

Spending review of public wage bill

Final report

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The Terms of Reference of the Value for Money project includes a spending review of public wage bill. The purpose of this report of the Ministry of Finance of the Slovak Republic is to assess employment and wages in general government sector in accordance with the Slovak Government Resolution No 478/2017, task B.2. The assessment was prepared by Štefan Kišš, Martina Erdélyiová Gancárová, Tomáš Hellebrandt, Peter Hronček, Matej Kurian, Lenka Martišková, Monika Ondicová and Peter Mandžák.

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Introduction and summary

The spending review is a part of the Value for Money project, implemented by the government to reform rules, set up processes and to strengthen institutions which are expected to support adoption of good decisions in public interest and to substantially increase value for money in Slovak public sector.

The 2019 spending review assessed expenditure having impact on social inclusion of groups facing the risk of poverty and social exclusion, the public wage bill and spending on agriculture and public spending on healthcare. Interim reports identify areas with the largest opportunity for improvement. Final reports then formulate measures including the action plan for implementation. The Government approves the final reports of spending reviews along with the Stability Programme of the Slovak Republic. Final reports of culture, internal affairs and defence spending reviews will be published in 2020.

The spending review aims to examine majority of public spending during this term of office. After the first term of office of the Government, this objective has been met. The proposed measures will enable fiscal savings, better public services for citizens and/or transfers of funds to finance the Government's priorities. The spending review brings sustainable measures.

Developed countries use spending reviews as a standard tool helping their governments to find a space in public policies for more efficient use of public funds and savings necessary for meeting national and EU fiscal liabilities.

The main purpose of personnel expenses in the general government is to ensure proper operation of public institutions and appropriate public administration. Management of employment and compensation issues should ensure an efficient allocation of human resources and competitive terms offered by the government and public employers, including when compared to the private sector.

The purpose of the spending review is to identify measures leading to more efficient use of resources and better conditions for employees and thus to encourage building of a more efficient general government with better public services for citizens. The spending review of public employment and pay in Slovakia is focused on assessment of adequacy of the existing number of employees and the amount and structure of employees' compensations.

The numbers employed in Slovak public sector are somewhat lower compared to EU countries, and the spending on general government staff is lower both when expressed as % of GDP (9.3% vs. 10.6%) and percentage of total public spending (22.3% vs. 24.7%). One in every five employees in Slovak economy works for the general government, including local governments, in total it is 416 thousand persons. One in every three of them works in education and every tenth of them is in the healthcare sector. The structure of public employment differs from the EU average. Number of nurses and social services staff in Slovakia is lower than the EU average and, on the other hand, numbers of policemen and university teachers exceed the EU average.

When compared to other countries, average wages in Slovak public sector are relatively lower than wages in the private sector, with teachers' salaries being most off-track. Public employees earn by 7% more than the private sector, however, when comparing similar employees at similar positions, public employees earn, on average, 3% less than private ones. In EU countries it is 7% more, on average. Major portion of the difference results from low salaries of tertiary educated public employees whose earnings are, on average, 11% lower than earnings of their peers in the private sector. The most off-track in international comparison are salaries of Slovak teachers in regional education system, as they earn only equivalent to 65% of average salaries of tertiary educated staff, while in developed countries, including the EU, it is more than 89%. On the other hand, prosecutors' salaries are relatively higher compared to other countries. Considering certain data limitations, these comparisons serve for identification of trends and are subject to detailed analyses of each specific profession.

An across-the-board increase of salaries for majority of public employees in 2019 and 2020 is expected to narrow the international gap in compensations in the public sector by half. The share of expenditure for compensations in public spending is expected to get closer to the EU average. In recent years, teachers' salaries are growing faster than salaries of other professions and after the strong increase of salaries in Slovak health sector in 2019 Slovakia is approaching the EU average.

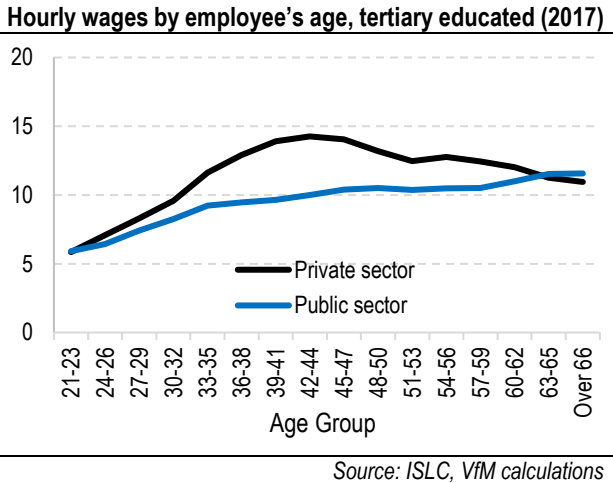
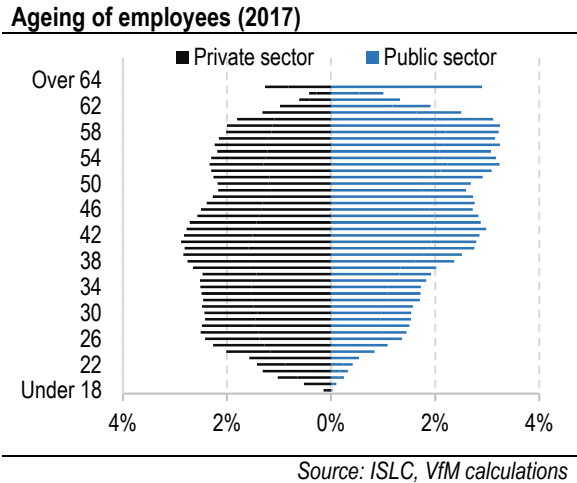
The difference in the degree to which each group lags behind the EU average is a prerequisite to differentiated salary increases. Further growth of expenditure for compensations should be well targeted and should reflect the difference in local and international gaps, regional disparities in competitiveness of the public sector, as well as staff shortages in certain professions on the labour market.

An essential part of wage increases are reform measures aimed at improvement of the results, otherwise, Slovakia is facing the risk of ending up with a more expensive, but equal system. The spending review encourages increase in financial funds through adopting reform measures. International organisations (IMF, EC 2017) are among those making additional financial funds conditional on implementation of structural reforms. Otherwise, it may happen that higher expenditure is not accompanied with improved results of the system (e.g. sharp growth in salaries of medical doctors in the UK (IMF, 2015) or in Slovakia (IFP, 2012).

Wages in lagging professions can be topped up at an arbitrary pace. The pace depends on possibilities of public finance, respecting the Government's economic objectives and compliance with reform measures resulting from the spending review. Specific extent of each measure will depend on the space available in preparation of the general government budget for the respective years.

Public sector is ageing rather fast, during the next 10 years, one in every three employees will reach the retirement age. In the public sector, the share of employees aged 55 years and above is double the same proportion in the private sector, moreover, in 2011-2017 the public sector aged 50% more than the private sector. The average age in the public sector increased by 1.2 years while in the private sector by 0.4 years less. The ageing population of both citizens and those providing public services exerts pressure mainly on the health and social services sector. It has been forecasted that without a radical change in the number of graduates from relevant fields of study and then practising within their field of study, by 2023, the staff shortage will include around 250 nurses, 580 teachers in regional school system and 1 250 social workers.

Tertiary educated public sector staff perform worse in skill tests than their peers in the private sector. Similar effect is observed abroad. The international testing of reading, numerical and IT skills PIAAC 2013 shows that the relative differences between Slovak public and private sector employees are among the highest. It is caused by excellent results of the private sector and average results of public employees.



The Slovak public sector is financially unattractive for tertiary educated employees during most of productive age. Salaries of young employees lag less, nevertheless, then their salaries grow at a slower pace than salaries in the private sector. Considerably lower salaries compared to the private sector (by 20-40%) are earned by high-income professions, mainly lawyers, finance and IT staff. Low salaries in high-skilled and expensive occupations may lead to poor quality or to necessity to have the services provided through an external provider.

The distribution of salaries in the public sector is more equal than in the private sector, and also lower compared to international practice. For example, in civil service, the highest tariff salary is 2.3 times higher than the lowest one. International experience shows that at least 4-times range is necessary to ensure sufficient pay flexibility. Bonuses paid in public sector are also characterised by low variability – for most public employees bonuses are 7-10% of total compensation irrespective of their income, in the private sector the percentage of bonuses grows along with the in income, on average, it is 15% of total compensation.

The general government pay system places strong emphasis on formal education and working practice, less appreciated is the hard to define productivity or results. For most of public employees, tariff wages increase with working practice, which costs approximately EUR 30 mil. per each additional year. Salaries are increased unevenly, during 32 years of service policemen's salaries increase by 67%, salaries of teachers in regional school system by 24% and salaries of employees in public service since 2019 by 16 %¹. The strong impact of the tariff for years of service can have a negative impact on fiscal space for performance-based components of remuneration (e.g. bonuses) or competitiveness of employment for young people. The spending review recommends that a part of future additional funds are directed to non-tariff components of wages to make more space for performance-based rewards. The proposed measures also include extension of the range of positions fit for bachelor's degree graduates, and acknowledging relevant working experience as an equivalent to formal education.

The general government pay system is not sufficiently flexible and is, to a large extent, based on years of service rather than performance. The amendment to the Act on remuneration of certain employees performing works in public interest approved in 2018 has partly simplified the system, although the philosophy of remuneration did not change. Wages will still be largely influenced by years of service which lacks a clear link to quality of work. However, the amendment reduced the average annual increase of salaries from 1% to 0.5% of the basic salary. Competitiveness of the general government pay system could be improved by broader pay intervals. The feasibility of this option will be examined in the Civil Service Pay Concept (*Koncepcia odmeňovania v štátnej službe*) which is currently being prepared by the Government Office of the Slovak Republic and later the same will be done also for employees performing works in public interest.

A relatively egalitarian behaviour of the general government pay system in combination with strong regional disparities in salaries in the private sector cause considerable differences in income between the private and the public sector in certain regions. That may impact the quality of public services. There are considerable differences in income between public employees and employees in the private sector working as medical specialist or a teacher in regional school system in Bratislava and elsewhere in Slovakia.

The existing practices of collective bargaining in the public sector in Slovakia generates an equal relative valorisation for most professions despite their different competitiveness in remuneration. That is mostly caused by centralised bargaining as decisions having effect on most professions are made at the government level. Models used in other countries show that decentralized and separate sectoral bargaining can better reflect needs of each group of employees and regional disparities. A more strict separation in collective bargaining and certain deregulation of wages paid to support staff (drivers, cleaners, etc.) or sectoral minimum wages could make the process more efficient and bring better benefits for employees. From the view of employees, deregulation would

¹ The length of credited service has been prolonged to 40 years for teachers in regional school system and for employees working in public interest Maximum rise in tariff salary after 40 years of service is 28% for teachers and 20% for employees working in public interest.

make it possible to request market salaries and from the view of the central level of the general government, the solution may be in leaving the bargaining about the part of public employees to local governments.

Every year, ministries and other central government authorities leave, on average, five thousand of budgeted posts vacant. Most of the vacancies are planned for policemen and soldiers. The number of vacancies in Slovak general government is nearly four times the EU median. In order to reach vacancy rate similar to EU countries, Slovakia would have to cancel 3.6 thousand positions and release EUR 48 mil. per year. A long lasting high share of vacancies is at the department of interior (1.8 thousand positions, 4% of the planned number) and the department of defence (1.4 thousand positions, 7% of the planned number), mainly regarding policemen and soldiers. Departments of the environment and health also report above-average percentage of vacancies: 86 positions, 8% of the planned number and 188 positions, 7% of the planned number, respectively. The vacancy rate exceeding the EU median in the long term, indicates either a problem with filling the vacancies (and/or attractiveness of the job), or incorrectly calculated number of employees needed. The spending review recommends to reduce the number of planned positions and retain the amount of appropriations for salaries so that the vacancy rate is maximum 5% of the planned number of employees in the respective chapter.

Considerable differences between the budgeted and the actual average salaries of employees is caused mainly by the high number of vacancies, underbudgeted expenditure on compensations and not budgeting wages from EU funds, that are rather inaccurate. In 2011-2019, actual spending on compensations differed from the budgeted amount on average by 4% (EUR 100 mil.), and from international perspective the budgeting is reliable. However, informative value of the detailed level of the approved budget is rather limited. In 2011-2018, the difference between budgeted and actual wages of clerical staff falling under government budget chapters was on average 21%. In 2018, the difference was 26% (EUR 420).

Financial measures of the spending review

The key motivation of the spending review is to create space for more productive investments and to identify sectoral changes which could lead to better results. Reform measures should be an essential component of increasing spending on each profession, encourage reallocation of funds which are now spent inefficiently and additional increase in funds, conditioned by reforms, should improve working conditions for public employees and provide a space for better public services.

In case of large differences between Slovakia and developed countries in numbers of employees and/or in amount of wages earned by specific professions, the spending review recommends a targeted increase of expenditure in order to get closer to the international average. Nevertheless, the sectoral average employment rate and the level of compensation comparable to the EU average are just indicative targets. The spending review recommends that after three years the planned values are reconsidered, in particular considering the performance of the sector and the implemented reforms.

Salaries in lagging professions may be topped up at an arbitrary pace. The pace depends on possibilities of public finance, respecting the Government's economic objectives.

The most lagging professions, which are indicated by the spending review as priorities in terms of wages or headcount are: teachers (salaries), nurses (number of employees) and social workers (both number of employees and wages). Additional funds for these sectors are the key prerequisite to improving the results. Implementation of reform measures recommended by the spending review is necessary. Among clerical staff, lagging salaries mainly refer to managers, IT staff, lawyers and analysts.

The spending review identified saving measures in the amount of EUR 765 mil. and other reallocation measures which are expected to create a part of the necessary financial leeway and contribute to better utilisation of the existing funds. The spending review sees the opportunity for better compensation mainly in finding inefficiencies within the general government and enforcement of the declared savings, e.g. in IT projects.

One of the key measures defined by the spending review is 10% reduction of headcount on central level of the general government. Advisable tools to achieve this goal are optimization audits performed internally. All departments and central government authorities (potential of EUR 147 mil.) and key state-owned enterprises should be one-by-one subject to the audit. Internally performed audits will provide specific and sustainable measures rather than across-the-board and unsustainable expenditure cuts from the past. The overall goal of 10% savings is lower than potential savings identified by already performed audits, which identified savings in the amount of 20% of spending on compensation. Examples include: analysis of support and cross-cutting activities of departments (Chapter 5.1), results of audits performed at the Slovak Water Management Company (in cooperation with BCG) and other state-owned enterprises, and older audits performed by the Ministry of Finance (2004), Ministry of Defence (2005), and the Ministry of Culture (2009).

Nevertheless, savings in wages cannot, on the other hand, result in growth of expenditure on external services, including temporary job contracts (work by agreement) which will be monitored. A part of the savings should be used for expensive professions within the department, in accordance with conclusions of the audit.

Higher efficiency of support and cross-cutting activities of the ministries and organisations reporting to each ministry can save more than EUR 44 mil. yearly. Approximately one in every three employees of ministries and nearly one in every ten employees of subordinate organisations serve in support and cross-cutting activities. Reduction of expenditures at the 12 central authorities and their subordinate organisations to the median level can in a short time save EUR 18 mil. The savings can be increased in mid-term horizon to EUR 32 mil. a year by establishing departmental support centres. The goal is to establish several national service centres in a long-term horizon, which is expected to save more than EUR 44 mil. a year compared to the current situation.

Financially important savings can be earned through concentration of performance of local governments into larger units and decreasing the number of policemen to the EU average. The spending review recommends reform of the territorial and administrative division so that disintegrated administration of small municipalities is concentrated into larger units, which could eventually bring better quality of services and potential savings of EUR 396 mil. yearly. Gradual reduction of number of policemen to EU average could reduce total wage costs by EUR 96 mil., with additional savings in equipment and armaments. The number of policemen can be reduced by not filling the vacancies including new vacancies resulting from retirement and turning the existing vacancies into civil positions. Nevertheless, implementation of such measures requires a longer time.

Substantial part of funds to improve teachers' compensation can be found within the department. Adjustment of the academic staff per student ratio to the level of the Czech Republic and the number of non-teaching staff to the 2010 level could release around EUR 91 mil. yearly for tertiary education institutions. Similarly, rationalization of the regional school network could save approximately EUR 17 mil., thereof around EUR 15 mil. in personnel expenses. Moreover, transfer of students to larger schools could contribute to higher share of classes taught by better qualified teachers than teaching in small schools.

1 Measures of the spending review

The key motivation of the spending review is to create space for more productive investments. Better deployment of resources and better conditions for employees will encourage creation of a more efficient general government aimed at improving services for citizens.

Saving measures and reallocation of resources which are now inefficiently spent, are meant to create a part of the necessary financial leeway and contribute to better utilisation of the existing funds. One of the key measures defined by the spending review is 10% reduction of headcount on central level of the general government. The spending review proposes well-targeted rather than across-the-board measures, which have proven unsustainable. The key tool for implementation of this measure are audits of ministries and state-owned enterprises. Previously performed audits and foreign experience show that potential savings of around 10% of budgeted amounts is a feasible scenario. Additional future funds need to be directed to areas where wages most lag behind average wages of equivalent positions abroad.

An essential part of wage increases are reform measures aimed at improvement of the results, otherwise, Slovakia is facing the risk of ending up with a more expensive system without better results. The increase in financial funds must be conditioned by specific reform measures and budget possibilities. International comparison shows that Slovakia is underperforming in areas identified by the spending review as a priority for additional financing (education, healthcare). Conditioning additional financing by implementation of structural reforms is also recommended by international organisations (IMF, EC 2017). Otherwise, costs may increase without getting higher benefits from the system (e.g. sharp growth in medical doctors' wages in the UK (IMF, 2015), or in Slovakia (IFP, 2012). The spending review recommends to make the increase in funds² conditional on specific reform measures.

Salaries in lagging professions may be topped up at an arbitrary pace. It depends on possibilities of public finance, respecting the Government's economic objectives and compliance with reform measures resulting from the spending review. Specific value of each measure will depend on the leeway available in preparation of the general government budget for the respective years.

Value measures – topping-up by 2027

	Measure	Source of finance	Additional spending above BS (EUR mil.)		Responsible
			1st year	Potential	
1	Raise compensation for teachers in regional school system to the EU average by 2027, along with implementation of reforms	gov. budget + local gov.	113	883	MoESRS, MoF SR
2	Increase number of nurses in institutional care to reach the EU level by 2027 and increase their competencies	health insurance	8	54	MoH SR, MoF SR
3	Raise compensations and headcounts in social services to reach the level of the Czech Republic by 2027, along with implementation of reforms	gov. budget+ local gov.	28	250	MoLSAF, MoF SR
4	Increase the university students-per-teacher ratio to reach the level of the Czech Republic and, at the same time, increase salaries of university teachers to the EU average by 2027, along with implementation of reforms	gov. budget	1	16	MoESRS, MoF SR
5	Raise compensations of high-skilled positions in the central government	gov. budget	21	40	GO SR, MoF SR, MoLSAF
Total			171	1,243	

ZS – baseline scenario, for details see Box 1.

Note: Potential – based on the 2020 wage envelope; the first year – based on estimated expenditure in 2021

² Unless a specific measure states otherwise, quantification of additional expenditures or savings refers to personnel costs only, excluding any other related expenditures (offices, computer equipment, etc.).

Value measures – topping-up by 2030

	Measure	Source of finance	Additional spending above BS (EUR mil.)		Responsible
			1st year	Potential	
1	Raise compensation for teachers in regional school system to the EU average by 2030, along with implementation of reforms	gov. budget + local gov.	72	883	MoESRS, MoF SR
2	Increase number of nurses in institutional care to reach the EU level by 2030 and increase their competencies	health insurance	6	54	MoH SR, MoF SR
3	Raise compensations and headcounts in social services to reach the level of the Czech Republic by 2030, along with implementation of reforms	gov. budget + local gov.	19	250	MoLSAF, MoF SR
4	Increase the university students-per-teacher ratio to reach the level of the Czech Republic and, at the same time, increase salaries of university teachers to the EU average by 2030, along with implementation of reforms	gov. budget	1	16	MoESRS, MoF SR
5	Raise compensations high-skilled positions in the central government	gov. budget	21	40	GO SR, MoLSAF, MoF SR
Total			119	1,243	

BS – baseline scenario, for details see Box 1.

Note: Potential – based on the 2020 wage envelope; the first year – based on estimated expenditure in 2021

Saving measures

	Measure	Source of finance	First year	Potential ³ (EUR mil.)	Responsible
1	Audits at ministries	gov. budget	37	147	GO SR, MoF SR, MoI SR
thereof	Optimise support and cross-cutting activities at ministries and associated organisations	gov. budget	9	44	MoF SR, MoI SR, ministries
	Monitor and enforce declared savings from IT projects	gov. budget	2	104*	beneficiaries
2	Optimise employment in state-owned enterprises	state-owned enterprises	33	67	MoF SR
3	Reduce number of policemen to the EU average by 2027	gov. budget	16	96	MoI SR
4	Rationalise the regional school network	gov. budget	1	15	MoESRS SR
5	Optimise number of non-teaching staff at universities	gov. budget	44	44	MoESRS SR
6	Concentrate performance of local governments into higher units, effective from 2023	local governments	0	396	MoI SR, MoF SR
Total			131	765	

* Savings from IT projects may overlap with savings in support and cross-cutting activities. The savings also include organisations other than ministries.

Measures for better management

	Measure	Area	Responsible
1	Regular optimization audits at ministries	optimization	GO SR, ministries
2	Regular performance audits at state-owned enterprises	optimization	MoF SR, ministries
3	Reduce the number of vacancies in the general government to 5%	budgeting	MoF SR
4	Link valorisation of healthcare professionals' salaries to inflation	compensation	MoH SR, MoF SR
5	Cancel specific salary coefficients applied by selected institutions	compensation	GO SR, SAO SR, OoNC SR, KP SR, OoPDR SR, OoCC SR
6	Include EU funds to wages in the budget	budgeting	MoF SR
7	Include budgeted bonuses in the prepared budget	budgeting	ministries

³ If the potential of the saving measures is reached within the 3-year horizon, the expected growth in wages will bring valorisation. Most of the saving measures are fully valorised within 4 years, except for savings from IT projects, reduced number of policemen and reform of local governments.

Measures for better management

	Measure	Area	Responsible
8	Increase flexibility in compensation of government and public employees based on their performance	compensation	GO SR, MoF SR
9	Raise the employability levels in the general government for bachelor's degree graduates and reconsider the existing terms for recognition of professional experience	management	GO SR
10	Support central human resources management	management	GO SR
11	Reassess the institutional arrangement of collective bargaining procedures	management	MoLSAF SR
12	Analyse the possibility of establishing contributions reflecting regional differences in wage levels	compensation	GO SR, MoLSAF SR, MoF SR

1.1 Value

1. Measure: Raise compensations for teachers in regional school system to match the EU average relative to wages of tertiary-educated workers. The precondition is to implement reforms leading to performance-related pay policies. The spending review proposes that between 2021-2027 salaries of teaching and professional staff in regional school system would go up each year by approximately 10%. Thus, in the first year, approximately EUR 113 mil. will be needed on top of the baseline scenario to implement the measure. Assuming that the wages are topped-up by 2030, the extra spending in the first year would be EUR 72 mil. Actual amount of additional spending will depend on the possibilities of public finance.

Among numerous groups of public employees, those whose salaries most lag are teaching and professional staff in regional school system. In Slovakia, teachers' tariff salaries grew faster than in EU countries; between 2012-2017 teachers' salaries went up by approximately 44%, which is at a growth rate higher than in most EU countries. The average for EU countries with available data was 12% (Graph 51). During the same period, however, salaries of tertiary-educated workers increased by approximately 20%. Pursuant to OECD survey, in 2017, Slovak teachers were earning just 65% of the amount earned by tertiary-educated workers, while the OECD and EU average is around 90%. Among developed countries, only the Czech Republic reports lower teachers' salaries. Countries scoring high on the last PISA tests, such as Estonia, Finland or Poland, pay higher salaries to their teachers than Slovakia does (Chapter 5.2), needless to say that the amount of salary is a major factor for attractiveness of an occupation.

After the 10% rise in salaries in 2019 and 2020 (included in the baseline scenario, Box 1) the average teachers' salary in regional school system should be approximately equivalent to 68% of tertiary graduate earnings. To achieve the OECD and EU average by 2027, as intended by the National Programme for Education and Upbringing (NPEU), the salaries shall from 2021 grow by approximately 10% each year, and the growth rate needs to be reassessed on a regular basis. The financial effect of this measure takes account of the necessary mild growth in number of teachers. **The rise in teachers' salaries must be accompanied by implementation of reform measures to ensure improvements in education.** Many of the reforms have already been defined in documents issued by the Government – in the Spending Review of Education and the National Reform Programme of the Slovak Republic.

The rise in salaries does not have to be made on an across-the-board basis, it should be focused on improving the performance, e.g. through improving the attractiveness of the teaching profession for young graduates, for teachers of selected subjects or for those teaching pupils with special educational needs.

2. Measure: Increase the number of nurses in institutional care. The spending review proposes increasing the number of nurses by approximately 1.5% each year (approximately 320 nurses), to match the EU average by 2027, considering the existing ageing of the population. In the first year, approximately EUR 8 mil. will be needed on top of the baseline scenario (Box 1) to implement this measure.

After the rise in salaries in 2019, salaries of nurses in Slovakia nearly match the international average. In 2015, nurses were earning equivalent to 97% of the national average wage (the EU average is 110%) and after the rise in 2019 by approximately 16% their salaries nearly match the international average (107%) (IHP, VfM, 2018). The issue that remains to be solved is the number of nurses.

Analysis carried out by the Ministry of Health compared international data and concluded that **Slovakia lacks at least 3500 nurses**, and, considering the existing demographic trends, by 2030 the shortage may increase to 6,400 (Chapter 2.4). In the period between 2000 and 2015, the number of nurses in Slovakia decreased substantially, while the trend in EU countries was quite the opposite. The number of nurses is a critical factor for quality of healthcare and sustainability of the system – hospitals with high patients per nurse ratio face higher risk that a patient dies after surgery, nurses get dissatisfied with their work and many of them suffer from burnout syndrome (IHP, VfM, 2018).

The number of nurses must be increased along with implementation of reforms of the systems. The reforms have been defined in documents issued by the Government – the National Reform Programme of the Slovak Republic and the Healthcare Spending Review II. (IHP, VfM, 2019).

3. Measure: Increase numbers and compensations of social workers to match the level of the Czech Republic. The spending review proposes increasing the number of social service staff by nearly 4% per year, and raising salaries from 2021 by 8.5% per year. In the first year, approximately EUR 28 mil. will be needed on top of the baseline scenario to match the required level by 2027.

The comparison reflecting the age structure of the population indicates that the number of social service staff in Slovakia is lower, despite the existing differences in organisation of social services in Slovakia and the Czech Republic. Wages of social service staff should grow as well, as in Slovakia social service staff were earning equivalent to 55% of the average wage⁴, while in the Czech Republic it was 70%. To match the level of wages in the Czech Republic by 2027, wages of Slovak social service staff need to grow starting from 2021 by approximately 8.5% each year.

The growth rate needs to be regularly reassessed, among other reasons, owing to higher demand resulting from ageing of the population (Chapter 2.4). The proposed changes should definitely include measures focused on improving quality of provided social services and broader access to the services. The assessment of Slovakia carried out by the European Commission in 2019 (EC, 2019) indicates problems with both access to social services and quality of social services.

4. Measure: Increase the university students-per-teacher ratio to match the level of the Czech Republic, along with rise in university teachers' salaries to match with the EU average by 2027. The spending review proposes reduction of the number of university teachers by approximately 2.5% yearly along with increase in compensations by approximately 8% yearly.

International comparison shows a relatively high number of academic staff at universities considering the number of students. While in 2010, the ratio was just somewhat lower than the OECD average (14.9 vs.15.5), in 2017 it already dropped to 12 students per teacher in Slovakia vs 16 in OECD average (Chapters 2.3 and 5.2). In 2018, at public universities in the Czech Republic with similar tertiary education system, the ratio is 14.9 student per teacher, while in Slovakia, using the same methodology, the ratio is 12.5.

⁴ Eurostat, SES, Structure of Earnings Survey. For details see: <https://ec.europa.eu/eurostat/web/microdata/structure-of-earnings-survey>

Moreover, in international comparison, university teachers' salaries lag behind the EU average. In 2014, Slovak university teachers were earning approximately equivalent to 92% of average salaries of tertiary educated staff, while the average for 14 EU countries with available data was approximately 116%.⁵

The spending review proposes reducing numbers of university teachers to the Czech Republic 2018 level and, concurrently, increasing their salaries to match the EU average by 2027. The reduction of the number of university teachers to match the Czech Republic student/teacher ratio, would mean saving approximately EUR 47 mil. which could be used for rise in salaries or other priorities. The required pace in staff reduction (approximately 2.5% per year, around 240 persons) does not exceed the normal fluctuation rate, including retirement. The measure thus does not plan any severance pay. The proposed annual growth in wages is 8%, thus, in the early years, the spending for rise in salaries above the baseline scenario are expected to be nearly fully covered from funds saved by reduction of the headcount.

