

WAGE EXPENSIVENESS OF THE CZECH STATE-FUNDED INSTITUTIONS

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Abstract

The aim of the paper is to examine a recent development of wage expensiveness within a sample of the Czech state-funded institutions. The paper firstly describes relevant wage expensiveness ratios and their construction. Further it concentrates on an analysis of wage expensiveness development in the middle-term time period, i.e. from 2015 to 2018 and its comparison with wage productivity ratio and average wage. The paper loosely follows-up our previous research that mapped the situation in financial reporting of the Czech state-funded institutions and its relevance in relation to financial management requirements. At this paper we selected other suitable wage expensiveness ratio, i.e. wage expensiveness computed from revenues, and evaluated its development trends within a sample of selected state-funded institutions rendering health-care services to public. As main data sources, the Ministry of finance of the Czech Republic databases, annual reports, relating regulations and scientific papers were used. Acquired data suggest average wages growth accompanied by parallel increase of wage expensiveness within the examined sample. This trend may be perceived debatably however, more precise conclusion would require an analysis of further factors affecting environment of health-care services.

Key words: state-funded institution, contributory organization, Czech state-funded institutions, wage expensiveness, wage productivity

JEL Code: H83, H11, H51

Introduction

Performance and its improvement was believed as one of the most frequent reasons for the public sector financial reforms launched in 80th and 90th years of the last century practically in all developed countries. Some authors such as Hood (1991) described this process as the new public management. Its core lied in a massive implementation of the business-like management methods known from the private sector to the area of the public sector. Before the reforms, the public sector data were characterized by vast heterogeneity which made any

financial measurement harder. Also all kinds of expenses were not recorded systematically. Thanks to the accounting reform as a part of the overall public sector reforming process, financial reporting was harmonised among various entities and completed, so financial data may serve as a relevant source for financial management and expenses control.

Nowadays, there exists a relatively vast evidence of managerial tools utilization within the public sector units, mainly from the area of education, transportation, housing, health-care or social services. But many of these studies are partial, directed on non-financial indicators only or ambiguous. One of complex studies concerns measurement of the public sector productivity in OECD countries and its drivers (Lau, Lonti and Schultz, 2017). Some partial studies suggest, gathering and publishing of financial data still remain rather administrative procedure without any wider utilization for managerial purposes and performance measurement, not only in the Czech environment, but also in the world (for example Sangers, 2012). It seems that even wider autonomy in management of the public sector does not give automatically any tangible performance improvement (Verzulli, R. et al, 2018).

In this connection, a question of productivity in the public sector versus wage growth is discussed quite often (for example Hamann and Ren, 2013 or Graefe, 2004). As personal costs represent one of the most important expenses of the public sector units, their development may influence the total expensiveness and performance significantly. That is why we concentrate on development of wage expensiveness and wage productivity on a sample of the Czech faculty hospitals providing health-care services in our paper.

Examined hospitals belong to the state-funded institution and operate within the non-profit sector. Non-profit sector may be defined as a part of economy of the state that does not operate primarily to create a profit and includes both public and private subjects (Pestoff, 1995). In the Czech Republic the non-profit sector includes traditionally various organizationally-legal types of subjects, among others above mentioned state-funded institutions. They may be founded either by the state, i.e. the state administration units (for example ministries), or by municipalities. Founded by the state administration units, they fulfil rather elemental functions such as health care, social, or security services. Founded by municipalities, they provide services to specific region or municipality.

1 Methodology and data

The aim of the paper is to analyse recent trends in development of wage expensiveness and to compare it with wage productivity ratio, resp. an average wage. In our previous research we

used KAU 1 for evaluation of wage expensiveness which is a relative measure and it is constructed as a ratio of salaries and wages to number of employees calculated in mill Czech Crowns per employee per year (closely see Vodáková, 2018). KAU 1 belongs to three key analytical indicators introduced by the Ministry of Finance of the Czech Republic (MoF CR) in 2013 for a purpose of the public sector performance evaluation. Input data for computation of KAU1 values comes from financial statements (salaries and wages) and financial report (number of employees). Our previous research confirmed an increasing trend of KAU 1 in an examined sample. Positives of KAU 1 as an expensiveness measure lies in its simplicity, clarity and universality, especially within a homogenous sample of examined entities. On the other hand, this indicator does not take account of achieved outputs which may be debatable in performance evaluation terms.

