Abstract. This article researches the income level of lecturers at public universities in Vietnam and identifies the impacts of income on lecturer attraction in public universities. The article uses public university lecturer income data based on 22 state audit reports in 2018. In addition, 369 questionnaires are also used to analyze barriers in attracting lecturers to public universities in Vietnam. The research results show that salaries make up a small part of the total income of lecturers. The additional income currently accounts for the largest proportion of the lecturer's total income and there is a clear disparity between universities. Bonuses for international scientific publications vary widely between universities. The higher the bonus level of the university, the higher the lecturer's income compared to other universities. Inequality in salary payments and additional income payments have created barriers making it difficult to attract lecturers to public universities in Vietnam. The phenomenon of internal brain drain (social mobility without migration) is increasingly popular and becoming a development trend in the future.

Keywords: social mobility, attraction of lecturers, public universities, income, awarding of scientific research publication

1. Introduction

Political and economic reforms launched in 1986 have transformed Vietnam from one of the poorest countries in the world into a lower-middle-income country. Over the past 30 years, from 1986 up to now, the development of Vietnam's education system has been remarkable, especially in higher education (World Bank, 2018). The number of universities and students in public universities has been increasing continuously year by year. In the 2018-2019 school year, Vietnam had 237 higher education institutions (excluding universities and institutes under the Security and National Defense sector), of which the number of public universities is...
172 (accounting for 72, 6%), the number of private universities is 65 (accounting for 27.4%). This proves that public universities play an important role in the higher education system in Vietnam.

Vietnam's educational philosophy considers that “Education is the top national policy” (Education Law, 2019), being a teacher is highly respected by Vietnamese society, paradoxically, the lack of university lecturer is ongoing in many public universities. Many people are not interested in becoming a teacher and one of the main reasons is that the salary in the education sector is very low and cannot meet the needs of life (Dung, N.T and Trang, N.T, 2021). The research of Dao Thanh Truong and his coworkers in the national scientific topic, code KX01.01/16-20 when surveying the causes of working abroad of Vietnamese talents shows that the factor accounting for the highest rate is the difficulty in conducting high-quality research in Vietnam (87.5%), “low wages in Vietnam” (84.4%); followed by lack of job opportunities (73.3%) (Truong, D.T et al., 2018).

Financial pressure forces lecturers in Vietnam to find more jobs to increase their income and the worst effect for the university is that lecturers will find another job with higher income and ensure the future (Noraani Mustapha, 2013). The adequate salary will ensure the satisfaction of academic staff. Income has a significant relationship with job satisfaction and can predict the amount of this feeling at the workplace (Aida Mehrad, 2014). In Cambodia, teaching does not attract graduates of top schools. The low wages limit the attraction of good candidates (Prateek Tandon and Tsuyoshi Fukao, 2015). Research on the impact of the financial reward on academic staffs' satisfaction at Public universities in Kelantan Malaysia shows that the financial reward has an absolute correlation with job satisfaction. The appreciable increase in salary will improve income satisfaction, reduce taking on an extra job and financial pressures on teachers in Indonesia (Joppe de Ree et al., 2017).

The difference between the income of university lecturers in Vietnam compared to other countries in the region and around the world is that salaries only account for about 50% of the total income. The additional income is the supplementary income, but it accounts for a high proportion and there is a clear
disparity among public universities in terms of the additional income. The previous studies only provided the impact of salary on the satisfaction and extra jobs of teachers. There is not any study in Vietnam examining the impact of income on attracting university lecturers and considering the additional income. This study aimed at understanding the income of the public university lecturers and identifying the impact of income on attracting lecturers in public universities in Vietnam.

2. Literature review

Social mobility is a topic of interest to economists as well as sociologists, but there are some differences in how they approach it. For sociologists, the relevant circumstances that we want to compare are measured in terms of the occupation or social class and the study of intergenerational mobility involves the comparison of a person's social class with that of the family in which he or she grew up. Meanwhile, economists are interested in measuring income and they focus on intergenerational income or mobility (Richard Breen, 2010).

