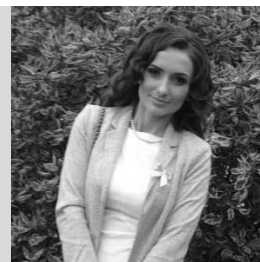


## MAIN STAGES OF ACCOUNTING FOR USE OF FINANCIAL RESOURCES BY BUDGETARY INSTITUTIONS

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**Abstract.** *This article provides an analysis of the legal regulation of providing statistical products, on which the accounting of financial resources of budgetary institutions is conducted. The author demonstrates the structure of financial resources of budget institutions according to the types of expenditure that will help design the model of process-oriented management of a budgetary institution. Also four consecutive stages of accounting costs for exchange operations are explored. The specifics of application of methods for compiling estimates of costing payroll for workers of budgetary institutions of state statistics implies reimbursement for production of statistical products and the lack of income at all stages, it also implies orientation of budget institutions towards public orders, as well as towards demands of other users. The essence of internal and external statistical products of budgetary institutions is clarified.*

**Key words:** *budgetary institution, costs, cost accounting, foreign operations, organization, process, financial resources.*

### 1. Introduction

The activity of budgetary institutions (BI) is organized under applicable law, and its volume is determined by the level of estimated financial costs because financial resources are important indicators of the functioning of the public sector in the national economy. Cost accounting is classified in two groups: the exchange operations costs and non-exchange transactions expenses.

Under current legislation, BI costs are recognized provided that the assessment of financial resources of BI (AFRBI) by type of expenditure can be reliably measured, if the reduction in economic benefits and / or potential, particularly in the form of outflows of financial resources or increasing liabilities of BI [1]. In addition, because of the budget expenditures by appropriations as a formal record of spending units commitment the problem of AFRBI in terms of BI costs is relevant under condition of functioning of the treasury system of serving the BI needs.

### 2. Materials and Methodology

The scientists have dedicated many dissertations to cost accounting in the public sector of Ukraine. Specifically they studied and improved theoretical concepts of accounting operations financed by target budgetary funds (R. E. Fediv) [2]. Meanwhile, T.N. Pisarenko while examining records AFRBI of Healthcare department, suggested certain arrangements to enhance effectiveness of AFRBI [3]. Practical advice in terms of payments processing and payments control efficiency is provided by O.M. Klimenko in the form of automated accounting of health care [4]. The technology of medical and economical planning of health-care setting is developed with the account of actually provided medical and financial resources (R.Y. Vasylyshyn) [5].

SV Sysyuk examined the got issues of accounting, costs control and calculation of paid educational services [6]. Since self-financing activity ensures the formation of 2/3 of a special fund for higher education institutions, N. I. Vatsyk substantiated the feasibility of new approaches to the methods of accounting and control of self-financing institutions. [7] T. N. Kondrashova built a model of financial planning and budgeting for process-oriented management of public institution [8]. N. O. Rudenko developed an approach to accounting that allowed to demonstrate the redistribution of the special fund units between donors and recipients of funds within the budget entity [9].

We are curious about organization of cost accounting for producing statistical products, because until now there was an attempt to deepen the theoretical and methodological improvement and organizational aspects of accounting and control only the income of BI of Statistics in Ukraine [10].

The purpose of our study is the definition of the main steps of cost accounting for transactions exchange of BI of Statistics, as such costs form the value of statistical products. To do this, we solved the following tasks:

- studying the legal regulation of providing statistical products, the accounting AFRBI is conducted on;

- demonstrating the structure of AFRBI by the types of costs;
- determining the steps of cost accounting in budgetary institutions.

In the study of accounting costs of exchange operations in budgetary institutions the methods of comparison, generalization, systematization and synthesis were used.

### 3. Results

Statistical activity of BI is to conduct statistical surveys and provide information services in the form of statistical products. Activity of BI of Statistics is aimed at collection, processing, analysis, dissemination, storage, protection and use of statistical information to ensure its accuracy, and improving the statistical methodology [11].