Therefore, we used another wage expensiveness ratio taking into consideration an amount of outputs for purposes of this paper. It is constructed as a ratio of wages and salaries to achieved revenues. Computed figures describe a burden of revenues by wage expenses. So this relative measure may allow for an extent of given outputs. From the longer-term perspective (and especially thanks to possible innovation) this indicator should show a decreasing trend. Of course, absolute values of the indicator will be influenced by a field of activity and other factors. As wages and salaries represents one of the most important expense in the area of the public sector its influence on the total expensiveness and performance seems undeniable. As for revenues (denominator in above described formula) we used a sum of revenues from sale of own products, goods, services rendered, and revenues from rental recorded for main activities. Main activities are understood as those for which the public sector entity was founded, i.e. for example in the case of hospitals rendering of health-care and relating services such as alimentation, transportation, laundering and so on.

Inverted values of wage expensiveness then represent a ratio of wage productivity that describes how many revenues will earned by 1 Czech Crowns of wages. Identical input entries (wages and salaries, revenues from main activities) were used for a computation of the indicator. The ratio should record an increasing or at least a stable trend. The third indicator used in the paper represents an average gross wage per employee measured per month in thousands Czech Crowns. Presented values were either computed on the base of data relating to wages and salaries and re-counted number of employees, or taken over from official annual reports of examined entities on the base of an identical formula. Development trend of an average wage should correspond with a development of wage productivity and the rate of wage growth should not be higher than in the case of productivity indicators.

Because of a given extent of the paper, our research was limited to one segment of the state-funded institutions only so our examined sample includes 9 entities founded by the Ministry of Health of the Czech Republic with the identical CZ NACE, i.e. 86100 Institutional health care. More specifically they represent Czech faculty hospitals, i.e. Fakultní nemocnice Brno (FN Brno), Fakultní nemocnice Hradec Králové (FN HK), Fakultní nemocnice Královské Vinohrady (FN KV), Fakultní nemocnice Olomouc (FN Olomouc), Fakultní nemocnice Ostrava (FN Ostrava), Fakultní nemocnice Plzeň (FN Plzeň), Fakultní nemocnice U svaté Anny v Brně (FN SA Brno), Fakultní nemocnice v Motole (FN Motol), and Všeobecná fakultní nemocnice v Praze (VFN Praha). Such sample should improve mutual comparability and evaluation of trends. Selected financial indicators were monitored in 4 years period, i.e. from 2015 to 2018.

As main data sources monographs, relating scientific papers, and legal regulations were used. Financial indicators were computed and presented with utilization of MoF CR database “MONITOR”. Mainly financial statements were used for obtaining input data of wages and salaries and revenues. Further annual reports of particular faculty hospitals presented electronically on their web pages were used for obtaining data concerning the number of employees and average wages.

2 Main findings and discussion

Our former research confirmed a growing trend of KAU 1 in all entities belonging to the examined sample (Vodáková, 2018) which means wages and salaries per employee systematically have increased from 2015. Now we have examined a relationship of wages and salaries to revenues obtained, i.e. whether a growth of wages was accompanied by revenue growth too. In the first part of the chapter development trends of wage expensiveness is described. The second part of the chapter comments development of wage productivity and average wage values.

