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# Public Budget in Early Childhood Education: A Proposal for Evidence of Expenses with Students Attended in the Municipalities of Mato Grosso State

Leonilda Jandra de Oliveira<sup>1</sup>, João Eudes Bezerra Filho<sup>2,\*</sup>

<sup>1</sup> Master in Accounting Sciences, Fucape Business School, Brazil <sup>2</sup> Assistant Professor at FUCAPE Business School, Brazil

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#### ABSTRACT

This study aimed to propose a structure that makes it possible to highlight budget expenditures with children's education students. The methodology used was descriptive, with qualitative data and obtaining the bibliographical and documentary data. The secondary data were obtained through the Information System on Public Budgets in Education (ISPBE) and School Census. Both made available by the National Fund for Education Development (NFED), with 137 municipalities in Mato Grosso that reported information to ISPBE the financial year 2015. The results suggest that it is possible to improve the legal, managerial, and social control of information, starting with the budget structure, using resources already existing in the municipalities. The contribution of the research is to suggest the mandatory inclusion of expense finder in the draft legislation that is going through the process in the National Congress, replacing the text of Law 4.320/64, which will bring greater security and reliability of the information declared to the ISPBE, besides evidencing how much in fact it invests in education in the country, especially in child education and also to improve transparency and fight against corruption.

Keywords: Applied Accounting in the Public Sector, Public Budget, Childhood Education, Mato Grosso.

## Introduction

Brazilian basic education has undergone constant changes over the last decades, including the universal right to access basic education, the teaching-learning process, and parameters for assessing educational performance and investments in education. The Federal Constitution of 1988, the Law of Directives and Bases of National Education (LDB) of 1996, the implantation of the Fund for Maintenance and Development of Elementary Education and Valorization of the Teaching Profession (FMDEEV) in 1998, replaced by the Teaching Valorization Fund Basic

Education (TVFBE) in 2007, were important achievements in Brazilian education. There are three stages of basic education in Brazil: child education, elementary education, and high school, which ensure children's and young people's rights to have access to education. With the change in the LDB through a constitutional amendment approved by the National Congress in 2009, the requirement that parents had to enroll their children in school went from 6 to 4 years of age, in addition to defining that states and municipalities would have until 2016 to universalize the offer of places for children of this age group (Portal Brasil, 2014).

With the expansion of early childhood education, it becomes relevant to monitor resources in this teaching stage and improve its accounting information. Brazilian studies have shown results that demonstrate the difficulties of determining student spending in public education and use different methodologies to obtain more accurate and approximate these values, converging to the same limiting factor, how the details of expenditures are evidenced in the public budget. (Breitenbach, Alves, & Diehl, 2010; Amâncio-Vieira, Borinelli, Negreiros, & Dalmas 2015; Sales & Sousa, 2016).

The difficulty faced by users in understanding the accounting information and the results of the management of these resources, in the specific case of education, is how they are structured and separated only according to function and subfunction, the school unit is not reached, that is, where the effective expenditure of resources occurs (Amâncio-Vieira et al., 2015).

In many countries, the current economic and fiscal crises are posing new challenges for public sector accountants. Public services are changing, and accounting needs to reflect these changes, keep up with social and technological innovations and contribute to the demands for increased transparency, participation, and representation in an era of social media (Ligouri & Steccolini, 2014).

It is necessary to review the form of preparation of municipal public budgets in the educational area, especially in early childhood education. These budget pieces need to be compatible with the information declared in the Information System on Public Budgets in Education (ISPBE), the main instrument of generation, availability, and transparency in the rendering of accounts related to the financing of Brazilian education, which according to Ministry of Education / National Education Fund (2015), has as one of its main characteristics, providing academic and institutional research on public investments in education. It is worth mentioning that the information included in ISPBE is consistent with the reality of spending execution, as an analysis of this objective information or the direction of public policies aimed at the needs of different teaching practices in the country [...]". (Souza, 2016, p. 23).

The Brazilian Courts of Accounts will evaluate the compatibility of the budget items with the National Education Plan (NEP), providing guidance and training to those in jurisdiction regarding the preparation of the Multi-Year Plan (MYP) for the next quadrennium 2018-2021 and the production of parts budget lines in line with the commitments made in the education plans. It is worth mentioning that ISPBE is the instrument used for monitoring and managerial control of public education finances, which will require the courts to effectively complete, verify, and confirm the information declared in this system. (Atricon/IRB, 2016).

According to Machado and Holanda (2010), the accounting information must be timely and reliable, allowing it to be comparable over time or between government entities of their common costs. In this sense, this research proposes to answer the following question: What is the appropriate budget structure for early childhood education in the municipalities of Mato Grosso?

To this end, the present study's general objective is to propose a structure that makes it possible to highlight the budgetary expenditures with early childhood education students served in the municipalities of Mato Grosso.

The choice of using data from municipalities in the state of Mato Grosso justifies the fact of the audacious goal, which allows the state to reach 80% of children in daycare centers until the surveillance of the State Education Plan (SEP) and be the first Brazilian state in establishing a Single Education System in the country. It is important to say that, during the 1980s, there were approximately 100 thousand illiterate adults in the state and more than half of children aged zero to six years without receiving daycare or preschool care. (Abicalil & Cardoso Neto, 2010).

Another aspect that permeates the choice of Mato Grosso is because it is a State with regions of many economic and cultural diversities, in addition to having a vast territorial extension concerning the proportionality of its inhabitants with miscegenation of peoples that includes indigenous tribes, quilombola communities, peoples from other states, such as the Rio Grande do Sul, Santa Catarina, Paraná, Maranhão, among others, the region known as "Baixada Cuiabana," which integrates most of the natural citizens of this land.

