## Fiscal Aspects of Ensuring Eccess to Education in Ukraine

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# **ABSTRACT:**

The article considers and generalizes the fiscal aspects of ensuring access to education in Ukraine. The assessment of pre-school education in Ukraine, identified the main problems in Ukrainian preschool education, which emphasize the need to introduce innovative approaches to financial provision of this level of education. According to the results of the cluster analysis of the coverage of children by pre-school educational institutions in Ukraine, four clusters have been formed by regions. The search for new sources of funding for preschool education and optimization of the ones already in use are made. It is substantiated that the reform of financing of preschool education at the expense of parents is in the tax aspect. Charitable contributions, payment for attendance by children of private preschool educational institutions should be equated with tax deductions.

**Keywords:** Budget Financing of Education, Expenditures of the Consolidated Budget of Ukraine, Preschool Education, TAX Discount, Financial Support for Preschool Education.

### **INTRODUCTION**

Preschool education is the first link in the human education system, but the current state of its development and financing does not meet the civilized norms, and the method of financing pre-school education is contrary to the legal obligation to free it.

In Ukraine, by the end of 2016, there are 14949 preschool educational institutions, including 45.30% - kindergartens, 32.48% - kindergartens, 22,22% - educational complexes [1], which provides coverage of pre-school education only 40% of preschool children [1]. The insufficiency of pre-school educational institutions, the lack of budget

funding does not allow all children to receive pre-school education.

## ANALYSIS OF THE LATEST RESEARCH AND PUBLICATIONS

A significant contribution to solving the problems of financial provision of preschool education belongs to Ukrainian and foreign scholars: N. Buck [2], C Bellfield. [3], Y. Buchkovskaya [4, 6], C. Herbst [5], O. Kirilenko [6], T. Kosova [7], K. Mashchenko [7, 8], A. Monaenko [9], S.Svestka [10], E. Tekin [5] and others. It is worth noting the comprehensive study by K. Mashchenko [8] devoted to the study of theoretical positions, methodological bases and practical recommendations for improving the financial provision of preschool educational institutions. K. Mashchenko proposed a methodical approach to financial provision of preschool educational institutions on the basis of a balanced system of indicators.

#### THE PURPOSE

Despite the presence of a significant number of scientific works, the problems of financing pre-school educational institutions of various forms of ownership in the current conditions of decentralization and deficit of budget funds, as well as mechanisms for attracting funds from parents to financing pre-school education in Ukraine, are still insufficiently investigated.

The purpose of the article is to develop recommendations for improving the financial provision of preschool education in Ukraine in the face of scarcity of budget funds and the involvement of parents in financing preschool education.

#### MATERIALS AND METHODS

In the process of scientific research, the following research methods were used: abstract-logical - in developing the working hypothesis of research and justification of the directions of improvement of financial provision of preschool education in Ukraine in conditions of budget deficit; calculationconstructive - at carrying out of analytical calculations on an estimation of a modern state of pre-school education in Ukraine; economic-statistical - when processing and analyzing statistical information.

The study used the normative basis of state regulation of educational services, statistical and analytical information of the State Treasury Service of Ukraine, publications of domestic and foreign scientists and practitioners, the results of their own studies of authors regarding the state and trends of education in Ukraine, as well as scientific information placed on the world-wide network Internet.

## **RESULTS AND DISCUSSION**

Developing and substantiating innovations in managing the financial provision of preschool education in Ukraine requires clarification of the main definitions and components of the system of financial provision of pre-school education in Ukraine (Figure 1). In our opinion, the financial support of preschool education is a set of financial relations that are conditioned by the functioning and development of the system of preschool education in order to ensure the physical, mental health of children, their comprehensive development, acquisition of life experience, development of skills, skills necessary for further education.

