

## A METHOD OF SALARY CALCULATION OF THE LECTURER

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*In higher educational institutions of the Soviet Union and Post-Soviet Armenia salaries of lecturers were calculated at the rate plus hourly payment format where the same lecturer received a higher salary in case of teaching the same subject on the rate basis than when teaching the same on an hourly basis, which is not fair. Taking into consideration the experience of recent years at a number of universities, this article introduces a methodology for professorial staff salaries, based on the principle that, irrespective of rate or hourly based teaching, the lecturer receives the same fee for the class.*

**Key words:** higher educational institution, academic staff, academic degree, academic rank, individual teaching capacity, curriculum, salary, number of hours

### Introduction

Within the frameworks of the European Association of Higher Educational Institutions (EURASHE) and the European Standards and Guidance (ESG) programs it was clear that only external quality assurance functions can not provide a satisfactory quality of education. Quality assurance can only succeed when it is associated with the traditions, culture, fundamental values, principles, vision and mission formed in the organization. And in this context, the most important factor is the human resource. Man and his activity have always been the main power of society, the core of the productive forces and the driving force, the main source of wealth, the main means of increasing the value among other factors of production. Quantitative and qualitative assessment of human activities is one of the problems which require economic solutions [1]. Any good that is created in the world involves material work, and from this point of view the substance of the whole of the goods and services surrounding us is the work that is taking place between man and nature where man uses his physical and mental abilities, his experience and skills, makes the subject of nature a useful value for himself and others as well. It is not accidental that in the countries with developed economies, a large proportion of national wealth (with broad definition, wealth is what man values [2, p. 303]) is human capital. Thus, in 2012, the US national wealth was estimated at \$ 285 trillion, from which \$ 247 trillion (86.7%) is the cost of human capital, while natural resources cost \$ 2.1 trillion (0.74%). The share of human capital in national wealth is 90% in Canada, 60-80% in EU countries and 75% in Japan. It is also worth mentioning K. Marx's words that rich nations are those who have more free time. It is precisely this very circumstance that defines the meaning of scientific and technical progress when employers in the field of material production (in the broadest sense of the production of value and wealth [2, p. 298]) get the implementation of their activity in the non material sphere, i.e. in service sector.

The lack of inflow of young scientists, aging educational potential and non attractive salaries in the scientific and educational field are a serious threat not only to developing countries, but also to developed countries such as the USA, Germany and Japan. *The New York Times* has released a remarkable article about a survey in which the salaries of professors in different countries around the world are compared [3]. The specialists of the US Center for International Higher Education Philip Altbach and his colleagues published a book entitled "Paying the Professoriate" in which they have sought to clarify the salaries and benefits of professors in state universities of 28 countries by

comparing salaries to other sectors. According to the survey, salaries are the lowest in the sphere of science and education in Armenia, about \$ 500, and the highest in Canada, about \$ 7,000. The authors have divided the world into two parts, those of brain outflow and brain-concentrated thus showing how countries with high incomes attract academic talents from poor countries. Certainly, in some developing countries some universities are trying to prevent this trend by offering certain benefits. For example, during the first marriage in Mexico, lecturers are provided with marriage bonuses and "two cider bottles and a frozen turkey on the eve of Christmas." During the survey, the salaries of the academic sector in each country were first compared to GDP per capita in that country and then to salaries of other sectors. In each of the 28 countries, the research team conducted a survey whether the average academic salary in that country is sufficient for having an average living standard. According to the survey, in many countries the gap between the leading research universities' professors and those of colleges who are at the lower levels of the academic hierarchy is increasing.

It turned out that the academic newcomers who earn \$ 259 per month are the lowest paid professors in China. According to the survey, they earn less than their counterparts in Armenia (\$ 405) or Ethiopia (\$ 864). The highest salary is paid to young Canadian professors, \$ 5730 per month, and the experienced professors with average \$ 9485 monthly. Experienced instructors are highly appreciated in Italy (\$ 9118), South Africa (\$ 9330), Saudi Arabia (\$ 8524), Great Britain (\$ 8369), Malaysia (\$ 7864), Australia (\$ 7499), India (\$ 7433) and the United States (\$ 7358).