The British sociologist, Stephen Aldridge thinks that social mobility is the movement or moving opportunity between different groups in society, assessing the advantages and disadvantages according to criteria such as income, the chance of having a job or promotion… (Stephen Aldridge, 2003).

Studying on typical social mobility types of science and technology human resources, Truong, D.T et al (2018) summarized 4 types of social mobility:

– Social mobility without migration: a person can take on multiple jobs (multi-job positions) at the same time (mobility without migration related to internal brain drain).

– Social mobility with migration: this phenomenon is related to the "brain drain" between countries, regions, territories, and science and technology organizations.

– Vertical mobility: shown in two aspects, the first is the change of working position as well as the promotion trend of science & technology workers (this change does not develop scientific depth). Secondly, the change of qualifications according to the professional depth of science & technology workers.

– Horizontal mobility: often expressed particularly in the specialization and operation areas transition of science & technology workers (moving from one specialized area to another).
Attracting lecturers is making a person interested and want to participate and contribute to the university, but not necessarily to be an official member of the university. They can collaborate, follow work packages/projects... as long as they contribute to the university.

In the context of international integration with the support of the internet, the coordination between interpersonal, individual and organization, organization and organization become easy. This support created a "flat world" that gives a lecturer the ability to access and work with universities around the world no matter where they are.

Income: The income of lecturers in public universities in Vietnam is made up of salaries, allowances, additional income and other income. The income of the lecturer is represented by the following formula:

\[
\text{Income} = \text{salary by rank of position} + \text{allowance (if any)} + \text{additional income} + \text{other income (if any)}
\]

i, Salary by rank and position

Salaries for lecturers in public universities in Vietnam are paid according to their ranks and positions determined by the State and depending on the basic wage. The salary calculation has 2 variables, the basic pay and the coefficient. The base salary changes according to the State Budget adjustment based on the State budget balance and the annual inflation rate. The salary coefficient is defined according to the salary scale of the State, increasing gradually over the working years. This salary calculation (the longer time you work, the higher the salary will be) does not reflect the difference between the job positions.

Salary is calculated by the following formula:

\[
\text{Salary} = \text{Coefficient} \times \text{Base salary}
\]

Table 1 below represents the salary by the rank of lecturers in public universities.

ii, Salary allowance (if any): Lecturers in a public university may receive some allowance such as career allowance, position allowance, ... however the coefficient is quite small. Allowances are calculated based on the coefficient level of the allowance type and the base salary.
Table 1

<table>
<thead>
<tr>
<th>Career titles (Based on Circular No. 40/2020 / TT-BGDDT dated October 26, 2020 of the Minister of Education and Training)</th>
<th>Salary by rank coefficient (VND/month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class III Teaching assistant (Coefficient from 2.34 to 4.98) People who have a Bachelor's degree or higher.</td>
<td>3.486.000-7.420.200</td>
</tr>
<tr>
<td>Class III Lecturer - Class A1 Officer (Coefficient from 2.34 to 4.98) People who have a Master degree or higher</td>
<td>3.486.000-7.420.200</td>
</tr>
<tr>
<td>Class II Lecturer - Class A2 Officer (Coefficient from 4.40 to 6.78) People who have a Master degree or higher</td>
<td>6.556.000-10.102.200</td>
</tr>
<tr>
<td>Senior Lecturer - Class A3 Officer (Coefficient from 6.2 to 8.0) People who have a Ph.D. degree or higher</td>
<td>9.238.000-11.920.000</td>
</tr>
</tbody>
</table>

Note: The current base salary is 1.490.000 VND / month

iii, Additional income:

According to the State regulations, every year, after accounting fully the expenses, taxes and charges contributed to the national budget (if any) as prescribed, the difference between the receipts and expenses (if any), the units can use the minimum deduction of 15% - 25% to set up the Career Development fund, then set up the income supplement fund called the Incremental Income Fund. This leads to, after deducting 15% - 25% to set up a career development fund, the remaining difference is so low that the unit does not have enough revenues to pay additional income for lecturers. Therefore, the extra income also differs in universities, based on the business operation result of the universities, leading to income inequality between public universities. Results from the State Audit Report of 22 public universities show that the additional income ranges from 0.5 to 2.8 times depending on the financial capacity of each university.

iv, Other income (if any):

Other incomes may include: bonuses for overtime lecturing, scientific research publication, achievements in the school year, marking examination, invigilating. In
addition, it can be the funding for participating in scientific topics at all levels from the local or central budget through the host university or the aid money for participating in projects funded by non-governmental organizations.