2.1 Wage expensiveness development

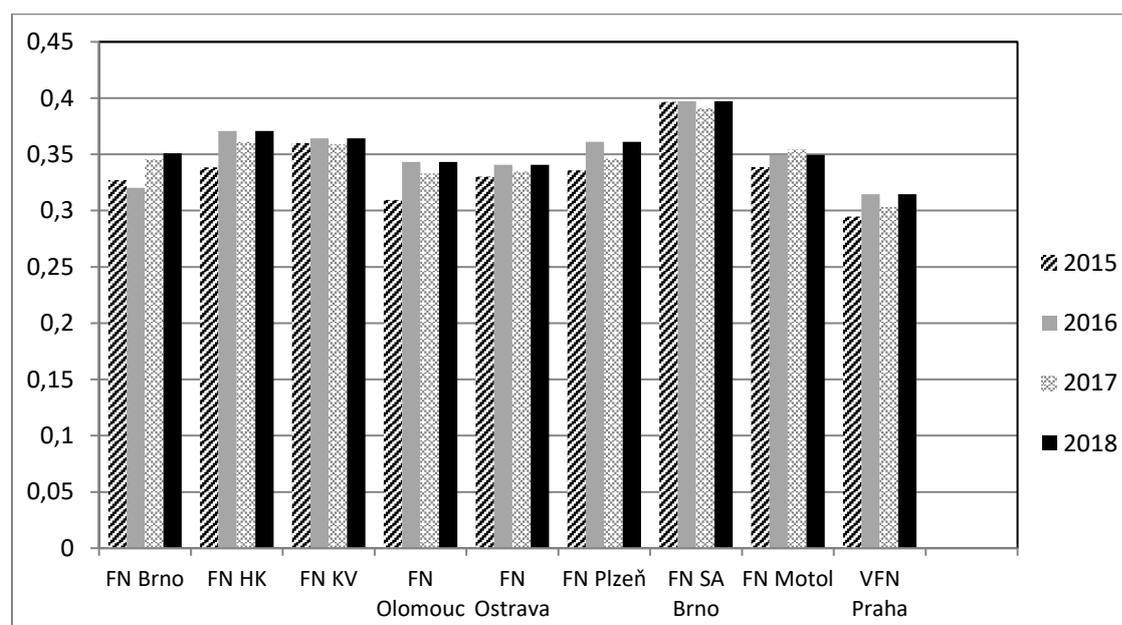
As figure 1 suggests, wage expensiveness fluctuates from 0.29 (VFN Praha in 2015) to 0.4 (FN SA Brno in 2015, 2016 and 2019). Values of the indicator show 1 Czech Crown of revenues is burden with approx. 0.3 – 0.4 Czech Crowns of wages. The highest values of the indicator were recorded by FN SA Brno in all examined time periods, the lowest values were monitored in VFN Praha (from 0.29 to 0.31). Absolute values of the indicator are influenced

by a character of activities (health-care services dependent on qualified labour), level of investments, innovations, management skills and other specific factors.

A closer analysis showed the most important source of revenues represent sale of services rendered in all examined hospitals (from 88 in FN SA Brno to 99 % in FN Motol in 2018). The second highest source is sale of goods (mainly medication). Some hospitals further record also sale of own products, rental income or other income and their rate on the total revenues varies. This may be probably an opportunity for possible contribution of the total revenues.

Development trend of wage expensiveness values is not entirely unambiguous. But overall it can be said majority of hospitals occur increasing trend in time with slight deviations (FN Brno, FN HK, FN Olomouc, FN Ostrava, FN Plzeň, FN Motol, VFN Praha) which does not seem very positive. The highest deviation of the indicator between 2015 and 2018 was recorded by FN HK (+ 0.03), FN Olomouc (+0.03) and FN Plzeň (+ 0.03). On the other hand, development trend in the case of FN SA Brno and FN KV is relatively stable tough FN SA Brno shows the highest values of the indicator absolutely. FN Ostrava and FN Motol present relatively slight growth of the indicator values. Relatively high values of wage expensiveness indicator correspond to the lowest values of KAU 1 recorded in our former research.

