

Research on the Training Cost of Colleges and Universities Based on Service Orientation

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Abstract: The approved training cost is an important index to measure the efficiency of a university's fund use. On the basis of previous studies, this paper is based on the actual cost data of the University year, guided by the provision and acceptance of services, in line with the principle of consuming resources for services, and in accordance with the transfer process of service costs. The resource consumption cost incurred in the process of cultivating students in colleges and universities is distributed in an orderly manner. Finally, the average cost of training students in different disciplines of colleges and universities is measured, and a service-oriented per capita training cost measurement method is formed. The cost accounting work provides some theoretical and empirical support, which makes the research on the training cost of colleges and universities in China constantly improved.

1. Introduction

The verification of the training cost not only provides a basis for controlling the arbitrary charge of education, but also reflects the management situation inside the university. Because the per capita training cost is an important index to measure the efficiency of the use of funds in a university. The accounting and measurement of the per capita training cost of college students is an important means to strengthen the management of colleges and universities. It is impossible for exhibitors to know the efficiency of running a school, nor to evaluate the level of running a school and management scientifically. At present, many local colleges and universities have serious problems, such as backward management ideas, weak cost management consciousness, weak benefit consciousness, imperfect cost management system, backward management means and unscientific management methods [1]. The recognition and measurement of the per capita training cost of college students has always been a vague concept. On the one hand, educational resources are scarce, on the other hand, there are serious waste of resources, such as duplicate construction, resources can not be shared, low utilization of large-scale equipment, unreasonable allocation of resources [2]. In addition, the schools do not clarify the cost of cultivating students in various faculties and disciplines. It is impossible to know whether the fees of each department are reasonable in the budget, and only the indicators of each college can be classified according to past experience. If we can accurately measure the cost of college students' training, we can scientifically compile the budgets of various departments. This study is based on this. The expected conclusion of the study is to reasonably calculate the cost per student cultivation cost of each subject.

From the point of view of the existing research, although there is the accounting of training cost, most of the papers focus on how to establish the model of calculating training cost, how to calculate the average training cost of students, how to define the concept of standard students, which should be abandoned and which should be included in the cost scope, and then modify it. Formula for calculating cultivation cost [3]. Few people have mentioned that standard students in standard costs are not easy to achieve, and the cost per student is affected by many factors and should be measured by actual cost. Almost no one is considering the provision of services and receiving, and the distribution of costs based on the principle of income. There is usually a difference between the school's fiscal funding source and actual expenditure. Therefore, when calculating the cost per student, it should be classified according to the economic category of the school's actual expenditure, and not classified by the fiscal expenditure economic category [4].

The purpose of this study is to calculate the average cost of education through the analysis of the training cost of colleges and universities, to provide a basis for tuition collection and financial allocation, and to lay a foundation for South China University of Technology to rationally allocate resources and improve the efficiency of running schools. Through the implementation of cost control of training in Colleges and universities, the waste of educational resources can be avoided and the amount of educational costs can be reduced. Thereby reducing the burden on schools and families. At the same time, it discusses a reasonable method of measuring the cost per student training cost based on service orientation, and correctly divides the boundaries of various costs and expenses, so that the results are more accurate. This study hopes to provide a theoretical basis for the proper settlement of debt pressure through education cost analysis, and promote the stable and healthy development of domestic universities.

2. Basic Concepts of Service-Oriented Cost Accounting in Colleges and Universities

2.1 Prerequisites for Cost Accounting of Average Student Cultivation

The cost measurement of per capita training is affected by many factors. If every factor is not taken into account in detail, the cost measurement will not be carried out [5]. Therefore, before and after the cost measurement work, the internal and external conditions that satisfy the research must be Abstracted and agreed upon. We classify the basic premise of the cost per student as the following seven aspects.