Among the four revenues making up the income of lecturers, the salary and additional income account for a large proportion, so this article focuses on the impact of salary and additional income on public university lecturers in Vietnam in recent day.

3. Methodology

The article used data from 22 State audit reports in 2016, 2017, 2018 of the largest public universities in Vietnam to provide reliable evidence of expense in universities and payments for lecturers.

In addition, the questionnaire is also used to investigate the presenteeism of lecturers, barriers to attracting lecturers to work in a public university. 385 survey forms were distributed to lecturers in public universities in Vietnam. 369 qualifying forms were gathered and used in the analysis. In which, there are 159 men (43.1%), and 210 women (56.9%). 98 people under 30 years old (accounting for 26.6%), the age from 30 to 39 years old is 181 people (accounting for 49.1%), the age from 40 to 49 is 77 people (accounting for 20.9%). 13 people aged 50 and over (accounting for 3.5%).

The author of this article, as a lecturer in a public university in Vietnam, has observed for many years the visible effects of salary policy on the lecturer. In addition, more than 20 formal and informal in-depth interviews conducted has confirmed some of the claims from the author's observations.

4. Discussion

4.1. The average income of Vietnam public university lecturer nowadays

According to the state audit reports in 2018, the average income of lecturers at Ho Chi Minh University of Economics is currently the highest among public universities in Vietnam. In 2019, the average income of lecturers is 49.1 million VND / month. The state audit figures in the figure below include all the revenues through the university account that paid to the lecturer, including non-salary payments.
Source: Aggregate data from the State Audit (2018)

Fig. 1: **Average income of lecturers in some major public universities in Vietnam in 2018 (Unit: VND/month)**

The data on lecturers' average income in some Vietnam major public universities, as shown in figure 1, is relative because even within universities there is a disparity between lecturer income. For example, at the National University of Ho Chi Minh City, the average income at the University of Social Sciences and Humanities is the lowest, from 9.6 to 10.7 million/person/month and the highest is the International university, from 22.2 to 23.9 million VND.

Figure 1 also shows that the average salary of lecturers at the Ho Chi Minh University of Economics is the highest among public universities in Vietnam. This income level is 4.1 times as high as the highest salary mentioned in Table 1. It shows that **salaries only make up a small proportion of the lecturers’ total income.** Data from the State audit reports show that the average income of lecturers in some of the largest public universities in Vietnam ranges from around 17 million to 49.1 million. However, it should be added that the audit data used to calculate the teacher's income including any revenues that a teacher may receive (bonuses for overtime lecturing, marking examination, invigilating, achievements, welfare money and a great income from the implementation of scientific projects at all levels and projects received aid from abroad). This revenue **accounts for a large proportion of the total income, but it is non-regular.** Therefore, with the income
calculation of the state audit, the fluctuation of the lecturers' annual income will be clear because it is not always possible for lecturers to receive funding for scientific research.

Figure 1 shows the marked disparity in income levels between public universities. One noticeable feature is that the universities in the high-income group are the economic ones (Ho Chi Minh Economics University, National Economics University, Foreign Trade University). These universities had large revenues from training services related to economics and foreign trade, so after subtracting costs, the rest would be deducted into the additional income fund which is redundant to pay for the labour income. Meanwhile, the basic science universities are two National universities of Vietnam, the lecturers have lower income (equal to 1/3 of the University of Economics Ho Chi Minh lecturers’ income).