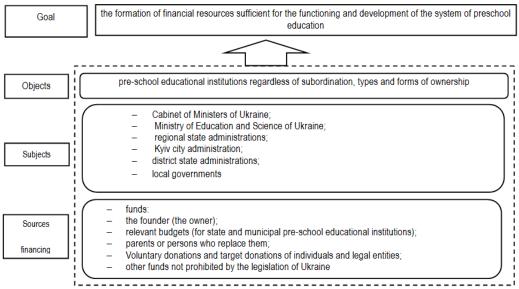


Fig. 1: Components of the system of financial provision of preschool education in Ukraine

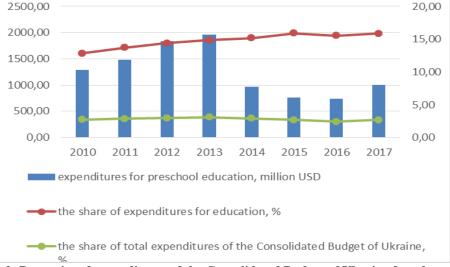
*Source*: constructed by authors on the basis of own research and the Law of Ukraine "On preschool education" of 11.07.2001, number 2628-III [11].

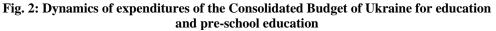
The main problems in preschool education in Ukraine, which actualize the need to introduce innovative approaches to financial provision of this level of education:

- 1. Inconsistency of budget financing of pre-school education with the needs of society in this public good.
- 2. Insufficient number of pre-school educational institutions and the shortage of places in them.
- 3. There is an outdated material base of educational institutions and the lack of funds for current and capital repairs of pre-school educational institutions.
- 4. Low level of labor remuneration for pedagogical and auxiliary staff, which makes it impossible to involve highly educated teachers in the educational process.

The main problem of financial provision of pre-school education in Ukraine is the discrepancy of the amount of budget financing of pre-school education to the needs of society in this public good. The financial support of preschool education is carried out taking into account the budget financing of part of expenditures for preschool education under the code 0910 Preschool education from budgets of different levels [12].

2010-2017 During actual annual expenditures for pre-school education increased (Fig. 2), the total growth for the period under study was about 3 times (UAH 28.21 billion in 2017 compared with UAH 10.24 billion in 2010). The indicators of the dynamics of expenditures for preschool education in the hryvnia equivalent do not allow an adequate assessment of the dynamics of real financing, which offset the influence of monetary and inflation factors. As the national currency depreciated against the world currencies (the exchange rate of hryvnia to the US dollar in 2010 amounted to 7.9617 UAH, in 2017 - UAH 28.07 [13]).





*Source*: constructed by the authors on the basis of the data of the State Treasury of Ukraine [14]

Results of Fig. 2 show that the dynamics of expenditures for pre-school education by different monetary equivalents contradicts each other. The dynamics of indicators in the hryvnia equivalents is extremely positive (increase), while the dynamics of the indicators in dollar terms combines increase and decrease. By 2013, expenditures for preschool education increased and reached the maximum value of \$ 1960 million. USA, however, in subsequent periods, expenditure on pre-school education began to decrease and at the end of the period reached the minimum value of USD 740 million. USA.

The result of the analysis is the periodization of financial provision of preschool education based on the level of expenditures in dollar equivalent and the share of expenditures on preschool education in the total amount of expenditures of the Consolidated Budget of Ukraine:

And the period 2010-2013 - an increase in the financial support of preschool education, all indicators confirm positive dynamics (growth rate of expenditure on preschool education in UAH equivalent -52.98%, growth rate of expenditure on preschool education in the dollar equivalent -52.38%; the rate of growth of the share of expenditures on preschool education in the expenditures of the Consolidated Budget of Ukraine for education - 15.71%; the rate of growth of the share of expenditures on preschool education in the expenditures of the Consolidated Budget of Ukraine -14.27%). An additional feature of the first period of financial provision of preschool education is a faster growth rate of expenditures of the Consolidated Budget of Ukraine for pre-school education, compared to expenditures on education and the total expenditures of the Consolidated Budget of Ukraine (Figure 3).

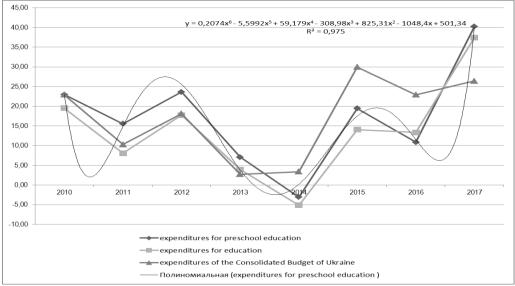


Fig. 3: The growth rates of the dynamics of expenditures of the Consolidated Budget of Ukraine for education and pre-school education,%

*Source:* constructed by the authors on the basis of the data of the State Treasury of Ukraine [14].