The research contribution is to suggest the mandatory insertion of the locator of the expenditure used in the Union budget in the Bill that is being processed in the National Congress, replacing the text of Law number 4.320/64, which will bring greater security and reliability of the information declared to the ISPBE, in addition to showing how much is invested in early childhood education and improving transparency and fighting corruption.

To this end, this article includes five parts. The theoretical framework that corresponds to the theme's theoretical context is presented in addition to the introduction. Following, the methodological procedures are exposed. The fourth part contains the assumptions and the elaboration of the proposed budget structure with the insertion of the "expense finder" used by the Union, in addition to the practical application of the structure to the municipalities. The presentation of inconsistencies in the information declared in the ISPBE system by municipalities in Mato Grosso, caused by the current budget structure that reaches only the programmatic level of subfunction. Finally, the final considerations highlighting the contributions of the study and suggestions for future research.

### Evolution of public accounting in brazil: from budgetary to heritage accounting

The process of evolution of public sector accounting has undergone significant changes towards convergence with international standards. The beginning of budgetary and financial control of Brazil's public resources happened in the colonial and imperial period, marked by some circumstantial facts, such as the Inconfidência Mineira in 1789 (Bezerra Filho, 2013).

In 1964, Law 4.320 was approved, which instituted the rules of Financial Law and Public Accounting for the Union, States, Municipalities and the Federal District, for the preparation and control of public budgets, "including the conception of the Program Budget, which was undoubtedly a major advance for Budget Systems in Brazil [...]" (Bezerra Filho, 2013, p. 3).

Years later, the Federal Constitution of 1988, in articles 163 to 169, instituted public finance rules and prepared public planning pieces, the Pluriannual Plan, the Budget Guidelines Law, and the Annual Budget Law.

In 2000, Complementary Law 101/2000 - Fiscal Responsibility Law (FRL) was approved, which established public finance rules and instituted instruments for transparency in tax management, in addition to carrying out national consolidation of public accounts (National Treasury Secretariat, 2016).

At first, the evolutionary process of accounting in the public sector proved to be focused only on the budget; however, the legal basis that starts from Title IX, mainly in articles 85, 89, 100, and 104 of Law 4.320 / 64 already dealt with of equity accounting in the public sector. Moreover, in 2008, with the edition of the Brazilian Accounting Standards Applied to the Public Sector by the Federal Accounting Council and the Accounting Manual Applied to the Public Sector by the National Treasury Secretariat, convergence to the international accounting standards applied the Public sector (Bezerra Filho, 2015).

The convergence process to international accounting standards applied to the public sector aims to register and provide quality disclosure of the public entity's equity phenomena and recover the accounting object, which is equity (National Treasury Secretariat, 2016).

In this process, the instrumentalization of social control has been increasingly discussed and expanded in the scope of accounting applied to the public sector. Proof of this is that the Brazilian Accounting Standard Applied to the Public Sector (NBC TSP) - Conceptual Structure approved by the Federal Council of Accounting (FCA) at the end of 2016 solidifies the Instrumentalization of Social Control. "One of the main points of the standard is the definition of society as the main user of accounting information, which will facilitate transparency and social control" (FCA, 2016, p. 1).

#### The need to disclose expenditure on early childhood education

International studies have shown results that show the positive impacts and contributions to economic and social development when governments expand support for early childhood education programs (Belfield & Schwartz, 2007; Council of Economic Advisers, 2014; Macewan, 2015).

Early childhood has received investments well below what would be expected in Brazil, given the proportion of evidence in this field, which shows the high returns that this phase produces. Furthermore, despite the redistribution at a minimum level, which occurred with FUNDEB, the distribution problem still exists, with the richest municipalities spending more and poor municipalities spending less (Silva Junior, 2013).

It is important to explain that early childhood education in Brazil is divided into daycare and preschool. The daycare center comprises the age group from 0 to 3 years old, while the preschool is from 4 to 5 years old. From the 1990s onwards, access to this level of education had increased importance, due to the re-democratization after the Constitution of 1,988, which in addition to ensuring an increase in the educational quantity of children from zero to six years old, started to treat education also like a child's right, especially after the promulgation of the LDB in 1999, which included the care of children aged 0 to 3 years in daycare (Silva Junior, 2013).

Besides, the legal provisions in force in Law 13,005 / 2014, which deals with the National Education Plan (NEP) for the next ten years, where specifically in its Goal 1, it deals with early childhood education and provides: "Universalize, until 2016, early childhood education in preschool to children from 4 (four) to 5 (five) years of age and expand the offer of early childhood education in daycare centers in order to serve at least 50% (fifty percent) of children up to 3 (three) years old up to the end of the term of this NEP".

For this goal to be achieved, greater investment in education is necessary. It is important to remember that early childhood education is the competence and priority of Brazilian municipalities to act in accordance with the 2nd paragraph of article 211 of the Federal Constitution, which becomes a greater challenge for municipal public managers since resources are scarce. Most survive on transfers from the Union and the State.

Although early childhood education has achieved many achievements over time, it is still under construction, both in terms of teaching-learning assessment and resource allocation to finance this education stage. The NEP contemplates in its strategies the measurement of the Initial Quality Student Cost (CAQi). The entities need to organize themselves and adapt to these changes since the information's consistency is fundamental to achieve the results.

CAQi is the minimum quality standard and receives the initial "i" and considers conditions such as many students per class, training, remuneration and career plan compatible with the duties of education professionals, physical infrastructure with adequate furniture and equipment, inputs such as teaching materials, computer labs, libraries, covered sports courts, among others, contemplating the minimum conditions necessary for education professionals to teach and for students to learn (Portal CAQi e CAQ, 2015).

Many cost objects to be measured and calculated already have a legal provision and are found in the entity's budget structure, such as the costs of government powers, bodies, units, programs, actions, functions, and sub-functions and others need to be defined by the entity according to your informational need. (Fernandes, 2014, p. 75).