Unlike the way of paying income of public universities, some private universities formed by enterprises had breakthrough ways to pay salaries, working at universities but pay salaries like businesses. For example, VinUni University of the largest corporation in Vietnam, VinGroup was newly established in 2019. A salary of 100 million VND is ready to paid to attract famous domestic and famous lecturers to work at VinUni (Truong, DT and Thuy, PM 2019). The number is much higher than the total income that the lecturers may receive at the public university. With such a breakthrough salary system, the attractiveness of income is evident compared to that of a public university. VinUni, along with other private universities and international universities in Vietnam, is making the competition of highly qualified lecturer more exciting than ever.

4.2. The impact of income on attracting lecturer in public universities in Vietnam

Lack of university lecturers in Vietnam nowadays

Political and economic renovations since 1986 have promoted economic development, rapidly turned Vietnam from one of the poorest countries in the world into a low-middle-income country. Over the past 30 years, from 1986 up to now, the development of Vietnam’s education system has been remarkable, especially in higher education. The scale of the university and the student numbers in public
universities has been increasing steadily over the years, but the rising number of students can be seen as not adequate to the increasing number of lecturers as shown in Figure 2 below:

![Figure 2: The scale of lecturers and students in public universities, 1995-2019](image)

*Source: The author compiled from the data of the Ministry of Education and Training*

**Fig. 2: The scale of lecturers and students in public universities, 1995-2019**

Figure 2 indicates that from 1995 to 2015, the number of students in public universities had made great stride. In the 1995-1996 school year, the student-to-lecturer ratio was 24.7/1, then in the 1999-2000 school year, this rate peaked at 39.5/1, meaning that for every 39.5 students there was 1 instructor. After nearly 20 years, the student/lecturer ratio at public universities in the 2018-2019 school year was 22.1/1. While the top universities in the world such as Harvard University (USA) have a student/lecturer ratio of 13/1 (in which the student/professor ratio is 3.5/1), in the country with an advanced university education, the student/lecturer ratio is between 15 and 20/1. Table 2 below shows more clearly the fluctuation in the number of lecturers and students in universities in Vietnam from 2013 to 2019:
Table 2

Summary of higher education in Vietnam from 2013 to 2019

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total number of Universities</td>
<td>214</td>
<td>219</td>
<td>223</td>
<td>235</td>
<td>236</td>
<td>237</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>156</td>
<td>159</td>
<td>163</td>
<td>170</td>
<td>171</td>
<td>172</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>58</td>
<td>60</td>
<td>60</td>
<td>65</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>2</td>
<td>Number of University student (person)</td>
<td>1,670,023</td>
<td>1,824,328</td>
<td>1,753,174</td>
<td>1,767,879</td>
<td>1,707,025</td>
<td>1,526,111</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>1,493,354</td>
<td>1,596,754</td>
<td>1,520,807</td>
<td>1,523,904</td>
<td>1,439,495</td>
<td>1,261,529</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>176,699</td>
<td>227,574</td>
<td>232,367</td>
<td>243,975</td>
<td>267,530</td>
<td>264,582</td>
</tr>
<tr>
<td>3</td>
<td>Number of lecturers (person)</td>
<td>65,206</td>
<td>65,664</td>
<td>69,591</td>
<td>72,792</td>
<td>74,991</td>
<td>73,312</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>52,500</td>
<td>52,689</td>
<td>55,401</td>
<td>57,634</td>
<td>59,232</td>
<td>56,985</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>12,706</td>
<td>12,975</td>
<td>14,190</td>
<td>15,158</td>
<td>15,759</td>
<td>16,327</td>
</tr>
<tr>
<td>4</td>
<td>Student/Lecturer ratio (%)</td>
<td>25.6</td>
<td>27.8</td>
<td>25.2</td>
<td>24.3</td>
<td>22.7</td>
<td>20.8</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>28.4</td>
<td>30.3</td>
<td>27.5</td>
<td>26.4</td>
<td>24.3</td>
<td>22.1</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>13.9</td>
<td>17.5</td>
<td>16.3</td>
<td>16.1</td>
<td>16.9</td>
<td>16.2</td>
</tr>
</tbody>
</table>

Note: Statistics do not include security and defense academies.
Source: Ministry of Education and Training (2019)

Table 2 shows that the number of students in public universities had continuously decreased over the three years from 2016-2019 (in 2019 it decreased by 17.2% compared to 2016) while students in private universities tended to increase (8.4%). In 2018, the number of lecturers in public universities increased by 2.7% compared to 2017, but in 2019 decreased by 3.7% compared to 2018. Meanwhile, from 2013 up to now, the number of lecturers in private universities continued to increase.