The rise in salaries of university teachers must be accompanied by measures encouraging higher quality of education and science. Just like the regional school reforms, these have also been defined in documents issued by the Government – in the Spending Review of Education and the National Reform Programme of the Slovak Republic.

5. Measure: Raise compensations for selected high-skilled positions in the central government, along with increasing responsibility for achieved results. The spending review assumes that in the first year, expenditure for this measure will be EUR 21 mil. and after full implementation EUR 40 mil.

Approximately 7.5 thousand of administrative staff earn considerably less than their peers in the private sector. This applies in particular to managers, lawyers, analysts and IT staff, whose earnings in the private sector go well beyond the standard pay scales. In many cases, the inability to offer higher salaries leads to lower quality of services or necessity to purchase certain services, often at considerably higher costs (Chapter 3.3). The mechanism allowing to pay salaries outside the standard pay scales – so called personal salary⁶ – is used very rarely. Spending on such high-skilled, expensive staff is not planned separately.

Estimate topping-up of salaries for high-skilled positions

	Private sector wages 2020*	Public wages 2020*	Monthly contribution 2020**	Number of public employees	Annual effect 2020** (EUR mil.)
Managers	3 557	2 590	611	1 321	13,1
Lawyers	2 393	1 742	412	746	5,0
IT	2 832	1 711	838	604	8,2
Technical professions	2 187	1 703	265	1 520	6,5
Other	2 321	1 958	131	3 340	7,1
thereof	<i>Project specialists/managers, internal control professionals etc.</i>	2 400	1 911	1 328	5,4
	<i>Strategy and development specialists</i>	2 378	2 102	38	0,9
Total				7 531	39,9

* Estimate based on wages of 2017 and the estimated wage growth

Source: VfM calculations from ISLC, Platý 1-02

** Topping up monthly wages to match 90% equivalent to wages in private sector

The spending review proposes gradual rise of salaries in professions which considerably lag behind the private sector and, at the same time, support to the personal salaries control system. Implementation of the measure shall also include development of a methodology for utilisation, approving and regular reassessment of personal salaries. A potentially effective solution in certain cases could be sharing high-skilled and specialised staff by several authorities (Chapter 5.1). The spending review estimated annual expenditure on topping up wages lagging far behind to equivalent of 10% below the private sector at EUR 40 mil. Considering the complexity of the

⁵ SES, Structure of Earnings Survey. For details see <https://ec.europa.eu/eurostat/web/microdata/structure-of-earnings-survey>

⁶ Personal salary is defined in § 129 of Act No. 55/2017 Coll. and §7a of Act No 553/2003 Coll.

measure, it will be launched gradually and the expenditure in first year are estimated at approximately half of the above-mentioned amount.

1.2 Savings

The spending review identified saving measures in the amount of EUR 765 mil., which are expected to provide opportunity for adoption of value measures and thus contribute to better utilisation of the current funds. The spending review sees the opportunity for better compensation mainly in finding inefficiencies in the general government and in enforcement of already declared savings, e.g. in IT projects. A part of the savings can be achieved relatively quickly.

1. Measure: Among the measures recommended by the spending review, the key measure is the 10% reduction of headcount in the general government. The instrument to achieving this goal are optimization audits performed internally. Results of the audits already performed at selected institutions indicate that it is feasible to reduce the number of public employees by 20% which would save money for more productive investments in human resources. A more precise quantification will be prepared after the audits.

The spending review recommends auditing all ministries and all authorities at the central level of the general government (potential savings of EUR 147 mil.)⁷ and the key state-owned enterprises. The optimization audits will be focused on the scope, organization and cost effectiveness of performed activities. As appropriate, the audits will be focused, for example, on optimisation of processes or cost control, including analysing temporary job contracts (work by agreement). The internal audits will result in recommendation of specific and sustainable measures instead of across-the-board and unsustainable cost reductions from the past. The overall goal of 10% savings is lower than the potential identified by the already performed audits, which identified feasible savings in spending on compensations at 20%. Examples include analysis of support and cross-cutting activities of ministries (Chapter 5.1), results of audits performed at the Slovak Water Management Company (in cooperation with BCG) and other state-owned enterprises, optimisation project of the Government Office SR (2019), and older audits performed at the Ministry of Finance (2004), Ministry of Defence (2005), and the Ministry of Culture (2009). Savings in wage costs must not trigger increase in expenditure on externally provided services, including temporary job contracts (work by agreement), which will be monitored.

1.1. Optimise support and cross-cutting activities of ministries and associated organisations.

Central government authorities and their budgetary and subsidiary organisations⁸ spend nearly EUR 150 mil. (both internal and external costs including temporary job contracts – work by agreement) each year on support and cross-cutting activities (e.g., HR management, IT, accounting etc.), and employ one in every five employees⁹. They differ in cost effectiveness, even after considering the size of the organisations (Chapter 5.1).

High variability of expenditure on support and cross-cutting activities and their similarities across the organisations indicate the potential for optimisation of expenditure on operation of the services. The following three measures were identified:

a) Optimization of support and cross-cutting activities under the existing institutional setup. Optimisation of the analysed organisations (11 ministries and the Government Office including their subsidiary and budgetary organisations) in areas identified as cost-ineffective compared to other organisations, would bring savings in the

⁷ For details on quantification of potential savings see Annex 1.

⁸ Excluding the Ministry of Interior, the Financial Administration of the SR, UPSVR, healthcare facilities and Chapters where employees are subject to a special protection resulting from the legislation or the existing political culture.

⁹ Number of employees in support activities depends on the size of the organisation.

amount of EUR 18 - 28 mil. The amount of the potential savings varies depending on the chosen goal (achieving the second best cost-effective organisation or a median organization in the group). Additional savings in the amount of EUR 11 – 13 mil. can be reached by optimization of support activities carried out by other central government authorities.

b) Estimates based on experience from abroad¹⁰ show that centralization of support and cross-cutting activities into departmental service centres can reduce costs by 15-20% compared to the level before optimization. In case of departmental centralization of HR activities, financing, law, public procurement, internal administration and IT (activities suitable for centralization¹¹), savings in central government authorities and their subordinate organisations, would be EUR 32 mil. These potential savings already include the savings achieved in the first phase.

c) Experience from abroad¹² show that establishing national common support and cross-cutting activities centres would make it possible to save as much as one third of expenditure on activities suitable for centralization (EUR 44 mil. in 2020). Moreover, it can be expected that national and departmental centralization will increase efficiency and quality of provided services. As a part of the pilot project, support and cross-cutting activities of ministries with the highest relative costs could be gradually centralised at the Ministry of Finance¹³ with subsequent involvement of further ministries. One of the key prerequisites to successful departmental and national centralization is standardisation of processes and consolidation of information systems. In Slovakia, this could be done by implementation of the MoF SR project for reform of support and economic activities of the government – Central Economic System. The goal of the project is to consolidate activities of ministries and their subordinate organisations, in particular in economic issues.

1.2. Monitor and enforce declared savings from IT projects. The measure can potentially save EUR 104 mil. in wage costs by 2029 (nearly 5 thousand of FTEs). The measure can partly overlap with Measure 1.1 – Optimisation of support and cross-cutting activities at ministries and their subordinate organisations, and it, at the same time includes savings in other organizations beyond Measure 1.

Promoters of IT projects financed from the Operational Programme Integrated Infrastructure (OP II) are committed to ensure savings in wage costs. The declared savings in human resources from the prior programming period (Operational Programme Information Society) cannot be reliably quantified and most likely have not been achieved.

The declared savings from OP II projects shall be monitored and enforced as a part of preparation of the general government budget, and shall be reflected in the binding employment and wage cost indicators. Besides savings resulting from absolute reduction of the number of employees projects will bring additional savings potentially involving 550 FTE (EUR 11 mil. yearly) by reduction of expenditure for activities which are just being planned.

The largest savings are expected from projects of the Ministry of Interior SR *Central Components of Administrative Proceedings in the General Government* (savings of 461 employees) and *Digital Workdesk of the Ministry of Interior SR* staff (savings of 291 employees). The goal is to digitalise administrative proceeding files to eliminate a time consuming physical work with the file and archiving thereof and consolidation of several systems

¹⁰ E.g. State Shared Service Centre in Bulgaria.

¹¹ State Shared Service Centre in Estonia; Central Office of Labour, Social Affairs and Family (ÚPSVaR); Optimization of support activities of the Ministry of Interior SR; PwC. 2019. *Review of Data Centre Budget Unit in Slovakia*.

¹² State Shared Service Centre in Estonia.

¹³ MF SR already now supports the performance of support and cross-cutting activities of selected organisations via the Economic Information System and ensures e.g. payroll accounting for Deputy Prime Minister's Office for Investments and Informatisation. In the future this will be done through the Economic Information System.

into one. That eliminates the necessity of duplicate entering of inputs and working with several displays at a time. Above 500 employees (both office staff and the guard) can be saved under *Optimization of Management Processes and operation of the Prison and Court Guard Service*, which brings digitalisation of life situations of convicted persons, and thus eliminates related office work (e.g. filing requests about treatment of the property/assets of accused or convicted persons). Another considerable savings (507 employees) is expected at the Ministry of Justice SR as a result of implementation of the *Centralised Case Management System* for processing court files and registration of court decisions, mainly thanks to automated processes and decisions issued in a structured form.

The presented savings only include savings of HR expenditure. Additional benefits from IT projects may include e.g. reduction of operating costs, time savings for citizens or quality benefits, which cannot be reliably expressed as time savings or cost reduction (lower social harm, higher satisfaction with provided services). Achieving the above described benefits may require a short-term growth in wage costs if it is necessary to enter data in the information system. For full list of projects included in the calculation see Annex 2.

Expected savings from OPII IT projects (vs 2018, EUR mil. and FTE)

Promoter (Chapter)	Project	First year of savings	Type of savings	Savings- 1 st year		Potential	
				Savings (FTE)	Savings (EUR mil.)	Savings (FTE)	Savings (EUR mil.)
MoF SR	Central Economic System*	2023	HR	62	1.2	1 032	19.6
			operation		0.0		1.7
MoF SR	IS Electronic Invoicing*	2024	HR	78	1.5	78	1.5
			operation		-0.5		0.0
MoF SR	Building a framework infrastructure for secure information and communication for the Financial Administration of the SR	2023	HR	21	0.5	21	0.5
			operation		-4.2		0.0
MoE SR	IT platform for better regulation under RIA 2020 strategy	2021	HR	1	0.0	10	0.2
			operation		0.0		0.1
MoC SR	Conservation IS (PAMIS)	2024	HR	5	0.1	24	0.5
			operation		-1.0		0.0
MoLSAF	Digitalisation of services at the National Labour Inspectorate (inspectors and office staff)	2023	HR	25	0.5	25	0.5
			operation		-0.4		0.0
MoJ SR	Business Register SR	2021	HR	16	0.3	51	0.8
			operation		0.0		0.2
MoJ SR	Optimisation of management and operation processes Prison and Court Guard Service (office staff + guard)	2024	HR	520	9.9	520	9.9
			operation		-1.8		0.0
MoJ SR	Centralized Case Management System– CSSR	2024	HR	348	7.5	507	10.9
			operation		0.0		0.0
MoESRS SR	Digitalisation of services of regional and tertiary education system SR	2022	HR	386	7.3	386	7.3
			operation		-0.7		0.0
MoI SR	Central components for administrating proceedings in the general government	2023	HR	461	11.2	461	11.2
			operation		-2.2		0.0
MoI SR	Digital working environment for MoI SR staff (workdesk)	2024	HR	291	7.1	291	7.1
			operation		-1.5		0.0
MoI SR	Weapons and Ammunition Register	2023	HR	50	1.0	50	1.0
			operation		-0.3		0.0
MoI SR	Processes and data management for district authorities, police, fire and rescue forces	2024	HR	52	5.2	52	5.2
			operation		-1.6		0.0
MoI SR	Trade register	2023	HR	38	0.8	38	0.8
			operation		0.0		0.0
MoH SR	Analytical tool supporting economic regulations by MoH SR	2024	HR	6	0.1	6	0.1
			operation		-0.1		0.0
MoH SR	Integrated systems of public health authorities	2022	HR	318	7.0	318	7.0

Expected savings from OPII IT projects (vs 2018, EUR mil. and FTE)

Promoter (Chapter)	Project	First year of savings	Type of savings	Savings- 1 st year		Potential	
				Savings (FTE)	Savings (EUR mil.)	Savings (FTE)	Savings (EUR mil.)
			operation		-0.7		0.0
MoH SR	Implementation and integration of the support information system (IS ÚRPO)	2023	HR	100	2.2	100	2.2
			operation		0.2		0.2
MoEnv SR	Equal access to spatial data and services*	2023	HR	29	0.6	103	2.3
			operation		0.0		0.0
SIA	Modernization of benefit agenda of the Social Insurance Company	2022	HR	18	0.4	90	1.9
			operation		0.0		2.9
SO SR	Unified statistical data information system	2023	HR	102	2.1	102	2.1
			operation		-0.4		0.0
ORECPS	Project for development of IS for electronic services of the Regulatory Authority	2023	HR	50	1.0	50	1.0
			operation		-0.2		0.0
DPMOII	Comprehensive information system for performance and support management	2022	HR	3	0.1	3	0.1
			operation		-0.2		0.0
DPMOII	Open Data 2.0 – Development of central components for open data security	2023	HR	2	0.0	2	0.0
			operation		0.2		0.2
DPMOII	Data integration: providing access to tertiary education data bases including open data, through data integration platform*	2021	HR	74	1.3	132	2.3
			operation		0.0		0.0
DPMOII	Increasing the utility value of digital services for citizens, businesses and general government institutions (slovensko.sk 2.0)*	2022	HR	6	0.1	6	0.1
			operation		0.0		0.0
GO SR	Central civil service information system *	2023	HR	-19	-0.4	47	1.0
			operation		0.0		0.0
PPO	Public procurement system (SVO)*	2022	HR	341	6.5	347	6.6
			operation		-0.7		0.0
ZSSK	Information system of comprehensive services for passengers	2022	HR	11	0.2	11	0.2
			operation		1.0		1.6
Total			HR			4 864	103.9
			operation			0	6.9

*Including savings in other departments.

Source: VfM

2. Measure: Optimise employment in state-owned enterprises. Already performed audits in state-owned enterprises identified savings in personnel costs at approximately EUR 67 mil.

The Slovak Republic, through central government authorities, owns 91 enterprises employing approximately 73 thousand employees. In many of them, personnel costs account for more than a half of operating costs. Higher efficiency can be achieved by implementation of saving measures identified by the already performed audits.

An example to illustrate such practice is the audit of the Slovak Water Management Company performed in connection with the Spending review of environment. The audit in 2017 identified key reasons having negative impact on the company's efficiency (Box 16). Through implementation of the measures recommended by the audit, the Slovak Water Management Company was to reduce its annual operating costs by EUR 20 mil. by the end of 2020 and another EUR 10 mil. within the next two years. Approximately half of the savings refer to compensations of employees. Audits performed in other state-owned enterprises identified potential savings of around EUR 58 mil.

3. Measure: By 2027 reduce the number of police officers to match the EU average. Implementation of the measure could reduce personnel costs by approximately EUR 96 mil. yearly.

The general comparison show that the police officers per population ratio in Slovakia is 20% higher than the EU average. The size of the difference indicates the opportunity for a considerable savings, although a detailed

comparison requires taking account of differences in competences and the organisation of public order enforcement entities and selected public services and procedures (e.g. administrative proceedings). A deeper analysis requires data from the Ministry of Interior SR, which, so far, have not been provided. Nevertheless, a spending review is underway at the Ministry of Interior of the Slovak Republic, focusing on efficiency of the department. Considering the considerable differences compared to other countries, the spending review recommends starting with reduction of the number of police officers since 2021, while a detailed analysis of the department is still running.

The required pace (approx. 680 persons / 2.6% employees yearly) of reduction does not exceed the normal fluctuation rate, including retirement. Reduction of headcount to match the international average would reduce annual personnel costs by approximately EUR 96 mil., with additional savings from lower spending on equipment, armaments and training. The quantification takes account of the necessary financial subsidy to the special social security account for police officers owing to lower earnings.

4. Measure: Rationalization of the school network in regional school system. Implementation of the measure can save approximately EUR 15 mil. per year.

There are too many small schools in Slovakia, with less than 50 pupils attending approximately one in every four primary schools. Moreover, 80% of such schools are not located in secluded villages, but in the range of 5 km from other primary school in a neighbouring village. The ineffective network siphons off funds from the system, mostly those spent on teachers' salaries. Education in small schools can be of lower quality as small schools appear to have lower proficiency at secondary education level (IEdP, 2016b). The problem is indirectly indicated by low scoring by pupils from small schools in certain years, although, the testing does not reflect, for instance the students' socio-economic background (IEdP, VfM, 2017).

The not-yet-implemented measure identified by the spending review of education is transportation of lower-secondary students and closing small schools. The annual financial benefit of the measure, net of transportation costs, has been estimated at EUR 14 mil.; in 2020 the estimate is approximately EUR 17 mil., thereof approximately EUR 15 mil. in personnel costs.

5. Measure: Optimise the number of non-teaching staff at tertiary-education institutions. Implementation of the measure can save approximately EUR 44 mil. per year.

While the number of university students dropped by nearly a third compared to 2010, there were no substantial changes in the number of non-teaching staff at tertiary-education institutions. Therefore, it is advisable to reduce their number, along with optimisation of the number of university teachers. In 2018, the number of non-teaching staff at public tertiary-education institutions in Slovakia was approximately 10 thousand with wage costs amounting to EUR 140 mil. Reduction of the non-teaching staff per student ratio to the level of 2010 would release approximately EUR 44 mil. per year and these funds could be used for more stronger rise in salaries or for other spending. In case of implementation starting from September, severance pay, if any, would be covered by the savings generated in that year.

Collection and evaluation of data about the operation of tertiary-education institutions would be a helpful tool for increasing their efficiency. After being analysed, the data could also be used for centralization of support activities at tertiary-education institutions (similarly to the measure proposed for ministries and their subordinate organisations, Chapter 5.1). Additionally, the Ministry of Education can encourage the efficiency initiatives by amending the financing methodology including financial incentives for higher efficiency.

6. Measure: Concentrate performance of local governments' activities in larger units. Depending on the chosen model, implementation of the measure can save EUR 64 - 396 mil. yearly.

In Slovakia, local governments are three times smaller than the EU average, and the obligation binding all municipalities to provide equal services irrespective of their size results in inefficiency. Villages with less than 250 inhabitants spend around half of their spending on the performance of administration (Chapter 5.4).

The spending review recommends concentration of the local government in larger units – in a short-term horizon in civil registration districts and in mid-term horizon into microregions. Depending on the chosen model, the potential savings in expenditure has been estimated by the IFP study at EUR 51 - 316 mil. yearly, which is equivalent to EUR 64 - 396 mil. in 2020 prices. Implementation of this measure requires a longer time horizon, notable savings can be expected not earlier than after municipal elections, i.e., in 2023.

Even now, in two thirds of villages, inhabitants have to travel to the seat of the civil registry office. Seats of the civil registry offices are relatively easily accessible from the surrounding villages and concentration of local government in civil registration districts is not expected to be a major limitation for inhabitants. An alternative to the above-described concentration, bringing higher savings for the local government (EUR 396 mil. yearly), are microregions – catchment areas for surrounding villages, where people regularly commute to work, to school or for services.

The recommendation submitted by IFP indicates that concentration of administration would not deprive the existing municipalities of their identity and they could further have impact on decisions on use of local resources. The existing municipalities would be represented equally in the new sub-national government units and a part of the saved money would be tied to the territory from where it was released thanks to more efficient organisation of local government.

Small villages could benefit from broader access to EU funds, which, in many areas is limited only to villages with certain number of inhabitants. Moreover, less fragmented local government can contribute to faster and more effective rationalisation of the regional school network. Nevertheless, lower fragmentation of the local government in Slovakia requires a reform of the local government arrangement.

Box 1: Baseline scenario of spending, by professions

The baseline scenario assumes constant employment in all professions. For professions with automatic rise in salaries – healthcare professionals, judges, prosecutors or selected constitutional officers – the estimated growth rate has been reflected in all respective years as forecasted by the MoF SR. For other professions, the forecast includes the already agreed 10% wage growth for public employees effective from 1.1.2020 in accordance with the higher-level collective agreement signed in 2018, and the valorisation by the expected wage growth in the national economy in 2021 and the following years.

Assumptions underlying baseline scenario of personnel costs by professions

Profession	Spending (EUR mil.)	Estimated wage growth	Expected y/y wage growth		
	2019 O*	2019 O*	BS 2020	BS 2021	BS 2022
Teachers – reg. schools, incl. private and church schools	1 871	10.0%	10.0%	5.3%	4.5%
Institutional nurses, incl. non-public	458	15.1%	6.3%	6.7%	6.3%
Social services	356	10.0%	10.0%	5.3%	4.5%
Government employees	880	10.0%	10.0%	5.3%	4.5%
Institutional medical doctors, incl. non-public	470	4.6%	6.3%	6.7%	6.3%
Firefighters	108	10.0%	10.0%	5.3%	4.5%
University teachers	272	10.0%	10.0%	5.3%	4.5%
Customs officers	76	10.0%	10.0%	5.3%	4.5%
Selected constitutional officers	9	6.3 - 50% **	6.7%	6.3%	5.3%
Judges	98	6.3%	6.7%	6.3%	5.3%
Police officers	738	10.0%	10.0%	5.3%	4.5%
Public prosecution	66	6.3%	6.7%	6.3%	5.3%
Expected growth of the average wage		6.7%	6.3%	5.3%	4.5%
Average wage growth, year t-1 (judges, prosecutors, constitutional officers)		6.3%	6.7%	6.3%	5.3%
Average wage growth, year t-2 (healthcare professionals)		4.6%	6.3%	6.7%	6.3%

* Estimated spending for 2019

Source: ViM calculations

** In 2019, salaries for some, not all, constitutional officers have been unfrozen after 9 years, therefore some salaries increased by 50% on the y/y basis, while other (e.g. salaries of constitutional judges) increased by 4.6%

1.3 Management

1. Measure: Regular optimisation audits at ministries

Audits at ministries, their subordinate organisations and selected central government authorities will prepare detailed instruction on how to achieve savings and improve processes. Institutional and process-oriented audits¹⁴, including analyses of available human resources and financial performance, are a standard tool for improving efficiency and quality of organisations. In the past few years, some ministries initiated audits focused on optimisation of these activities, although the audits were not coordinated and the findings have not been replicated in other institutions (Chapter 5.1).

It is advisable to follow positive examples of performance audits in state-owned enterprises (e.g. SWMC) and perform optimisation audits at all ministries and selected central government authorities. A major part of the potential is to be covered by the project Optimisation of Processes in the General Government, which is being implemented by the Ministry of Interior SR¹⁵. The audits should be preferably performed internally. The benefit from using own resources and a coordinated approach with time schedule of audit deliverables will be in concentration of key knowledge, potential across-the-board replication and implementation of results. The audit results will be publicly available.

2. Measure: Regular performance audits in state-owned enterprises

Enterprises with majority participation of the government employ approximately 73 thousand employees. Personnel costs often account for more than a half of operating costs and, additionally, the spending review identified inefficiencies compared to Czech companies (Chapter 5.3). The key reasons having adverse effects on efficiency of business can be identified by performance audits. Therefore, the largest state-owned enterprises in the general government sector should be made subject to performance audits. The past experience from pilot projects focused on support and cross-cutting activities of ministries and/or selected state-owned enterprises show that 10% savings is a feasible goal.

The audits should be performed in accordance with the a time schedule approved by the government. Rather than being focused only on personnel costs, the scope of the audits should be more comprehensive, aiming for improvement of effectiveness and efficiency of the enterprise.

3. Measure: Reduce the number of vacancies in the central government to a 5% level. The measure reallocates approximately EUR 28 mil. yearly.

High number of vacancies in the central government institutions distort information about planned employment and average wage, because allocated funds are spent on smaller number of employees. In 2018 the budget chapters had 6.7 thousand of vacancies. These vacancies accounted for 5% all positions with compensations based on pay scales and financial coverage of approximately EUR 180 mil., and in 21 chapters the share of vacancies exceeded 5%. Compared to other countries, the number of vacancies is four times higher, however, most of the vacant positions are police officers and soldiers. (Chapter 4.2).

Cancellation of all vacancies above 5% of total number of planned positions, with retaining the planned amount of funds (EUR 28 mil.) would result in reduction of the number of budgeted positions by 1.1 thousand and increase in the budgeted average wage by EUR 140.

¹⁴ For the purpose hereof, the term audit differs from statutory audits – audits of financial statements, government audit or a financial review.

¹⁵ National project Optimisation of Processes in the General Government. Available online: <http://www.minv.sk/?np-optimalizacia-procesov-vo-verejnej-sprave>.

Impact of reduction of vacancies on budget chapters, 2018

Chapter	Vacancies vs adjusted budget (%)	Number of cancelled jobs	Average wage growth	Number of cancelled jobs (3%)	Average wage growth
Office of the Public Defender of Rights	35%	18	570	19	608
Office of the President of the SR	23%	19	413	20	459
Office of the Judicial Council of the SR	21%	4	332	5	374
Deputy Prime Minister's Office for Investments and Informatisation	18%	42	107	47	123
Office for Personal Data Protection SR	14%	5	147	6	178
Regulatory Office for Network Industries	14%	12	177	14	217
Ministry of Education, Science, research and Sports SR	14%	196	169	236	207
Public Procurement Authority	13%	16	139	20	176
Office of the Supreme Court of the SR	11%	19	179	25	235
National Security Authority	11%	16	125	20	166
thereof police officers	10%	12	108	16	150
Council for Broadcasting a Retransmission	11%	2	95	3	126
Supreme Audit Office of the SR	9%	13	67	19	102
Administration of State Material Reserves SR	9%	4	49	7	76
Ministry of Transport and Construction SR	8%	39	35	68	62
Antimonopoly Office SR	7%	2	38	3	73
Geodesy, Cartography and Cadastre Authority SR	7%	5	41	10	94
Ministry of Defence SR	6%	319	29	750	70
thereof soldiers	8%	466	47	749	77
Nuclear Regulatory Authority SR	6%	2	35	4	85
General Prosecutors Office SR	6%	20	27	61	81
Ministry of Interior SR	6%	354	19	1,425	78
thereof police officers	10%	1,325	85	1,796	117
thereof firefighters	2%				
thereof regional school system	1%				
Interior other	2%				
TOTAL		1,107	140	2 762	179

Source: VIM calculations using data from BIS, MoF SR

4. Measure: More effective compensations in institutional healthcare. Link valorisation of wages to inflation and encourage broader use of variable component of compensations.

Although Slovakia's spending on healthcare exceeds the V3 average, it is still below the EU 15 average. In developed countries, the share of spending on healthcare grows with the growing wealth, therefore this trend can also be expected in Slovakia. Moreover, this trend will be reinforced by ageing of the population. At the same time, it is necessary that not only the additional funds but also the existing funds are invested in the healthcare system in a more efficient manner.

The current setup of the so-called healthcare automation increases wages to all medical doctors and nurses at the same pace and thus not leaving hospitals with sufficient discretion in deciding the amount of compensation. Budgets of hospitals keep growing every year, however, additional funds are spent on across-the board growth of wages for all employees and there is no space left for differentiated compensation of the best employees or broader application of quality and performance compensation.

The spending review recommends linking the growth coefficients to inflation rather than to average wages, while retaining the existing growth in funds for wages. Implementation of the measure would enable retaining total amount of spending on wages, with greater emphasis on variable components to better acknowledge performance and other individual needs in each hospital.

5. Measure: Cancel specific pay coefficients. The measure reallocates approximately EUR 2.7 mil. yearly.

Staff of the Chancellery of the National Council of the Slovak Republic, Office of the President SR, Supreme Audit Office of the SR, Office of the Public Defender of Rights, Office of the Constitutional Court SR and selected employees of the Government Office SR receive tariff salaries higher than other government employees – separate pay tables have been established for some of them, others are subject to tariff salaries multiplied by specific coefficient. And yet, technically they carry out activities similar to other ministries. The spending review recommends elimination of the specific pay coefficients while retaining the existing amount of funds.

If higher flexibility in compensations is not adopted, cancellation of preferences (Measure 8) will eliminate potential discrimination. There are separate tariff scales also for employees in public interest at the Chancellery of National Council SR, Office of the Public Defender of Rights SR and the Government Office SR.