For this purpose, the research presents two important instruments of public control and transparency, which are the CAQi and the ISPBE, which show information on the realization of public spending on education and reinforce the objective of the study, of integrating budget accounting to the subsystem of costs and the instrumentalization of social control.

In this sense, the compatibility between the pieces of public planning with budgetary accounting ensures the reliability of the data declared in the information systems of early childhood education, which include the qualitative information offered by ISPBE, monitoring of

the NEP and calculation of the CAQi, which are elements guidelines for the joint assessment of transparency in accountability to society and the strengthening of public management.

### **Methodological aspects**

The research was descriptive in order to achieve the objective presented in this work. As for the approach to the problem, the research was qualitative, which, according to Beuren (2006), understands that the qualitative approach reaches a greater depth in analyzing the studied phenomenon, while the quantitative approach is more superficial. As for the procedures, the research was a documentary.

The study was divided into two methodological steps. In the first stage of the study, the budgetary structure's proposal parameterized up to the 7th level of detail of expenditure was presented, reaching the programmatic level of "Spend Finder," adopted by the Union. Moreover, to test the functionality of the budget structure up to the level comprising the "expense finder," the information declared by a municipality in Mato Grosso was used, which has a well-defined municipal education structure and caters to preschool and elementary school students, comprising a nursery, a preschool, and an elementary school.

In the second stage of the study, inconsistencies detected in the information declared in the ISPBE system were presented through tables by municipalities in Mato Grosso, caused by the current budget structure that reaches only the programmatic level subfunction.

The secondary documents analyzed in this research were obtained through the ISPBE and School Census, available from the Ministry of Education / National Education Development Fund (NEDF), with a sample of 137 municipalities in Mato Grosso that declared information to the system, taking 2015 as a time frame. The reports made available by the ISPBE contributed to aligning the details of the budget classification and their respective sources and allocation of resources listed in the proposed budget structure so that their information is compatible with each other and that the reports extracted from this system are reliable and portray the correct application of resources in their different stages and teaching modalities.

The suggested budget structure was based on the conceptual model of costs presented by Machado and Holanda (2010), on the contribution to the model of the cost subsystem by Fernandes and Bezerra Filho (2015), and on the criterion for detailing the expenditure adopted by the Union, whose studies contributed to establishing the assumptions and guidelines of this research based on the registration and control of the budget subsystem.

# Proposal for a budgetary structure that contributes to the evidence of expenses in childhood education

## Presentation

## Legal guidelines

The classification of budgetary expenditures must be in accordance with Federal Law No. 4,320 / 1964, updated by Ordinance MOG No. 42/1999, Ordinance STN / SOF No. 163/2001.

Law No. 4,320 / 64, in its art. 15, determines that, in the Budget Law, the expense breakdown will be made at least by elements. The Ordinance STN / SOF No. 163/001, determines that, in

the Budget Law, the expense breakdown, as to its nature, will be made, at least, by economic category, expense type group and type of expense. application. (National Treasury Secretariat, 2016, p. 7).

This determination in the Interministerial Ordinance STN / SOF No. 163/2001, in its article 6, made the breakdown by expense element optional; the element is indicated at the time of the execution of the expense. It is noteworthy that the interpretation brought by Law 4.320 / 64 in the element's case is not the same as this Ordinance. The concept introduced in Law 4.320 / 64 in its art. 15 refers to the unfolding of current economic and capital categories. (National Treasury Secretariat, 2016).

From the edition of Ordinance, MOG nº 42/1999 applied to the Federal Government, States, Federal District, and Municipalities, the identification, in the budgetary laws, of actions in terms of functions, sub-functions, programs, projects, activities, and special operations became mandatory. (National Treasury Secretariat, 2016, p. 8).

It is of utmost importance to elaborate on the program's budget since it allows the legislature to approve government actions aiming to effectively apply the expenditure and not only the items of expenses. "The idea is to provide transparency to the population and the legislature about what will be accomplished in a given period, through programs and actions and how much they will cost society [...]" (National Treasury Secretariat, 2016, p. 8).

With this explanation of the legal instruments that deal with the classification of expenditure, it clarifies the extent to which the split of expenditure is mandatory under current legislation. This means that the suggested budget structure's intended scope to evidence spending on early childhood education students must comply with these guidelines and other developments necessary for the public entity's purpose.

#### Assumptions and guidelines of the suggested budget structure

The suggested budget structure for detailing child education expenditure requires the observation of some assumptions, which are:

- Enable the registration and control of expenditures in a consistent and individualized manner by the school, through the subtitle "expense finder," following the model of detailing the Union's expenditure;

- The public entity must correctly identify the linkage of sources and allocations of resources, not only to comply with legal requirements but to enable management and social control analysis and evaluation;

- Integrated participation of society, technical staff, managers, and the school community, in the process of planning, monitoring, monitoring, and evaluating actions in education;

Improvement of the internal control systems' routines, especially in people management, purchasing, warehousing, fleets, and assets, contributes to the good performance of activities and informational processes, interacting with the accounting and its integration to the cost subsystem.

Budgetary accounting is the central instrument in recording public expenditures, making it possible to compare the performance of management and evaluation of public policies in basic education between municipalities and states. "In addition, the cost information associated with the benefits of public policies should be the basis for the formulation of the budget proposal,

with the budget being the guiding thread that allows the execution of expenses and the provision of planned public services" (Machado & Holanda, 2010, p. 793).

The guidelines for elaborating the budget structure are based on the principle that most of the measurement and accumulation of costs of public services go through budget accounting.

Many cost objects to be measured and calculated already have a legal provision and are found in the entity's budget structure, such as the costs of government powers, bodies, units, programs, actions, functions and sub-functions and others need to be defined by the entity according to your informational need. (Fernandes, 2014, p. 75).

Bezerra Filho (2013) explains that in the Federal Government's budget, the subtitle "expense finder" is adopted in the expense details, representing the lowest level of programming category, which for States and Municipalities is not required to be disclosed.