Hanoi VNU is the largest public university in Vietnam, the number of human resources has increased year by year, but the number of faculty members has not met the required number as prescribed.
Box 1: **Quoting from the State audit report at Hanoi National University**

Together with Hanoi VNU, Ho Chi Minh VNU is a large public university, under the direct management of the Government of Vietnam. Compared to other public universities, these two national universities are much larger in terms of the training programs, the number of students and faculty. However, in terms of labor structure, the proportion of direct employee (faculty member) still accounts for a low percentage. In both universities, the proportion of lecturers accounts for 44-67% of the total workforce. On average, for every 1 direct lecturer, there are around 0.5 to 1.27 indirect employees. Even at Hanoi VNU, for 3 consecutive years from 2016 to 2018, the percentage of faculty member accounts for less than 50% (while the provisions of the Resolution No. 08/NQ-CP dated January 24, 2018 of Government, this rate should be at least 65%).

Although education is considered the top national policy, the lecturer and teacher are highly respectable by Vietnamese society (Dung, TK and Trang, PT, 2021), why do many people would rather not become a lecturer and work in other fields? What are the barriers to lecturer attraction?

**Barriers to attracting lecturers from paying inappropriate income**

When examining barriers that make it difficult to attract lecturers at universities, the author gives some indicators on a scale of 1 to 5 where 1 is "not a barrier" and 5 is "a great barrier". The results of data analysis are not surprising when calculating the mean value, it shows that the barrier "salary is not worthy of the job"
position" has the highest score of 4.24, followed by "additional income is not worthy of work performance" reached 4.07 points. One noteworthy point is that when asked about the reasons that lead to barriers in attracting human resources in universities, the most chosen reason is due to the "attitudes toward paying salary according to ranks and positions by State regulations" reached 4.1 points, while the average value of less than 4 points for other reasons." The point of view of salary payment according to rank, position, salary calculation formula based on the minimum wage multiplied by the coefficient gradually increased over the working years, leading to:

+ **Not creating a breakthrough in salary payment:** the coefficient increases through the number of working years, combined with the "hard set" minimum wage by the State. Accordingly, when calculating the salary by this formula, it could not show the difference of each job position and the pay raise would be difficult to implement due to the regulations on the coefficient.

+ **Creating an "inequality" in terms of performance:** a newcomer has a low coefficient but high labour productivity and many output performance; one person's work does not meet the target, but due to the higher coefficient, the salary is still far different from the new employee.

In consideration of the "fair" and "worthy" criteria, the current salary policy is off the target.

The effects of improper payment policies created barriers to attracting lecturers, which are quite consistent with the rational-choice theory. Some classical economists emphasized the fundamental driving force role of the economic motivation, the profit motivation when people have to make decisions about their choice of action. Rational-choice theory is based on the premise that people always act deliberately to select and use resources rationally to achieve maximum results at minimum costs. When the salary is not enough to ensure their life, lecturers have to find other jobs to improve their income. Places with good income and favorable working environment would definitely attract collaboration from lecturers. This leads to a phenomenon called "internal brain drain" in public universities. A study on "internal brain drain" in the context of the 4th industrial revolution showed that in the context of the 4th Industrial revolution, "internal brain drain" is becoming
increasingly visible and brings about more multidimensional impacts. Contrary to the conventional view that brain drain is associated with migration, in the context of globalization, brain drain is transformed into a new form called “internal brain drain” (Truong, D.T and Anh, N.T.N, 2018) which sociologists called “social mobility without migration”.