Special tables in the general government, 2017

Institution	Average increase of tariffs	Number of employees	Average wage (EUR)	Annual personnel costs (EUR mil.)	Released funds (estimate EUR mil.)
Office of the President SR	7%	61	2 379	2,3	0,2
Chancellery of National Council SR					
<i>thereof civil service</i>	20%	137	2 042	4,5	0,8
<i>thereof public service</i>	12%	227	1 299	4,8	0,5
Office of the Constitution Court SR	7%	77	1 543	1,9	0,1
Government Office SR					
<i>thereof civil service</i>	20%	99	1 958	3,1	0,5
<i>thereof public service</i>	20%	34	1 106	0,6	0,1
Supreme Audit Office SR	7%	284	1 550	7,1	0,5
Office of the Public Defender of Rights					
<i>thereof civil service</i>	7%	23	1 631	0,6	0,04
<i>thereof public service</i>	7%	11	1 124	0,2	0,01
Total		953	1 873	25,3	2,7

Source: MoF SR

6. Measure: Prepare budget of EU funds for wages

Wages covered from EU funds are not included in wage items of the approved budget and a part of the wages is transferred in the adjusted budget in January (Chapter 4.3). Despite low predictability of total wage costs covered from EU funds, it is possible to make a relatively accurate estimate of numbers and expenditure on *separately monitored administrative capacities*¹⁶. Under the current setup, preparation of the budget would be difficult to implement (time lag of refund, difference between the provider and beneficiary of EU funds). Considering the necessary system changes in processes, that are required by this measure, it is advisable to implement principal changes from the following programming period.

The spending review recommends to analyse alternatives of budgeting wage costs covered from EU funds for programming period 2021-2027, and during preparation of general government draft budget include in the budget EU expenditure on wages of administrative capacities.

7. Measure: Include bonuses in the general government budget

The structure of spending on wages is subject to considerable changes owing to not including annually paid items in the budget. Items which are subject to high growth compared to the budget are comprised mainly of bonuses which are, on a long-term basis, budgeted at 0.5% of total budgeted compensations, however actual

¹⁶ AKOS – administrative capacity of EU projects fully refunded from EU funds (source code 11EU).

paid bonuses equal to 6% of total wages. Omitting bonuses from budgeting decreases predictability of the budget and is an obstacle to better human resources management (Chapter 4.3).

Bonuses are a standard tool of compensation (HR) policy, and therefore the budget should include the planned amount of bonuses. Thus, the amount of funds intended for bonuses will not be affected by other not-related factors, which are not fully under the employer's control (such as sickness or vacancies). Moreover, earmarking funds for bonuses would increase transparency of the compensation processes. To increase predictability of wage expenditure, it is advisable that besides bonuses, detailed budget is prepared for all wage components as given in the economic classification, in particular the tariff (basic) salary and allowances.

8. Measure: Increase flexibility in compensation of government and public employees, with focus on performance

Compensation of government and public employees should be subject to a major amendment in order to make it more flexible, so that the compensation system is able to respond to the labour market and attract skilled people. Rather than formal classification and years of service¹⁷, the compensation system should be based on performance and quality of work. Under the current system it is possible just to a certain extent.

One of the possibilities is to establish a compensation system based on pay bands linked to relevant practice and skills of the employee. Properly setup pay bands emphasize development of individual careers, flexible roles and growth of skills of public employees. The necessity of establishing pay bands has also been defined by the Government Office of the SR – acting as the central coordination authority for human resources in civil service -which in the HR Management Strategy for 2015 - 2020 committed itself to develop a Pay Concept by 2020 focused on establishing pay bands. The goal thereof should be amendment of the Civil Service Act establishing a higher flexibility in compensation. The spending review recommends preparing a detailed analysis also for employees working in public interest.

9. Measure: Increase possibilities of employment of bachelor's degree graduates in civil service and reconsider acknowledging relevant years of service.

Compared to other OECD countries, in Slovakia a high percentage of students continue their studies after earning a bachelor's degree. Almost 80% of students continue for master's degree, although the OECD average is 40%. A too long study ties both financial funds and human resources and delays students in starting their careers. The spending review of education (IEdP, VfM 2017) already recommended that a higher percentage of students finish their studies after earning a bachelor's degree.

Similarly, there is a higher percentage of employees with master's degree among Slovak administrative staff than is customary in the EU. The percentage of tertiary-educated (master's or doctoral level) staff in Slovakia exceeds the same number for the Czech Republic. On the contrary, bachelor's degree is not a customary educational attainment among Slovak administrative staff.

Educational attainment of civil servants* (SES 2014)

	Legislators, senior officials and managers			Professionals, technicians and associate professionals			Clerks		
	SK	CZ	EU	SK	CZ	EU	SK	CZ	EU
Primary	0%	0%	3%	0%	0%	6%	3%	2%	19%
Secondary	17%	14%	14%	42%	59%	33%	68%	73%	56%
Tertiary < 4y	3%	13%	32%	7%	11%	31%	8%	6%	16%
Tertiary > 4y	79%	74%	50%	52%	29%	30%	22%	19%	9%

*Employee in sector O, working as managers, professionals, technicians and associate professionals or clerks. Source: VfM calculations based on Eurostat

¹⁷ The amendment to the Act on Compensation in Public Interest approved in 2018 has partly simplified the system, however, did not bring a change in the philosophy of compensations. The number of pay scales was reduced, however the number of years served continue to have a major effect of the amount of compensation.

One of the key reasons for continuing the studies in low acceptance of bachelor's degrees on the labour market, and the government as the employer could lead by example. The spending review recommends increasing the number of positions in the public sector, for which undergraduate (Bc.) degree (with or without several years of working experience) is acceptable. Currently there is no possibility of acknowledging relevant working experience as an equivalent to formal education, it will be examined by the civil service compensation concept which is currently under preparation.

10. Measure: Strengthen central HR management

Although HR management in civil service has been centralized on the level of processes and tools, strategic HR management and planning remains decentralised. Human resources coordination and management in the civil service is the responsibility of the Government Office of the SR, which performs only part of these activities. Thus, there is no long-term planning of employee numbers, analysis of consistency and horizontal conformity of various compensation regulations, programmes for talents or encouraging rotation of office staff between offices, or other challenges defined in the spending review (regional compensation system, collective bargaining procedures, etc.). The coordination and strategic management require definitions of working positions comparable with the private sector.

Therefore, the spending review recommends preparing an analysis of an institutional arrangement of planning and management of human resources in civil service, defining roles of each entity involved. In view of planning and financing of wage spending, the entities involved are, in particular, the Ministry of Finance of the SR and the Government Office SR. As to compensation regulations, the entities involved are the Government Office of the SR and promoters of acts governing employment in the public sector, mainly the Ministry of Education SR, Ministry of Health SR and the Ministry of Labour, Social Affairs and Family SR. Additionally, the analysis should define the relationship between the HR management centre and each service office, which are to remain autonomous in HR issues and in the setup of wage policies. The objective is to amend the Civil Service Act to support systemization and long-term planning of jobs in public employment. Later on, similar process should be implemented for employment in public interest.

An important part of planning is providing access to centralised data about employees and wages. Data about civil servants shall be available from the Central Information System of the Civil Service; there is no other centralised database about other public employees. The role of the database can be to certain extent substituted by the general labour market survey performed by the Information System on Labour Costs (ISLC) for the Ministry of Labour, Social Affairs and Family of the SR. Public institutions, however, have only limited access to the data and limited possibility of analytical use thereof, and that means a difficulty in quantification of effects of proposed changes. It is because governmental institutions do not have available data about employees whose wages are directly or indirectly determined by the government¹⁸ such as local government employees or healthcare professionals in private healthcare facilities. The spending review proposes to provide analytical units of the public sector with adequate access to anonymised data from the data collections. It is also recommended that in a mid-term horizon, the government arranges such statistical collections through an in-house solution, e.g. through the Statistical Office of the Slovak Republic.

11. Measure: Reconsider the institutional arrangement of collective bargaining

The existing collective bargaining practices in the public sector in Slovakia ensures equal relative valorisation for most professions despite their different competitiveness in compensation. There is just one negotiation at the government level, resulting in two collective agreements regulating valorisation of wages and working conditions for government employees and employees working in public interest. Another issue are groups

¹⁸ Currently, collections of data about employment and wages are organised by certain departments separately¹⁸, however, the structure and the level of detail differ, which makes it difficult to use the data concurrently.

which are not formally included in the collective bargaining at the government level (police officers, soldiers), and whose valorisations used to copy results of the nation-wide bargaining.

A possible solution is in implementation of changes leading to separation of the bargaining for specific professions or implementation of a specific sectoral minimum wage or delegation of the bargaining procedures to the sectoral or local level, as recommended by the OECD. The spending review recommends preparation of a separate analysis of institutional arrangement of collective bargaining, including linking the collective bargaining to the time schedule of preparation of the general government budget.

12. Measure: Analyse introduction of allowances reflecting regional wage disparities.

Owing to regional disparities not reflected in compensations, earnings of more than 22 thousand of public employees in Slovakia are considerably lower than the international reference value. The difference in their relative earning can be as high as 50%. International studies conclude that the regionally uncompetitive compensation may result in differences in quality of provided public services (Chapter 3.5). In case of proving an impact on quality, the spending review, referring to the international experience, recommends improving sensitivity of public sector wages to conditions of the local labour market using the system of allowances to wages and a system of incentives to support hiring and staff retention.

The system of allowances could be based on dividing the territory of Slovakia into 3 – 4 pay zones, based on results from analysis of wage levels by districts. The goal is to have a relatively simple and transparent system with a progressively decreasing amount of allowance in Bratislava surroundings to smooth potential deformities close to borders between pay zones. Classification of districts in pay zones should be subject to annual reassessment. A part of the allowance could be then replaced with benefits in kind if, at the same cost for the government, such benefits are of higher value for the beneficiaries.

The system of incentives to support hiring and staff retention should respond to the reasons underlying the problems, which may not always result from uncompetitive wages.¹⁹ The incentives should be linked to positions within the profession, rather than to specific employees and the continuation of the scheme should be reassessed to avoid unreasonable differences in wages for equal work done. The important thing is the arrangement of monitoring of problems with hiring and fluctuation of employees and their reasons. Besides analyses (legal analysis and analysis of effects), establishing of the mechanism of regional allowances requires a political and a broad public discussion, including social dialogue with trade unions.

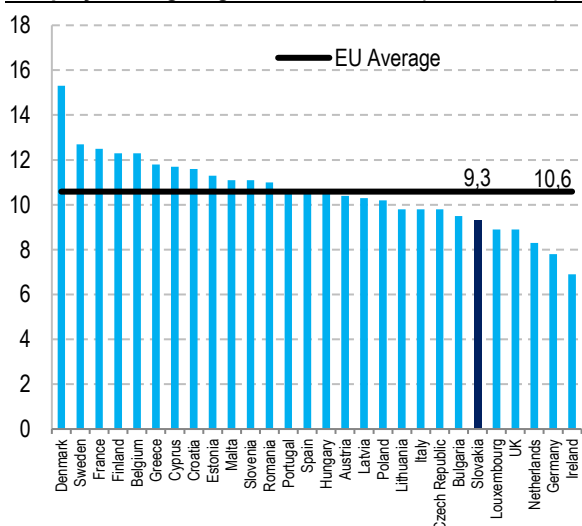
¹⁹ Further important factors include reputation of the organisation, quality of the management, benefits, such as pensions, flexible work arrangements, access to further education and quality of transport infrastructure.

2 Employment and wages in the public sector

- Slovak public sector employs a slightly less employees than the EU average. In 2018, 416 thousand persons were employed by the government, including local governments. One in every three of them works in education, one in every ten is in healthcare and one tenth are office staff in civil service.
- Public employment, including office staff, does not considerably differ from the EU average.
- In 2018, the spending on compensations for public employees accounted for 9.3% of GDP, which is less than the EU average (10.6% GDP).
- Earnings of those employed in the public sector are lower than in other EU countries. In the EU, the average wage in the public sector is 1.19 multiple of the average earning, while in Slovakia it is a 1.07 multiple.
- After wages of public employees are increased in 2019-2020, the lagging will be reduced by half and the share of spending on compensations for employees in total public spending will match the EU average.
- Indicative international comparison based on various data sources indicate that Slovakia has a lower number of nurses per capita and, compared to the Czech Republic also lower number of social service workers. By contrast, Slovakia has more police officers and tertiary-education teachers. The most lagging are relative earnings of teachers in regional school system, and, on the other hand, Slovak prosecutors earn more than their peers abroad.
- Ageing of the population is expected to boost demand for certain professions owing to retirement of a part of the existing employees and the growing number of clients. Considering the forecasted number of students leaving relevant field of study, by 2023 Slovakia will lack approximately 580 regional school teachers, 250 nurses and 1,250 social care workers every year.

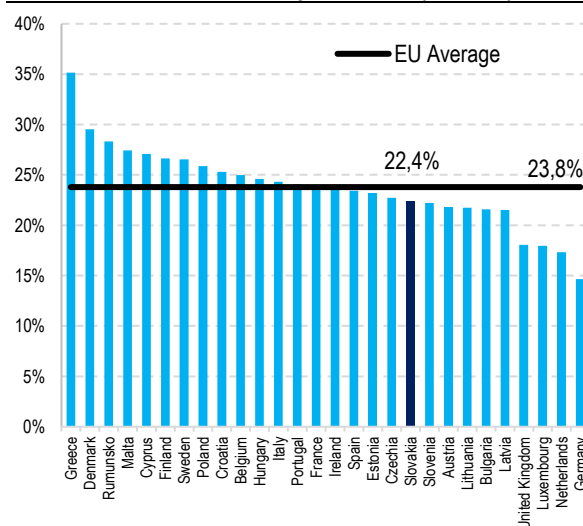
2.1 Spending on public employment

Graph 1: Total spending on compensations for employees of gen. government sector (%GDP, 2018)



Source: Eurostat, Government finance statistics

Graph 2: Compensations in general government as share in total national compensations (% , 2018)



Source: Eurostat

In 2018, Slovakia spent EUR 8.4 bn (9.3% GDP) on compensations²⁰ for employees in the public sector²¹, which is by 1.3 p.p. less than the EU average (Graph 1). Higher spending on compensations is also in V3

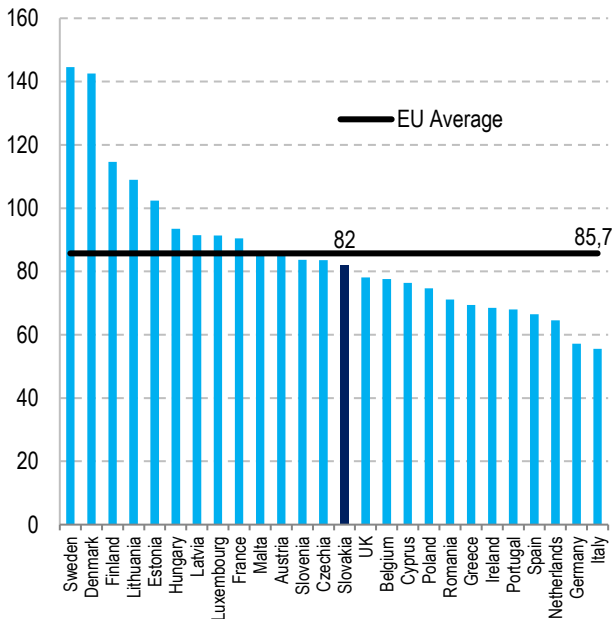
²⁰ The compensations have been calculated based on ESA 2010 methodology and include wages, insurance contributions, a part of travel allowances and selected services (e.g. catering) and transfers (e.g. severance pay). For details about methodology see Annex 3.

²¹ P.13 Eurostat – for definition see Box 3.

countries. Since 2012, the share of public spending on employment keeps growing²², approximately a half of the growth has been caused by assigning another entities in the sector (Box 3). Slovakia also lags behind the EU average in the share of compensations of general government sector in total national compensations (Graph 2).

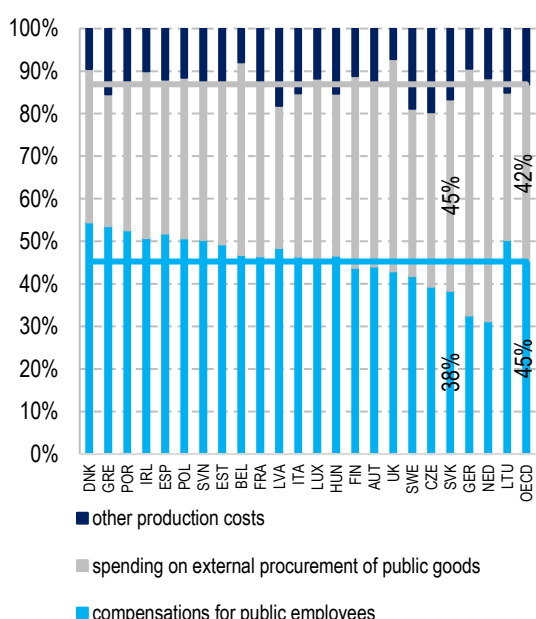
One of the reasons for lower spending on compensations employees compared to EU average is a slightly lower number of employees. In 2018, Slovak public sector employed 82 employees per 1 000 inhabitants, while the EU average was by 4 employees higher²³ (Graph 3). The number of public sector employees can be partly explained by the scope of services which the government decides to provide to its citizens. However, a slightly lower employment in Slovak public sector most likely relates also to the above-average extent of procurement of public goods from external suppliers(e.g. in healthcare, transportation or construction). Slovakia’s spending on external procurement of public goods equalled around 45% of total public spending on production²⁴, which is approximately by 3 p.p. higher than the EU average²⁵ (Graph 4).

Graph 3: Number of general government employees per 1000 inhabitants (2018)



Note: Data for Estonia is for 2017 Source: Eurostat, National accounts, Demographic statistics

Graph 4: Distribution of production costs of the public sector (2015)



Source: OECD, 2017a

Another reason for lower spending on compensations for public employees in Slovakia is the wage premium which is lower compared to the private sector. The wage premium for public employees – percentage difference vs average compensation in the private sector – was 7%, which is substantially less than the EU average

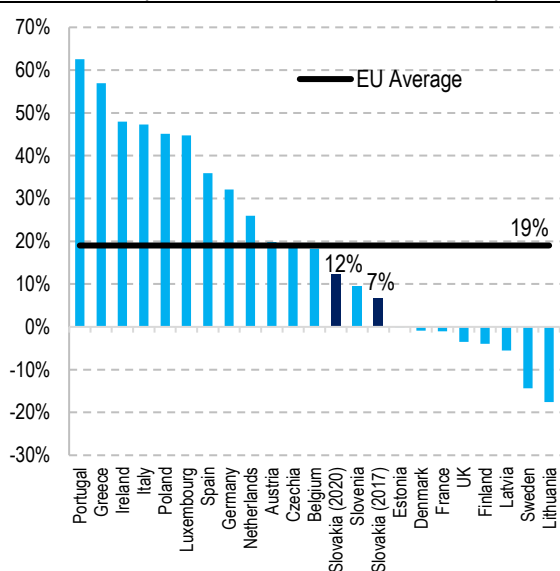
²² For details see Annex 4.
²³ As to the share of the general government employees to total employment, Slovakia is slightly above the average of EU countries (Annex 5). The difference in Slovakia’s position in these two indicators can be explained by a relatively lower employment rate in Slovakia.
²⁴ The definition of general government’s production costs is available online: <https://data.oecd.org/gga/government-production-costs.htm>.
²⁵ The data does not make it possible to specify how many employees are employed by private companies in production of goods and services for the public sector, i.e., to compare employment over the whole public area (general government sector plus outsourcing). A higher share of outsourcing expenditures in GDP in Slovakia does not necessarily mean that employment in the general government sector should be lower. That is also influenced by average compensation for the outsourced positions. Under a simplified assumption that all outsourcing expenditures are spent on compensations for employees, total amount of compensations for employees in the public sector (general government sector plus outsourcing) in 2016, Slovakia (21.1% GDP) would still be below EU average (21.7% GDP). In fact a part of the expenditures goes on compensation of other production factors, mainly capital. Assuming that division of national income between labour and capital in outsourcing is similar to division in the national economy, the actual gap between expenditures on compensations for employees in public area and the EU average would most likely be larger than the above mentioned 0.6% GDP, as in Slovakia the share of labour compensation in GDP is relatively low.

(Graph 5). The premium for work at the public sector reflects different structure of employees and working positions compared to the private sector (Chapter 3).

The radical rise in wages of public employees in 2019 and 2020 will bring increase in wage premium in Slovakia and thus also reduction of the difference compared to EU average. After the rise in compensations and considering the expected the growth of average wage in the national economy,²⁶ the premium for employees in the public sector will increase from 7% to approximately 12% (Graph 5). If the premium in EU countries remains at the level of 2017, the difference against the EU average will decrease by nearly a half.

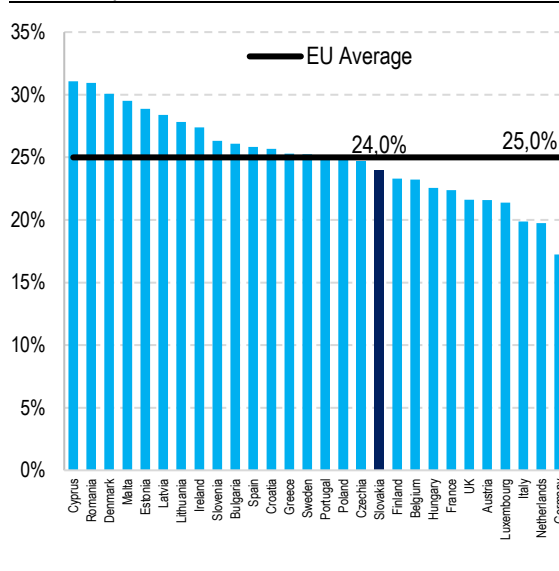
The rise of wages in the public sector also means getting closer to the EU average as to the share of public spending in compensations for employees. Slovakia's public spending on compensations for employees in 2020 has been estimated by the European Commission (EC) to be 1 p.p. below EU average (24% of public spending vs 25% in the EU, Graph 6). Pursuant to the EC forecast, when comparing % GDP, Slovakia will remain below the EU average (10% GDP vs 10.7%).

Graph 5: Average compensations for general government employees vs average compensation in private sector (Slovakia 2017, incl. 2020 forecast)



Source: Eurostat, National accounts, MoF SR; VfM calculations

Graph 6: Compensations for general government employees in 2020 (% of public spending, EC estimate)



Source: Eurostat - AMECO database, MoF SR

Owing to absence of convincing methods of measuring productivity of the whole public sector, the spending review is focused on analysis of inputs – wages and employment. Most globally used approaches to measuring efficiency are focused on benefits for sectors such as education and healthcare, using internationally comparable indicators which are monitored on a long-term basis. Although the UK has long-term experience with productivity measuring, they classify e.g. public administration, defence or culture as sectors where productivity cannot be measured (Box 2).

Box 2: Measuring the productivity of public sector in the UK

The Office for National Statistics (ONS) has been measuring productivity of public sector over a long time and the results are published every year in publication Public Service Productivity Estimates (Office for National Statistics, 2015).

Rather than measuring productivity of employees, ONS measures productivity of the whole sector. The reason is simple substitutability of expenditure on staff, expenditure on goods and services or consumption of

²⁶ The estimated growth of wages by IFP forecast, available online: <http://www.finance.gov.sk/Default.aspx?CatID=11839>.

fixed capital. Additionally, ONS is also unable to say which of the areas is inefficient. ONS only measures the year-on-year change in productivity, i.e., growth in outputs compared to growth of inputs. Thus ONS can every year say as to whether the sector is better off or worse off compared to last year, however, cannot say whether any sector is in total more efficient than any other sector. The change in total productivity of the public sector is then a weighted sum of changes in each sector.

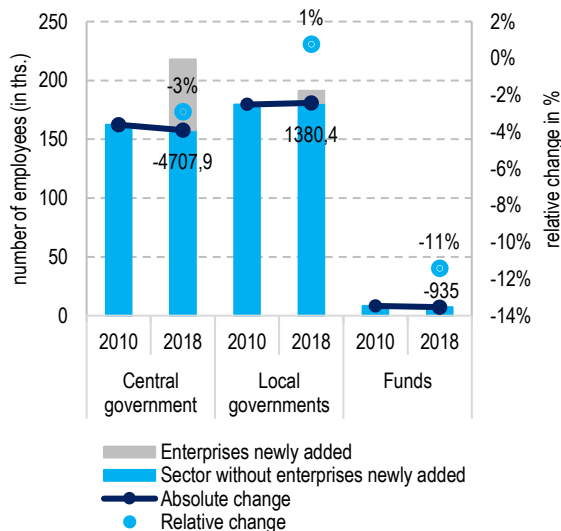
For approximately 47% of public services, the ONS besides quantity considers also quality of outputs. This applies mainly to education and healthcare sectors, where considered data include also scoring achieved by students in nation-wide tests, life expectancy or length of waiting lists. Approximately 17% of expenditure are classified by the ONS as those where it is sufficient to assess the volume of outputs – e.g. administration of social security social care.

ONS is also unable to measure the volume of outputs for all sectors. More than a third of British public spending is categorised as a spending where outputs are unmeasurable. This includes, e.g., the police, defence, culture or public administration. In these areas, it is assumed that outputs are in proportion to inputs and the productivity remains constant.

2.2 Structure of public employment

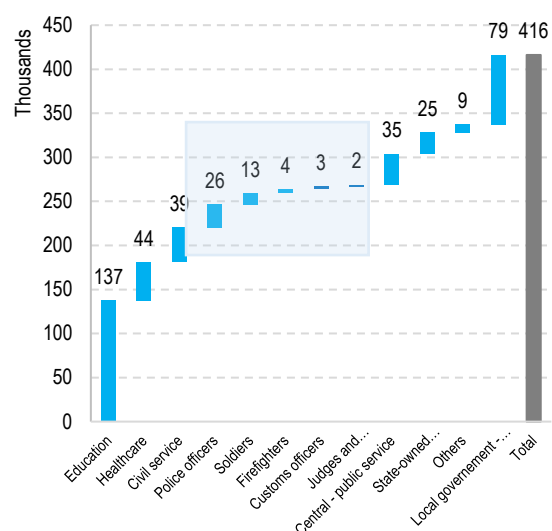
In 2018, the general government sector was employing 416 thousand persons, thereof 52% were at the central level of the general government including state-owned enterprises in the general government sector, and tertiary-education institutions. Local governments employ 46% of public employees²⁷, and a major part thereof work in regional schools. The rest are employed by health and social security funds (Box 3).

Graph 7: Absolute (thousands of employees) and relative change in employment structure in the general government



Source: BPS MoF SR, prepared by VfM

Graph 8: Number of general government employees (thousands of employees; 2018)



Note.: The depicted area refers to professions under special regulations.

Source: BPS MoF SR, prepared by VfM

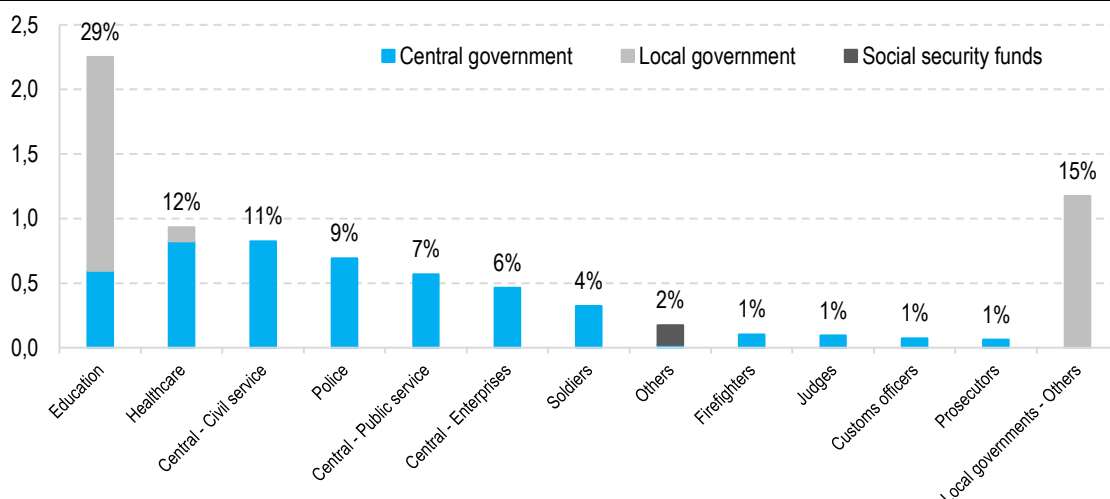
²⁷ Responsibilities of a high proportion of local government staff are so-called delegated competencies – activities that the government “has ordered” from local governments, however, the government keeps financing these activities and has extensive control powers over these activities – such as primary and secondary schools, certain healthcare facilities and social care facilities, building procedures and civil registry offices. The transfer of competences from ministries, regional authorities and district authorities to municipalities and to higher territorial units is regulated by Act No. 416/2001 Coll.

Between 2010 and 2018, the number of general government employees dropped by 1%, net of enterprises newly added to the public finance sector (Graph 7). After the change in classification methodology²⁸ of state-controlled companies in 2014, the number of employees increased, in 2018 they accounted for 17% of the public sector employees. The largest employers include: state healthcare facilities and the Railways of the Slovak Republic. Between 2010-2018, nominal wage expenditure of the public sector, net of the newly added entities increased by 29%.