The objective of the expense finder, according to the Budget Portal (2017, p. 1), "[...] is to identify the purpose of the expense, in which and where the resources will be allocated, as well as to make interministerial management of programs".

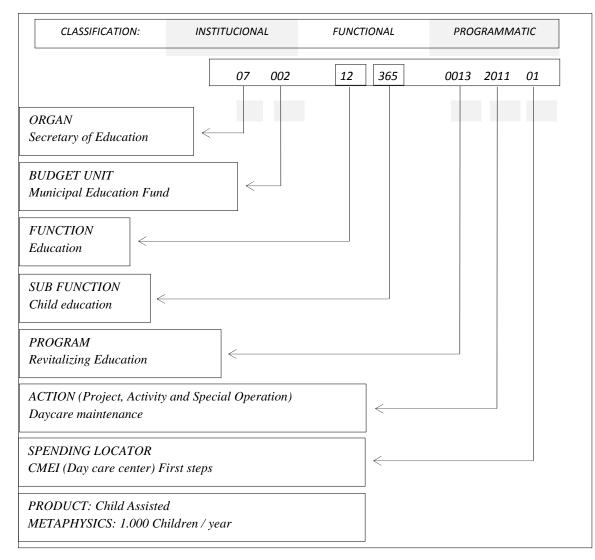
The subtitle "expense finder" is a detail of the expenditure required only in the budgets of the Union, represents the lowest level of programming category, and allows greater governmental and social control over the public policies adopted. (Barcelos, 2003).

A budget structure with few units brings operational savings, but it can cause excessive centralization in decision-making power. Increasing the number of units, there is a decentralization of the budgeting process, giving greater dynamism to the phases of planning, elaboration, execution, control and evaluation, however its operation becomes more costly, since it requires more qualified human resources and more adequate equipment. (Bezerra Filho, 2013, p. 137).

These explanations only reinforce the need to elaborate on a budgetary structure that makes it possible to highlight the accounting information and compare the expenses of early childhood education in the municipalities without compromising the analysis of internal and external users, managers, citizens, and researcher. For Bezerra Filho (2015, p. 11), "[...] the importance of a system that provides the necessary support for the integration of public sector macroeconomic information and the consolidation of national accounts".

In this case, the expense finder in the expenditure breakdown chart in the municipal public budget allows the separation of expenses with daycare and preschool, which is currently segregated in the subfunction 365 "Child Education."

The following figure exemplifies this detail:



*Figure 1*. Budgetary classification as to the nature of the expenditure Source: Adapted from (Bezerra Filho, 2013, p. 153)

The budgetary structure adopted by the Federal Government is parameterized up to the 7th level of detail of expenditure, reaching the programmatic level of "Spend Finder". Another relevant factor at the time of preparing the budget structure is the allocation of resources used in budget revenue and the sources of funds from budget expenditure, which are an important mechanism for controlling and identifying the source of education funding, as well as all areas of education public sector, and meets the legal requirements of the sole paragraph of art. 8th and art. 50, the item I, of the Fiscal Responsibility Law (Bezerra Filho, 2013).

The code of destination/source of funds is linked to the nature of the expense group; it is through this detail that it is possible to identify the element and sub-element of the expense, that is, the discrimination of the object of the expense. It is essential that the fixing of the expense is interconnected with the respective revenue forecast. By properly structuring the Expenditure Detailing Framework (EDF) of the municipality's budget, it will enable this information to be evidenced in the ISPBE correctly, allowing for better internal and external control.

Next, the research presents the practical application of the proposed budget structure, for detailing the expenditure on early childhood education, observing the assumption that allows the registration and control of expenditures in a consistent and individualized manner by the school, through the subtitle "expense finder," Following the model of detailing the Union's expenditure and providing reliability in the accounting information, which is fundamental for the mechanisms of legal, managerial and social control.

#### Budget structure: proposal applied in real case

In order to test the functionality of the budget structure up to the level that comprises the "expense finder," following the model of the Union, identifying by school unit the link originating from the expenditure, the information declared by a municipality of Mato Grosso, which has its well-defined teaching structure, consisting of a nursery, a preschool, and an elementary school. Below is the distribution of municipality spending on education in 2015.

Table 1 shows the values by project/activity and school unit of expenditures made with school meals and school transportation.

Account	Title	Amount of expenditure committed by project/activity and schoo unit	
07.002.12.306.0013.2001	School Lunch Acquisition - Early Childhood Education / Nurseries	8	
01	CMEI (Day care center) Primeiros Passos		
	Total Project / Activity	49.798,81	
07.001.12.306.0013.2002	School Lunch Acquisition - Early Childhood Education / Preschoo	1	
02	Municipal School Crescer e Aprender		
	Total Project / Activity	31.949,61	
07.001.12.306.0013.2003	School Lunch Acquisition - Elementary School		
03	Municipal School Nossa Sra. Aparecida		
	Total Project / Activity	61.393,55	
07.002.12.360.0013.2004	Maintenance of School Transportation		
	Total Project / Activity	743.421,43	

Table 1. Summary of expenditure - school feeding and school transportation expenses

Source: Research data prepared by the authors Note: Values in Thousands of Reais (R\$), in current prices.

Table 2 shows the values by project/activity and school unit of the values applied in improvements in physical facilities and to equip the elementary school, the preschool, and the early childhood education center, thus allowing the monitoring of the places where they are receiving the investments. Every movable asset acquired and the work completed will keep its record in the patrimony inventory with the identification of the school unit that it belongs, enabling the calculation of the depreciation that occurred in the period.