Second period - 2014-2017 - reduction financial provision of preschool of education, which is confirmed by indicators such as the rate of reduction of expenditures for preschool education in dollar terms -62.25%; the rate of reduction of the share of expenditures for preschool education in the expenditures of the Consolidated Budget of Ukraine - 22.16%. During this period there was a decrease in expenditures for preschool education and budget financing did not correlate with the needs of this educational institution to increase the network of preschool educational institutions, current and capital repairs, and the purchase of modern

equipment for educational and educational processes.

pre-school Budget financing of education comes at the same time from the State Budget of Ukraine and local budgets, and the procedure for allocating expenditures between levels of the budget system is regulated by the Budget Code of Ukraine [15]. The average relative magnitude of coordination in 2010-2016 amounted to UAH 195, which can be explained as follows: for UAH 1, UAH 195 from the local budgets of different levels was allocated from the State Budget of Ukraine for preschool education. The relative amount of coordination of expenditures for preschool

education in 2010 was UAH 168.81 [16, p. 76], in 2011 - 156.51 UAH (-7.29%), in 2012 - 214.88 UAH (+37,29%), in 2013 - 215.59 UAH (+0.33%). [17, p. 65], in 2014 - 231.76 UAH (+7.50%), 2015 - 190.24 UAH (-17.91%), 2016 - 186.07 UAH (-2.19%) [18, p. 76].

In accordance with the laws of Ukraine "On the State Budget of Ukraine for 2014" of 16.01.2014, No. 719-VII [19], "On the State Budget of Ukraine for 2015", dated 28.12.2014, No. 80-VIII [20], The state budget financed the pre-school education and measures for out-of-school work with children of employees, persons of ordinary and commanding members of the bodies of internal affairs (the code of program classification of expenditures and crediting of the state budget - 1001130). In accordance with the Law of Ukraine "On the State Budget of Ukraine for 2016" dated December 25, 2015, No. 928-VIII [21], two budget programs were financed from the state budget: 1. Pre-school education and extracurricular activities with children of employees of the Ministry of Internal Affairs of Ukraine (code of program classification of expenditures and crediting of the state budget - 1001130); 2. Preschool education and out-of-school work with children of police officers and employees of the National Police of Ukraine (code of program classification of expenditures and crediting of the state budget - 1007030).

The State Budget of Ukraine provided for financing of the State Target Social Program for the Development of Pre-School Education for the period up to 2017, approved by the Resolution of the Cabinet of Ministers of Ukraine dated April 13, 2011 No. 629 [22]. The purpose of the Pre-school Development Program for the period up to 2017 is to develop and implement a mechanism for the development of preschool education, to ensure constitutional rights and state guarantees regarding access and freeof-charge access to pre-school education in state and municipal pre-school educational institutions. The estimated amount of funding for the Preschool Education Development Program for the period up to 2017 amounted to UAH 5026.44 million, including UAH 2.53 million from the state budget, UAH 5023.1 million from local

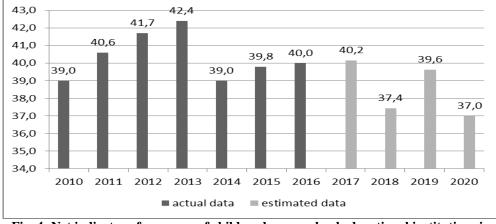
budgets, 0,81 million UAH - at the expense of other funds. However, by the Resolution of the Cabinet of Ministers of Ukraine "Some Issues of Optimization of State Target Programs and National Projects, Savings of Budget Funds and Recognition of Certain Acts of the Cabinet of Ministers of Ukraine" dated March 5, 2014, No. 71 [23], the Program for the Development of Pre-School Education on the period until 2017 is prematurely canceled and funding has not taken place. Thus, the early cancellation of the Pre-school Development Program for the period up to 2017 is another proof of the inconsistency of budget financing of preschool education with the needs of society in this public good. The second most important problem in Ukraine's preschool education, due to the lack of budget financing, is the lack of pre-school establishments and the shortage of places in them. In tabl. 1 shows the number of births and the estimated level of children attending pre-school educational institutions in 2017-2020.