**The formation and development of mobility flows without migration**

Social mobility without migration, also known as "Internal brain drain" is the feature of social mobility in public universities in Vietnam nowadays. Having some part-time jobs or collaborating with scientific organizations outside the university is a fairly growing phenomenon. The survey results from 369 questionnaires showed that 135/369 respondents had part-time jobs (accounting for 36.6%), the number of people who did not work part-time accounted for 63.4%. The majority of human resources work extra job are teaching and cooperating in scientific topics.

![Figure 3: Status of lecturer extra-job](image)

When studying the benefits of cooperating with other agencies/organizations outside the university, the author gave some indicators on a scale from 1 to 5 where 1 is "disagree" and 5 is "completely agree". Survey results when calculating the mean value shows that having a part-time job to "have more income" is 4.07, followed by the benefit of "expanding social relationships" reaching 4.05 points, "improving professional capacity" is 4.02 points. One noteworthy point is that when
asked about the reasons that lead to barriers in attracting human resources in universities, the most chosen reason is due to the 'attitudes toward paying salary according to ranks and positions by State regulations" reached 4.1 points, while the average value of less than 4 points for other reasons."

Through in-depth interviews, it is clearly seen that many jobs are considered "extra-job" but bring a relatively high income and even higher than the main job salary. In-depth interviews revealed that female lecturers' part-time jobs are mainly selling via social networks (Facebook, Instagram ...), especially due to the influence of the Covid-19 epidemic, online sale is becoming more and more popularly chosen by female lecturers. In addition to factors affecting "internal brain drain" from information technology development, international integration and brain-wasting (Truong, D.T and Anh, N.T.N, 2018), unreasonable payment of income has affected the "social mobility without migration". Moreover, the emergence of the Covid-19 pandemic is the one causing this phenomenon to thrive till this epidemic is well controlled.

The extra jobs of university lecturers are mainly related to their specialty such as teaching at other places, participating in scientific research projects, forming interdisciplinary research group networks to create many quality international publications in prestigious magazines around the world. This positive impact has caused the number of scientific publications in Vietnam to increase over the years, although modest compared to countries in the region such as Indonesia, Thailand, and Malaysia.

Figure 4 shows that the number of international publications in Vietnam has increased continuously from 2017 to 2019. This is a positive impact from the bonus policy for researchers and lecturers with international works in prestigious journals in the world. The bonuses vary from university to university, with the lowest being VND 10,000,000 (around 360 EURO), an average of 40,000,000 VND to 100,000,000 VND (about 1,400-3,600 EURO), the average research bonus for 1 work at the Foreign Trade University are 125,000,000 VND (about 4,500 EURO), even at the Ho Chi Minh University of Economics, the bonus can be up to 200,000,000 VND (about 7,200 EURO) for an international publication published in the journal on the ISI / Scopus list (Minh Giang, 2019).
Figure 1 shows that the Ho Chi Minh University of Economics and the Foreign Trade University are the two universities with the highest lecturer income in Vietnam, at these two universities the bonuses for the international published works is also currently the highest in any university. This is an attractive point that helps to attract lecturers with good professional qualifications and allows them to practice their passion for research and increase their income.

5. Conclusion

The research results showed that salaries only make up a small proportion in the structure of revenues constituting the income of public university lecturers in Vietnam. The additional income currently accounts for the largest proportion and there is a clear difference between universities. This is a difference in lecture income at Vietnam public universities to other public universities in the world. The inadequacy of the salary policy while it did not reflect the work efficiency and the bonus income disparity has markedly affected the attraction of lecturers to public universities. The research results showed that income is a barrier that makes it difficult to attract university lecturers. Low and unstable income sources have caused many lecturers to look for more jobs to increase their income. The

Source: Scimagojr.com

Fig. 4: Statistics on international publications of some ASEAN countries
phenomenon of internal brain drain or the phenomenon of social mobility without migration is currently popular in public universities in Vietnam. A positive effect of the bonus policy for international publications has increased the number of scientific research publications in Vietnam from 2017 to 2019, the universities with high bonuses are the ones with the highest lecturer income among public universities in Vietnam today. This bonus policy encourages lecturers to participate in scientific research and helps to increase their income, brings about remarkable results.

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