Account	Title	Amount of expenditure committed by project / activity and school unit
07.002.12.365.0013.1001	Acquisition of equipment for daycare centers	
01	CMEI Primeiros Passos (Day care center)	
	Total Project / Activity	19.221,06
07.002.12.365.0013.1002	Acquisition of equipment for preschool	
02	Municipal School Crescer e Aprender	
	Total Project / Activity	3.547,60
07.002.12.361.0013.1003	Acquisition of equipment for schools	
03	Municipal School Nossa Sra. Aparecida	
	Total Project / Activity	10.913,24
07.002.12.365.0013.1005	Construction, Expansion and Reform of the Teaching Unit - Preschools	
	Total Project / Activity	202.220,90
07.002.12.361.0013.1007	Construction of a Sports Court in the Elementary School	
	Total Project / Activity	499.700,00

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Table 2. Summar	v of expenditu	re – investm	ents in dav	care center and schools

Source: Research data prepared by the authors. Note: Values in Thousands of Reais (R\$), in current prices.

Table 3 shows the details of the expenses involved in activities related to the maintenance of school units. It is noted that it is possible to assess that the municipality uses the resources from constitutionally linked revenues to subsidize maintenance expenses. Fundeb's resources are not sufficient to cover all school unit expenses.

Account	Title	Amount of expenditure committed by project/activity and school unit
07.003.12.361.0013.2009	Maintenance of Elementary Schools	
03	Municipal School Nossa Sra. Aparecida	
	Total Project / Activity	5.891,26
07.001.12.360.0015.2010	Maintenance of the Education Department	
	Total Project / Activity	447.065,99
07.003.12.360.0015.2011	Training of Education Professionals	
	Total Project / Activity	27.372,00
07.002.12.365.0013.2012	Maintenance of CMEIs – (Day care centers)	
01	CMEI Primeiros Passos (Day care center)	
	Total Project / Activity	534.393,91
07.002.12.365.0013.2013	School Unit Maintenance - Preschools	
02	Municipal School Crescer e Aprender	
	Total Project / Activity	214.368,99
07.002.12.361.0013.2014	Maintenance of Elementary Schools	
03	Municipal School Nossa Sra. Aparecida	
	Total Project / Activity	1.075.670,01

Source: Research data prepared by the authors. Note: Values in Thousands of Reais (R\$), in current prices.

Table 4 presents the details of the expenses involved in activities related to Fundeb. It should be noted that the municipality accounted for expenses only for the Maintenance of Fundeb 60% since approximately 98% of the resources are applied to the remuneration of teachers. According to one of the items evaluated in his study, this disclosure corroborates with the results of the research by Souza (2016), signals that Fundeb is losing the characteristic of financing the maintenance of education, where the resource is concentrated on the remuneration of professionals. Even so, it has not increased its valuation, which increases its working hours.

Account	Title	Amount of expenditure committed by project/ activity and school unit
07.004.12.365.0013.2015	Maintenance of FUNDEB 60% - Child education - CMEI –	
	Daycare center	
01	CMEI Primeiros Passos (Day care)	
	Total Project / Activity	807.085,25
07.004.12.365.0013.2016	Maintenance of FUNDEB 60% - Child education - Preschools	
02	Municipal School Crescer e Aprender	
	Total Project / Activity	693.537,19
07.004.12.361.0013.2017	Maintenance of FUNDEB 60% - Elementary Schools	
03	Municipal School Nossa Sra. Aparecida	
	Total Project / Activity	1.713.716,96

Table 4. Expenditure summary - resources expenses of fundeb

Source: Research data prepared by the authors. Note: Values in Thousands of Reais (R\$), in current prices.

Table 5 shows the results of spending on basic education in the municipality by subfunction, filtering only the activities that refer to spending on funding, excluding capital expenditures to measure spending per student of each basic education teaching modality.

	in by government subfunction a		
	Number of Students		
Subfunction and Activities	attended (School Census)	Expenses Realized	Expenses by student
360 - Basic education	847	1.217.859,42	-
361 - Elementary School	451	2.856.671,78	6.334,08
365 - Kindergarten	396	2.331.133,76	5.886,70

Table 5. Analysis of information by government subfunction and activities

Source: Research data adapted from (Fernandes e Bezerra Filho, 2015) Note: Values in Thousands of Reais (R\$), in current prices.

It was not possible to determine the expenditure per student in the Basic Education Subfunction. It includes the Maintenance of School Transportation that serves only students from the rural area of the municipal network and the state education network. As there is no specific field in the ISPBE to show the expenses with school transportation, it was observed that they are included in subfunction 361, thus increasing the expenses with elementary education. The same situation occurs with spending on School Meals, which is classified in subfunction 306 - Food and Nutrition when municipalities do not separate this expenditure by the school unit.

Table 6 indicates the results of spending on basic education in the municipality by subfunction and school unit level, filtering only the activities that refer to spending on costs, excluding capital expenditures to measure student spending per school. *Table 6*. Analysis of information by object of expenses

Spend object	Number of Students attended (School Census)	Direct Spending	Expenses by student
CMEI Primeiros Passos (Day Care Center)	211	1.391.277,97	6.593,73
Pre school Crescer e Aprender	185	939.855,79	5.080,30
School N. S. Aparecida (Fundamental)	451	2.856.671,77	6.334,08
General Administration - Secretary of Education	847	474.437,99	560,14

Source: Research data adapted from (Fernandes e Bezerra Filho, 2015) Note: Values in Thousands of Reais (R\$), in current prices.

The budgetary data extracted from this municipality allowed demonstrating that the expense locator's adoption shows with greater clarity the calculation of student expenses. These results do not mean the final stage of the investigation, but the beginning of the search for a reliable and consistent information base allows comparisons and evaluates school performance.

For the citizen, the disclosure of public information is presented as operating expenses or capital expenditures. It is analyzed only as public expenditure on education, with no confrontation with the revenue used to perform these services, as occurs in the private sector. The economic result between public and private schools will enable citizens to evaluate the State's actions not by what it consumes but by what it produces. (Slomski, 2007).