Cost measurement subject hypothesis. Educational service providers are schools, which naturally become the main body of cost measurement. Considering the specialty characteristics of disciplines trained by college students, the university is regarded as the main body of cost measurement to provide cost information to the outside world and the Department as the main body of cost measurement to provide internal cost information in the process of cost measurement. In the specific accounting organization, the department first class collects the measurement teaching cost, the school level non-faculty department collects the measurement public cost, and allocates the public cost to the teaching cost, and measures the complete training cost.

Cost calculation object assumption. In addition to training students' teaching activities, colleges and universities also engage in a large number of scientific research activities and social service activities. How to measure the educational resources occupied by scientific research and social service activities? We believe that the "main product" of schools is "students". Providing scientific research and social services will produce "by-products", and the production of "by-products" will serve the "main products". Therefore, we assume that students are the only cost-calculating objects, and the cost of research and social service activities needs to be borne by the student's final product.

Cost calculation period assumption. The product training cycle of colleges and universities is generally a school year, that is, from the month of that year to the end of the second year. However, at present, the allocation of funds for colleges and universities is in the Gregorian calendar year, that is, the month and day of the same year. At the same time, the collection of service cost of service assembly points in the process of accounting in Colleges and universities is also carried out according to the Gregorian calendar year. If it is difficult to obtain and process data according to the annualized year of the school year, it is assumed that the calendar year is the calculation period when the average cost is measured.

Price stability hypothesis. The per capita cost accounting of college students reflects the consumption of various service values in the process of training students in the form of value. Frequent fluctuations in the price level can lead to the inability to measure service costs, and the measurement results are not comparable. In order to measure the cost per student cultivation cost under relatively stable conditions, it is assumed that the price level of each period is constant, and the influence of price changes on the measurement results is not considered.

Reasonable assumption of expenditure. The average training cost of a student is the result of collecting and distributing all kinds of expenses actually incurred by training a student according to the object of cost calculation and the project. However, in the process of expenditure, colleges and

universities may make unreasonable contributions. If unreasonable expenditure is excluded in cost measurement, it will be very important to define each expenditure rationally, but how to define and verify it has become a difficult problem. Therefore, in the measurement process of the average cost of cultivation, it is assumed that the expenditure data dependent on it is reasonable, and the irrational phenomenon is not quantified.

The assumption of equal training costs. In the course of several years' study in universities, due to different teaching plans and different curriculum settings each year, the actual service costs are very likely to be different each year. If the cost of each year is measured separately according to the actual curriculum and teaching arrangement, the cost accounting and measurement workload will increase. At the same time, because the annual change of students is not too large, the average cost of students in different grades has a relatively small impact. Therefore, in the measurement of the cost per student, it is assumed that the training costs of different majors and different grades within the same college are consistent and the training costs are different for different academic years.

The hypothesis of student homogeneity. The quality of students trained by the same teaching plan and method varies greatly, and its influencing factors are various. According to the empirical relationship between the high cost of high-quality products and the low cost of low-quality products in industrial enterprises and the production cost, the different cost of University Students' quality should also be different. However, due to the lack of effective standards for the identification of differences in student quality, the cost measurement process can only assume that students of the same discipline have the same quality.

2.2 The Principle of Cost Accounting for Students' Per Capital Training

Historical cost measurement. All assets are measured according to the amount of cash or cash equivalents paid at the time of purchase or the consideration paid at the time of purchase of assets, and all liabilities are measured according to the amount actually received or assets due to the current obligation or the contract amount of the current obligation. Or, according to the amount of cash or cash equivalents expected to be paid for repayment of liabilities in daily activities, all income and expenses are measured according to the actual amount incurred.

Complete cost measurement. The "production and operation" activities in Colleges and universities have the characteristics of more indirect costs, less direct costs, more kinds of products, and various activities carried out simultaneously and cross each other. The occurrence of various indirect costs has more or less affected the provision of normal services in Colleges and universities, which should be one of the components of students' training costs. Therefore, the full cost method is adopted in the cost measurement process, and all the expenses of the university in teaching and other related service processes are regarded as the student training cost, which inevitably improves the integrity and accuracy of the cost per student cultivation cost.