Considering the structure of professions, one in every three public employees work in the education sector²⁹, 11% are healthcare professionals³⁰, and one in every ten are officials in civil service. Approximately 12% are employees working under special regulations, a half of them are police officers and approximately one third are professional soldiers. Another 18% of public employees are other local government staff (excluding education and healthcare), around 6% are employees of state-owned enterprises, which are a part of the general government sector (Graph 8).

Personnel expenditure in the regional school system and tertiary-education system³¹ accounted for 29% of public personnel expenditure (EUR 2.3 bn), healthcare professionals 12% (EUR 932 mil.) (Graph 9). 17% of general government personnel expenditure in the amount of EUR 1.35 bn are spent for professions employed under special regulations at the central general government level (police officers, soldiers, customs officers, judges and prosecutors), and 11% (EUR 823 mil.) government employees.

Graph 9: Personnel expenditure on general government employees (in EUR bn.,% of total spending; 2018)



Note: The expenditure on contributions is estimated.

Source: BPS MoF SR, prepared by VFM

Box 3: General government sector and sub-sectors and inclusion in the sector

Under Eurostat's ESA 2010 methodology: „The general government sector (S.13) consists of institutional units which are non-market producers whose output is intended for individual and collective consumption, and are financed by compulsory payments made by units belonging to other sectors, and institutional units principally engaged in the redistribution of national income and wealth.“

Under this methodology, the general government sector is divided into four subsectors:

- central government (excluding social security funds) (S.1311);
- state government (excluding social security funds) (S.1312);

²⁸ For criteria for inclusion in the general government sector see Box 3.

²⁹ Excluding employees of public secondary and tertiary-education schools which are classified under central government.

³⁰ Including only employees of entities of the general government sector, not all healthcare professionals.

³¹ Excluding employees of public secondary schools and tertiary-education institutions which are classified under central government.

c) local government (excluding social security funds) (S.1313);
d) social security funds (S.1314).

Subsector	ESA 2010 Definition	Definition per Act on budget rules
Central government	This subsector includes all administrative departments of the state and other central agencies whose competence extends normally over the whole economic territory, except for the administration of social security funds.	Central government includes budgetary and subsidiary organisations, state special-purpose funds and the Slovak Land Fund. Central government includes also public universities and other entities entered and kept in the register*.
Local government	This subsector includes those types of public administration whose competence extends to only a local part of the economic territory, apart from local agencies of social security funds.	Local government includes municipalities and higher territorial units and budgetary and subsidiary organisations established by them, and other entities entered and kept in the register*.
Social security funds	The social security funds subsector includes central, state and local institutional units whose principal activity is to provide social benefits and which fulfil other not following two criteria, not specified here.	The social security funds and health insurance subsector include the Social Insurance Agency and health insurance companies.

* Register of organisations kept by the Statistical Office of the Slovak Republic

Source: Regulation (EU) No 549/2013 of the EP and of the Council of national and regional accounts in the EU; Act No. 523/2004 Coll. on budget rules in the general government

In Slovakia, there is no regional government subsector in Slovakia, but the division into the other three subsectors has been taken over into Slovak legislation. The Act on Budget rules specifies the sectors as follows:

Entities are included into (excluded from) Slovak general government sector by the Statistical Office of the Slovak Republic (SO SR). Criteria applied by this methodology require that before an entity is included in the general government sector, it shall be considered as to whether:

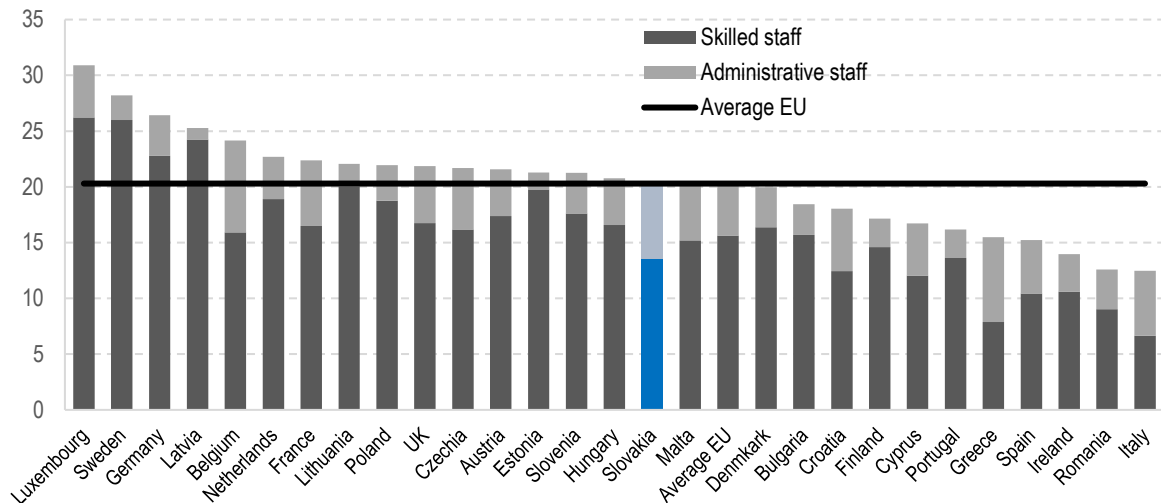
- It is an institutional unit,
- It is controlled by the general government,
- It is a non-market producer.

Major entities included in the general government sector are public healthcare facilities (36.5 thousand employees) and the railways of the Slovak Republic (14 thousand employees). These entities were included in the general government sector in 2014.

The number of officials employed by the general government sector in Slovakia, including local government, is close to average, with 20.5 officials per 1 000 inhabitants (the EU average is 20.3; Graph 10). For comparison, an official is defined as an employee in the general government sector, defence and mandatory social security (NACE O), working³² as a manager, professional, technician, and associate professionals or a clerk (ISCO 1-4). After narrowing the definition to include only skilled employees (excl. administrative staff) Slovakia employs 13.5 officials per 1000 inhabitants vs EU average 15.6. The comparison does not include armed forces such as soldiers and police officers, excluding the management.

³² International Standard Classification of Occupations (ISCO) Methodology available online at: <https://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm>.

Graph 10: Officials per 1 000 inhabitants (2017)

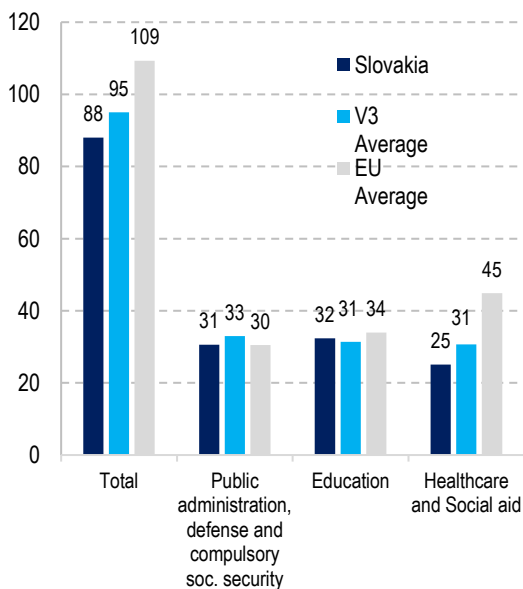


Source: Eurostat from the Facultative Labour Force Survey (2017, prepared by VfM)

2.3 International Comparison of Employment and Spending on Selected Professions

In Slovakia, number of employees per 1 000 inhabitants in sectors typically associated with the public sector is by a sixth lower than the EU average employees (Graph 11). This ratio applies to the whole economy, not only to public sector employees³³, and includes, for example, teachers of private schools³⁴. Employment in sectors, in respect of which the state acts as a regulator or a dominant provider of public services, is regarded by the literature as a sufficient approximation of public employment (Van de Walle, Groeneveld, 2016).

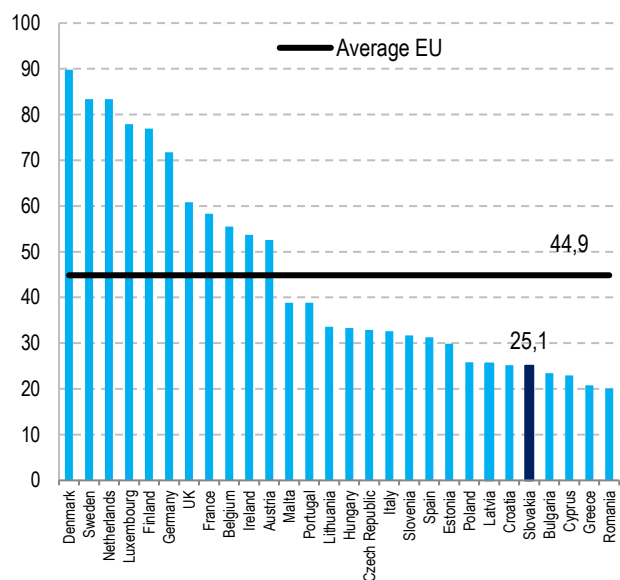
Graph 11: Number of employees in selected sectors per 1 000 inhabitants (2018)



Note: The data for Greece, France and Sweden refer to 2017

Source: Eurostat, prepared by VfM

Graph 12: Healthcare and social assistance staff per 1 000 inhabitants (2018)



Note: The data for Greece, France and Sweden refer to 2017

Source: Eurostat, prepared by VfM

³³ For the above-mentioned reason, the number of public sector employees cannot be compared between chapters 2.1 and 2.3.

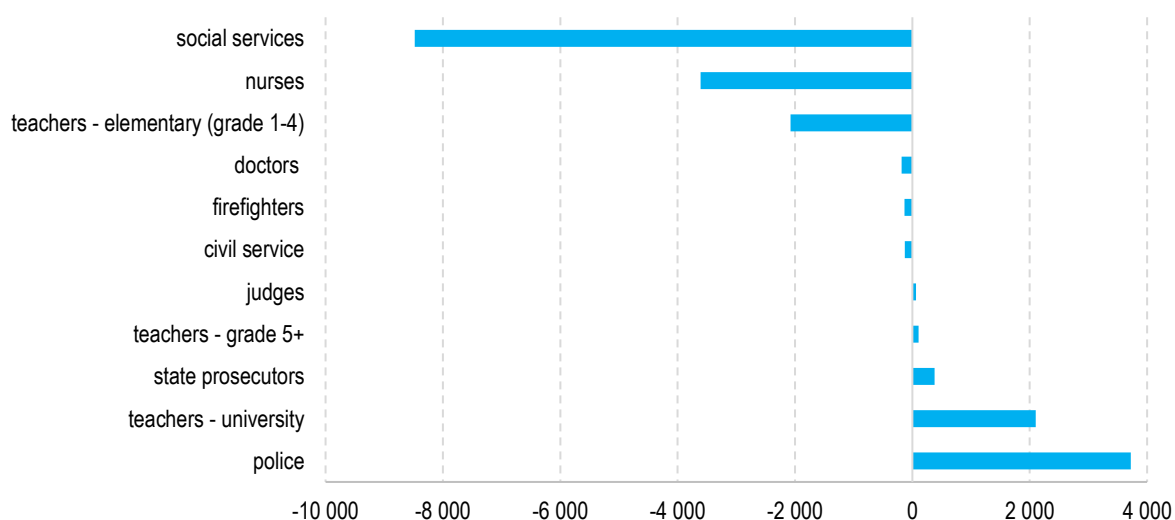
³⁴ The system of national accounts. Regulation (EU) No 549/2013 of the EP and of the Council does not make it possible to distinguish between public and private employers. Available online: http://www.nbs.sk/img/Documents/Statistika/manual_ESA_2010_SK.pdf.

Altogether lower employment in these sectors is caused mainly by employment healthcare and social care, and also education where the number of employees is slightly below the EU average. The general government sector is at average level, and, besides police officers and judges, includes in particular, office staff in public administration, regulatory activities, diplomacy and social insurance management³⁵. Less employees in **healthcare and social care** are only in Bulgaria, Cyprus, Greece and Romania (Graph 12). The Healthcare Spending Review II (IHP, VfM, 2019, Chapters 5 and 11) draws attention to workforce shortage in healthcare – mainly nurses. So far, there has been no reliable international comparison prepared about social services.

A more accurate comparison of structure and compensations brings analyses by professions. It is a general comparison with other EU and OECD countries; it includes data from various systems and data sources. The accuracy of the comparison is affected by the level of comparability between systems, for example, adequacy of the number of medical doctors and nurses depends on division of competences. In case of teacher/student ratio, the allowance for size of countries was made by standardisation pre1 000 inhabitants. Despite maximum effort of international organisations, the data are not always comparable, not even within one survey³⁶. Despite above mentioned facts, the data can be used for comparison of key trends.

Slovakia employs less nurses and primary-school teachers per capita compared to EU and OECD countries. On the other hand, there are more police officers and university teachers. Headcounts of lower secondary and upper secondary teachers, medical doctors and firefighters just slightly differ from the international average (Graph 13). The comparison does not include social service workers, employees in civil service and soldiers, which together is around 80 thousand employees. Moreover comparison with the Czech Republic indicates that in Slovakia the shortage in social service workers may be approximately 13 thousand³⁷. The structure of public employment even more differs in countries with the best values of the OECD Better Life Index (Box 4).

Graph 13: General international comparison of employment by professions (difference in persons)



Source: Annex 6

³⁵ The Statistical Classification of Economic Activities in the European Community NACE Revision 2 has been established by Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006. It is binding for all member states. Available online: <https://eur-lex.europa.eu/legal-content/SK/TXT/PDF/?uri=CELEX:32006R1893&from=SK>.

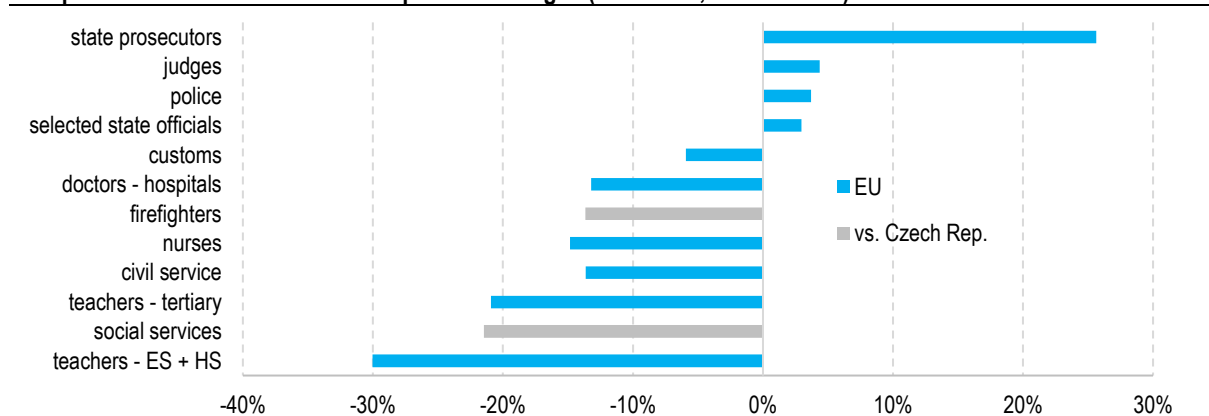
³⁶ For example, as to number of prosecutors, (CEPEJ) some countries, including Slovakia, provided data about headcount, other reported FTEs. Council of Europe European Commission for the Efficiency of Justice. Available online: <https://www.coe.int/en/web/cepej>.

³⁷ Calculation by VfM Unit based on data from surveys Structure of Earnings in the Slovak Republic 2017 and Structure of Earnings (Czech Republic).

An explanation to higher number of police officers may be that many police officers are involved in office work. Owing to differences in methodology, only general comparison can be made³⁸, however, there is a considerable deviation from the EU average. An explanation to higher number of police officers may be that many police officers are involved in office work in administrative proceedings – e.g. at vehicle licencing offices or passport departments. Changes in processes followed by reorganisation could bring savings in expenditure on uniforms, weapons, training and pensions for years of service.

For international comparison of wages by professions, wages are stated as an equivalent to average wage or average wage of tertiary-educated employees. The comparison is complicated by different structure of compensations. It is important that the employees subject to comparison are as similar as possible, ideally with similar competencies or responsibilities. Nevertheless, there are no relevant reference group abroad for some groups of Slovak employees (e.g. out-patient healthcare professionals usually work in own offices, and the local government employees or central government employees working in public interest make a rather heterogeneous group). Moreover, this issue is complicated by definition of total compensations, e.g., owing to special pension schemes (applicable, in particular, to soldiers and police officers), and existence of non-financial benefits, such as differences in number of vacation days, stability of employment or organisation of work vs working experience in that country. These aspects can be considered³⁹ however, such comparison is beyond the scope of this document. Nevertheless, the spending review compared working hours⁴⁰ of teachers, healthcare professionals and office staff and their peers abroad, and no substantial differences were found.

Graph 14: General international comparison of wages (2014-2016; % difference)



Source: Annex 7

The general international comparison shows that, compared to other countries, Slovak prosecutors earn considerably more than the average wage⁴¹, and judges and police officers earn slightly more. On the other hand, teachers' salaries lag behind their foreign peers (Graph 14). However, during the past few years, the differences have been reduced thanks to faster growth compared to average wage of tertiary-educated persons (Graph 15). A substantial gap compared to the Czech Republic, is also in wages of social service workers. Among numerous groups of public employees, the comparison does not include soldiers and rather heterogeneous groups (e.g. non-teaching staff in the school system or local government employees).

³⁸ E.g. different approach to classification of local police, railway police and other components across countries.

³⁹ See e.g. <http://www.oecd.org/sdd/labour-stats/Job-quality-OECD.pdf>, <https://ec.europa.eu/eurostat/web/labour-market/quality-of-employment>, https://ec.europa.eu/eurostat/documents/341520/8195276/Quality_of_employment.pdf

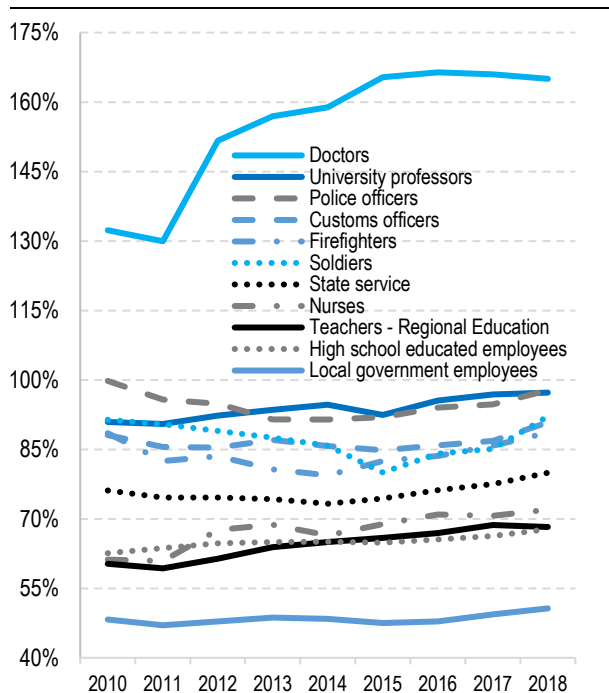
⁴⁰ Number of hours worked or vacation days by data in the Structure of Earnings Survey.

⁴¹ In Slovakia, prosecutors are subject to equal wage conditions as judges, in EU countries they earn, on average, by 20% less.

After the rise from 1.1.2019, the nurses' wages nearly matched the international average. In 2015, nurses were earning 97% of the national average (the EU average: 110%). After the rise by approximately 15% in 2019 their wages should get to 107% (IHP, VfM, 2018).

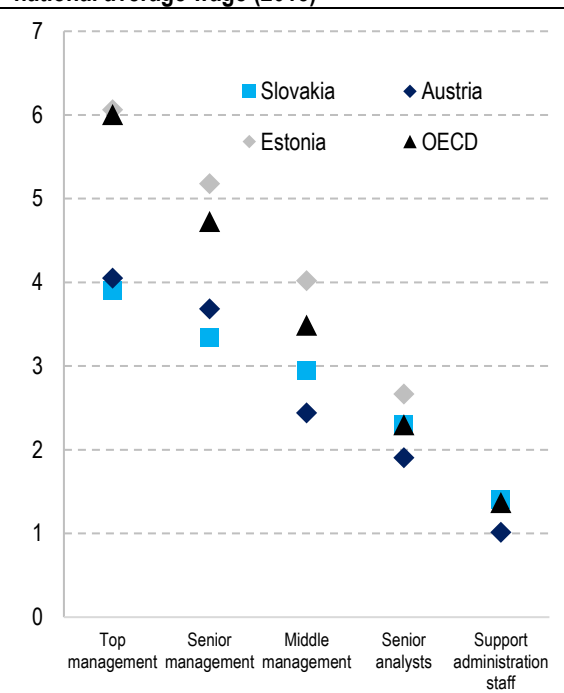
In Slovakia, compensation of officials expressed as a percentage equivalent to national average wage is lower than the OECD average, and the gap is growing with complexity of the position⁴². Compared to their peers abroad, staff in support administrative activities⁴³ were earning similar amounts, while top managers by a third less (Graph 16). The OECD survey confirms a high compression of salaries in Slovak public sector (Chapter 3.2) – the ratio between salaries of top managers and office staff was 2.8, while the OECD average is 4.3 multiple. The low compression is the decision of the existing wage policy, not necessarily the country's wealth, as seen in different compressions in Slovakia and Estonia (Graph 16).

Graph 15: Trends in earnings by professions, compared to earnings of tertiary-educated persons, 2010-2018



Source: MoF SR, NHIC, MoESRS SR, prepared by VfM

Graph 16: Average annual compensation of central government employees as a percentage of the national average wage (2015)



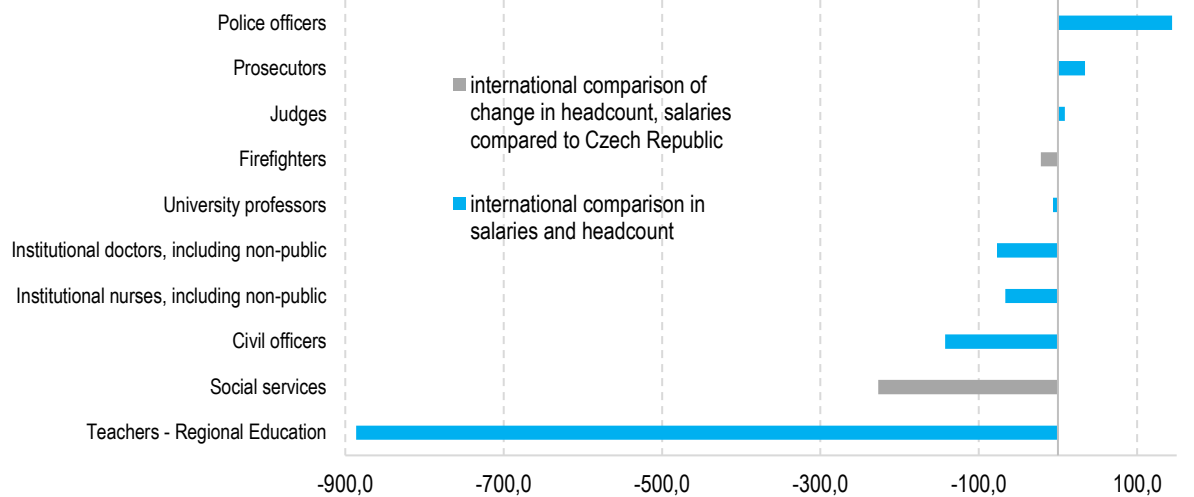
Source: 2016 OECD Survey on Compensation of Employees in Central Government

The gross estimate of concurrent topping-up the numbers and wages to match the international average would mean a considerable increase in wage funds for the regional school system, social services, and a lower increase for the healthcare sector. The amount of wage funds would decrease for the police, prosecutors and slightly also at universities and courts (Graph 17). Total costs amount to EUR 1.1 bn and, similarly to the above mentioned case, are excluding government employees and soldiers.

⁴² Survey carried out in OECD countries for 2015 on a sample of six ministries (interior, finance, justice, education, healthcare and environment). Definitions of professions is based on ISCO-08 classifications. The compensations include wages and salaries, including social contributions paid by employers, converted using the purchasing power parity. For better comparability between countries, the compensations were adjusted to reflect the average number of public holidays.

⁴³ In particular secretaries and other office staff working as assisting staff to managers, or employees working in public interest.

Graph 17: General international comparison of concurrent change in salaries and headcount (effect in EUR mil.)



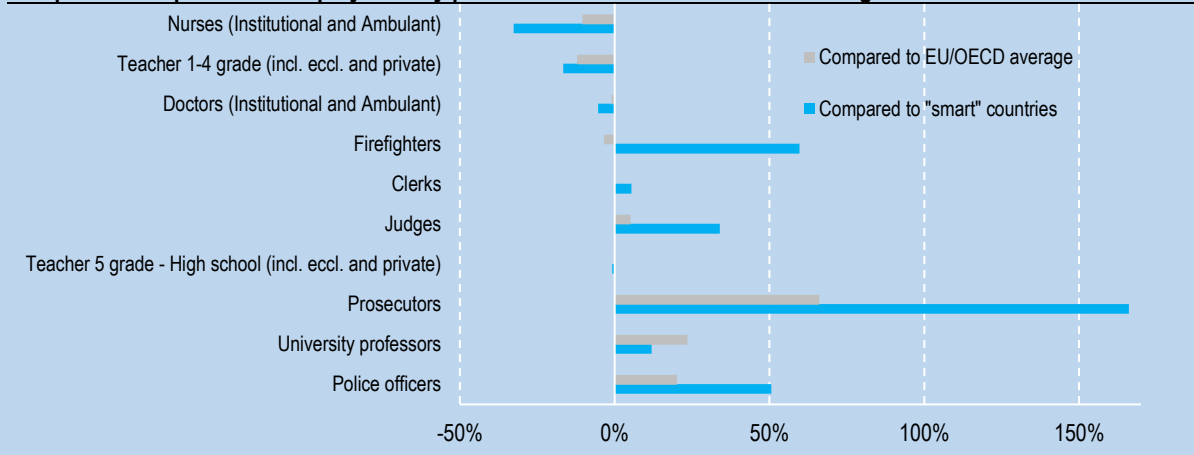
Source: Annex 6 and Annex 7

Different rate of lagging in individual professions creates opportunity for differentiated rise of salaries. A relatively large part of additional funds should be directed to areas where employees most lag behind average wages of their peers abroad.

Box 4: Public employment in selected countries with excellent results

The structure of public employment in Slovakia differs even more from countries with excellent results in education, healthcare and other aspects having impact on quality of life (OECD Better Life Index) than it differs from the OECD or EU average. Compared to EU or OECD average, these countries have larger personnel capacities in regional school system or healthcare, and, by contrast, less police officers, prosecutors and judges. These countries also have more medical doctors and firefighters per 1000 inhabitants than Slovakia. These countries have less teachers per student at universities, but the difference is not that large as compared to EU or OECD average. Slovakia also has slightly less office staff compared to these countries

Graph 18: Comparison of employment by professions and vs the EU/OECD average and "smart" countries



Source: VFM calculations

The rise in wages should definitely be accompanied by reform measures aimed at improving results in the sector. Conditioning additional financing by implementation of structural reforms, for example, in education, is also recommended by international organisations. (IMF, 2016; IMF, EC 2017). Otherwise, costs may increase without improving the benefits of the system. For example, in education OECD concludes that above certain minimum level

of funds, distribution of additional expenditure is more important than total amount of funds (OECD, 2012a), The International Monetary Fund drew attention to the sharp growth in medical doctors' wages in the UK without improvement of results (IMF, 2015) and in Slovakia (IFP, 2012).

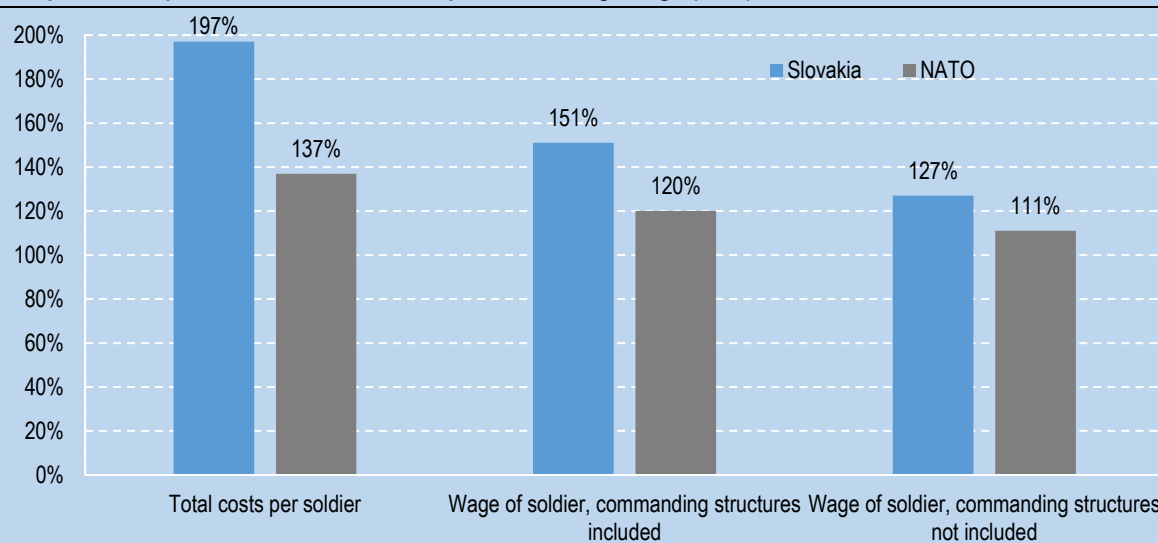
Box 5: International comparison of members of armed forces

When compared to average wage, earnings of ordinary professional soldiers in Slovakia are somewhat higher than the NATO average. The recent NATO survey (NATO, 2018) of personnel costs of member states' armed forces shows that ordinary soldiers in Slovakia earn approximately 127% of average national wage, while NATO average is 111%. Salaries of the command structures show unlikely high values (250% of average wage for all countries, 470% for Slovakia), and not all countries provided the data (the data is available for 19 NATO countries).