A study carried out in India on the economic cost of public primary education found in its analysis that educating a student in public education costs more than twice as much as in private education and with lower learning performance. The results showed that it is necessary to assess whether spending more buys more education. (Pritchett & Aiyar, 2014).

The results suggest that it is possible to improve the legal, managerial, and social control of information, having a starting point, the budget structure, using simple resources that already exist in the municipalities. The detailing of the expense with the use of the expense finder will contribute to greater security and reliability of the information declared to the ISPBE, calculation of the CAQi, monitoring, and monitoring of the fulfillment of the goals established in the National Education Plan, consolidation of the public accounts, in addition to providing external control bodies and society with how much it invests in education in the country, especially in early childhood education, which favors the improvement of the quality of public services provided in education.

## Analysis of the information declared by the municipalities of mato grosso in the current budget structure in early childhood education

For a better understanding of the inconsistencies found in the information made available in the ISPBE, caused by failures in detailing the budget and improvements in the results that the budget structure can apply in improving the information, the changes are shown in the information declared by the municipalities of Mato Grosso:

N°	Municipalities	Expenses wit	h people and		
social charges					
		day care center (Fundeb)	Pre school (Fundeb)	day care center (Own Resource)	Pre school (Own Resource)
01	ALTO TAQUARI	1.199.033,32	1.199.033,35	-	-
02	CANARANA	1.383.343,23	1.383.342,99	-	-
03	NOVA LACERDA	376.166,81	376.167,19	-	-
04	NOVA NAZARÉ	33.689,85	-	100.000,00	100.000,00
05	NOVO HORIZONTE DO NORTE	317.972,85	319.479,49	-	-
06	NOVO SANTO ANTÔNIO	-	249.284,91	121.000,00	121.000,00
07	SÃO JOSÉ DO XINGU	279.266,98	279.266,98	71.273,57	310.000,00
08	TAPURAH	458.411,87	453.757,58	-	-
09	VILA BELA DA SANT. TRINDADE	612.939,88	611.932,53	359.337,16	359.437,27

Table 7. Division of expenses with similar or approximate values in childhood education

Source: Prepared by the authors, data ISPBE/2015 Note: Values in Thousands of Reais (R\$), in current prices.

It should be noted that the amounts with a payroll of the daycare center and preschool in the municipalities are the same, even in the case of different teaching stages, which require the different composition of the professional team and distribution of the number of students per classroom, in addition to the difference in the number of students enrolled in each teaching stage, according to information available in the school census.

The declared information suggests that there is no adequate separation in these municipalities' education budget, showing the adoption of apportionment of expenses with personnel and social charges, dividing the general total spent on payroll, half for the daycare center the other half for preschool. -school. This situation can be explained by the fact that the municipal budget indicates in its 4th level of detail of expenditure, which deals with the Subfunction, only "Early Childhood Education," which does not make it possible to specify whether the expenses are with daycare or preschool, nor the unit school that made the expenditure.

The adoption of apportionment can cause distorted analyzes and reduce reliability in relation to the information disclosed. There is no perfect methodology for making this distribution; what can be done is to reduce arbitrariness (Martins, 2003).

Another situation detected in the analysis of the information declared by the municipalities demonstrates expenditure on the maintenance of daycare centers; however, there is no information on expenses with personnel and charges, or there is information on expenses with personnel and charges, and there is no expenditure on maintenance, as can be noted on Table 8:

*Table 8.* Municipalities that did not have expenses on people and charges or maintenance in daycare centers

N°	Municipalities	Expenses with People and Charges	Maintenance Expenses
01	ACORIZAL	464.628,28	-
02	ALTO BOA VISTA	121.000,00	-
03	BARRA DO BUGRES	806.229,28	-
04	CANABRAVA DO NORTE	100.000,00	-

05	CANARANA	1.383.343,23	-
06	COCALINHO	-	527.884,78
07	CONFRESA	-	14.020,00
08	CONQUISTA D'OESTE	-	168.561,92
09	FIGUEIRÓPOLIS D'OESTE	-	-
10	GAÚCHA DO NORTE	-	178.615,53
11	INDIAVAÍ	-	59.489,80
12	MATUPÁ	578.517,68	-
13	NOVA MARINGÁ	-	179.462,01
14	NOVA XAVANTINA	-	280.359,35
15	PARANAÍTA	13.538,05	-
16	PLANALTO DA SERRA	-	46.279,30
17	PORTO ALEGRE DO NORTE	202.055,24	-
18	PORTO ESPERIDIÃO	300.775,09	-
19	SANTA RITA DO TRIVELATO	812.519,84	-
20	SAPEZAL	3.280.842,08	-
21	SÃO FÉLIX DO ARAGUAIA	-	643.581,05
22	VILA BELA DA SANTÍSSIMA TRINDADE	972.277,04	-

Source: Prepared by the authors, ISPBE / 2015 data. Note: Values in Thousands of Reais (R\$), in current prices.

Another 42 municipalities do not have expenses with legal entities in daycare centers; the amounts are allocated in a specific field in the ISPBE report referring to expenses incurred with the Salário Educação resource, which does not allow to identify if they were spent in elementary or infant education (daycare and preschool).

These pieces of evidence explain the distortion in the calculation of student expenses when the municipality allocates all expenses for the maintenance of schools and daycare centers in the same project/activity in its budget, which does not make it possible to identify the locator of this expense. In this way, expenses with the maintenance of daycare centers and preschools, such as electricity, telephone, water, cleaning material, working material, teaching material, minor repairs, among others, are allocated generically in the Child Education subfunction, in this case, there is a reduction of expenses in one teaching stage and increases in another.

A study on the calculation of financial indicators applied to the management of public and private education institutions of basic education points out the need for a better detailing of budget expenditures to improve accounting information.