An interesting result has been obtained in Ethiopia where though the average monthly salary in education is \$ 1207, the professors are considered the highest paid professionals because their salaries exceed for 23 times the average GDP per capita. (For comparison, the average salary of professors in the United States, Germany or Australia is about twice as much per capita than the GDP per capita). According to the survey, despite the fact that Russia is the only country in which the actual average salary of the teaching staff is less than the GDP per capita (60%), in almost all studied countries professors earn significantly less than other skilled workforce in other sectors. For example, professors earn about 50% less than those with the same experience in Kazakhstan. In addition, the authors of the book warn that in the near future "it will be difficult for young talents to engage in education in Japan, Germany, Israel and the United States if salaries do not rise in lower hierarchy." In Germany where lecturers are considered to be civil servants, the work has become less attractive than that in the industry or in the state administration system. As a result, professorial staff is forced to find other sources of income. According to the authors, a common way of survival is to provide counseling outside the university. Additionally, lecturers are required to provide additional lessons in private, noncommercial or business schools. According to Kerry Nelson, president of the Association of Professors of American Universities even higher salaries can be misleading. "The hidden truth about the salaries of lecturers is that some professors are paid abundantly and have gained wealth but others are on the verge of poverty.

Surprisingly it is possible to meet the representatives of the two groups in the same country" [3].

The amount of monthly salary of the teaching staff (hereinafter referred to as the Lecturer) of higher educational institutions is defined taking into account the academic load, academic degree, academic title and position of the lecturer in the academic year in a number of universities. Each lecturer is presented his/her teaching capacity for the academic year by the chairs. The submitted load is apt to be approved by the dean of the relevant faculty or the chair. The lecturer confirms that he agrees with the submitted capacity. Then, the academic department of the University checks the overall load of the chair and individual loads for individual Lecturers. The Vice Rector for Academic Affairs, according to the presentation of academic department, approves the individual loadings provided by the chairs which determines A capacity for the Lecturer. There are 2 ways to calculate salary: a lecturer with rate and hourly pay. The employer is considered to be hourly rate lecturer with

the annual capacity of 175-1080 hours - 175-270 hours (0.25 rate), 271-540 (0.5 rate) and 541-1080 (1 rate).

One rate lecturer's monthly salary is calculated by  $A \cdot k$  formula where  $A$  is the lecturer's annual capacity,  $k$  is the salary index (approved by the decision of the board of trustees of the university) depending on the academic degree [4].

If there are not changes in the lecturer's capacity during the year, he gets the same salary from September to June.

The salary of the hourly – paid lecturer is calculated by  $a \cdot k \cdot 10$  formula in which  $a$  is the number of hours taught by the lecturer in the given month,  $k$ - is the coefficient mentioned above [4].

### Conflict settings

The University often deals with realities when the lecturer's annual capacity is altered and as a result we have.

- during the academic year, the rate lecturer's annual capacity is changed
  - a) continuing to be a rate lecturer
  - b) becoming an hourly paid lecturer
- an hourly–paid lecturer's annual capacity is changed
  - q) becoming a rate lecturer
  - η) continuing to be an hourly-paid lecturer
- $k$  of the lecturer is changed

The task is set to work a method out in these cases to determine the amount of the salary of the lecturer.

### Research results

To calculate the salary of the lecturer of the university in case of change in his/her annual capacity it is necessary to

- a) calculate according to the case a)

$$B = \left( a \pm \frac{b \cdot 10}{10 - n} \right) k \quad (1)$$

formula where  $B$  is the amount of new salary,  $a$  is the capacity at the beginning of the year,  $b$  is capacity change,  $n$  is the number of months since the beginning of the academic year till the period of change,  $k$  is the index of salary.

If the change corresponds to the case b) above mentioned, i.e.  $a - b < 175$ , then the calculation of the salary is done as follows.

- the factual salary of the lecturer before the change of capacity is calculated by the formula  $C$  and the number of hours corresponding to the salary by the formula

$$c = \frac{c}{10 \cdot k}$$

- the number of hours taught factually before the change of capacity is calculated by  $e$  and  $E = e \cdot k \cdot 10$ (the salary which corresponds to the number of hours)

- if  $e - c \geq a - b > 0$  then the lecturer is paid  $10 \cdot (e - c) \cdot k$  sum and he stops teaching in that academic year without new agreement
- if  $0 < e - c < a - b$ , then the lecturer is paid  $(e - c) \cdot k \cdot 10$  salary, and the rest  $(a - b) - (e - c)$  number of hours is distributed according to the remained months
- if  $e - c < 0$ , then  $e - c$  is added to changing  $b$  hour and is distributed to the remained months

When the capacity  $a$  of the hourly rate lecturer increases with  $b$  during the year and  $(a + b) \geq 175$ , then his salary is calculated by minusing the taught  $a'$  amount of hours and the money he had already got for it from his annual capacity and adding  $b$  as a result of which we get  $(a - a') + b$  despite the last sum is more that 175 or not, his salary for the remained months is calculated by  $((a - a') + b) \cdot k$  formula.