We'll point out that providing statistical information of BI of statistics for a fee is conducted based on the Law of Ukraine "About State Statistics" and the Regulation of the statistical observations and providing services on a paid basis [11, 12]. These services, accounted by AFRBI by the types of costs include [12]:

- conducting statistical observations, not anticipated by the plan of state statistical observations;
- developing methodological and organizational foundations specially organized by statistical surveys;
- preparing statistical reviews and references on request;
- checking validation of links in the publications, documents, monographs, dissertations, reports, and their editing and translations regarding statistical activities;
- providing methodological services on accounting and statistics;
- processing statistical information collected by corporations and individuals, and conducting statistical analysis;
- providing services by reading rooms for work with statistical publications;
- providing information (except the standard reference) from ESREOU including preparation, publication and distribution of telephone directory and other dictionaries;
- printing and distribution of statistical information, providing printing services regarding statistical activities;
- creating and maintaining databases of statistical data, access to them, including real-time;
- development, implementing, support and maintenance of software for processing statistical data and providing corresponding keys;
- computer processing of statistical data and training users to process it;
- implementation, support and maintenance of software and hardware systems for the collection, processing, storage and analysis of statistical data;
- conducting scientific (including international) symposia, conferences, short-term seminars and meetings on accounting and statistics.

The exploitation of financial resources by the National Bank of statistics is carried out in accordance with the following types of costs (Fig. 1):

1) costs for exchange operations arising from the exchange of statistical products for cash, services or other assets [13, p. 216]. Such costs include the following cost elements:

- remuneration (salary, allowance of servicemen);
- social events;
- material costs (exploitation of items, materials, equipment, tools, medicines and dressings etc.);

- depreciation;
- financial costs (public sector entity regarding borrowings under the law: interest on loans, bonus, discount on securities, debt servicing, etc.);
- other expenses for exchange transactions (exchange differences, costs associated with the sale of assets, loss on impairment of assets, etc.).

2) non-exchange transaction costs arising from the fulfillment of certain conditions. Such costs include the following cost elements:

- transfers (subsidies, grants, social benefits, etc.);
- other non-exchange transaction costs (costs associated with the transfer of assets transmitted by agents of the public sector entities, individuals and other entities of the public sector to perform targeted measures, written off receivables, non-return of deposits, etc.) [1].

Under the provisions of accounting in the public sector [1] the costs of BI exchange operations statistics, including costs associated with the implementation of their powers by BI of Statistics defined by law, or transmission of statistical products for conducting measures not related to the main activity of BI of Statistics covered by budget allocations are recognized simultaneously with a decrease in assets and an increase in liabilities. The cost of BI of statistics associated with the release of statistical products to obtain their own revenues from fees for services provided by BI according to their main activity, and further (economic) activities are recognized simultaneously with the receipt of income and based on conditions of the contract and completion of the operations for the production of statistical products on the balance sheet if the result can be reliably estimated. At the same time, the costs of non-exchange transactions of BI of Statistics are recognized simultaneously with the disposal of statistical products, leading to a decrease of future economic benefits and / or service potential associated with the use of the asset and provided that the expenses of BI of Statistics can be reliably evaluated.