Divide capital expenditure and current expenditure. Capital expenditure refers to the expenditure that benefits reflect in two or more accounting years, such as the purchase of fixed assets, intangible assets and so on. Recurring expenditure refers to the benefits that are only reflected in an accounting period, such as wages and office expenses. According to the principle of matching, capital expenditures must be borne by students of different benefit periods, and recurrent expenditures should be included in the current period.

Divide business expenditure and infrastructure expenditure. Business expenditure refers to the expenditure incurred in the process of personnel training, including personnel expenditure, public expenditure, subsidies to individuals and families, etc. It should be directly included in the cost of student training. Infrastructure expenditure is the expenditure to guarantee the necessary conditions for running a school and maintain the ability to continue to operate. The student training costs should be entered in stages according to the depreciation system prescribed by the state.

To divide the training cost of different disciplines. Because the process and cycle of personnel training in different disciplines are different, the boundaries of training costs between different disciplines must be clearly defined in cost measurement. The cost of student development in different subject categories in the same university should be calculated separately and should not be

calculated on the same grade.

2.3 Foundation of Cost Accounting for Students'Per Capital Training

The current accounting in Colleges and universities is based on the cash basis. If the actual payment of funds is taken as the expenditure of training students in a certain period, it will distort the data of students' training cost. For example, in terms of income, the tuition fees owed by students can not determine their income and underestimate their income and expenditure. The value of land is increasing day by day. If the expenditure on land purchase is directly included in the current purchase period, the cost will be greatly increased, and the cost will be reduced in the future. In order to ensure the authenticity and comparability of the cost data, the accrual basis can be used as the basis for measuring the cost per student. All income and expenses that should be in the current period, regardless of whether the payment is received or paid, are used as income and expenses for the current period. Although the amortization value of long-term assets cannot be obtained directly from the book, the asset value can be amortized according to the original value of the long-term assets. When measuring the amortized value of assets in the continuous accounting period, it can be added to the amortized value of the assets in the previous period, plus the amortized value of the assets in the previous period, less the amortized value of the assets scrapped in the current period.

2.4 Cost Accounting Content of Students'Per Capital Training

The Office of the National Development and Reform Commission, the Office of the Ministry of Finance and the Office of the Ministry of Education have unified requirements for the measurement of the cost of training college students, which mainly include the following contents.

Personnel costs. Personnel expenses mainly include salaries of faculty and staff, medical insurance and other welfare expenses, and retirees' expenses. Allocation of medical expenses for personnel.

Business expenses. Operational expenses refer to expendable expenses and low-value consumables purchased by institutions of higher learning to complete professional activities. Including school expenditure on teaching, production practice, material handouts, enrollment and employment, textbook editing and approval, printing of business materials, travel expenses, etc., low-value consumables such as instruments purchased for scientific experiments, chemical reagents, material costs, printing of professional materials and research costs such as scientific investigation.

Official expenses. The official expenses refer to the expenses used by the higher education institutions for daily administrative management and related official activities, including office expenses, post and telecommunications charges, utilities, public heating fees, travel expenses for staff, travel expenses for foreign agencies returning to the country, maintenance and repair costs for equipment, vehicles, and ships. Motor vehicle fuel, insurance and road maintenance fees, conference fees, site vehicle and boat rental fees, hospitality, etc.

Student scholarships. Including ordinary scholarships undertaken by the school, according to a certain percentage of tuition income, difficulty subsidies, work-study and other forms of scholarships.

Long-term asset amortization fee. The equipment has the characteristics of one-time purchase and multi-year use, and the equipment purchase fee is amortized on a yearly basis. The purchase expenses of special equipment, general equipment, transportation vehicles and other equipment incurred by the school in the current year are respectively calculated according to the actual expenditure and the calculation, that is, the annual, annual and annual amortization.