The comparison does not reflect non-financial benefits of military service, such as refunds of tutorial fees, catering at work, early pensions for years served, etc. The quality of provided data differs from country to country; e.g., the breakdown of compensations into salary and pension savings has not been provided by all NATO countries, and absent are also data about salaries of command structures in some counties. Therefore the comparison in Graph 19 is indicative.

A more detailed comparison requires a detailed analysis of data quality and methodology, which will be a part of the spending review of defence.

Graph 19: Compensations of soldiers compared to average wage (2017)



Source: NATO, VfM calculations

2.4 Impact of demographic changes on demand for selected professions in the public sector

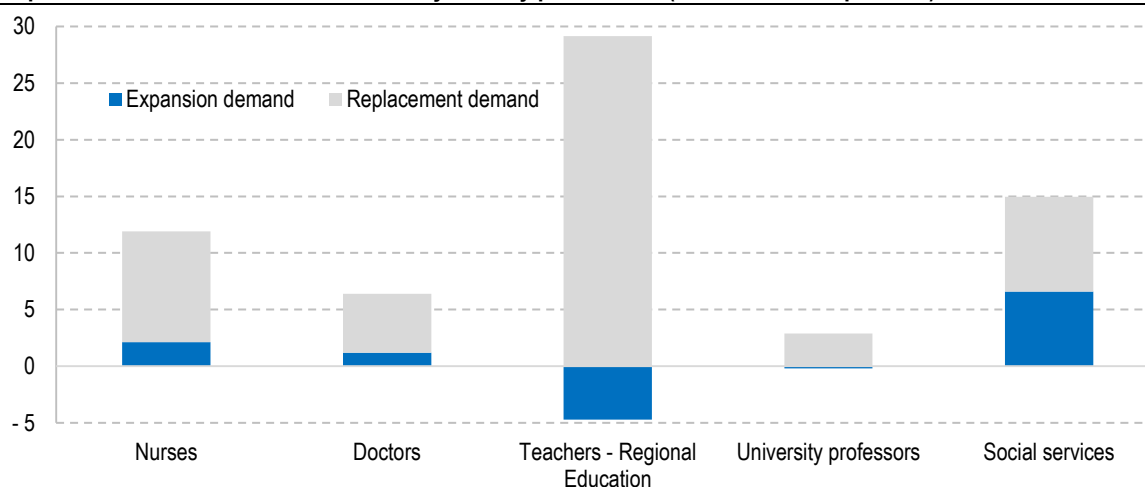
Ageing of the population will influence the demand for employees in certain public services. One of the reasons is the increasing number of clients of the service (e.g. in social care facilities or healthcare), so-called expansion demand. Another reason is ageing and retirement of employees providing the service, so called replacement demand.

Pursuant to SAS's calculations,⁴⁴ the change in the ageing structure of population will be reflected in social services and in education. By 2030, most of the cumulative demand will be the replacement demand. Besides

⁴⁴ Calculations made by the Slovak Academy of Science for the Spending Review. The estimates were made as a part of the project Development of Scientific Information to Support Labour Market Policies, supported by the Slovak Research and Development Agency based on Contract No. APVV-17-0329.

that, additional 6,600 social service workers, 2,100 nurses and 1 200 doctors will be needed to satisfy the demand for services for the growing number of clients. On the other hand, by 4,700 less teachers will be needed in the regional school system (Graph 20).

Graph 20: Estimated cumulative demand by 2030 by professions (in thousands of persons)



Source: VFM based on SAS calculations

The estimates do not reflect either the existing unsatisfied demand for selected services or increase in employment necessary to match the international standard level (Chapter 2.3). For example, in 2015 the demand for senior residential homes exceeded 20 thousand persons, and thereof 85% is covered by the existing offer. Additional more than 3 thousand persons were in 2015 entered to waiting lists for social housing (MoLSAF SR, 2016).

Pursuant to analysis carried out by the Ministry of Health SR, international comparison shows that Slovakia lacks at least 3500 nurses. In the period between 2000 and 2015, the number of nurses in Slovakia dramatically decreased, while the trend in EU countries was quite the opposite. Providers of services were asked to report the number of nurses they lack and in in these days the questionnaires are being collected. The results of this will show how many vacancies exist under the existing system, although setup of many of the services is far from being optimal (e.g. lack of long-term care facilities). The final report of the Healthcare Spending Review will examine, in a more detailed way, competencies of nurses by countries, so that the shortage of nurses in Slovakia can be quantified more precisely.

Several professions face the threat that the number of graduates joining the labour force is not sufficient. Analyses carried out by Trexima⁴⁵ for the use by the spending review indicate that in the period until 2023, Slovakia will lack around 1,250 graduates to work as carers or tutors, 580 graduate teachers for the regional school system and 250 nursing graduates. On the other side, the number of medical school graduates entering the labour market will exceed the needs of the healthcare sector (around 350 per year). The Slovak Health Policy Institute estimated that considering the current status and the existing inflow of graduates to the labour market, by 2030 Slovakia will lack additional 6,400 nurses.

⁴⁵ The methodology used by Trexima for labour market forecasts is described at: <https://www.trendyprace.sk/sk/metodika>. It mainly differs from the methodology used by the Slovak Academy of Science by not reflecting the effects of demographic changes on number of users of the service (e.g. students or patients). On the other hand, it reflects the estimated economic growth, i.e., the estimated changes in employment resulting from economic and demographic trends, including inflow of graduates to the labour market (including outflow of fresh graduates abroad). Disparities between the offer and demand on the labour market are estimated for clusters of study fields and jobs as one field of study can be a match for several jobs and one job can be a good match for graduates from several fields of study. The authors of the spending did not have access to input data and procedures and therefore the methodology could not be validated.

Satisfaction of the demand for employees in certain services is a challenge that requires increasing attractiveness of relevant fields of study and deployment of alternative resources. A part of the demand can be satisfied from currently unemployed/inactive persons, by attracting employees from other sectors or through immigration or repatriation of Slovak nationals. Additionally, the supply and demand for employees can also be matched through reorganization of labour or by automation of certain activities, while maintaining the scope of the services.

3 Comparison of employees in public and private sectors

- Labour markets in private and public sectors considerably differ in performed jobs and characteristics of employees. The mobility of human capital between these two sectors is low.
- Public sector employees are on average older than private sector employees, their positions require higher skills and education and they stay longer with one employer. In the public sector, women prevail over men and in the private sector men prevail over women.
- In skills testing, tertiary-educated public sector employees have lower achievement levels than their equally educated private sector peers, however, the results are similar to public employees abroad.
- Public sector pay schemes place greater emphasis on the required education and working experience than the private sector and less credit is given to hardly definable productivity and performance. Even internationally, there is a low spread of salaries in public sector.
- Moreover, the public sector applies egalitarian approach to payment of bonuses. While in the private sector the bonuses grow along with employee's total earnings, public-sector bonuses for most employees account for 7 - 10% of their income.
- Average gross monthly wage of public employees is just above the average national wage level, 55% of public employees earn higher hourly rates than the median amount earned at similar position in the private sector.
- Wages of public employees in expensive professions – for example, lawyers, finance sector or IT positions – are considerably lower. Inability to pay such employees may lead to low quality or necessity to purchase the services from external suppliers.
- After considering notable differences between employees and positions in public and private sectors, it can be concluded that public employees earn less than private ones (by 3%), while in most EU countries it is quite the opposite. A considerably lower amounts than their peers in the private sector are earned by women (less by 7%), young below 29 years (less by 9%) and tertiary-educated employees (less by 11%).
- Professional premium for working at the public sector differs from region to region; in Bratislava, in some professions public employees earn considerably less than employees in private sector, while in other regions their earnings are similar or higher. That may have a negative impact on quality of services in more expensive regions.
- Employees who switched from public to private sector got, on average, higher wage rise (14%) than those switching in the opposite direction (11%). Switching from public to private sector compared to switching in the opposite direction is the most beneficial for men (23% vs. 13%), young people aged 18 - 24 years (23% vs. 11%) and secondary-educated persons (15% vs. 7%).

The state in the role of an employer differs in key aspects from employers in the private sector. Many of the services provided by the state, do not have an equivalent in the private sector and there is no opportunity for providing the services among labour market competitors (e.g., defence sector, police, judges, regulation and other public goods). Moreover, rather than monitoring profits, the state pursues other objectives (e.g., social justice). Therefore, the demand for labour forces in the public sector more frequently results from nation-wide, political or administrative decisions as a response to productivity of labour and market signals. A state understanding public employment partly as a tool for inclusion of disadvantaged groups on the labour market will provide a lower wage premium than a state applying exclusively meritocratic approach to selection of public employees.

An efficient management of wages and employment in the public sector requires a careful monitoring of trends in the private sector and responding thereto. If work in public sector is less attractive compared to the private sector, the state may face problems with hiring and high fluctuation of employees, which may affect the quality of public services. As quality of public services substantially influences productivity of the private sector, such policy may lead to sub-optimal results in view of economy as a whole.

3.1 Skills, education, age and gender

Employees of private and public⁴⁶ sectors work in different professions. Only 5% of private sector employees work in areas typical for the public sector (public administration, defence and social security, education and healthcare). On the other side, more than a half of private sector employees work in manufacturing, wholesale and retail trade, i.e., sectors where the number of public employees is close to zero (Table 1). Labour markets are relatively unfeasible; two thirds of public employees switching jobs remained in the public sector, and more than 95% of private-sector employees switching jobs remained in the private sector (Chapter 3.6).

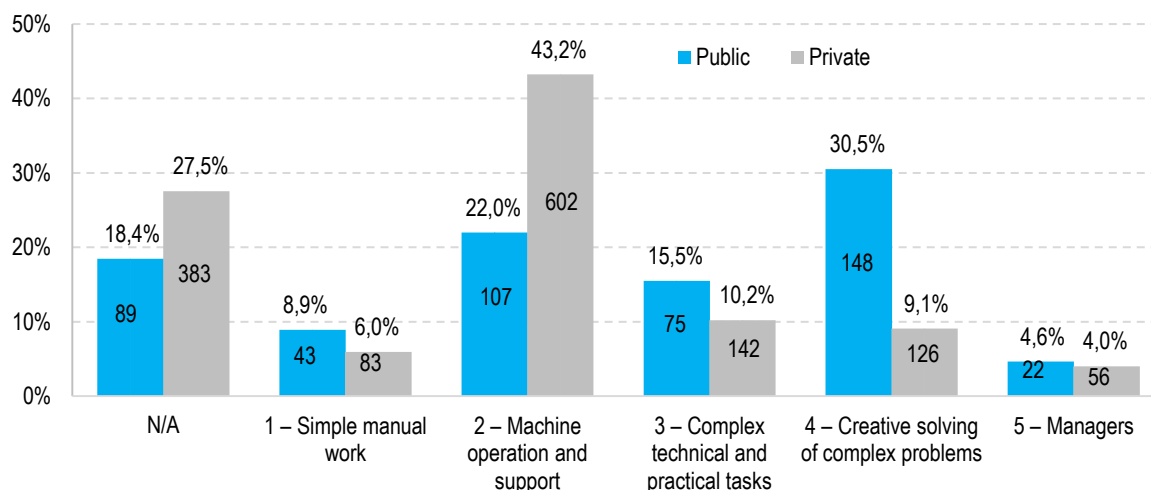
Table 1: Sectoral structure in public and private sectors (2017)

NACE sector	Number of employees (v tis.)		Share	
	public	private	public	private
Education	158	15	33%	1%
Public administration and defence; compulsory social security	133	2	27%	0%
Human health and social work activities	69	61	14%	4%
Transporting and storage	54	78	11%	6%
Arts, entertainment and recreation	17	15	4%	1%
Professional, scientific and technical activities	10	75	2%	5%
Administrative and support service activities	5	98	1%	7%
Manufacturing	1	461	0%	33%
Wholesale and retail trade; repair of motor vehicles	1	270	0%	19%
Construction	1	74	0%	5%
Other	35	241	7%	17%
Total	485	1 393	100%	100%

Note:: Excluding armed forces.

Source: ISLC, VFM calculations

Graph 21: Employees by required skills (% share and number in thousands of persons, 2017)



Note:: Excluding armed forces.

Source: ISLC, VFM calculations

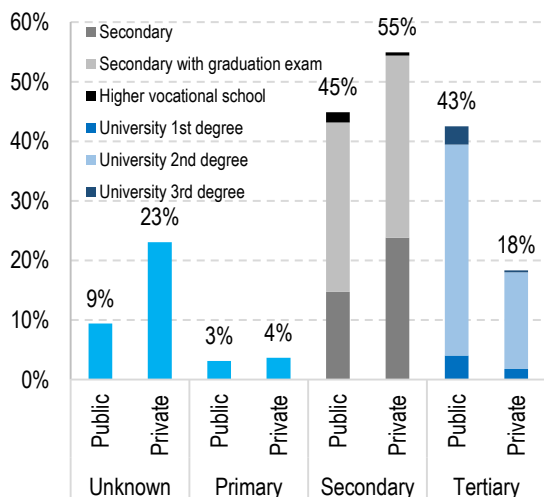
Pursuant to ISCO classification, public sector employees, on average, perform more exacting work than private sector employees. As many as 35% of them work in the most exacting work categories⁴⁷, while in the

⁴⁶ In this chapter, public sector employees also means employees of state-owned organizations and companies owned by local governments, irrespective of their formal adherence to the general government sector, Box 3.

⁴⁷ The ISCO-08 methodology of the ILO defines four skill levels based on the nature of work performed and the educational attainment and/or experience necessary for competent performance of the work. Employments in lower skill categories often perform simple and routine tasks, such as machine tool setting and operation or simple work with information. Employment in higher skill levels require higher literacy, more

private sector it is only 13%. This group also includes managing employees, which account for approximately 4% in the private sector and somewhat more in the public sector (Graph 21). In private sector, the largest group – 43% – employees at skill level 2 – involving more complex manual or simple intellectual jobs (administrative jobs, trading activities and services, handicraft works). Public sector employs a somewhat higher percentage of employees performing simple manual works, e.g., cleaning or food preparation assistants, farming works, waste removal, etc.

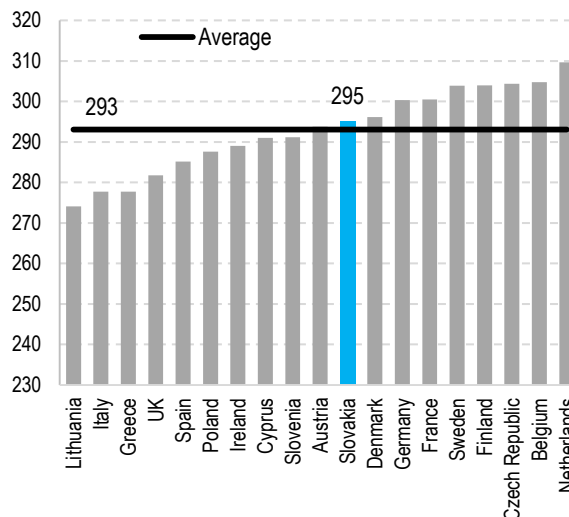
Graph 22: Educational attainment of employees in Slovakia (2017)



Note: Excluding armed forces

Source: ISLC, Vfm calculations

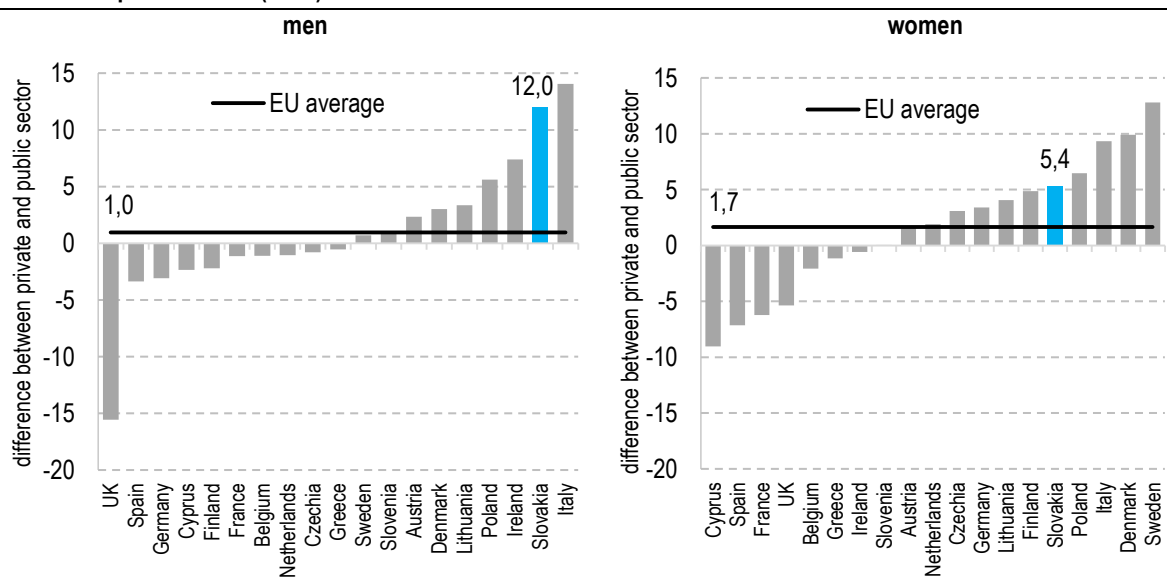
Graph 23: Scoring achieved by educated public employees in PIAAC skills testing (2013)



Source: PIAAC, OECD, Vfm calculations

A typical characteristics of public sector is higher education of employees. Around 43% of them are tertiary-educated, while in the private sector only 18% are tertiary-educated (Graph 22). Educational attainment of 3/4 of employees in the public sector is upper secondary with GCSE or higher, while in the private sector it is approximately a half.

Graph 24: Score difference in PIAAC testing, between scores achieved by tertiary educated employees: private sector vs public sector (2013)



Source: PIAAC, OECD, Vfm calculations

independent and creative work and extensive and detailed professional knowledge. For better comparability, managing employees have been excluded from the highest category. Employees are categorised by their employers. Although job responsibilities of similar positions in the public sector and the private sector may differ, there should be no principal differences in categorisation of employees by required skills.

Tertiary-educated public sector employees are less smart than their private-sector peers. The gap in skills ranks among the largest in the EU, mainly for men. This conclusion results from the international measurement PIAAC 2013 measuring reading literacy and numeracy and use of information technologies in problem solving (Graph 24). The gap for women is lower, however, it is still above average. Lower quality of employees can lead to lower ability to solve problems using own resources and necessity to purchase services from external suppliers for complex tasks. **Public employees in Slovakia are comparably smart as their foreign peers (Graph 23).**

The percentage of master's degree holders among Slovak government employees is higher than is customary in the EU, which may indicate an inconsistency between job responsibilities and the required education. As to the percentage of master's degree holders or higher academic degrees (university studies lasting more than 4 years) Slovak government employees outperform the Czech Republic. On the other hand, bachelor's degree (university studies lasting less than 4 years) so far is not customary among Slovak government employees (Table 2).

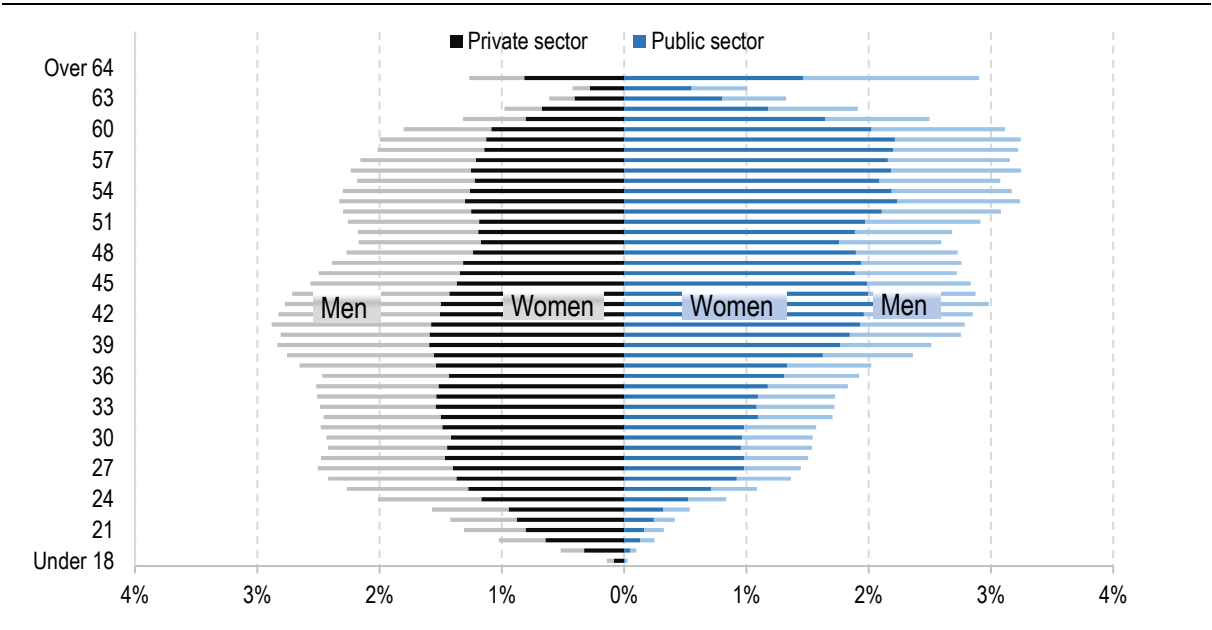
Table 2: Educational attainment of government employees (SES 2014)

	Legislators, senior officials and managers			Professionals, technicians and associate professionals			Clerks		
	SK	CZ	EU	SK	CZ	EU	SK	CZ	EU
Primary	0%	0%	3%	0%	0%	6%	3%	2%	19%
Secondary	17%	14%	14%	42%	59%	33%	68%	73%	56%
Tertiary < 4y	3%	13%	32%	7%	11%	31%	8%	6%	16%
Tertiary > 4y	79%	74%	50%	52%	29%	30%	22%	19%	9%

Source: VFM calculations based on Eurostat data

Public sector employees are, on average, older, in 10 years one in every three public employees will reach the retirement age. The percentage of public-sector employees aged above 55 years is nearly double the private-sector percentage (29% vs. 17%). Moreover, between 2011-2017 the public sector grew more older than the private sector. The professions increasing the percentage of older employees are, in particular, teachers at primary schools and universities and healthcare professionals. The percentage of young employees in the private sector is nearly double the public sector (32% vs. 18%).

Graph 25: Age structure of public-sector and private-sector employees (2017)



Note: Excluding armed forces.

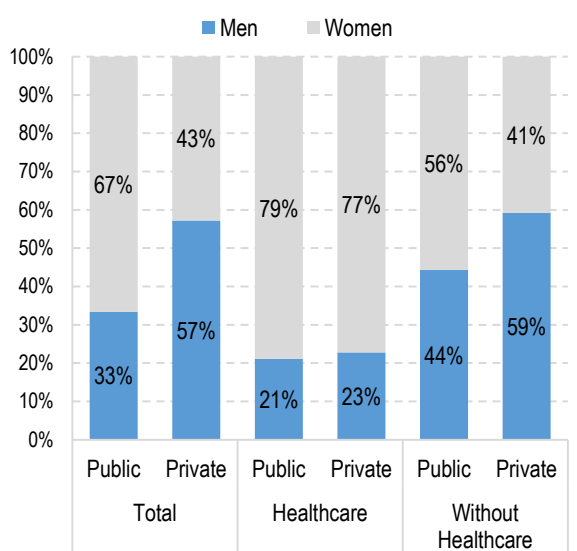
Source: ISLC, VFM calculations

The ageing structure indicates problems with attracting and retaining young employees in the public sector. The low percentage of young employees can relate with the existing compensation regulations. One of the options of how to attract skilled young people is to ensure faster growth of wages in first years of employment and slowdown in later career phases, as is customary for skilled private-sector employees (Graph 33). Recent legislative changes in compensation of employees working in public interest decelerated the wage growth at end of the career, which can be regarded as improvement of the system.

More than two thirds of Slovak public-sector employees are women and, on the other hand, the private sector employs more men. This number, like other characteristics of the public sector are strongly influenced by education and healthcare systems where nearly 80% of employees are women. Outside education and healthcare system, the percentage of women is approximately 56% in the public sector and 41% in the private sector (Graph 26).

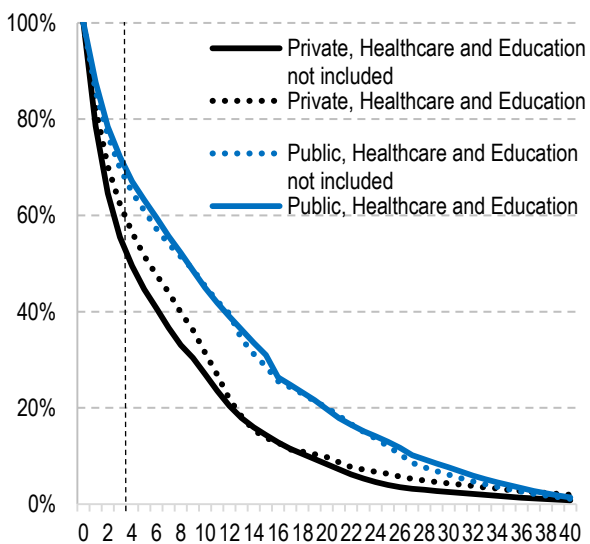
Public employees tend to stay longer in one organisation. While in private-sector, one in every two employees work for the current employer for more than 5 years, in public sector, the share of employees staying with the same organisation for more than 5 years is around 2/3. Higher employee retention rate can also be observed in areas of the private sector which are substantially influenced by the state regulation of wages – i.e., education and healthcare (Graph 27).

Graph 26: Gender structure of employees in Slovakia (2017)



Note: Excluding armed forces. Source: ISLC, VFM calculations

Graph 27: Share of employees staying with their present employer for more than given number of years (2017)



Note: Excluding armed forces. Source: ISLC, VFM calculations

3.2 Differences in compensation structure

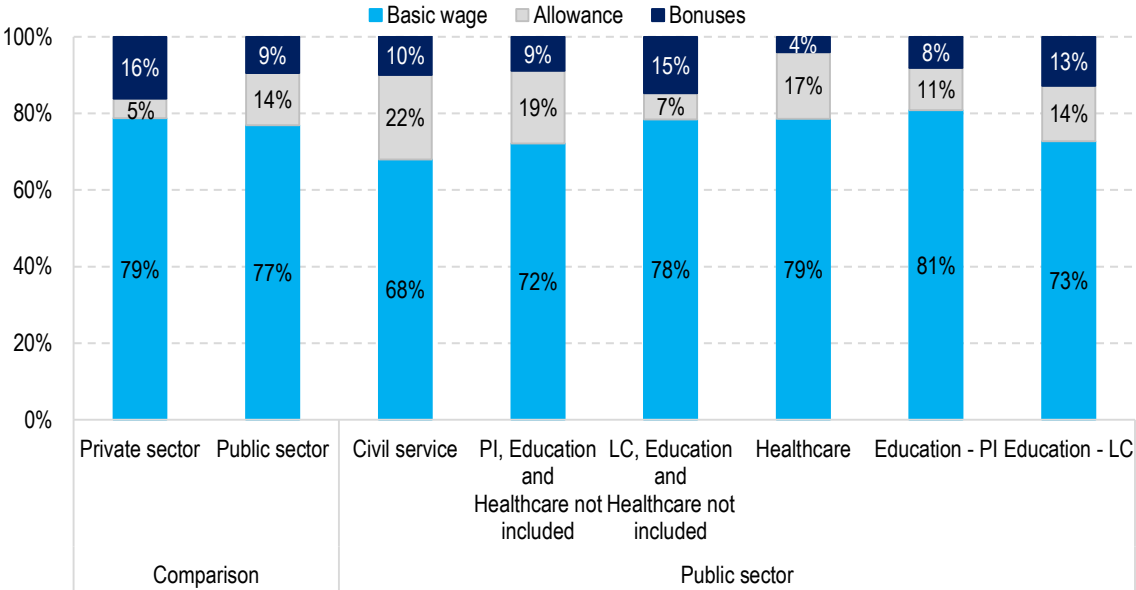
Compensation practices in the public sector are influenced by specific legislative amendments to compensation regulations⁴⁸. While in the private sector the basic wage⁴⁹ including allowances accounts for approximately 84% of total wage, in the public sector it is 91%. Although in both sectors the base amount is comparable, in the public sector, a larger portion of wages (14% vs. 5%) compared to the private sector is paid in for of vested allowance. On the other hand, the private sector spends 16% on bonuses, usually performance bonuses, while the public sector just 9% (Graph 28).