The improvement of techniques for recording and controlling individualized expenditure by school would facilitate self-assessment of institutions' efficiency and effectiveness, allowing for better public resources management. Although the expenses are insufficient to provide a complete analysis of school performance, when registered and controlled by the school unit, they expand the research and practices that are still little considered in the literature (Breitenbach, Alves & Diehl, 2010; Amâncio-Vieira et al., 2015).

The results indicate that a budget structure with a greater detail level would improve accounting information, converging to equity accounting through the cost subsystem and instrumentalization of social control.

#### **Final considerations**

This research aimed to propose a structure that makes it possible to show budgetary expenditures with early childhood education students served in the municipalities of Mato Grosso. To make it possible to verify and analyze the accounting information on the resources invested in education and enable the preparation of the budget structure proposal, the municipalities of Mato Grosso that declared information in 2015 through ISPBE were used as a sample.

Qualitative research was used to approach the problem through bibliographic and documentary studies. The secondary documents analyzed in the research were obtained through the ISPBE and School Census, made available by the National Education Fund.

The research evidenced that the problem with budgetary accounting is not only of the analyzed municipalities, several studies listed in this work presented as limitation of the research and its results the same difficulty and inconsistency in the data, originating from their budgetary structures. The results obtained through the practical application of the functionality of the budget structure proposed in this study, in line with the expenditure detail table in the reports extracted from the ISPBE, suggest that it is possible to improve expenditure information in budget accounting in the area of education with the adoption until the level of detail of expenditure by expense locator, a criterion used by the Union. Also, the performance of external control by the Courts of Accounts in the monitoring and evaluation of accounting information in the consolidation of National Public Accounts, allowing comparisons with consistent bases that do not compromise the analysis so much for researchers and decision-making managers.

Both international and national literature has a notorious relevance of services in education at this stage of childhood. Accounting is the link that can allow the disclosure of expenses with early childhood education students and contribute to social control's instrumentalization. It is suggested that it is mandatory to insert the expense locator in the Bill that is being processed in the National Congress, replacing the text of Law 4320/64, which will bring greater security and reliability of the information declared to the ISPBE, in addition to showing how much in fact invests in education in the country, especially in early childhood education and to improve transparency and fight corruption. We hope that this research serve as a basis for studies in other Brazilian states, to assess the current budgetary structure of the municipalities in their details of education expenses, especially child education, divided into daycare and preschool, in a way that allows performance evaluation management and public policies in education between municipalities and states, being able to use economic and social indicators to measure the impact that investments in education represent to Brazilian governments.

#### References

Abicalil, C.; Cardoso Neto, O. F. (2010). Cooperative Federalism and Brazilian Education: *The experience of Mato Grosso [with the] Proposition of a Unique Education System. Unesco*, p. 215-218, Brasília – DF.

Amâncio-Vieira, S. F., Borinelli, B., Negreiros, L. F., & Dalmas, J. C. (2015). A relação entre custo direto e desempenho escolar: uma análise multivariada nas escolas de Ensino Fundamental de Londrina/PR. Educação em Revista, 31(1), 169-194.

- Barcelos, C. L. K. (2003). Functional Classification and Programmatic Structure ENAP. Federal University of Amazonas. Recovered in: August (4th) 2017 of: <u>www.antigo.enap.gov.br/downloads/ec43ea4fUFAM-</u> <u>ParteIIICarlos.ppt+&cd=1&hl=pt-BR&ct=clnk&gl=br.</u>
- BELFIELD, C. & SCHWARTZ, H. (2007) The Cost of High-Quality Pre-School Education in New Jersey. Recuperado in: october 3rd, 2016
- BEUREN, I. M. (org.). (2006). How to Prepare Monographic Works in Accounting Theory and Practice (3<sup>a</sup>. ed.), São Paulo, Brasil: Atlas.
- BEZERRA FILHO, J. E. (2013) Budget applied to the public sector: simple and objective approach. (2<sup>a</sup> ed.). São Paulo, Brasil: Atlas.

. (2015) Budget applied to the public sector: simple and objective approach. (2<sup>a</sup> ed.). São Paulo: Atlas.

BRASIL. Constituição (1988). Constitution of the Federative Republic of Brazil. Brasília, DF, October 5, 1988.

. Federal Law number 4.320. (1964) Established general rules of financial law for the preparation of budgets and balance sheets of the Union, States, Municipalities and the Federal District. Brasília, DF.

\_\_\_\_\_.Federal Law number 13.005. (2014) It deals with the National Education Plan. Diário Oficial da União, Brasília, DF.

\_Information System on Public Budgets in Education. (2016) Municipal reports.

Censo Escolar 2015. Recovered in: 29 oct 2016. Web site: www.portal.inep.gov.br/basica-censo.

\_\_\_\_\_Federal Accounting Council. Resolução CFC nº 1.128/08. Recovered in: 9 oct 2016. Web site: portalcfc.org.br/wordpress/wp-content/uploads/2013/01/Setor\_Público.pdf

Association of Members of the Brazilian Courts of Accounts. (2016) Goals of the National Education Plan (NEP): proposed final report Working Group Atricon - IRB. Cuiabá, MT, nov. 2016. Retrieved on: 10 May. 2017. From: www.atricon.org.br/wp-content/uploads/2016/10/Relatório-do-GT-Atricon-IRB.pdf

Portal Brasil. (2014) Teaching stages ensure citizenship for children and young people. Brasília, DF.

- BREITENBACH, M.; ALVES, T. W.; & DIEHL, C. A. (2010) Financial Indicators Applied to the Management of Basic Education Teaching Institutions. Accounting MagazineVista & Revista, Belo Horizonte - MG, (21)3, p. 167-203
- BUDGET PORTAL. (2017) Union Budget Programmatic classification, 2017. Recovered on: 03 Aug. 2017 from: www12.senado.leg.br/orcamento/glossario/classificacao-programatica

CARA, D. (2015) CAQi-CAQ (Reunião Ampliada – Daniel em 16-12-15) (2).pdf. Recuperado em: 25 set. 2016 de: www.files.uncme-es.com.br/.../CAQi-CAQ%20(Reunião%20Ampliada%20-%20Daniel%20...