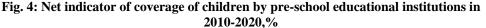
Table 1: Estimated number of preschool children in 2017-2020

	Number of births, persons         Number									
	2	2	2	2	2	2	2	2017	r of	
	0	0	0	0	0	0	0	, I	prescho	
	1	1	1	1	1	1	1	, i half	ol	
	0	1	2	3	4	5	6		childre	
	0	1	2	3	4	Э	0	а		
		-		-				year	n	
	4	5	5 2	5	4	4	3	3534		
	9 7	0	2	0	6	1	9	62		
		2	0	3	5 8	1	7			
	6	5	7	6		7	0			
	8	9	0	5	9 3	8	3			
	9	2 5 9 5 5	4	6		3	3 9 3			
2		5	5 2 0	5	4	4	3		280167	
0		0	2	0	6	1	9 7		0	
1 7		2 5	0	3	5	1	7			
7		5	7	6	8	7	0			
		9 5	0	5	9	8	3			
		5	4	6	3	3	9			
2			5 2 0	5	4	4	3	7069	300599	
0			2	0	6	1	9	24	9	
1			0	3	5	1	7			
8			7	6	8	7	0			
			0	5	9	8	3			
			4	6	3	3	9 3			
2				5	4	4	3	1060	283875	
0				0	6	1	9 7	386	7	
1				3	5	1	7			
9				6	8	7	0			
				6 5	9	8	3			
				6	3	3	9			
2					4	4	3	1767	304202	
					6	1	9	310	5	
0 2 0					6 5	1	9 7			
0					8	7				
					9	8	0 3			
					9 3	3	9			

*Source:* constructed by the authors on the basis of the data of the State Treasury of Ukraine [14].

"Net indicator of coverage of children by pre-school educational institutions" is an indicator calculated as the ratio of the total number of pupils of pre-school educational institutions to the number of permanent population aged 0-6 years multiplied by 100 [1, p. 13]. The dynamics of the net indicator of coverage of children by preschool educational institutions in 2010-2020 is depicted in Fig. 4.





*Source*: constructed by the authors on the basis of the data of the State Statistics Service of Ukraine [1, 24]

As can be seen from Fig. 4, the tendency to increase the level of coverage of children by pre-school educational institutions was in 2010-2013, but in 2014 there was a sharp decrease in the level of the net indicator. The exacerbation of the shortage of places in preschool educational institutions should be expected from 2018, as the increase in the birth rate in 2011-2012 led to an increase in the number of preschool children for the unchangeable number of places in preschool educational institutions.

Under such conditions, it is necessary to intensify the search for sources of funding for preschool education and the prospect of providing children with access to pre-school education.

According to the statistical bulletin "Preschool education of Ukraine in 2016", the regional features of the coverage of children by pre-school educational institutions in 2014-2016 (Table 2) were determined.

Table 2: The coverage of children by pre-
school educational institutions by region
(urban settlements and rural areas), %

(ur ban settlements and rur ar areas), 70							
The region	2014	2015	2016	Average value			
Vinnitska	63	65	65	64			
Volyn region	51	52	52	52			
Dnipropetrovska	63	63	63	63			
Donetska	3	3	3	3			
Zhytomyrska	66	66	66	66			
Zakarpatska	54	53	53	53			
Zaporozhska	63	64	63	63			
Ivano- Frankivska	39	40	41	40			
Kievska	65	67	69	67			
Kirovogradska	62	62	63	62			
Luganska	3	3	3	3			
Lvivska	49	49	50	49			
Nikolaevska	68	68	67	68			
Odeska	54	54	55	54			
Poltavska	72	69	69	70			
Rivnenska	54	54	54	54			
Sumska	73	73	74	73			
Ternopilska	53	54	54	54			
Kharkivska	62	62	62	62			
Khersonska	69	67	67	68			
Khmelnitska	64	65	65	65			
Cherkasska	70	70	70	70			
Chernivtska	58	57	57	57			
Chernihivska	63	65	65	64			
Kyiv	65	65	65	65			
Source: constructed by the authors on							

*Source*: constructed by the authors on the basis of the data of the State Statistics Service of Ukraine [1, 24]

According to the results of the cluster analysis of the coverage of children by preschool educational institutions in Ukraine, four clusters have been formed by regions. The groups with the lowest level of coverage of children by pre-school educational institutions include Donetsk and Luhansk regions, which can be explained by the conduct of the antiterrorist operation (ATO).