⁴⁸ For list of compensation regulations see Annex 8.

⁴⁹ Including the basic or tariff wages and wage replacement paid for days off – vacations and public holidays.

In the public sector, the closest equivalent to basic salary in the private sector public sector is the sum of the tariff wage and personal allowance. The tariff wage is based on pay scales, which are mostly two-dimensional. One of the dimensions is the tariff class, to which the employer is assigned based on the most exacting activity performed and the basic wage is then derived from the tariff class. The second dimension, which substantially affects total compensation, is the working experience, which increased the basic wage, on average, by 0.5 - 1% per year of service. In most countries, the basic salary account for at least 80% of total compensation, and similar salary structure is also applied in Slovakia (Graph 29).

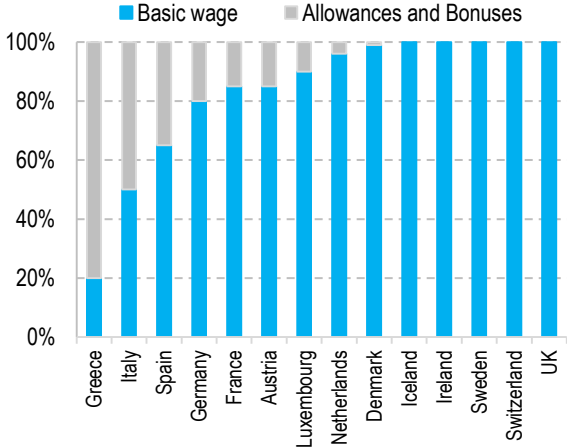
Graph 28: Wage components (2017)



Note.: PI – employment in public interest; LC employment under Labour Code. Source: ISLC, Vfm calculations. The data is excluding armed forces.

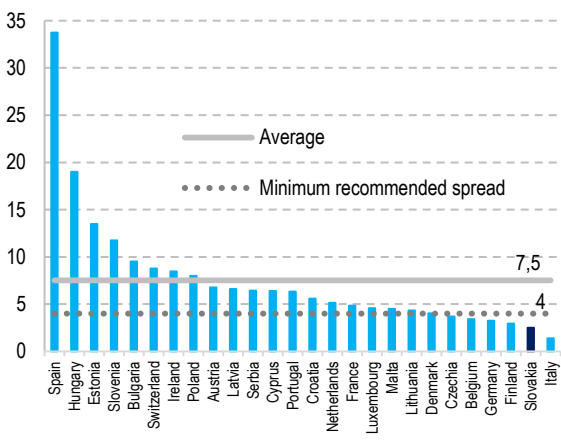
The most important among all allowances in civil services and public service is the personal allowance. It is mostly limited to 100% of the tariff salary and the closest equivalent thereto in the private sector is incentive payment. Personal allowance is granted for excellent performance of service tasks and granting or denying thereof must be justified. For civil servants in 2016, personal allowance accounted for approximately 90% of total amount of allowances, on average it accounted to around 18% of paid wages. For employees working in public interest at central general government it is approximately 80% of all allowances and 15% of paid wages.

Graph 29: Wage structure in OECD (2007)



Source: World Bank, 2007

Graph 30: Wage spread in general government (2016)



Source: Government Office SR

A part of other allowances is common with the Labour Code, a part is specific for the public sector (e.g. allowance for service motor vehicle maintenance and driving) or profession (credit allowance for teachers). The amount of allowance is given or limited by law. Investigation carried out by the Ministry of Finance SR (“wage inventory”) shows that most allowances, except for personal allowances, are used just marginally and account for a negligible part of the wage packet. The possibility of simplification of the system of allowances will be examined by the Civil Service Pay Concept prepared by the Government Office of the Slovak Republic.

A much smaller part of the wage account for bonuses, from 4% in healthcare to 15% for employees paid in accordance with the Labour Code, excluding the education sector. Bonuses, on average, account for 9% of total compensation, which reduces the possibility of flexible compensation for employees. The amount of bonuses is not limited by law.

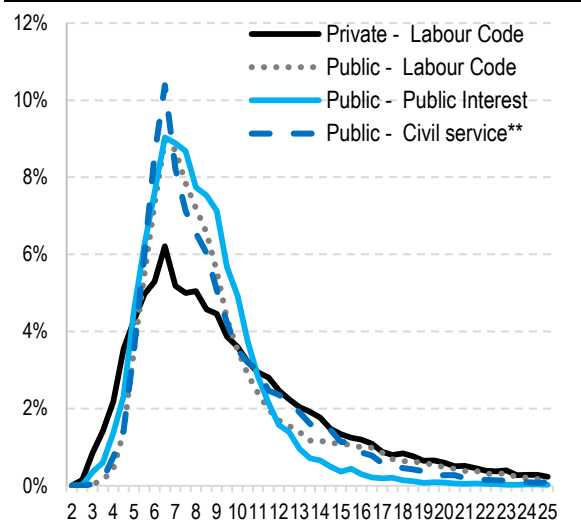
The share of bonuses is lower in professions which are subject to higher tariff for working experience. Public-sector employees which are paid under the Labour Code earn, on average, similar percentage of bonuses as private sector employees (Graph 28). By contrast, lower share of bonuses is in professions which are subject to automatic wage schemes – for example healthcare professionals or employees working in public interest (Box 6). The effect of the compensation regulation is apparent among employees in education sector – employees with contracts under the Labour Code earn, on average, higher share of bonuses than employees working in public interest.

In the public sector, the wage spread is lower than in the private sector. The percentage of skilled employees⁵⁰ earning hourly rates close to median is higher in the public sector than in the private sector. On the other hand, higher percentage of private-sector employees earn lower or higher wages (Graph 31). Similar difference in distribution of wages can be observed also in other employee groups. With low wage spread, the state may face a problem with attracting and retaining skilled people at strategic and managerial positions (Staroňová et al., 2014).

The wage spread in Slovak general government is substantially lower than in other EU countries. The survey carried out by the Government Office of the SR (Graph 29) shows that the average wage spread in EU countries is 7.5, while the actual ratio between the average wage of the highest and the lowest decile of civil servants in Slovakia is approximately 2.9. International institutions recommend that the ratio of the lower and the higher tariff is at least 4 multiple, and for employees at the highest political positions it should be 7 – 10-multiple (Rabrenovic, 2013).

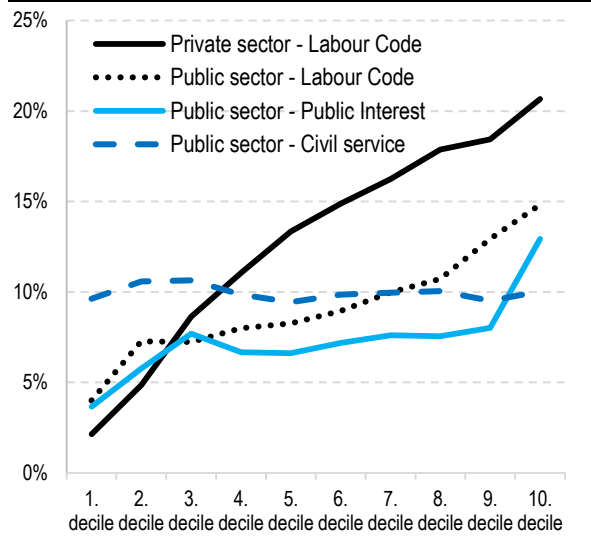
⁵⁰ This includes managers, professionals, technicians and associate professionals in accordance with ISCO classification.

Graph 31: Share of skilled employees* with a given wage (2017)



* Including managers, professionals, technicians and associate professionals. Source: ISLC, VfM calculations
 ** Excl. armed forces

Graph 32: Share of bonuses in compensations by wage decile (2017)



Note.: Wage deciles have been calculated for each employee category separately. Source: ISLC, VfM calculations
 * - Excl. armed forces

The public sector is also egalitarian in payment of compensations. While in the private sector, the share of bonuses grows along with total compensation paid to the employee, while for most public employees bonuses account for 7 - 10% of their total income, irrespective of the amount of the income. In 2017, public sector employees in the 2nd - 9th wage decile received bonuses accounting for 7 - 10% of total compensations, while in the private sector it was 5% - 18% (Graph 32). The largest share of bonuses in wages in the public sector (15%) was observed for employees employed under the Labour Code in the highest wage decile – they lag behind the private sector by approximately 6 p.p.

In public sector wages grow steadily with age and compared to the private sector, the growth is slower. In the private sector wages grow faster at the beginning of the career and after reaching the age of 40-42 years, the growth rate starts decelerating. Such wage profile means that at the beginning of the career the gap between wages in public and private sectors is widening (Graph 33). In consequence of that, the public sector has a problem with attracting and retaining young people, in particular tertiary-educated employees.

Automatic rise in wages based on years of service accounts for 15% of wage costs⁵¹ of the respective employee groups. This means commitment of comparable portion of wage funds as is used by the private sector for performance bonuses (16%). Automatic rise in tariff wages for years of service increases tariff wages for most public employees on average by 0.5% - 1% yearly. The effect of years of service on wages differs, after 32 years of service tariff wages of police officers increase by 67%, while salaries of teachers in regional school system increase by 24% and employees working in public interest since 2019 by 16%⁵². Yet, there is just a vague coherence between years of service and performance.

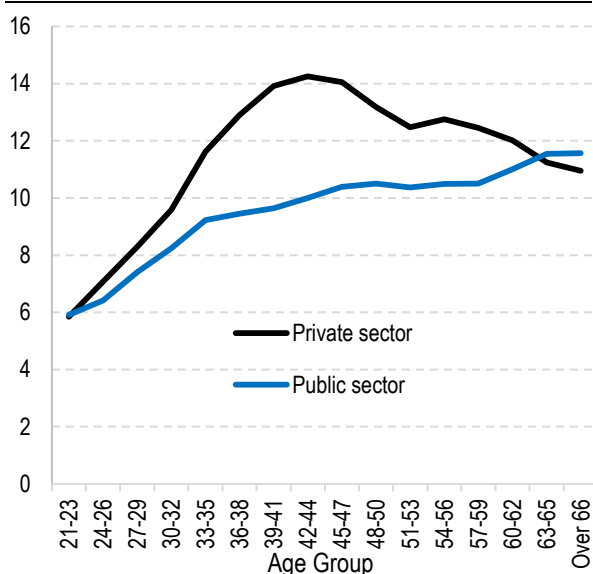
The managers' right to flexibly respond to their subordinates' efforts and performance within a single wage scheme motivates employees to increasing the productivity of labour. One of the alternatives to achieving a higher flexibility and opportunity for payment of bonuses is to establish pay bands, the width of which would grow

⁵¹ Quantifications based on labour costs data from the Budget Policy Section of MF SR and the Information System on Labour Costs.

⁵² The credited services has been prolonged to 40 years for teachers in regional school system and for employees working in public interest. Maximum rise of tariff salary after 40 years of service is 28% for teachers and 20% for employees working in public interest.

with difficulty of work (Graph 34)⁵³. Properly set up pay bands place emphasis on development of individual careers, flexible roles and development of employees' skills (Armstrong, 2009).

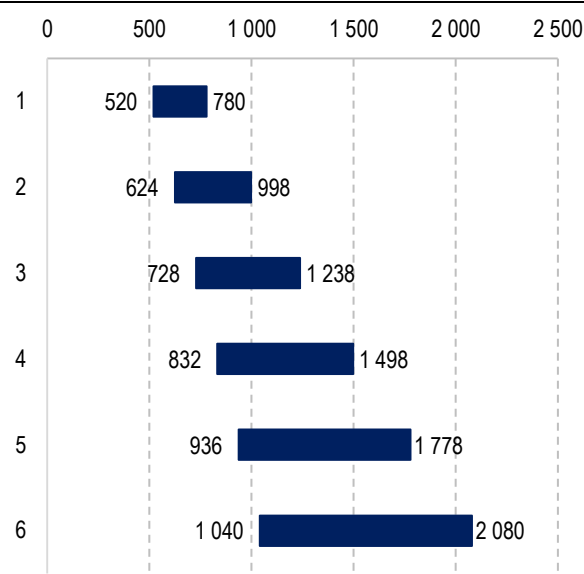
Graph 33: Hourly wages depending on the employee's age, tertiary-educated employees (2017)



Note.: Excluding armed forces.

Source: ISLC, VfM calculations

Graph 34: Illustrative example of wage intervals by wage classes (monthly gross wage, in EUR)



Source: VfM

Box 6: Automatic wage scheme in healthcare system

Healthcare professionals in institutional care are the only public employees whose automatic wage scheme does not result from the requirement for independence⁵⁴. Salaries of healthcare professionals are valorised automatically, concurrently with minimum wage claims defined in the Labour Code – this applies to employees of private institutional facilities. Each employee in healthcare has, depending on their occupation and skills, guaranteed the basic wage as a multiple of average wage level earned two years ago⁵⁵. This is sort of a minimum sectoral wage, but the agreed individual wages can be higher.

The benefits of the automated valorisation are similar for employees and for the state – elimination of transaction costs and risks associated with collective bargaining and predictability of future expenditure and revenues. The system of automated valorisations has several drawbacks – it does not consider differences in productivity of various occupations, provides less flexibility and ability to absorb stress (IMF, 2016).

The problem of the current setup of automatic pay schemes is the amount limiting the space for variable pay component with a higher potential to reward performance. In 2017, after considering minimum wage claims, the amount left for medical doctors' bonuses was approximately 10% of total wage packet. Medical doctors' tariff wages were, on average, just by 5% higher than wage claims defined by the automatic scheme, the

⁵³ The necessity of establishing pay bands has also been defined by the Government Office SR – acting as the central coordination authority for human resources in civil service -which in the HR Management Strategy for 2015 - 2020 committed itself to develop a Pay Concept by 2020 including pay bands.

⁵⁴ Besides healthcare professionals, automatic valorisation applies also to judges, prosecutors and constitutional officers.

⁵⁵ For example, basic salary guaranteed to a medical doctor before completion of a specialised education is at least 1.25 multiple of average wage earned two years ago, a medical doctor - specialist is entitled to 2.3-multiple. Other occupations and specialisations use their own coefficients.

average total wage was approximately by 11% higher than the minimum basic wage and allowances derived from the wage for working on Saturday, Sundays on public holidays and night shifts.

Table 3: Comparison of gross salaries of medical doctors and minimum wage claims (in EUR and %, 2017)

Wage component	Wage derived from minimum claims	Actual gross wage	Bonus vs minimum	Free % of the packet
Tariff plus wage replacements	1 660	1 747	87	5%
Allowances, overtimes, standby duty	683	719	36	5%
Total “mandatory”	2 343	2 466	123	5%
Bonuses and personal allowance		132	132	
Total	2 343	2 598	255	10%

Source: NHIC, VFM calculations

In 2019, the spending on automatic rise in wages of healthcare professionals, including increased minimum wage was approximately EUR 65 mil.

There is no most efficient healthcare professionals compensation system, every pay scheme has its specific drawbacks (Flodgren et al., 2011). A fixed pay may undermine motivation to provide care in desired quantity and quality. Fee-for-service may lead to unnecessary diagnostic procedures and excess prescriptions and wastage of resources. Performance-based pay has not been proven to have an impact on health results. Combined schemes bring mixed results.

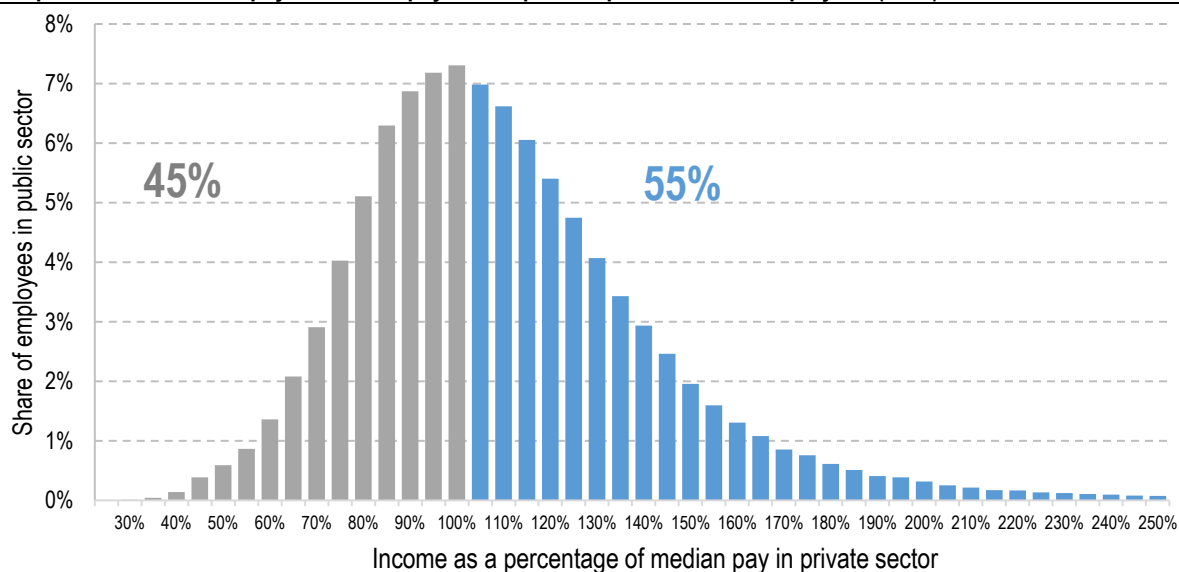
3.3 Wage differential by professions

Approximately 55% of employees in public sector earn higher hourly rate than the median of employees working at the same position in the private sector (Graph 35)⁵⁶. The comparison is based on the international classification of occupations ISCO (Box 5) so that the professions are as similar as possible. A half of public employees falls under $\pm 20\%$ spread, two thirds fall under the interval $\pm 30\%$ the private sector median.

Professions in the public sector that earn per hour more than their peers in the private sector include, in particular, healthcare professionals, teachers, social workers and drivers (Table 4). Nevertheless, the pay rules for teachers and healthcare professionals are decided by the state and the state largely creates the market. Comparing with the private sector, which has to a large extent just adapted itself to the public sector, may not have a sufficient informative value. A more relevant is the international comparison concluding that in Slovakia teachers' salaries expressed as equivalent to earnings of tertiary-educated persons are by 30% lower than teachers' salaries in OECD countries and that healthcare professionals earn approximately by 15% less than their peers in OECD (OECD 2019, OECD 2017b). Social workers earn more in the public sector, where tariff wages grow with age that in the private sector where most employees earn minimum wages irrespective of age. For some professions, differences can result from different regional deployment of similar professions (e.g., private and public healthcare facilities or schools are not equally located within the region).

⁵⁶ Comparison of hourly rates is affected by lower average number of hours worked in public sector, therefore with equal monthly pay, when compared to the private sector, hourly earnings in the public sector are higher. When considering monthly pay, the proportion of public sector employees above and below the private sector median is 50% : 50%.

Graph 35: Public sector pay vs median pay of comparable private-sector employees (2017)



Note: Excluding armed forces, employees with unknown job positions and those in the private sector who have not been subject to at least 30 observations within the same ISCO category. Source: ISLC, VFM calculations

Table 4: Selected professions which are better paid in the public sector than in the private sector (2017)

Profession	Wage differential (%)	Number of employees		Hourly wage	
		public	private	public	private
Primary school teachers	15.8%	31,573	2,713	8.7	7.5
Nursing professionals	26.1%	13,502	5,939	8.1	6.4
University and tertiary education teachers	31.0%	9,974	485	10.9	8.3
Heavy truck and lorry drivers	20.6%	4,988	40,377	6.3	5.2
Specialist medical practitioners	31.8%	4,803	4,271	18.0	13.7
General medical practitioners	17.7%	3,770	2,023	11.4	9.7
Nurses	18.1%	3,645	5,161	6.8	5.7
Public transport drivers	27.1%	2,791	6,481	7.6	6.0
Ambulance workers	21.7%	1,465	714	8.1	6.7
Health care assistants	22.6%	1,240	1,789	4.8	3.9
Social work associate professionals	55.7%	1,114	356	6.0	3.9

Source: ISLC, VFM calculations

Box 7: Wage differential by ISCO

The calculation is based on the International Standard Classification of Occupations (ISCO)⁵⁷. Considering the applied level of detail (4-digit ISCOs identify more than 400 professions) most categories represent one specific occupation (secretary, locomotive engine driver), or includes more detailed breakdown by complexity of work (e.g. distinguishing between outpatient and inpatient nurses).

The sample includes data about 1.2 mil. employees employed in 2017, thereof 880 thousand (weighted to 1.39 mil.) employees in private sector and 311 thousand (weighted to 469 thousand) in the public sector. The data sample is excluding armed forces and the police, persons employed by self-employed persons and partners in businesses working otherwise than under employment contract, temporary jobs (working by agreement), employees at maternity/parental leave or at a longer unpaid time off.

In this chapter, classification into either public or private sector is decided based on **owner** of the organization – state owned enterprises and enterprises owned by local governments are classified as public sector, other types of ownership are classified as private sector. Thus the public sector also includes entities which are not a part of the general government under ESA 2010 methodology (e.g., certain state-owned enterprises).

Wages include all components, including all allowances, bonuses or benefits in kind. It does not include severance pay and retirement benefits.

Classification of employees into positions is declared by employers and it is not a guarantee of equal job responsibilities for employees in similar professions in the public sector and the private sector. A more detailed comparison would require detailed job mapping. Comparison for a specific company will be a part of performance audits.

Methodology:

- For better comparability, the analysis is focused mainly on categories representing a higher number of employees (usually at least 1 000) both in the public sector and the private sector; other groups are published exceptionally.
- Compared are earnings of employees working at positions as characterised by ISCO. Considering the applied granularity (ISCO at 4-digit detail level), most of the categories are a code for one specific profession (secretary, locomotive engine driver), or includes more detailed breakdown by complexity of work (e.g. distinguishing between outpatient and inpatient nurses).
- Numbers of employees have been calculated from all records of 2017, i.e., including part-time jobs.
- Vacations, sickness absence and overtimes are quantified for full-time employees working the entire year 2017.
- The average hourly wage is calculated as total paid wage divided by total number of hours worked in 2017

However many employee groups are paid worse in the public sector than in the private sector. The largest groups among them are technicians and associate professionals in transportation, but also administrative staff, e.g., tellers (Table 5). Less paid than their peers in the private sector are e.g., railway brakemen and shunters, locomotive engine drivers, traffic controllers and other technicians. Some of these categories most likely differ in job description, as the group of managers in transportation and postal services may include a director of a private carrier as well as a head of a post office branch.

⁵⁷ International Standard Classification of Occupations ISCO, methodology available online: <http://jaspi.justice.gov.sk/jaspidd/vzory/011516Pr.pdf>.

Table 5: Selected professions which are less paid in the public sector than in the private sector (2017)

Profession	Wage differential (%)	Number of employees		Hourly wage	
		public	private	public	private
Engineers and traffic controllers in transportation	-13.4%	7,852	11,893	7.2	8.4
Railway brakemen, signallers and shunters	-33.2%	4,999	976	5.8	8.7
Building and housekeeping supervisors	-15.6%	4,948	5,829	5.1	6.1
Supply, distribution and related managers	-40.1%	3,035	2,459	8.8	14.6
Bank tellers and related clerks	-31.7%	3,032	5,896	5.3	7.8
Locomotive engine drivers	-20.3%	2,831	1,057	7.9	9.9
Toolmakers and related workers	-25.7%	2,286	15,213	5.7	7.7
Engineering professionals/managers, internal control professionals, etc.	-20.7%	2,251	6,308	10.7	13.5
Stationary plant and machine operators	-13.3%	1,597	5,343	6.1	7.1

Source: ISLC, VFM calculations

The public sector is unable to adequately pay employees in expensive professions⁵⁸. Approximately 7.5 thousand of public employees excluding large professional groups (e.g. medical doctors, nurses and teachers) earn considerably less than in the private sector. More than a third thereof are managers, lawyers and IT staff (Table 6).

Large intersectoral differences in wages earned by these professions may undermine the ability to attract and retain such employees, and result in lower quality of public employees in these professions. That may lead to necessity to solve more complex tasks by procurement from external suppliers (legal services, analyses, maintenance of IT systems), which may be more expensive than adequate pay to internal resources. Personal salary scheme is applied to a limited extent, and costs of high-skilled employees are not budgeted separately.

Table 6: Selected professions with higher average wage in the private sector (2017)

Profession	Wage differential (%)	Number of employees		Hourly wage	
		public	private	public	private
Lawyers	-20.1%	1,427	1,203	11.2	14.0
Finance managers	-23.6%	991	5,312	14.8	19.4
System analysts (IT)	-25.2%	424	5,005	11.4	15.2

Source: ISLC, VFM calculations

Some professions in public sector are paid nearly equally to their peers in the private sector. Major groups which are paid equally include cleaners, secretaries and accountants, but also secondary education teachers (Table 7). While for cleaners, the earnings are at the minimum wage level, for accountants and secretaries the earnings are higher and nearly equal for both sectors.

Table 7: Selected professions in the public sector paid equally to the private sector (2017)

Profession	Wage differential (%)	Number of employees		Hourly wage	
		public	private	public	private
Cleaners	-2.8%	18,916	17,951	3.7	3.8
Secondary education teachers	5.1%	14,882	1,488	9.0	8.6
Accountants	1.7%	4,654	14,129	9.9	9.7
Secretaries	-2.3%	2,020	3,391	6.6	6.7
Medical and pathology laboratory technicians	-1.2%	1,936	2,339	6.7	6.8

Source: ISLC, VFM calculations

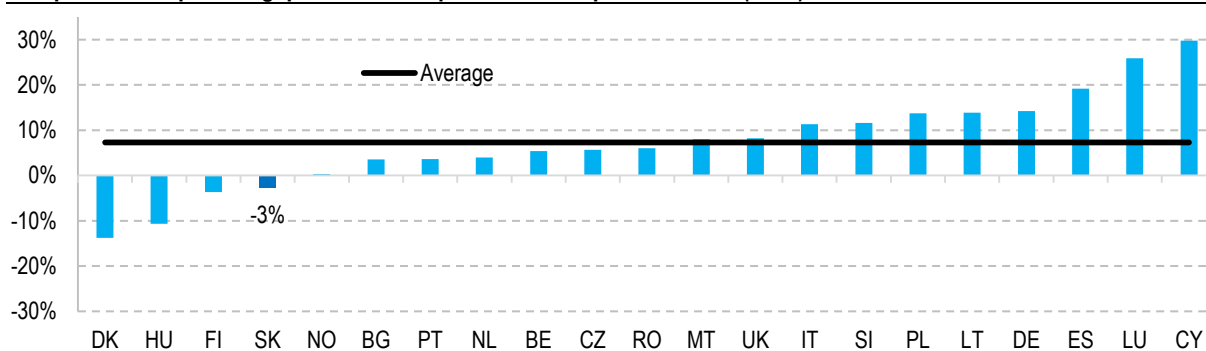
⁵⁸ The analysis was focused on professions, where average hourly wage in the private sector is above the 90th percentile (EUR 12).

3.4 Wage differential between the public and the private sector in EU countries

Direct comparison of average compensations of public employees and private-sector employees has a rather limited informative value. Public employees earn on average by 7% more than private-sector employees (Graph 5). Such comparison, however, does not reflect different structure of employees. Public employees are, on average, older, with higher educational attainment and working at positions which require higher skills (Chapter 3.1).

A more comprehensive comparison reflecting observable characteristics of employees and job positions indicates that public sector employees earn by 3% less than private-sector employees. Slovakia is one of four EU countries where the results of the comparison shows that public employees are worse off than their peers in private sector (Graph 36). The comparison takes account of gender, age, education, job position, type of employment and economic sector (Annex 9). The analysis implies that groups with considerably lower earnings than their peers in the private sector, after taking account of all observable characteristics, are: women (by 7%), young people aged below 29 years (by 9%) and tertiary-educated employees (by 11%).

Graph 36: Unexplained gap between the public and the private sector (2014)



Note: Depicted are only statistically significant differences, for 1% significance level.