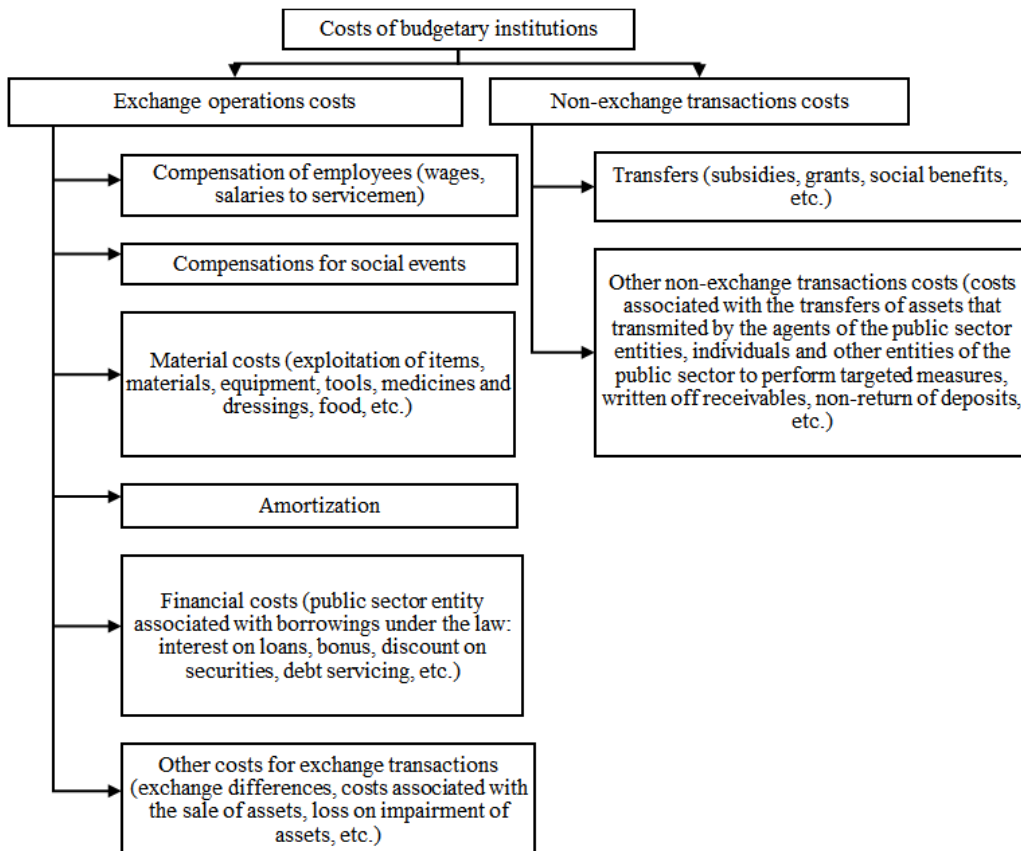


Figure 1. Exploitation of financial resources in the BI by costs [1]

In general, BI of Statistics have already had attempts to estimate the costs of exchange operations. Until now methods have been primarily focused on the volume of statistical indicators and obsolete corresponding processes of data processing. Effectiveness was to verify the maximum number of employees of structural divisions, partly labor costs and other expenses calculation are not provided. Methods of forming payrolls for staff of BI are based mainly on cost-based mechanism. The basis of this principle is structuring material costs and their distribution between statistical products based on the system of working hours. In particular features of application of methods for compiling calculations of payroll for staff of BI of Statistics include all stages of cost accounting for production of statistical products:

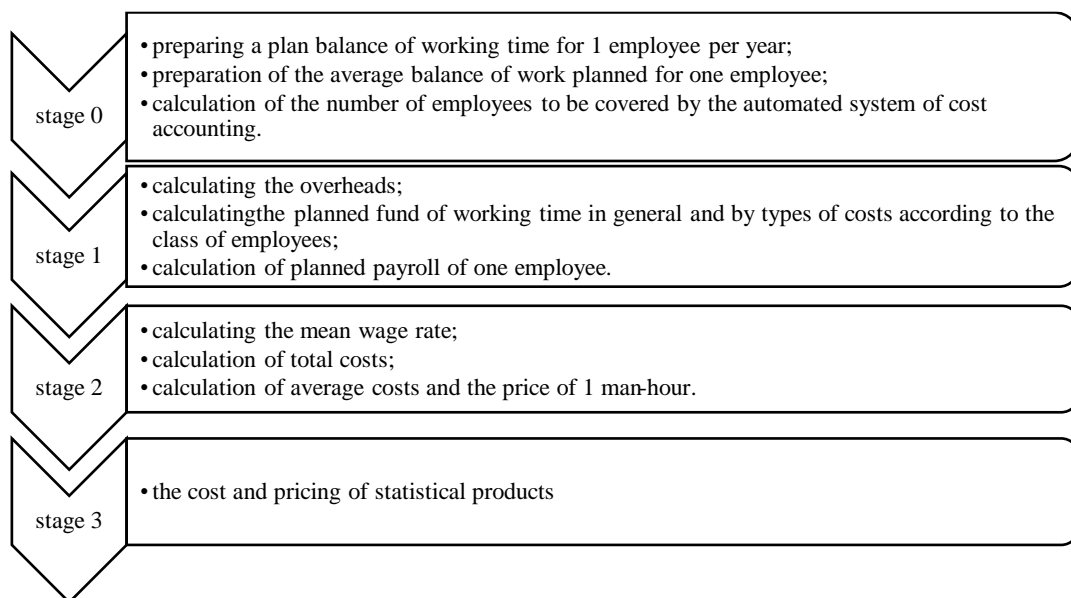
- Reimbursement of costs and the lack of profit;
- Focus on government orders, as well as demand from other users.

The process of exchange transactions cost accounting in BI occurs in four stages (Fig. 2).