3. Cost accounting method for per capita training of College Students

3.1 Dividing Service Aggregation Points

Service agglomeration point refers to the attribution point of service integration cost, which is similar to the cost center in management accounting, where the total cost of receiving services is aggregated. According to the characteristics of the circulation of service cost in Colleges and

universities, Following the principles of independence and operability, the service aggregation points of universities can be divided as shown in Table 1.

Table 1 Division Table of Service Agglomeration Points in Colleges and Universities

Type	Sector Categories	Name of assembly point	Explain
Final Service Aggregation Point	Teaching Department	College A College B ...	Departments of Teaching Departments
Over-service Aggregation Points	Organs and Business Departments	Sector A Sector B ...	Setting up according to organs and business departments
	Public Category	Daily public expenditure	Public expenditure at school level
		Public Long-Term Assets Use Fee	Amortization of common assets

3.2 Aggregate Service Aggregation Point Cost

According to the caliber of cost calculation, the service costs of different service agglomeration points are aggregated. If it is a direct cost, it is directly charged to the corresponding service agglomeration point. If it is an indirect cost, it should be shared by multiple service agglomeration points. The specific allocation is as follows: if it can be allocated to the relevant service agglomeration point according to the existing information, it will be charged to the actual service consumption of each service agglomeration point, such as the teaching department. If there is no relevant information about the allocation of the amortized amount of fixed assets used by the door, it is accounted for according to the service motivation allocation. At this time, it is necessary to use the service motivation allocation rate, which is equal to the service motivation consumed by a certain kind of service assembly point where a specific cost object occurs, and all that happens to the cost object. The ratio of the total amount of drivers consumed by the service assembly point to the total amount of drivers consumed by the service, Then, by multiplying the service driver quantity of each service aggregation point and the service driver allocation rate respectively, it is possible to calculate the service to be allocated for each service aggregation point. In view of the difficulty in obtaining data related to services in real universities, the number of faculty, the number of students, and standard class hours can be used as service drivers.

3.3 Distribution of Service Aggregation Point Cost

3.3.1 Distribution of daily public expenditure costs according to service orientation

Daily public expenditure refers to the expenditure incurred at the school level, which cannot be directly attributed to the expenditure of any department. From the perspective of service motivation, any daily public expenditure can find certain or uncertain service recipients. Therefore, this type of expenditure can be allocated according to the beneficiary. In reality, there are mainly the following allocation categories:

Distribution according to the number of staff and faculty in the organs and business departments, including the service cost of teachers in the service convergence points of the organs and business departments, hereinafter referred to as the cost of teachers, such as the party and government public operation fees.

According to the number of faculty and staff in the teaching department, it is included in the teacher service cost of each teaching department, such as school hospitality.

According to the number of students in the teaching department, it is included in the service collection point of each teaching department. The cost of receiving the service is hereinafter referred to as the student cost, such as the student's "three gold" expenditure and hydropower expenditure.

3.3.2 Distribution of organ and business department costs according to service orientation

Organs and business departments refer to non-teaching departments that provide services for students and staff. The cost of their collection should be shared among the number of students and staff receiving services, and should be included in the cost of different service assembly points. Among them, the departments directly providing services for students, including the Student Work Department, the Youth League Committee, the Admissions and Employment Office, and the Psychological Counseling Center, are directly allocated to the cost of each college according to the number of colleges. The departments that mainly serve teachers include party offices and supervisors. The costs of the audit, science and technology department, and personnel department are included in the cost of teachers in each college. The departments that serve both teachers and students, such as the Academic Affairs Office, the Planning and Finance Department, the International Exchange Office, and the Library. The cost of the collection is divided according to the principle that the number of students in the college and the number of teachers is half of the burden. The portion of the income allocated by the number of students is included in the cost of the students in each college. The portion of the distribution according to the number of teachers is included in the cost of teachers in each college.

