JST	The amount of financial resources (in billions of zlotys)
Communes	25.3
Districts	7.7
Cities with district rights	17.1
Voivodeships	1.3
Total	51.4

In 2009 commune self-government bodies donated to education from their own budgets the amount of 25.3 bln zlotys; district self-government bodies - 7.7 bln zlotys, self-government bodies in cities with district rights - 17.1 bln zlotys, and voivodeship self-government bodies spent the total amount of 1.3 bln zlotys for the functioning of educational units. The figure below (Fig. 1) shows the expenses for education incurred by self-government units (including the types of the units) in years 2003-2009.

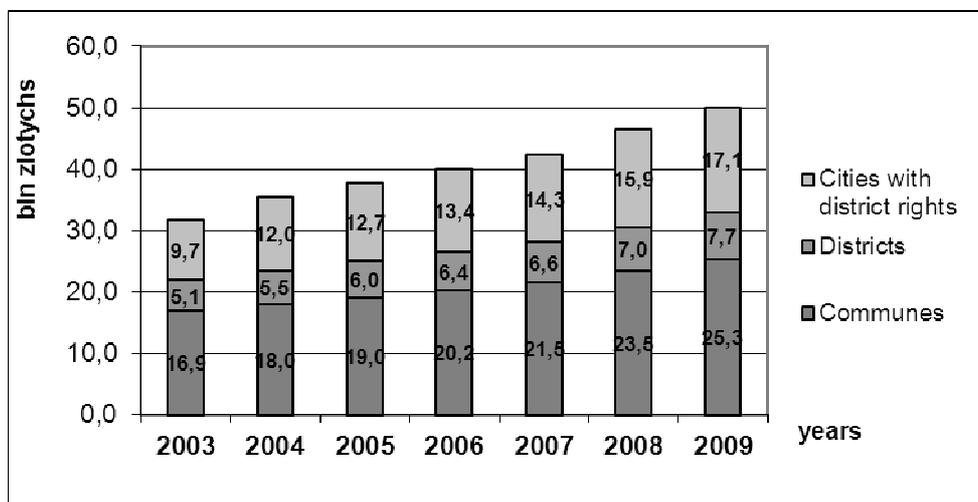


Fig. 1. The expenses for education from JST budgets according to the type of unit in years 2003-2009 (own study on the basis of the Report Gus -school year 2009/2010)

The present budget situation of self-government bodies is implied by a provision introduced to art. 242 of the act on public finance that states [6]: "Act 1: The constitutive body of the territorial self-government unit cannot adopt a budget whose planned current expenses are higher than the planned current revenues enlarged by a budget surplus from the previous years and free funds. Act 2: At the end of the financial year the current expenses cannot be higher than the current revenues enlarged by a budget surplus from the previous years and free funds, subject to act 3. Act 3: The current expenses can be higher than the current profits enlarged by a budget surplus from the previous years and free funds only by the amount connected with the realization of current expenses including the funds coming from foreign sources which are non-refundable in the case when these funds are not handed over in the given financial year"; the amount of expenses of self-government units depends on the amount of own revenues. The quoted provision of the act on public finance limits the possibilities of funding units from areas that do not bring profit. The growing increase of educational tasks should result in increased funds transferred to self-government bodies. Data analyses [14, 15] related to educational tasks financing, however, do not confirm that stipulation. Many bodies running schools are currently facing the problem of insufficient funds for educational tasks. Actions aiming at rationalization of expenses have been undertaken. In many cases, the actions result in starting the procedure of school liquidation and introducing the standardization of employment in both employment of teachers (whose basis of employment is not regulated by provisions of education law) performing the tasks of school pedagogues, librarians, day care center tutors, as well as employment of administration and service workers. As a result of the changes introduced in school networks, which entail organizational changes, headmasters make decisions concerning the structure of employment.

6. Financing education by bodies running schools - a case study

The extensive location as well as the distance of sołectwos (villages) and quarters making up the commune are the reason why the commune and town of Czerwionka-Leszczyny is a body running 27 educational units, including eight preschools. Preschool running is the task of communes financed from their budgets. Ten schools in the commune and town of Czerwionka-Leszczyny function within groups that comprise primary and lower secondary schools. Primary and lower secondary schools are attended by a total number of 3673 pupils.

Tab. 5. The maintenance costs of the pupil in educational units whose running body is the commune and town of Czerwionka-Leszczyny (own study)

Unit	Total number of pupils	Subvention 2010 (in zlotys)	Total costs	Maintenance costs of one pupil	Commune's surcharge to maintenance costs	
					in zlotys	Index %
Primary School No. 3	502	2 333 701	2 798 019	5 574	502 000	18%
Primary School No. 8	214	1 030 896	1 233 136	5 762	202 240	16%
Primary School in Książenice	140	877 011	1 338 540	9 561	461 529	34%
Primary School in Palowice	90	613 272	1 041 492	11 572	428 220	41%
Primary School in Przegędza	84	526 206	979 945	11 666	453 738	46%
Primary School in Stanowice	132	833 251	1 112 013	8 424	278 762	25%
Primary School in Szczekowice	98	613 907	1 248 165	12 736	634 257	51%
Lower Secondary School No. 2	298	1 413 204	2 405 212	8 071	992 009	41%
Lower Secondary School No. 6	128	659 664	914 192	7 142	254 527	28%
School Complex No. 1	381	1 759 468	2 608 397	6 846	848 928	33%
School Complex No. 2	326	1 557 102	2 573 086	7 893	1 015 983	39%
School Complex No. 3	552	2 630 305	3 193 378	5 785	563 072	18%
School Complex No. 4	382	1 783 073	2 692 145	7 047	909 071	34%
School Complex No. 5	346	2 323 352	2 477 536	7 161	154 184	6%
TOTAL	3673	19 491 482	26 615 253	115 241	7 660 840	29%

An analysis of maintenance costs of schools whose running body is the commune and town of Czerwionka-Leszczyny shows that annual amounts of surcharges to maintenance

costs of schools are between 148 737 zlotys (School Complex No. 5) and 990 647 zlotys (School Complex No. 2). The amount of surcharges to functioning of schools (after taking into consideration the educational subvention which amounted to 26 615 253 zlotys in 2010) is 7 560 756 zlotys (tab. 5).

The annual maintenance costs of the pupil in individual educational units are between 5574 zlotys (Primary School No. 3) and 12 736 zlotys (Primary School in Szczekowice). The difference in the maintenance costs of the pupil depends on the number of pupils, according to which the subvention is calculated, the maintenance costs of the building, including its size and the utility costs, including heating (Primary School in Szczekowice is heated with gas).

7. Conclusions

Territorial self-government units (JST), depending on the territorial reach (commune, district, voivodeship), have different responsibilities related to school running. Preschool running is the task of communes. JST units receive subvention for educational tasks calculated on the basis of an agreed algorithm.

In the case of many bodies running schools the subvention is insufficient. JST units are forced to take actions that aim at rationalization of expenses for education. The rationalization consists in merging departments, and even changes in school networks that result in liquidation of units.

Education of engineers and qualified workers is strongly connected with financial position of educational system. Inadequately financed education and constant changes in schools programs will not support innovative and competitive economy and industry.

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