- COUNCIL OF ECONOMIC ADVISERS. (2014) The Economics of Early Childhood Investments, Estados Unidos, 2014. Recuperado em: 03 out. 2016. de: <u>www.whitehouse.gov/sites/.../early\_childhood\_report1.pdf</u>
- COURT OF AUDITORS OF THE STATE OF MATO GROSSO. (2015) Annual Municipal Government Accounts. Retrieved on: Oct 29 2016. Web site: <u>www.tce.mt.gov.br</u>
- COURT OF AUDITORS OF THE STATE OF MATO GROSSO DO SUL. (2016) Technical and Operational Cooperation Agreement – TCE-MS. Retrieved on: 10 May. 2017. Web site: http://www.tce.ms.gov.br/portal/admin/uploads/Minuta%20Acordo%20PNE.pdf
- FEDERAL COUNCIL OF ACCOUNTING.(2008) Resolution CFC nº 1.128. Deals with Brazilian Accounting Standards applied to the Public Sector, Brasília-DF, 2008. Retrieved on: Oct 30 2016. From: portalcfc.org.br/wordpress/wp-content/uploads/2013/01/SetorPúblico.pdf.
- FERNANDES, E. S. (2014). Public Sector Cost Measurement and Accumulation Subsystem: a contribution, in accordance with NBC TSP 16.11, Master's Dissertation in Accounting, Vitória-ES.

- FERNANDES, E. S., e BEZERRA FILHO, J. E. (2015). Contribution to the Public Sector Cost Measurement and Accumulation Subsystem Model. In: IX Congress Anpcont, From 31 may until 03 june, 2015, Curitiba-PR.
- LIGOURI e STECCOLINI (2014). Editorial Accounting innovation and public-sector change. Translating reforms into change? *Critical Perspectives on Accounting*. Recuperado em: 11 fev. 2018 de: https://pure.qub.ac.uk/portal/files/16665901/PURE Liguori.pdf
- MACEWAN, A. (2015). Early Childhood Education, Economic Development, and the Need for Universal Programas: With a Focus on New England. Economics, Management, and Financial Markets, (10)1, 11-47.
- MACHADO, N., HOLANDA, V. B. D. (2010). Guidelines and conceptual model of costs for the public sector based on experience in the Brazilian federal government. Rio de Janeiro, Jul / Aug 2010. Retrieved on: Oct 27. 2016 from: www.scielo.br/pdf/rap/v44n4/v44n4a03.pdf.
- MARTINS, E. (2003) Cost Accounting. (9ª ed.). São Paulo, Brasil: Atlas.
- MATO GROSSO. State Law number 10.111. (2014) Provides for the State Education Plan. Official Gazette of the State, Cuiabá, MT, 06 Jun. 2014. Recovered on: Oct 03 2016. From : <u>www.al.mt.gov.br/</u>.
- Ministry of Education [MEC] (2010). Frequently Asked Questions and Answers ISPBE. National Education Development Fund, Brasília, DF, 2010. Recovered on: 03 Aug. 2017. From: <u>www.fnde.gov.br/centrais-deconteudos/publicacoes/category/139 siope%3Fdownload%3D4651:perguntas-frequentes-ISPBE-</u> 2010+&cd=5&hl=pt BR&ct=clnk&gl=br.
- National Treasury Secretariat [STN] (2001). Interministerial Ordinance number 163. It deals with general rules for the consolidation of Public Accounts within the scope of the Union, States, Federal District and Municipalities, and other measures. Official Gazette, Brasília, DF, 07 May. 2001. Recovered on: Oct 30 2016. Web site: www3.tesouro\_fazenda.gov.br/.../Portaria Interministerial 163 2001 Atualizada 2011 23DEZ2011.pdf/.

Questions and answers. Retrieved on: 02 Mar. 2017. Web site: <u>http://www.tesouro.fazenda.gov.br/documents/10180/456785/MCASP+7+Perguntas+e+Respostas.pdf/74482e9</u> 9-9652-4ced-bfee-edcd28bb5214

Accounting Manual Applied to the Public Sector. 7th edition. Retrieved on: 02 Mar. 2017. Web site: <u>http://www.tesouro.fazenda.gov.br/.../MCASP.../6e874adb-44d7-490c-8967-b0acd3923f6d</u>

- PRITCHETT, L., AIYAR,, Y. (2014). Value Subtraction in Public Sector Production: Accounting Versus Economic Cost of Primary Schooling in India, 2014. Center for Global Development. Retrieved on: 12 Feb. 2017 from: www.cgdev.org
- Quality Student Cost Portal. What is CAQi and CAQ, (2015.) Retrieved on: 12 Oct. 2016 from: www.custoalunoqualidade.org.br/o-que-e-caqi-e-o-caq
- SALES, C. L. SOUSA, A. M. D. (2016). The student cost of early childhood education in Teresina: between the reality of Fundeb and the dream of CAQi. Education in Review, Belo Horizonte MG, (32)1, 55-77.
- SILVA JUNIOR, W. S. (2013). Evidence of the Relationship between Investments in Early Childhood Education and Student Performance in Basic Education in Brazil, Master's Dissertation in Economics, Curitiba-PR.
- SLOMSKI, V. (2007). Controllership and Governance in Public Management (1ª ed.). São Paulo, Brasil: Atlas.
- SOUZA, M. C. D. M. E. (2016). The Effect of Public Spending on the Quality of Fundamental Education in Brazilian Capitals: a study based on the indicator of responsible educational quality (IQER), Master's Dissertation in Accounting, Vitória-ES.

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## **Conflict of Interests**

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