3.3.3 Distribution of public long-term asset use fees according to service orientation

Public long-term assets refer to the long-term assets of undefined users, mainly including school teaching buildings, office buildings, student dormitories, other buildings, books, land use rights and other assets, excluding the long-term assets used exclusively by various teaching departments. Asset use fee refers to the annual amortization value of public long-term assets, and the asset use fee of teaching department is included in the operation cost of each department. Since this part of the assets belongs to the school's public assets, each student has equal opportunities to use, so it can be seen that each student can enjoy the services provided by the assets. The amortization value of the assets can be calculated according to the number of students as the standard of distribution. Into the cost of students in different teaching departments.

3.3.4 Distribution of Teacher Costs in Teaching Departments Interactively Based on Service Orientation

Teachers in a teaching department may provide teaching services for students in other departments as well as teaching services for students in this department. According to the principle of service orientation, the cost of the collected teachers should be borne by all the students receiving the services. Therefore, the cost of faculty teachers can be allocated interactively according to the workload standard class hours of teaching services provided between colleges, which can be included in the cost of students' training in different colleges. In order to simplify the allocation, the allocation base is only the cost of teachers before the interactive allocation. Calculate the total training cost and the average cost of training in each teaching department. Collect the total training cost of different teaching departments, allocate the total training cost between graduate students and undergraduates, and calculate the total cost of graduate students and the total cost of the undergraduate students. By dividing the total cost by the corresponding number of graduate students and the number of undergraduate students, the cost of cultivating students in different colleges and undergraduate students can be calculated. According to the above-mentioned method for measuring the average training cost, the measurement process of the average training cost can be summarized, as shown in Figure 1.

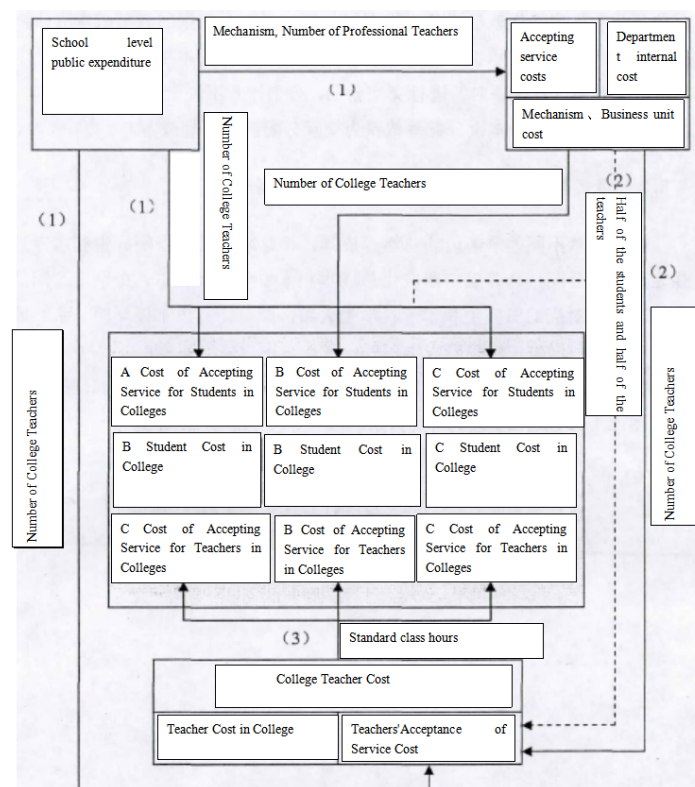


Fig.1. Flow chart of cost accounting for per capita training

4. Conclusion

The approved training cost not only provides a basis for the control of arbitrary charges for education, but also is an important indicator to measure the efficiency of the use of funds in a university. On the basis of previous studies, based on the actual cost data of the University year, guided by the provision and acceptance of services, in line with the principle of service consumption resources, and in accordance with the transfer procedure of service cost, this paper distributes the resource consumption costs in the process of training students in Colleges and universities in an orderly manner. Finally, the average cost of students in different disciplines of colleges and universities is measured, and a service-oriented method for measuring the cost per student is established. This provides partial theoretical and empirical support for the cost accounting of colleges and universities in China. Research on training costs has been continuously improved.

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