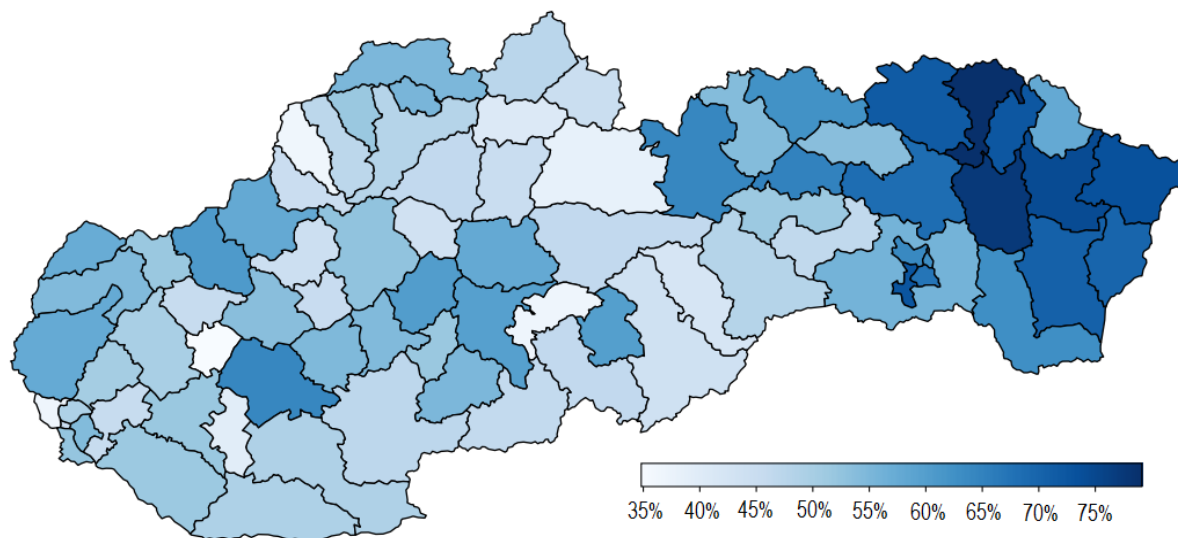
Source: Eurostat, VfM calculations

3.5 Regional effect on relative income

Wages in the public sector are much less regionally differentiated than wages in the private sector. The key reason for minimum regional differences in earnings for similar type of work are the tariff wages used in the public sector, while wages in the private sector play much closer follow trends on local labour markets. In consequence of that, the share of public employees earning more than their local private-sector peers in similar professions⁵⁹ regionally influenced (Graph 37).

⁵⁹ Professions are defined by 4-digit ISCO codes.

Graph 37: Share of public employees with earnings above median of comparable private-sector employees in the region (2017)



Excluding armed forces, employees with unknown job positions and those in the private sector who have not been subject to at least 10 observations within the same ISCO category and region.

Source: ISLC, VfM calculations

Regional differences in relative earnings also exist in other EU countries. SES survey found that while, for example, in Paris and surroundings primary education teachers earn only 63% equivalent to earnings of local tertiary-educated employees, in rest of France it is around 85% (Table 8). Yet, teachers' salaries are nearly equal throughout the country, excluding distant islands. Similarly, in Italy, in more expensive regions⁶⁰ primary education teachers earn approximately 68% equivalent to earnings of local tertiary-educated employees, while in cheaper regions it was by 10 p.p. higher. Just like in France, there are only small regional differences in average wages in Italy (1-2%).

Table 8: Regional differences in primary school teachers' salaries

Country	Wage (local currency)		% equivalent to average wage of tertiary-educated persons in the region	
	Capital and surroundings	Rest of the country	Capital and surroundings	Rest of the country
France	2,640	2,637	63%	86%
Italy	2,213	2,186	65%	71%
Poland	4,304	4,250	65%	83%
UK	3,326	3,011	89%	108%
Slovakia	1,077	1,079	55%	78%

Source: VfM calculations using Eurostat data (2014)

In consequence of lower differentiation of wages in the public sector wage premium (which can be negative) for work in public sector professions is regionally conditioned. For example, while teachers in public primary schools in Bratislava earn by 14% less per hour than in private and church primary schools, elsewhere outside Bratislava earn by 21% more. Similar regional disparities can be observed in several professions (Table 9). The egalitarian compensation system in the public sector and large regional disparities lead to differences in competitiveness of the public sector in various regions.

⁶⁰ North-Western and Central Italy.

Table 9: Selected professions with large regional disparities in earnings of public and private sector employees (2017)

Profession	Premium in BA	Premium outside BA
Stationary plant and machine operators not elsewhere classified	-52%	-3%
University and tertiary education teachers	4%	51%
Statistical, finance and insurance clerks	0%	36%
Specialist medical practitioners	4%	41%
Primary school teachers	-14%	21%
Medical assistants	-19%	16%
Clerical support workers not elsewhere classified	-32%	-4%
Teaching professionals not elsewhere classified	-16%	9%
Accounting associate professionals	-18%	5%
Filing and copying clerks	4%	28%
Electrical engineering technicians	-19%	2%
Information and communications technology operations technicians	-29%	-8%

Source: ISLC, VIM calculations

High difference in salaries can be reflected in higher quality of services. Studies from the UK showed that there is a relationship between the amount of wage premium in the public sector compared to the private sector on the local labour market and quality of services provided (Hall, Propper and Van Reenan, 2008, Burgess, Gossage and Propper, 2003 in healthcare sector and Propper and Britton, 2012 in education). Therefore, regions with a strong labour market and thus with higher wages earned by medical doctors, nurses and teachers in the private sector performed worse in public schools and hospitals than locations with weaker labour market where the wage premium is higher for the benefit of public employees. No such analysis is so far available in Slovakia.

In practice, it is not realistic to fully eliminate regional disparities in wage premiums for working for the state. Regional egalitarianism in the public sector largely results from the employer's size rather than the legal form as indicated by studies of regional pay differences between large employers in the UK private sector.⁶¹

Foreign experience shows several options of how to partly reflect in public employees' wages different wage levels across regions. One of the solutions may be special pay scales for predetermined geographic pay zones. Another solution involves regional allowances to the basic tariff salary, or benefits in kind, such as, e.g., government quarters, free public transport, etc. for certain employee groups. The third option means financial incentives for employers (e.g., specific schools or hospitals) facing problems with hiring and retaining certain groups of employees/professions owing to weak competitiveness on local labour market. In the UK, this tool is often combined with special pay tables or allowances, which facilitates a better targeted response to problems faced by individual institutions (e.g., schools or hospitals).

Spending on allowances for public employees in expensive regions could be limited by relocation of certain public institutions outside Bratislava. Besides savings, the relocation would increase employment in the region of the office's new seat. A list of offices has been prepared for illustration of potential savings in labour costs, by criteria assessing appropriateness of relocation outside Bratislava. The assessed criteria included the following:

- share of spending on labour costs in total operating expenditures,
- share of external employees,
- rent,
- share of employees with statutory salaries
- share of travel allowances in total personnel costs.

⁶¹ Also in this case, regional differentiation of wages is limited. Companies apply central management of working conditions as they need to control costs. Certain differentiation is enabled either through regional pay bands (typically four) or allowance for London, however, companies do not try to reflect small differences between local labour markets. Intrinsic factors, such as necessity of consistent decisions about wages or a pragmatic resistance against short-term fluctuation are often regarded more important than external factors.

Selected offices did not include schools and research institutes, regional branches, central institutions, authorities with scope of competence closely linked to political decisions of the government and authorities liable to co-operate, on a regular basis, with foreign and international institutions.

Potential savings are calculated as the difference between the current average wage of selected public employees⁶² in Bratislava and their alternative earnings in similar profession at 90% equivalent to average wage in the private sector in other regional city. That does not result in decrease in relative earnings. Ten authorities with the highest potential savings in labour costs and the value of savings for 2020-2023 in case of relocation to regional cities are shown in Table 10.

Table 10: Potential savings in labour costs by place of relocation (EUR mil., 2020-2023)

	TT	TN	NR	ZA	BB	PO	KE
Central Control and Testing Institute in Agriculture	14.9	17.1	17.1	15.6	16.3	19.1	15.0
Public Procurement Office	9.2	10.6	10.6	9.6	10.1	11.8	9.3
Slovak Centre of Scientific and Technical Information	8.9	10.3	10.3	9.4	9.8	11.5	9.0
Slovak Trade Inspection – Central Inspectorate	8.7	10.0	9.9	9.1	9.5	11.1	8.8
Methodology and Pedagogy Centre	7.7	8.9	8.8	8.1	8.4	9.9	7.8
Nuclear Regulatory Authority SR	7.4	8.5	8.5	7.7	8.1	9.5	7.4
State School Inspection	7.1	8.1	8.1	7.4	7.7	9.1	7.1
Transport Authority	6.9	7.9	7.9	7.2	7.5	8.8	7.0
State Geological Institute of Dionýz Štúr	6.7	7.8	7.7	7.1	7.4	8.6	6.8
Research Agency	6.4	7.3	7.3	6.7	7.0	8.2	6.4

Source: VFM calculations

The illustrative calculation does not include one-off expenditure incurred owing to cancellation of jobs and relocation of the office. Similarly, no account was taken of savings in rental payments and sale of cleared premises. Real savings can differ from the above-mentioned if wage differences in specific employee categories substantially vary from differences between average wages of the selected sample of professions and also if under the existing pay regulations applicable to public employees it is impossible to achieve the assumed reduction of wages. Moreover, some of the public institutions might face a problem with lack of skilled and experienced employees elsewhere outside Bratislava. Examination of appropriateness of relocation for specific institutions would require a more detailed analysis considering specific features of each of the institutions.

3.6 Changes in earnings when switching between sectors

Another way of reflecting characteristics of individuals when comparing public and private sectors is to monitor earnings of one specific employee changing jobs, as the person's individual characteristics are relatively stable over time. The disadvantage is that characteristics of the specific position cannot be taken into account owing to lack of data (Box 8). Moreover, people do not change jobs randomly. Besides persons who had to start working for another employer after losing their job, voluntary changes are mostly made with the prospect of better working conditions.

Employees switching from public to private sector become better off more than switching the other direction. Those who most benefit from switching from public to private sector are: men, young employees (irrespective of gender) and secondary-educated employees. A strong increase in earnings after switching to other sector indicates that the public sector is not an attractive employer for these categories in terms of earnings.

⁶² Selected were ISCO3 categories, which are as close as possible to professions of in general government (excluding healthcare professionals and teachers), i.e., the comparison does not reflect different employee structure across offices.

Average increase of earnings after switching from public to private sector (+14%) is higher than increase when switching the opposite direction (+11%) (Table 11). This means the difference in total wages paid to the employee⁶³ three months before and after changing jobs⁶⁴, as concluded by the analysis job changes in 2015-2017 (Box 8).

Earnings of men switching to private sector increased, on average, by 22.8% and compared to women they became better off by more than double. Yet, when switching for private to public sector, the premium is nearly equal for both genders. There are several hypothetic explanations to this. One of the possible reasons is that men switching from public to private sector considerably differ ⁶⁵ whom women doing the same. Another hypothetic explanation is that the results conform lower gender discrimination in earnings in the public sector (Weichselbaumer, Winter-Ebmer, 2005; Gonzales et al., 2015), as the existing tariff scheme restrict the possibility different earnings for similar wage just based on gender.

Table 11: Percentage change in daily earning upon changing jobs

	Percentage change			
	Private → Public	Public → Private	Private → Private	Public → Public
Number and share	3,437 / 4.7%	2,620 / 3.6%	62,615 / 85.5%	4,569 / 6.2%
Total	11.2	14.0	13.4	10.3
Gender				
Women	10.0	8.9	12.0	9.9
Men	13.3	22.8	14.3	11.3
Age				
18 - 24	11.2	23.4	14.8	13.4
25 - 29	15.5	15.1	16.8	10.6
30 - 34	9.8	17.9	15.2	16.4
35 - 44	9.9	13.0	12.5	10.7
45 - 54	10.6	10.2	10.7	7.6
55 +	9.3	6.7	7.6	6.1
Educational attainment				
Secondary	6.6	15.0	12.1	7.8
Tertiary education	16.0	12.4	16.8	11.5
Earnings before change				
1 st quantile	38.9	36.5	34.6	25.1
2 nd quantile	11.2	18.3	14.2	14.6
3 rd quantile	-0.1	10.0	7.8	10.9
4 th quantile	-6.1	1.3	5.3	7.7
5 th quantile	-10.3	-2.1	5.2	0.7

Source: Vfm calculations

Another group that benefited from switching from public to private sector were young employees, aged 18 - 24 years; as after switching to private sector their earnings increased by nearly a quarter (23% vs. 11%). Here again, the reason may be tariff wages in the public sector, where, unlike the private sector, earnings grow with years of service, it is a slow and steady growth.

⁶³ Gross wage in EUR, three months before month of change

⁶⁴ Considering a longer interval – 0 year before and a year after the change, the earnings upon switching from the private sector to the public sector was higher by approx. 21% than the year before the change, and for switching in the opposite direction, it was higher by approx. 23%. However, there are no qualitative differences in results achieved by individual groups.

⁶⁵ Characteristics of life circumstances.

When switching to the private sector, earnings of secondary-educated employees increased by 15%, which is considerably more than in case of switching in the opposite direction (6,6%). Switching to the private sector was more profitable than switching in the opposite direction for all except the 20% top earners⁶⁶.

From among employees who switched to other sector, women and older persons mostly switched from private to public sector, while men and younger persons were mostly changing jobs in the opposite direction⁶⁷. The amount of earnings in the former job did not have any impact on the direction of the change. After considering the gender, age and earning before the change, tertiary-educated employees were more likely to switch from public to private sector than secondary-educated persons.

Non-financial benefits can be conducive in explaining why women prefer working in the public sector, while the financial benefit of switching from the public sector to the private sector can be the explanation why men prefer working in the private sector. Under the current segregation of gender roles in Slovakia, non-financial benefits of working in public sector (flexible working hours, stability of jobs, longer vacation, less pressure on working during weekends or night shifts, etc.) are more attractive for women than for men. Additionally, women tend to prefer sectors where wages, including for private-sector employees, are regulated or largely influenced by the state (education, healthcare).

Box 8: Data and methodology

Attractiveness of public-sector professions for various social and demographic groups can be analysed through monitoring outflows and inflows of employees from/to the public sector. Monitoring on individual level enables comparing the wage differential between sectors, under similar set of skills, experience, education etc. which are not subject to a sudden change. Nevertheless, administrative data do not reflect as to whether the employee continues at similar position or within the same region. The same applies to other uncontrollable changes such as number of hours worked, better working conditions or work which is more attractive for subjective reasons.

Detailed information:

- The data come from various administrative sources (Social Insurance Agency, Register of natural persons, Register of organisations, etc.);
- The sample includes information about employees who changed their employer in 2015-2017;
- Entities were classified as belonging to the public sector or the private sector based on information about ownership in the Register of Organisations – state-owned entities and entities owned by local governments were classified as public sector, and the rest as the private sector;
- The comparison does not include persons working otherwise than under employment contract, persons with two or more concurrent jobs and persons whose maximum daily assessment base resulted in a wage lower than minimum wage for the given month;
- The comparison only considered changes of employer with available data about wages paid during the whole monitored period (i.e., 3 months or one year before the last month in the old job and 3 months or one year after the first month in the new job);
- Excluded were cases where the gap between termination of a job and starting a new job was longer than three months;

⁶⁶ The distribution applies to earnings before the switching. The reason for high average increase in earnings for persons with low starting wage may be higher number of hours worked per day. The analysis compares daily wages as the used administrative data does not provide information about hours worked.

⁶⁷ Results based on probit regression (Annex 10).

- In case of two or more concurrent jobs, only change of the major employer was regarded as change of employer, and the major employer was defined as the one providing at least 75% of total monthly wage of the employee for every month in the year before the change and after the change;
- Subject to examination is the average gross daily earning of the employee during the examined period;
- For complete results of both analyses see Annex 11 and Annex 12;
- The probability of employer's direction has been estimated by probit model.

4 Employment and wages management tools in the public sector

- **Collective bargaining generates equal relative valorisation for most professions despite their different competitiveness in wages.**
- **Every year, the central government reports approximately 5 thousand vacancies in planned positions (4%), which is four times more than the EU average. Most of the vacancies are police officers and soldiers. Cancellation of all vacancies above 5% would reduce the number of jobs by 1.1 thousand positions, which would save EUR 28 mil. yearly.**
- **In 2011 - 2019 total actual spending on compensations was budgeted reliably, the deviation from the budget was, on average, 4% (EUR 100 mil. yearly). Nevertheless, the structure of expenditures has changed after approving the budget owing to high proportion of vacancies, not including wages from EU funds in the budget and other changes over year.**
- **Central coordination and strategic HR management are carried out just partially (in civil service) or not at all (for employees in public interest).**

Almost all employees in the public sector are employed under twelve standards, the basic standards are the Act on Civil Service⁶⁸ and the Act on performing work in public interest⁶⁹. Seven acts mostly regulate one specific profession – e.g., soldiers. This is a fairly common scenario from international view. Regulation of labour relations is based on the Labour Code and adjusted to the public sector.

Regulations differ in various areas of labour relations, benefits or restrictions are specific for individual professions. In general, it can be concluded that the state provides its employees with higher protection (e.g., from dismissal), at the same time, the state requires higher skills and imposes partial restrictions on some employees e.g. with respect to business or strike (Box 9).

The Government directly controls one third of wage expenditure of public employees, and another third is influenced indirectly. The Government has direct control after approval in the National Council of the Slovak Republic in professions where the Government directly defines maximum total expenditure and maximum number of employees (Chapter 4.2). The Government indirectly controls spending on employees with automatically indexed salaries (medical doctors, nurses) and number of employees in local governments⁷⁰.

Box 9: Regulation of labour relationship in the public sector

Most employees in general government and at local government are employed under the Act on performing work in public interest and the Labour Code. Employees in public interest include, in particular, professionals in education and the local government, but also assisting staff, such as cooks or janitors at schools. The Act on compensation of work performed in public interest includes three specific compensation tables which differ only in wage level in each tariff class. Employees are mostly assigned to the compensation table by the performed profession. Employees under the Act on performing work in public interest can also be employed by central government authorities.

Civil servants can work at central authorities and only in civil service activity branches⁷¹. Professional activities in management of the state are performed by clerks at ministries and other authorities, mostly with nation-wide competence, and authorities acting in the capacity of the state in local government⁷².

Government employees performing similar work are not always assigned to the same tariff table. Most employees in civil service or in public service are paid by pay scales defined in applicable laws, however, a part

⁶⁸ Act No. 55/2017 Coll. on civil service.

⁶⁹ Act No. 552/2003 Coll. on performing work in public interest.

⁷⁰ The Government's influence on employment in local government is mainly in defining minimum wage claims in the pay scale.

⁷¹ Government Decree No. 113/2017 Coll. defines areas of civil service where employees work under civil service rules.

⁷² Defining authorities where employees work under the Civil Service Act, in accordance with § 15 of Act No. 55/2017 Coll.

of them is paid by tables specific for each institutions. Higher tariff wages have been assigned to selected employees of the Chancellery of the National Council of the Slovak Republic, Office of the President of the SR, Supreme Audit Office of the SR, Office of the Public Defender of Rights, Government Office SR and Office of the Constitutional Court SR – some of them are paid under separate tariff tables, for others tariff rates are multiplied by a specific coefficient. Although technically, they perform similar activities as employees at different offices, their tariff pay may be by as much as 20% higher.

In the general government sector, except for civil service, the Labour Code can also apply. Enterprises of the general government exclusively apply the Labour Code, however, local governments also apply the Labour Code in employment. The local government has the option of choice, as to whether employ under the Labour Code or to apply work in public interest ⁷³.

Tertiary education is required for most positions in general government sector, at least the bachelor's degree is necessary for around a half of tariff classes in public interest and in civil service. Certain professions require several years of working experience, further education and qualification tests. The Labour Code does not define minimum educational attainment criteria, and the level of complexity is determined based on the most complex activity performed.

Other gainful activities are often limited, public employees must suffer higher level of control and a part of them do not have the right to strike. To avoid conflict of interests, public employees, managers in public service and certain employees under special regulations⁷⁴ are not allowed to carry out other gainful activities. All public employees and top managers annually file declarations of assets. The Labour Code does not impose such liability. Selected categories of public employees, such as, e.g., medical doctors, police officers or soldiers, have a limited right to strike.

A major part of public employees work shorter and are entitled to longer paid time off than private sector employees. Public sector work by approximately 10 paid hours per month less than private sector employees. That approximately equals to difference against standard daily working hours at 7.5 hours in the public sector and 8 hours in the private sector. That does not apply to medical doctors, as their working hours are longer owing to overtimes above the level defined by the Labour Code. Most public employees are entitled to one week of vacation above the level defined in the Labour Code (Annex 13).

A part of public employees enjoy higher protection from loss of job. Some employees (e.g., judges and prosecutors) can be dismissed only under exceptional circumstances⁷⁵. Their occupation terminates by reaching the age of 65 years, and then they can be removed from the office⁷⁶. A higher level of protection also applies to civil servants which can ask for investigation of their dismissal⁷⁷ and after one year of service they become entitled to severance pay.

Public employees are provided with stronger assurance of growth in wages. The strongest assurance of growth is granted to employees whose pay is linked by law to the national average wage. Basic salaries of other public employees depend on the Government's decision, however, they can be confident of average growth of their pay for each year of service.

⁷³ Regulated in § 1, par. 3 Act No. 553/2003 Coll. on remuneration of some employees performing works of public interest.

⁷⁴ E.g. judges, prosecutors, policemen, soldiers.

⁷⁵ Final conviction for criminal act, termination of the right to be elected in the NC SR, etc.

⁷⁶ A prosecutor can be removed by the General Prosecutor after reaching 65 years of age. A judge can be removed from office after reaching 65 years of age.

⁷⁷ Upon dismissal owing to institutional change or loss of a managerial position. Investigation of the dismissal is of a recommending nature.

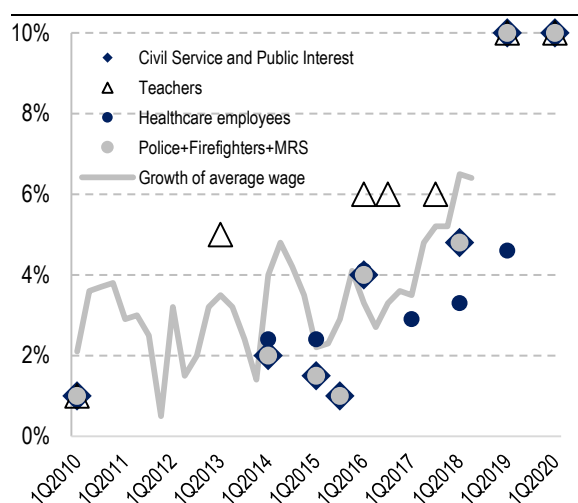
A special benefit received by members of the armed forces are pensions for years of service, which are granted after 25 years of service and termination of service irrespective of age. Pension for years of service are an additional compensation unlimited in time, to which no equivalent exist in the Labour Code. Beneficiaries of pension for years of service are not restricted to carry out other gainful activities or receive it concurrently with the standard old-age pension, the benefit is in receiving pension before reaching the retirement age. After reaching the retirement age, if the beneficiary of a pension for years of service is entitled to an old-age pension, both pensions are paid and the amount of the standard old-age pension is reduced. In 2017, nearly 33 thousand police officers and soldiers were receiving pensions for years of service.

4.1 Collective bargaining

The major tool to influence future wage costs of public employment is collective bargaining. Collective bargaining is the process of negotiation between employers and employees about working conditions, e.g., working time, benefits and compensation for work. The parties to the negotiation aim for social peace, as a prerequisite to predictable environment mitigating the risk of strikes.

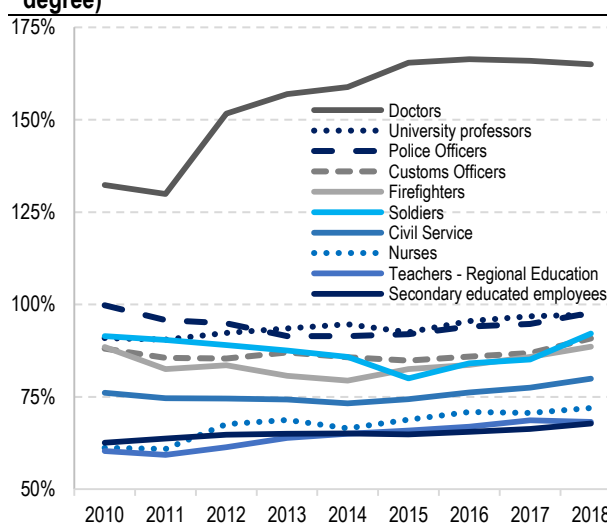
Systems, which include collective bargaining show better results in employment and smaller wage disparities (OECD, 2018a). In Slovakia, collective bargaining results in signing a Collective Agreement at the company level or at nation-wide level⁷⁸. The general government negotiates at the level of government and public employees and the Collective Agreement of higher level also influences other professions in the general government, e.g., employees the local government.

Graph 38: The negotiated growth of wages in selected groups (% year-on-year growth)⁷⁹



Source: Statistical Office SR, BPS MoF SR, Collective Agreements of higher level, Prepared by VFM

Graph 39: The average wage as a multiple of national average wage of tertiary-educated employees (Masters' degree)



Source: MoF SR, NHIC, Ministry of Education SR, Prepared by VFM

The practice of collective bargaining in the public sector in Slovakia generates equal relative valorisation for most professions despite their different competitiveness in wages. Despite 6 various pay scales⁸⁰, there is only one bargaining process at the government level. The bargaining results in signing two collective agreements regulating valorisation of wages and working conditions for public employees and for employees working in public interest. There have been no differences in valorisation of public employees' wages since 2013, except for teachers,

⁷⁸ This is a higher-level collective agreement, agreed for economic sectors on nation-wide or regional level.

⁷⁹ In 2014, wages were valorised by EUR 16. The graph reflects average growth across pay regulations.

⁸⁰ Since 2019, collective bargaining will include only 4 pay scales.

where higher valorisation was guaranteed by the Manifesto of the Government. Wages of medical doctors (since 2012) and nurses (since 2016) are valorised automatically, copy the growth of average wage, their collective bargaining is focused mainly on non-wage working conditions. Collective bargaining regarding professions paid under special regulations (e.g. police officers) is held at the ministry level and is focused mainly on non-wage benefits. Valorisation of their salaries is given by the Act on Budget and is not subject to collective bargaining.

The Collective Agreement for 2019 and 2020 brought equal valorisation by 10% that applies to nearly all employee groups⁸¹, including teachers. This is the first higher-level collective agreement signed for a period longer than one year, which enables better planning of resources and can ensure social peace for a longer period.

Between 2010 – 2018, average wages in the public sector were growing at a slower pace than the national wages (Graph 38). In the monitored period, average national wages increased by nearly 41%, while average wages of government and public employees increased by 37%. Basic tariffs wages of government and public employees increased just by 23%, the rest of the increase was in other components. Basic tariffs wages were growing faster for teachers, and for the period from 2012 to 2017 increased by 44% (Graph 51). Differentiation in valorisation of teachers' salaries is necessary and essential. In terms of average wage, growth of teachers' salaries started from a low base, their average salaries exceeded the national average wage of secondary-educated employees in 2015 (Graph 39).

4.2 Employment regulation tools

The state's main employment management tool in the general government budget chapters is fixing the maximum amount of annual wage expenditure and total number of employees. The NC SR establishes the amount of wage expenditures of central government authorities in the Act on State Budget. The number of employees of central government authorities and systemization of uniformed professions is specified by Government resolution⁸².

Pay regulations and the amount of basic tariffs are a secondary tool, however, in general this tool has an impact on the quality of employees rather than the headcount. Firstly, ministries and their subordinate organisations have certain flexibility in distribution of total financial envelope to either lower number of higher paid or higher number of lower paid employees.

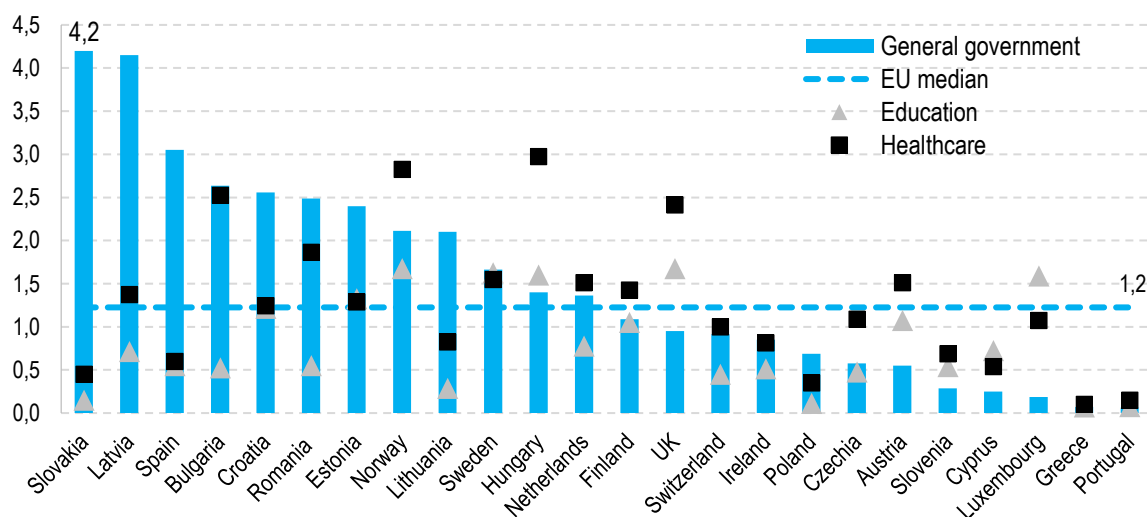
Tools used in areas where the government has indirect control over employment include minimum wage claims, transfers calculation methods and delegation of representatives. Local governments including schools, state-owned enterprises and institutional care facilities decide about number of employees for themselves. In these sectors, the Government can only fix the lower limit for wages – e.g. through pay scales and the Catalogue of Activities for wages paid under the Act on performing work in public interest. The Government can influence total wage level in public employment through selection of the transfers calculation method (standard way of education financing, which can be used for indirect control of numbers of teaching and non-teaching employees), and also through control over or delegation of their representatives who are involved in management (e.g., in state-owned enterprises).