At the preparatory stage they make a plan balance of working hours per employee per year, using data from actual accounting of staff time - based on the reports of working time for individual work in the context of structural divisions and categories of workers. Later they make an average plan balance of working hours per employee. The calculation of the number of employees to be covered by the automated system of cost accounting divides employees in four categories in terms of payment and the complexity of work.

In the first stage they calculate the value ratio of overhead costs to the value of fixed costs based on dynamic statistical analysis of the cost structure and set a corresponding factor (ratio) of overhead costs for 1 UAH of fixed costs. Setting standards for overheads of statistical products production is conducted in the following order:

- studying the dynamics of the cost structure for three years;
- grouping the total cash costs (including VAT) and special funds (excluding VAT) by the calculation articles;
- calculating the average value of each type of costs;
- calculating the ratio of overhead costs to fixed costs.



**Figure 2. Stages of accounting costs of BI of Statistics**

Based on ratio analysis of working time structure calculated they set a fund of working time for categories of workers in general and by types of costs. For the calculation of planned working time for categories of workers they use coefficients of working time of each category of workers that characterize the absolute value of the ratio of the actual amount of time spent by employees in each category to the total amount of time spent by employees of all categories.

Eventually, a planned payroll per an employee is calculated, which is conducted in general and for each category of workers. They set a mean value of base salary and mandatory payments per an employee. Based on the existing standards of payment and actual ratios they calculate the value of incentive-bonuses and other benefits. For the calculations the implementation of management accounting registers is recommended, they would contain:

- effective construction of averages by types of remunerations;
- analytical grouping of categories of workers;
- calculation of ratio payroll structure to perform vertical analysis on.

The second stage of costs accounting in BI of Statistics includes calculation of the mean wage rate, based on figures of estimated payroll and balance of work per an employee. Tariff rate as the base rate is calculated by the institution in general and for each category of workers in particular.

Total expenses consist of fixed costs and overheads, so these indicators are the basis for:

- planning payroll in the whole institution and by category of workers. Labor costs per unit of work hours and planned fund of working time are ;
- the value of payroll increment, considering the interest of an accrued single fee for obligatory state social insurance;
- the value of total costs by BI, considering the standard of overhead costs and the value of BI basic costs.

Since the structure of one man-hour of work reflects the structure of time needed to produce both external and internal statistical products, that take useful time so to calculate the average cost of one billable hour we recommend determining the value of the total cost of one billable hour of useful time.

For a consumer the external statistical products are opportunistic. According to the structure and division of work performed by structural units of the institution the part of time is taken to perform domestic work. Internal statistical products have no external customers, but their performance is good, as they contribute to the production of external products. They have value, but are not sold. The cost of domestic products based on the statistics of timefund is included in the price of external works produced during fixed working hours. The average price of one billable hour is determined by the value of total costs per unit of normal time.

The third and final phase of costs accounting in BI of Statistics includes calculation of the value of statistical products and prices. If the cost of the statistical product is a total cost of man-hours spent on its implementation, the cost of the statistical product is the price of one billable hour spent on its implementation. Formation of prices is carried out only for internal statistical products. Typically, the value of prepaid products for external statistical products of BI is fixed by agreement or a contract.

These statistical products, developed by Department of Statistics in Lviv region are [14]:

- the region passport as a database of basic indicators of socio-economic situation in general in Lviv and in each local governmental area in particular, including small areas;
- automated information processing system at local councils is a statistical software product designed to automate economic accounting at local councils, accounting of land resources, as well as the collection and processing of information within the competence of local authorities;
- Statistical monitoring of socio-economic development of Lviv is database of analytical information, which prepared by the Department of Statistics during the calendar year, grouped by industry statistics and territorial sections (Ukraine, Lviv region, Lviv region in the context of regional centers and districts, cities and districts of Lviv region).

So far, studies of cost accounting of BI have been carried out only in the areas of education and health services. Therefore, disclosure of costs accounting process in the BI of Statistics is to highlight the main features of calculating overheads and financial resources for BI exchange transactions on the issue of statistical products. This will design a model of BI process-oriented management .

#### 4. Conclusions

BI of Statistics carry out exchange operations as there is an exchange of statistical products to financial resources, services or other assets. Therefore, the organization of AFRBI accounting implies that accounting display of BI exchange transactions costs associated with the release of statistical products has four stages.

Modern realities of integral effective national system of official statistics show attempts to bring it into line with EU standards in statistics because the prospect of further researches is to develop recommendations for the improvement of accounting of financial resources to pay salaries to staff of budgetary institutions of statistics.

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