If the rate lecturer shows disability sheet then the calculation of his salary is different from the traditional salary calculation.

If the lecturer submits a disability sheet at the University in any month, then the monthly salary is calculated by hourly rate, i.e. the corresponding salary is calculated on the hours she / he has taught during the month and the benefits calculated by the disability sheet are added to it.

The principle of the calculation of the salary by formula (1) also applies when the lecturer's hour capacity changes twice a year so if the first change of the capacity occurred in the beginning of the year after  $n$  months, then after  $m$  month the second change occurs and after the second change the salary calculation formula will be

$$\left( a' \pm \frac{b' \cdot 10}{(10 - n) - m} \right) k \quad (2)$$

where  $a' = a \pm \frac{b \cdot 10}{a - n}$ ,  $b'$  is the capacity of the second change,  $n$  is the number of months from the beginning of the year till the first change,  $m$  is the number of months between the first and the second change.

(2) formula is correct when  $a' \geq 175$ , in the opposite case the lecturer's salary after the second change of his hour capacity will be calculated by hourly rate principle.

During the academic year to determine the amount of the salary of the lecturer the following steps are done in case of substituting the salary index  $k$  by  $k'$ :

- the corresponding amount of hours of the salary  $d$  is calculated by index  $k$  till the month changed
- the amount of hours  $f$  factually taught till the change is calculated
- since the change of  $k$  month new salary is calculated by formula

$$a \cdot k' + \frac{(k' - k)(d + f)}{10 - n} \cdot 10$$

All the mentioned algorithms and formulas are checked by specific examples and are correct (the main principle of the article is working).

### Conclusion

The proposed method of calculating the salary of professorial staff in higher educational institutions eliminates the difference in the amount of salary calculated for professors having the same academic degree depending on the mode of work whether the lecturer is rate or on the hourly basis. The method allows considering the changes in the capacity, the lack of availability, the presence of disability sheets and other factors connected with academic affairs while calculating the salary of the lecturer.

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### ԴԱՍԱԽՈՍԻ ՎԱՐՉԱՏՐՈՒԹՅԱՆ ՉԱՓԻ ՀԱՇՎԱՐԿԻ ՄԻ ՄԵԹՈԴԻ ՄԱՍԻՆ

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Խորհրդային Միության և հետխորհրդային Հայաստանի բուհերում դասախոսների աշխատավարձի հաշվարկը կատարվում էր դրույք գումարած ժամավճարային ժամեր ձևաչափով, որտեղ դրույքով աշխատելու դեպքում նույն դասախոսը նույն դասը դասավանդելու պարագայում ստանում էր ավելի բարձր աշխատավարձ, քան նույն դասը ժամավճարային հիմունքներով դասավանդելու դեպքում, ինչը արդարացի չէ: Հաշվի առնելով մի շարք համալսարաններում վերջին տարիներին կիրառվող փորձը, սույն հոդվածում ներկայացվում է պրոֆեսորադասախոսական կազմի աշխատավարձի հաշվարկման մեթոդ, որի հիմքում դրված է այն սկզբունքը, երբ դրույքով թե ժամավճարային հիմունքներով դասավանդելուց անկախ, Դասախոսը դասաժամի համար ստանում է նույն վճարը:

**Բանալի բառեր.** բարձրագույն ուսումնական գաստատություն, պրոֆեսորադասախոսական կազմ, գիտական աստիճան, գիտական կոչում, անհատական բեռնվածություն, ուսումնական պլան, աշխատավարձ, ժամաքանակ

## ОБ ОДНОМ МЕТОДЕ РАСЧЕТА ЗАРАБОТНОЙ ПЛАТЫ ПРЕПОДАВАТЕЛЯ

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В Советском Союзе и в постсоветской Армении расчёт заработной платы в вузах выполнялся по схеме: ставка плюс почасовой формат, где в случае работы по ставке один и тот же преподаватель, преподавая один и тот же урок, получал более высокую зарплату, чем преподавая в почасовом формате, что на наш взгляд, несправедливо. Учитывая опыт в ряде университетов последних лет, в статье представлен метод расчёта зарплаты, в основе которого заложен принцип, когда в независимости от условия труда Преподавателя, за учебный урок он получает одну и ту же зарплату.

**Ключевые слова:** высшее учебное заведение, профессорско- преподавательский состав, учёная степень, научное звание, годовая нагрузка, учебный план, зарплата, часы