The low coverage of children by preschool institutions is typical of the regions that formed cluster 2. In the Volyn, Lviv, Transcarpathian, Odesa, Rivne, Ternopil, Chernivtsi and Ivano-Frankivsk regions, the coverage rate of children by pre-school educational institutions was 52%. Thus, the low coverage of children by pre-school educational institutions is typical of Western Ukraine.

The average coverage of children by pre-school educational institutions is typical for the regions that formed cluster 1. In Vinnytsia, Chernihiv, Zhytomyr, Khmelnytsky, Zaporizhzhya, Dnipropetrovsk, Kirovograd, Kharkiv oblasts and Kyiv, the coverage of children by preschool educational institutions was 63-64%.

The high level of coverage of children by pre-school educational institutions is typical for the regions that formed the cluster 4. In Kyiv, Mykolaiv, Poltava, Kherson, Cherkasy, Sumy regions the coverage rate of children by pre-school educational institutions was 69%, is the maximum value for Ukraine and insufficient for the needs of the modern civilized the world.

Problems of the lack of places in state and municipal pre-school educational institutions are present in all regions, thus, it is necessary to search for new sources of financing of preschool education and optimization of the ones already in use. First, it is necessary to take into account the scarcity and scarcity of budget funds; secondly, the alternative source of financing for preschool education is the financing of parents both in state and municipal preschool educational institutions (in the form of parental charitable contributions) and in private (in the form of payment for attendance by children of pre-school educational institutions).

We believe that reforming the financing of preschool education at the expense of

parents should be in the tax aspect. Charitable contributions of parents for attending children of state and municipal pre-school educational institutions, payment for attendance by children of private preschool educational institutions should be equated with tax deductions. We consider it socially unfair that these funds do not count towards the tax deductible as expenses connected with education.

Tax deduction for individuals is a documented amount (cost) of the taxpayer's costs of a resident in connection with the purchase of goods (works, services), which is allowed to reduce its total annual taxable income received on the basis of the results of a reported year in the form of wages fees, in cases specified by the Tax Code of Ukraine [25].

The taxpayer has the right to include in the tax credit such actually incurred expenses:

1) part of the amount of interest paid for the use of a mortgage loan;

2) the amount of money or the value of the property transferred (donated) in the form of donations or charitable contributions to non-profit organizations;

3) the amount of funds paid in favor of domestic higher and vocational schools in order to compensate for the cost of obtaining secondary vocational or higher education of such a taxpayer and / or his family member of the first degree of kinship;

4) the amount of funds paid to the health care institutions to compensate for the cost of paid treatment services, etc.

Therefore. for parents who pay charitable contributions to preschool educational institutions, there is the possibility of obtaining a tax rebate under Article 166 § 2 of the Tax Code of Ukraine. The tax discount can not exceed 4% of the total taxable income of the taxpayer, charged as a salary [25].

The proposed approach provides for the inclusion of expenses which give the right to receive a tax deduction of contributions to funds of state and municipal pre-school educational institutions or payment in private preschool educational institutions. Therefore, the tax discount is proposed to include funds paid by the taxpayer of the institution of preschool education as compensation for the cost of obtaining educational and educational services by a member of his family of first degree of kinship.

For this type of expenditure, there is also a limitation:

- Training services should be provided only by domestic institutions of preschool education (regardless of the form of ownership);
- The amount of funds should not exceed the limit value for each full or part-time month of training (1.4

monthly living wage for an ablebodied person, established on January 1 of the reporting year, with a rounding down to the nearest 10 UAH). Expenditures above the established limit are not included in the tax rebate.

The difference between approaches to financing pre-school education at the expense of parents and their tax aspects (Figure 5).