Fig. 1: Wage expensiveness development between 2015 – 2018

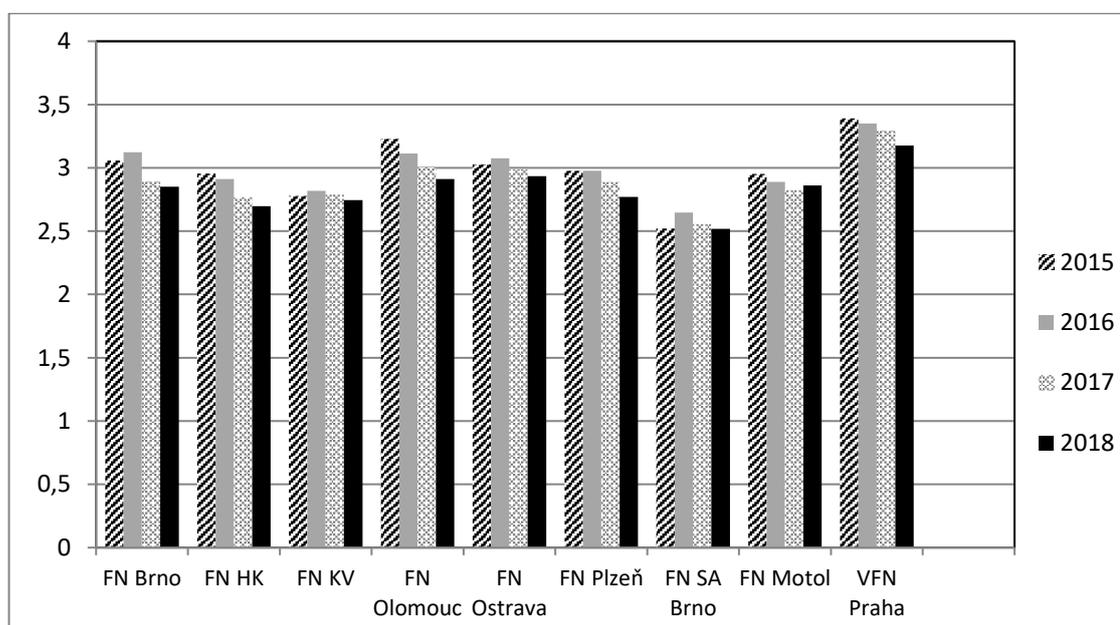


Source: Own based on MoF CR (2019), online: <http://monitor.statnipokladna.cz/2019/>

2.2 Wage productivity and average wage development

Figure 2 depicts development of wage productivity. 1 Czech Crown of wages created from 2.52 to 3.39 Czech Crown of revenues in examined periods of time. The highest absolute values of the indicator were reached by VFN Praha (3.39 in 2015, 3.35 in 2016, 3.3 in 2017 and 3.17 in 2018). Above-average values of wage productivity were further recorded by FN Olomouc, FN Ostrava or FN Brno and FN Motol in some examined years. The lowest absolute values, on the other hand, were recorded by FN SA Brno (2.52 in 2015 and 2018) and FN HK (2.7 in 2018).

Fig. 2: Wage productivity development between 2015 – 2018



Source: Own based on MoF CR (2019), online: <http://monitor.statnipokladna.cz/2019/>

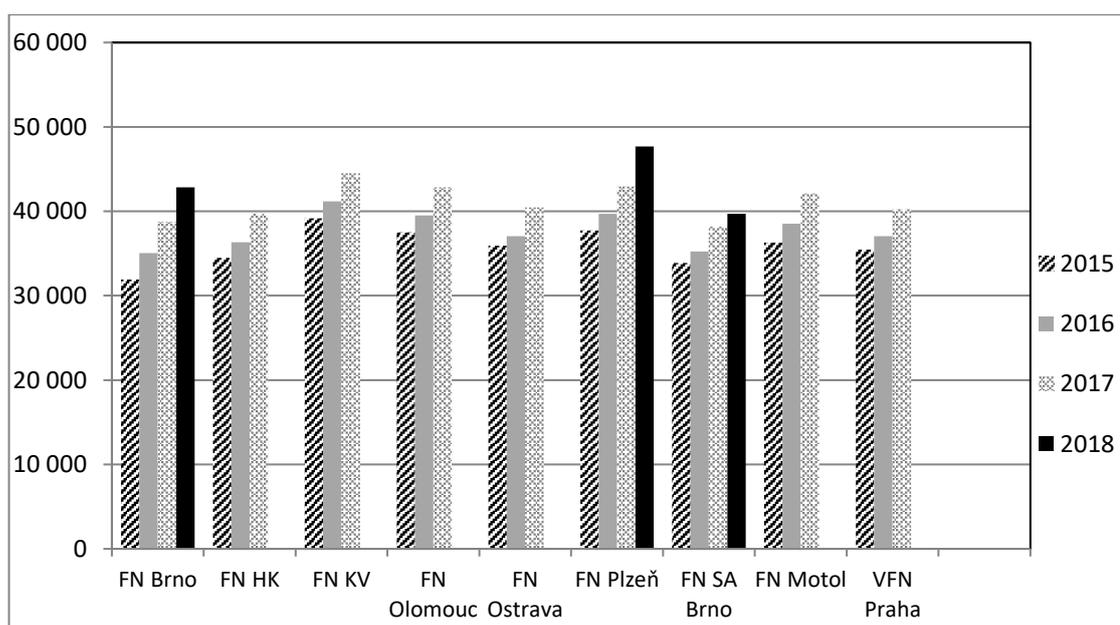
Time values of wage productivity indicate rather decreasing trend (FN Brno, FN HK, FN Olomouc, FN Plzeň, VFN Praha) which suggests negative development. In the case of FN SA Brno and FN KV time values of the indicator are relatively stable. The most distinctive decline of wage productivity between 2015 and 2018 was recorded by FN HK (- 0.3). Wage productivity values should be a subject of further analyses within wider examined sample (especially in terms of relating CZ NACE) and discussion. Also other factors affecting wage and productivity indicators should be analysed in future. For example, Das and Das (2009) in this connection points out an adverse impact of high health-care costs on labour productivity. Graefe (2004) then argues for improving pay and job quality in the non-profit sector despite

productivity-related constrains and reminds the potential of the non-profit organisations to shape relevant labour market.