Current practice under the Tax Code of Ukraine [26] the amount of money or the value of the property transferred (transferred) by the taxpayer in the form of donations or charitable contributions to non-profit organizations that, at the date of transfer (transfer) of such funds and property, at a rate not exceeding 4% of the amount of its total taxable income in that accounting year

	Recommendations	
->	<ul> <li>add to the list of expenses, which give the right to receive</li> <li>amount of money or value of property transferred (transidonations or charitable contributions to preschool education of ownership)</li> <li>amount of funds paid by the taxpayer of the institution of for the cost of obtaining educational and educational service degree of kinship</li> </ul>	erred) by the taxpayer in the form on the institutions (regardless of the form preschool education as compensation
→ n	ne amount of money should not exceed the limit value for each nonthly living wage for an able-bodied person, established on Ja ounding down to the nearest 10 UAH)	

Fig. 5: Tax rebate on the cost of individuals for preschool education of children Source: the author's own research and the Tax Code of Ukraine [25]

### CONCLUSION

Based on the analysis of the dynamics of financial provision of preschool education in Ukraine in 2010-2017, the satisfactory state budget financing of preschool education in 2010-2013 and the deterioration of the state budget financing of preschool education in 2014-2017 were determined, which was supplemented by insufficient number of preschool educational institutions, out-of-date material base and lack of funds for current and capital repairs of pre-school educational institutions, low wages of teaching and auxiliary staff. As a result of the analysis of the level of coverage of children by preschool educational institutions, deficiency of places in pre-school educational institutions in all regions was determined and the need to expand the network of state and communal and private institutions was determined. In addition to limited budget funding, it is recommended to attract funding from individuals (parents of preschool children) with the prospect of applying it to the tax deduction.

### REFERENCES

- Doshkilna osvita Ukrainy u 2016 rotsi: statystychnyi biuleten, Preschool education in Ukraine in 2016: statistical Bulletin], 2018.
- Bak, N. (2013). Financing of preschool education in Ukraine: problems and directions of their overcoming. Svit finansiv. *The world of finance*, 2, 81-87.
- Belfield, C. (2006). Financing early childhood care and education: an international review.
- Buchkovska, Y.H. (2015). The system of financing of preschool education in ensuring the priorities of humanitarian development. *Extended abstract of candidate's thesis.Ternopil: TNEU*.
- Herbst, C.M., & Tekinb, E. (2010). Child care subsidies and child development. *Economics of Education Review*, 29, 618–638.

- Kyrylenko, O., & Buchkovska, Y. (2014). Priority directions for improving the financing of preschool education in Ukraine. *The world of finance*, 3, 20-30.
- Kosova, T.D., & Marchenko, K.S. (2014). Financial support of preschool educational institutions. Donetsk : Noulidzh, donetske viddilennia.
- Mashchenko, K.S. (2013). Financial support of preschool educational institutions]. Extended abstract of candidate's thesis. *Donetsk*.
- Monaienko, A.O. (2009). Legal basis of financing expenditures for education and science. *Lviv :Chervona kalyna*.
- Svestka, S. Financing Preschool for All Children.
- Zakon, U., Pro, D.O., On the preschool education.
- Order of the Ministry of Finance of Ukraine, On the budget classification.
- Official exchange rate of hryvnia against foreign currencies [Report on budget execution]. Report on budget execution
- Budget Code of Ukraine.
- Zhaka O.P. (2011). Statistical Yearbook Budget of Ukraine – 2010.
- Statistical Yearbook of the Ministry of Finance Budget of Ukraine 2013.
- Statistical Yearbook of the Ministry of Finance Budget of Ukraine 2016.
- The Law of Ukraine On State Budget of Ukraine for 2014.
- The Law of Ukraine, On State Budget of Ukraine for 2015.
- The Law of Ukraine «On State Budget of Ukraine for 2016.
- Resolution of the Cabinet of Ministers of Ukraine «On approval of the state target social program for the development of preschool education for the period until 2017.
- Resolution of the Cabinet of Ministers of Ukraine, Some issues of optimization of state target programs and national projects, saving of budget funds and the recognition of invalidity of some acts of the Cabinet of Ministers of Ukraine.
- Natural population movement]. (n.d.). www.ukrstat.gov.ua. Retrieved from www.ukrstat.gov.ua.
- Tax Code of Ukraine, Retrieved from http://zakon.rada.gov.ua/cgi-

bin/laws/main.cgi?nreg=56–93 Ukrainian].

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