Figure 3 describes development of an average wage within the examined sample as a supplemental indicator to previous ones. Time trend was traced mainly from 2015 to 2017 as majority of hospitals have not published the annual report for 2018 yet. Only 3 hospitals (FN Brno, FN Plzeň and FN SA Brno) presented average wage and recounted number of employees' data for 2018 already. As a benchmark average wage data of relating CZ NACE announced by the Czech Statistical Office were used.

As figure 3 implies average wages have fluctuated from 31.9 thousand Czech Crowns (FN Brno in 2015) to 44.5 thousand Czech Crowns (FN KV in 2017). The highest values of an average wage were recorded by FN KV, FN Olomouc and FN Plzeň. The lowest values were presented by FN SA Brno or FN Brno in some years. The highest absolute value in 2018 was preliminarily recorded by FN Plzeň (47.7 thousand Czech Crowns).

Fig. 3: Average wage development between 2015 – 2018



Source: Own based on MoF CR (2019), online: <http://monitor.statnipokladna.cz/2019/>, annual reports and <https://www.czso.cz/csu/czso/cri/prumerne-mzdy-2018/>

Values in figure 3 imply increasing trend of an average wage in all traced hospitals. It is necessary to mention that average wages significantly differ even inside particular hospitals when average wages of doctors may exceed average wages of other personal even by one-half. So for purposes of any deeper analyses it would be desirable to compare also particular categories of personal. For purposes of this paper overall average wages were compared also

with statistical averages presented for CZ NACE Health and social activities (Czech Statistical Office, 2019) in traced years. In 2015 average wage computed for examined hospitals have exceeded statistical average wage (27.0 thousand Czech Crown) by 33 %. In 2016 statistical average wage (27.3 thousand) was exceeded by 38 % and in 2017 statistical average wage (30.9) was exceeded by 33 %. Statistical average wages were exceeded by all hospitals included into the examined sample.

Conclusion

This paper deals with development of wage expensiveness within an examined sample of the Czech faculty hospitals. Its intention is to contribute to discussion concerning mutual relationship of wage development and productivity in the area of the public sector. Wage expensiveness data were compared with wage productivity and average wages in the middle-term time horizon (from 2015 to 2018).

As our research of wage expensiveness suggests 1 Czech Crown of revenues is burden with approx. 0.3 – 0.4 Czech Crowns of wages within the examined sample and traced time. Absolute values of the indicator are influenced by a character of activities, level of innovations, quality of management and other macro and micro economic factors, therefore, for a deeper analysis it would be desirable to take into consideration also some of these potential aspects. As values of the indicator grow in time in majority hospitals, development trend seems rather debatable and it would be beneficial to analyse it in detail in future.

If we examine wage productivity computed from revenues, values show an inverse, i.e. decreasing trend which may be perceived negatively. This effect however would require also further examination, for example comparison to the net income data or comparison within wider sample of entities (foreign included). 1 Czech Crown of wages has generated from 2.52 to 3.39 Czech Crowns of revenues in examined periods of time. At present, a problem of wage growth in the public sector and its legitimacy in relation to productivity values is discussed quite often. That is why in our future research we would like to concentrate on a wider comparison of various productivity indicators within the state-funded institution and selected countries according to relating NACE.

The third commented indicator was an average wage. Though wage productivity decreases in majority of examined hospitals, average wage increases in all traced periods of time and hospitals. Average wages have fluctuated from 31.9 thousand Czech Crowns in 2015 to 44.5 thousand Czech Crowns in 2017 and they vary significantly even in particular traced

hospitals among doctors and other groups of personal. For purposes of our examining we worked with overall average wage. Average wages of examined hospitals have exceeded statistical values announced for CZ NACE Health and social activities by Czech Statistical Office by 30 – 40 % in traced time periods. A question is whether the rate of this growth was well-founded or not as the development trend of the wage productivity suggests. Moreover, average wage growth was recorded not only by hospitals presenting the net profit from main activities but also those presenting net loss in some years.

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