⁸¹ In 2019, salaries of employers working in public interest were valorised through change in the pay system. The average valorisation is also 10 %.

⁸² For numbers of employees and wage costs of budget chapters see Annex 14.

Eurostat data⁸³ show that recently the number of vacancies in Slovak general government is nearly four times the EU median⁸⁴ (Graph 40). This is a long-term phenomenon and in view of the whole economy or other public employment sectors with lower direct control of the state (education and healthcare) Slovakia ranks among countries with lower vacancy rate. A high number of vacancies indicates either problems with filling vacancies or incorrectly established number of necessary employees.

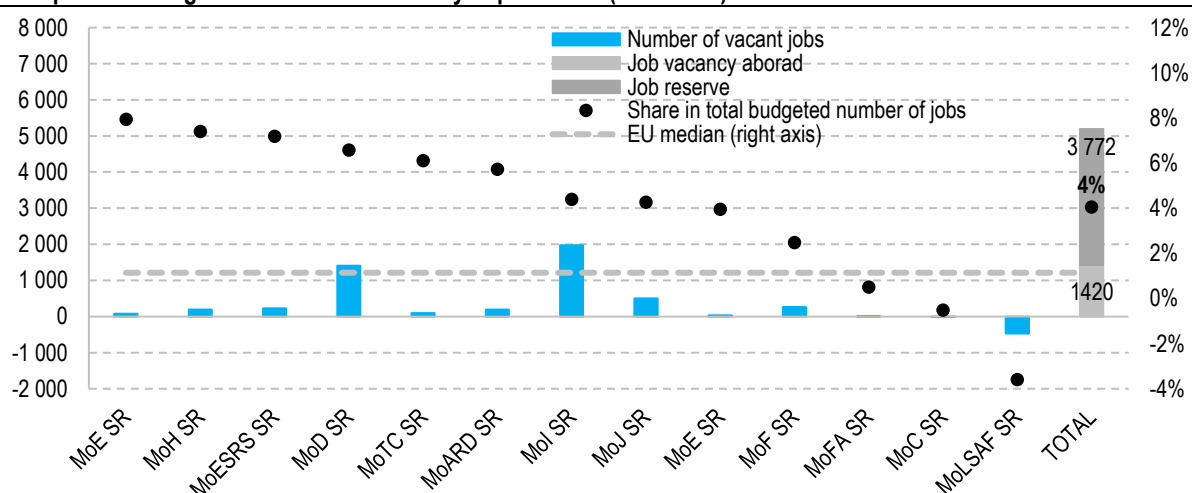
Graph 40: Average vacancy rate in the general government, in %, 2011-2018



Source: Eurostat, Prepared by VFM

In 2011-2018, the number of vacancies at ministries and other central government authorities (budget chapters) was 5 thousand from 128 thousand of budgeted vacancies. Most of the vacancies are police officers and soldiers. From the 4% vacancy rate in the general government, 95% are positions budgeted in budget chapters, which remained unfilled.⁸⁵ Over a long time, more than a half of all vacancies in the central government are police officers and soldiers, in 2018 the number of vacancies was 3.6 thousand from all 6.7 thousand of vacancies.

Graph 41: Average number of vacancies by departments (2011-2018)



Source: BPS MoF SR, Eurostat, Prepared by VFM

⁸³ Labour Force Survey, Job Vacancy Statistics, Available online: <https://ec.europa.eu/eurostat/web/labour-market/job-vacancies/database>

⁸⁴ General government as a NACE sub-category is a narrower concept than the definition of the general government sector under ESA 2010 (defined in Box 3), which includes, in particular, clerks and armed force, excluding education and healthcare.

⁸⁵ In 2011-2018, the vacancy rate in the general government sector was the highest vacancy rate from all sectors in Slovakia. On average, it exceeded the national vacancy rate 4.8 times, and the median rate 5.2 times.

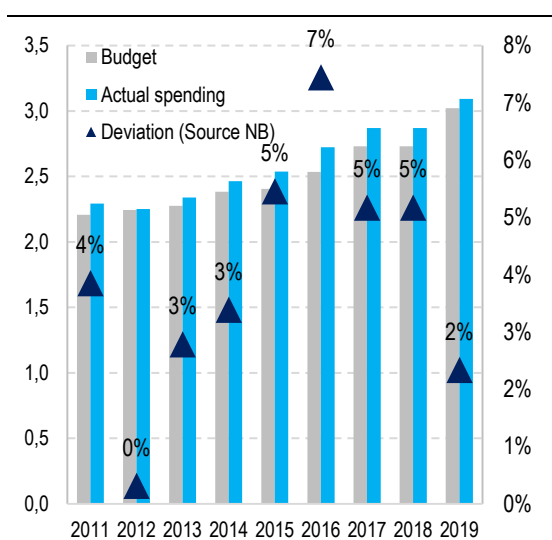
Vacancy rates at nearly all ministries are higher than usual vacancy rates abroad. The long-term high vacancy rates are, in particular, at the Ministry of Interior (2 thousand jobs, 4% of the planned number) and Ministry of Defence (1.4 thousand jobs, 7% of the planned number). An above-average vacancy rate is at the Ministry of Environment SR (81 jobs, 8%) and the Ministry of Health SR (192 jobs, 7%). The planned number of jobs was exceeded at average extent by the Ministry of Labour, Social Affairs and Family SR and the Ministry of Culture SR (Graph 41). **Long-term planning of higher number of filled vacancies and, at the same time, spending funds planned for the vacancies distorts information about actual employment and average wage spending.** In 2018 bolo the budget chapters included 6.7 thousand of vacancies. These vacancies accounted for 5.3% of all positions with compensations based on pay scales and financial coverage of approximately EUR 106 mil., and in 21 chapters the vacancy rate exceeded 5%. **Cancellation of all vacancies above 5%** of total number of planned positions, with retaining the planned amount of funds (EUR 28 mil.) would result in reduction of the number of pay scale positions by 1.1 thousand and increase in the budgeted average wage by EUR 140.

4.3 Budgeting the spending on compensations

In 2011 - 2019 total actual spending on compensations⁸⁶ were reliably budgeted⁸⁷, the deviation from the budget was, on average, 4% (EUR 100 mil. yearly) (Graph 42)⁸⁸. However, high vacancy rates, not budgeting wages from EU funds and other changes over the year result in considerable changes in the structure of spending on compensations after approval of the budget.

Average earnings of employees at headquarters of ministries are usually by 25% (EUR 420 in 2018) higher than budgeted. Actual average earnings of employees at headquarters (mostly headquarters of ministries) are 93% equivalent to average earning of tertiary educated employees working in Bratislava, although the planned amount is just 74% of the average.

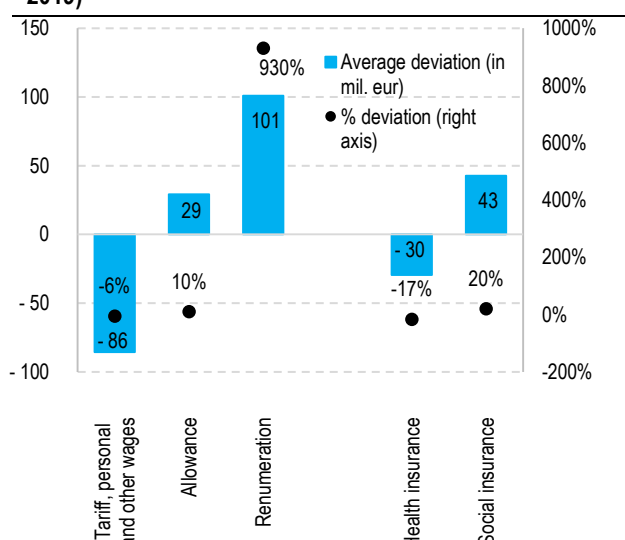
Graph 42: Budgeted and actual spending on compensations, in EUR bn and %



Note: This includes only expenditure from the government budget.

Source: MoF SR

Graph 43: Average deviations of expenditure components from the budgeted spending, in EUR mil. and % (2011-2019)



Source: MoF SR, Prepared by VfM

⁸⁶ Economic Classification of Budget Classification (ECBC) items being a part of compensation of employees under ESA 2010. For detailed breakdown see Annex 3.

⁸⁷ Most of the increase is explained by valorisation, which is applied on non-wage items of the approved budget. Under foreign standards (PEFA Framework for Assessing Public Financial Management) a 5 % deviation of actual expenditures from the budget is regarded as a reliable budget.

⁸⁸ Spending financed from the government budget, excluding EU funds, co-financing and other sources.

More than a half of total increase of the average wage are wages paid from the EU funds. These amounts are not budgeted, a part of them is only included in the adjusted budget in January. These are mainly salaries of the staff involved in implementation of operational programmes (so-called administrative capacities).⁸⁹ The Budget Policy Section at the MoF SR declares a high administrative complexity of budgeting of these funds, with relatively small benefits (on average, a 3% share in the wage envelope). Mainly headquarters of ministries largely contribute to the inaccuracy, as they increase the average wage spending by 10% (EUR 165) compared to the budget.

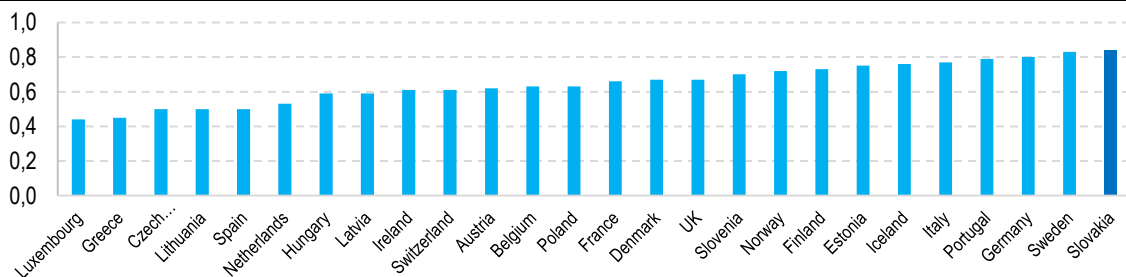
One fourth of total increase are funds planned for vacancies. Another one fifth are changes resulting from valorisation or financial incentives⁹⁰. During the past three years, the share of not budgeted funds has been growing in consequence of higher contribution of the valorisation and the presidency of the Council of the EU. Yet, valorisation could be budgeted in a more transparent way if collective bargaining is limited in time, for example by establishing a statutory deadline for finishing collective bargaining before the deadline for approval of the draft general government budget by the Slovak Government.

Major changes in the structure of spending result from non-budgeting of items which are historically paid. A strong growth was seen mainly in bonuses, which varied from the approved budget 10-times on average (+EUR 100 mil. yearly) (Graph 43), however, in the long term, bonuses are budgeted at only 0.5% of total budgeted wage compensations. Bonuses are financed from funds saved from vacancies. Another declared source are savings from sickness absence of employees; nevertheless, this source of finance is not fully controlled by the employer. Moreover, the analysis at the MFSR headquarters indicates that approximately 20% share of the spending on bonuses is non-critical.

4.4 HR management in the general government

One of the key challenges in human resources management is the extent and the method of centralisation and coordination. A higher centralisation rate may encourage non-discrimination, equal treatment approaches and principles, while decentralization brings higher freedom in management and better targeting on needs of each specific institution. The scope and level of delegation differs from country to country. Over the long time, Slovakia belongs to countries with a high level of delegation, except for short existence of the Civil Service Authority, the objective of which was to establish a uniform and central coordination of civil service, in nearly all areas of HR management. **In 2017, the extent of delegation partly decreased after adoption of the new Act on Civil Service, which has brought a change encouraging centralisation of certain institutes and unification of rules.**

Graph 44: Extent of delegation of HR management in the general government in selected countries (index, 2014)



Source: Government Office SR (2017) based on OECD Stat.⁹¹

⁸⁹ Despite strong impact at the headquarters level, EU funds cover only a small percentage of total wage envelope (3%, on average) in the government budget. Their detailed budgeting could excessively increase the administrative burden of budget preparation considering the relatively small resulting benefits.

⁹⁰ Funds earmarked for retaining the existing employees, i.e. for bonuses and personal allowances.

⁹¹ The data are results of OECD survey carried out in 2010 - 2016, and a selected list of countries was used for this purpose. In the survey, OECD does not distinguish between civil service and public service. The data illustrate the condition from the period when Act

Strategic management and planning of human resources, based on qualified evidence and data, **is the key coordination processes**. Strategic management translates organisations' strategies into requirements for HR management. Changes in public policies (digitalisation of processes) or trends (e.g. ageing) influence the number and profile of employees needed by the state and each specific organisation. Human resources planning includes forecasting of the number of necessary employees for various professions, or support to attracting necessary professions (hard planning). HR planning at micro level may involve planning and deployment of employees in (soft planning).

Strategic management and planning in Slovak civil service is further decentralized, even after unification of rules in a number of areas⁹². Thus, the civil service lacks long-term planning of headcounts, consistency analyses and analyses of horizontal conformity of various pay regulations, leadership management (programmes for talents) and career management between service offices, or other complex issues also mentioned in the spending review (regional pay system, organization of collective bargaining, etc.).

The solution is proposed in the Strategy of HR Management in Civil Service for 2015 – 2020, which aims for development of mechanisms for a data-based central coordination. The Strategy proposes that the central level defines long-term human resources requirements for public employment, methods and procedures of hiring and management (pay, incentives, development, talent management, etc.) and that service offices are left with discretion and responsibility for soft management elements. For a comprehensive HR management at the general government level, it would be advisable to include in central coordination also employees working in public interest, and/or employees paid under special regulations.

No. 400/2009 Coll. on Civil Service was in force. The Act left service offices with competence and considerable level of competence. In 2017, new legislation brought more strict rules and it can be assumed that compared to other countries, Slovakia's current level of delegation is not that high.

⁹² Autonomy of offices is now lower, e.g., as to the organisation of tenders, performance appraisals or disciplinary proceedings.

5 Potential savings in selected areas

5.1 Support and cross-cutting activities in central government

- In 2017 central government authorities and their subordinate organisations spent nearly EUR 150 mil. on support and cross-cutting activities, and one in every five employees were involved in those activities.
- The analysis was focused on headquarters of ministries and the Government Office, including their subordinate organizations.
- The spending on the analysed activities carried out by headquarters of ministries and the Government Office, including external costs, was EUR 54 mil., and one in every three employees were involved in these activities.
- Irrespective of the size, subordinate organisations must ensure similar support and cross-cutting activities as central government authorities. In the analysed organisations, 14% of employees are involved in performance of support and cross-cutting activities with estimated cost of EUR 41 mil. yearly.
- There is an opportunity for optimisation in this area, as relative expensiveness of similar activities in organisations differ. The identified short-term potential savings⁹³ in analysed authorities is EUR 18 mil.⁹⁴, and another EUR 11 mil.⁹⁵ could be saved in subordinate organizations.
- A part of the savings can be achieved quickly and higher effectiveness on a long term basis can be achieved through departmental or national centralisation of support services.
- Several wage and organisation audits at ministries proved existence of a saving potential at personnel costs although the proposed measures have not always be implemented.

Process optimization under existing structures

Support and cross-cutting activities⁹⁶ play basic functions in operation of the office inwards, and operation of the office with other authorities of the state and the foreign countries. While majority of employees at ministries and the Government Office SR perform activities specific for the organization, support and cross-cutting activities are identical across various types of organisations⁹⁷. Their repeated occurrence enables comparing offices by efficiency. For that purpose, support and cross-cutting activities have been mapped and compared at 12 central government authorities⁹⁸ (Box 10).

Box 10: Approach to comparing expenditure on support and cross-cutting activities

In the first step, support and cross-cutting activities were identified, and then 80 activities were divided into 11 areas (e.g.: human resources, IT, internal administration). Calculation of the potential is based on 73 activities in 8 areas. Excluded were areas where consistent data have not been collected.⁹⁹ The exclusion resulted in reduction of total expenditure on support activities from EUR 58 mil. to EUR 54 mil.

As a part of the revision, collected were data from 12-14 addressed central government activities (13 ministries and the Government Office) about numbers of FTEs, wage costs and bonuses and expenditure on externally

⁹³ Savings in this chapter are denominated in prices / costs of 2017.

⁹⁴ In prices / costs of 2020, approximately EUR 14 mil. in prices of 2017.

⁹⁵ In prices / costs of 2020, approximately EUR 8.5 mil. in prices of 2017.

⁹⁶ For overview of support and cross-cutting activities see Annex 15.

⁹⁷ HR-related activities, activities related to IT, internal administration, public procurement, financing and budgeting, law and legislation, international relations, public procurement, or offices of state secretaries and ministers.

⁹⁸ This analysis was carried out by the Value for Money Unit based on data collected from April 2018 to September 2018. Subject to the analysis were ministries and the Government Office SR including their subordinate organizations.

⁹⁹ For overview of excluded activities see Annex 15.

procured services. The collected data were validated by the authorities. No data were submitted by the Ministry of Interior and the Ministry of the Environment.

Potential savings have been quantified for each organization and area separately. The potential savings for each office was determined as a difference between the office's relative expensiveness compared to the second best office of the reference group (office with second lowest relative costs). The offices were divided into two reference groups by number of employees.

Comparability of the offices was achieved by standardization. When comparing expensiveness, the basic standardization rate takes account of the size of offices. A detailed normalisation would enable calculation of expensiveness of the selected areas based on the size of the budget or number of outputs (e.g. number of legal disputes or public procurements). The analysis does not take account of differences in complexity and quality of work performed by individual offices. The potential also depends on quality of data, correct classification of employees and spending on support and cross-cutting activities.

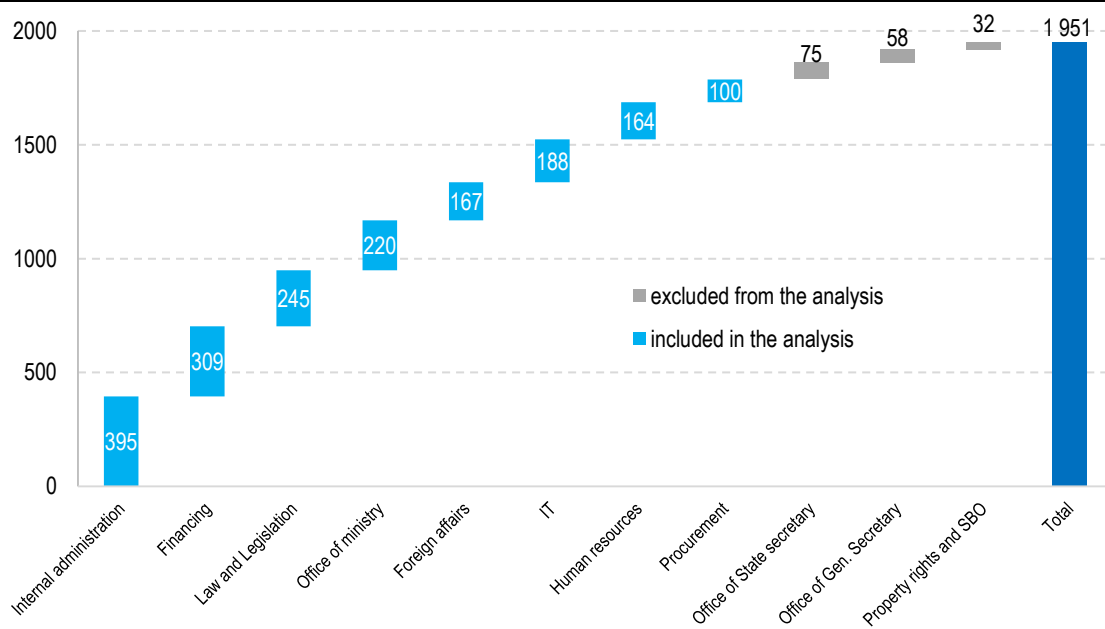
Classification of organisations in size categories

Large organisations										Small organisations			
MoARD	MoF	MoE	MoTC	MoLSAF	MoESRS	MoD	Mol	MoFEA	MoEnv	GO SR	MoJ	MoH	MoC

Source: VFM

In 2017, nearly 6 thousand employees were working at headquarters of ministries (excluding Ministry of Interior SR and the Ministry of Environment SR) and the Government Office SR. Almost one in every three employees in the monitored organizations worked at support and cross-cutting activities, most of them were in internal administration, financing and law and legislation (Graph 45). In 2017, expenditure for the analysed support and cross-cutting activities were EUR 54 mil., including wage expenditure including bonuses, and costs of Temporary job contracts (working by agreement) and external services.

Graph 45: Employees performing support and cross-cutting activities at central government authorities (12 authorities, 2017)



Note: Excluding authorities, which at the time of writing the report did not submit complete data (Ministry of Interior SR¹⁰⁰ and Ministry of Environment SR). FTE- full-time equivalent

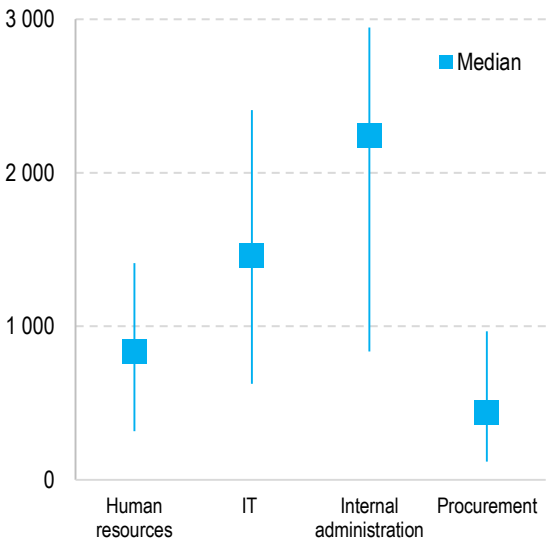
Source: VFM

¹⁰⁰ This will be subject to the following Spending Review of the Ministry of Interior SR, which will be focused on efficiency in the department.

Total expenditure for support and cross-cutting activities standardised per number of employees or office show high variability. Variability between authorities indicates that there is a room for reduction of costs by optimisation of processes. The largest variability is in internal administration, the difference between maximum and minimum expenditure of ministries per one employee is more than 350% (Graph 46).

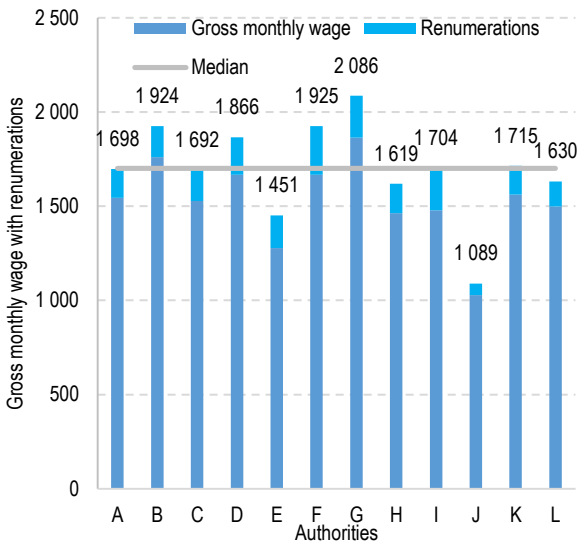
Median gross wage with bonuses in support and cross-cutting activities is EUR 1,700 (Graph 47). Higher wages, however does not have to mean higher wage expenditure on support activities. The differences in expenditures are caused by factors such as size of the office or outsourcing. Moreover, authority with smaller number of more skilled and better paid employees in support activities can have lower total personnel costs than an authority with higher number of less paid employees.

Graph 46: Total annual expenditure on support activities per employee (EUR)



Source: VfM

Graph 47: Average monthly gross wage (including bonuses) per employee at support activities (2017; EUR)



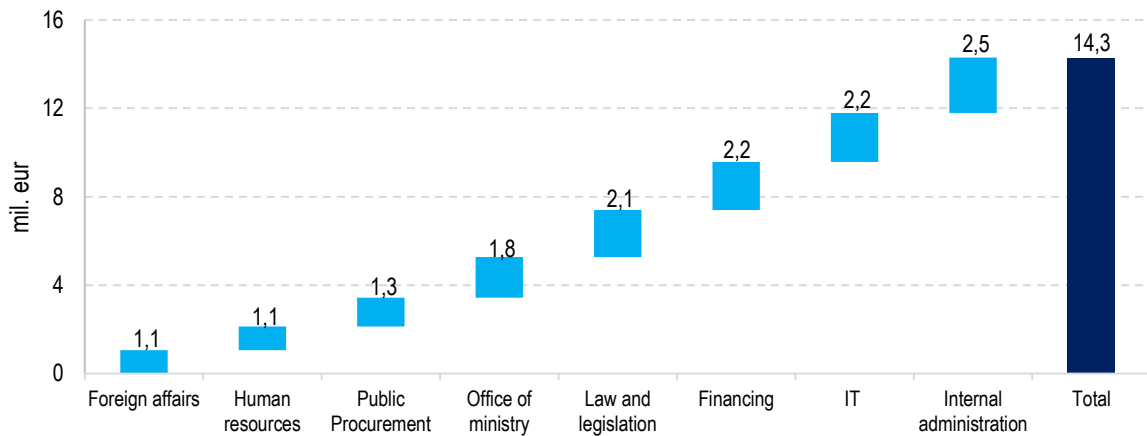
Source: VfM

More than one third of total expenditure on support and cross-cutting activities (EUR 14 mil. in 2017, EUR 18 mil. in prices of 2020) are potential savings in monitored headquarters of ministries and the Government Office SR (Graph 48). Reduction of expenditure to the level of the second most efficient ministry¹⁰¹ would result in 27% savings in spending on support and cross-cutting activities. The savings are similar to international results in optimisation of expenditure on support services (Box 13). Reduction of expenditure to the level of the median authority would bring savings of EUR 8.5 mil.¹⁰² (12% spending on support and cross-cutting activities).

¹⁰¹ Factors having impact on expensiveness, however are not reflected in this analysis, include complexity of processes at the authority, higher demand for services in certain areas (e.g.: higher median activity of the office), or quality of provided services. Additionally, this comparison does not include the private sector and the values elected as the target (benchmark) are values already achieved in the public sector, without expectation of any additional improvement.

¹⁰² In prices/costs of 2020, approximately EUR 6.5 mil. in prices of 2017.

Graph 48: Potential savings in support and cross-cutting activities in 12 central government authorities (2017)



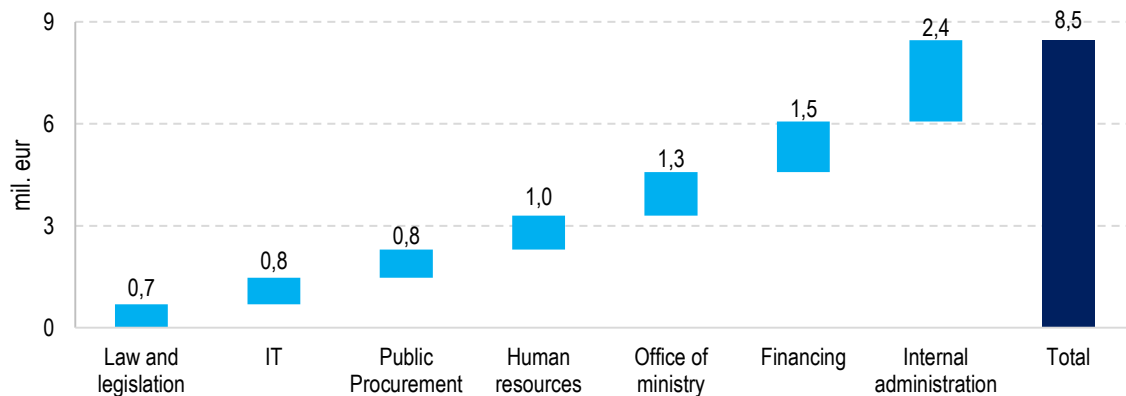
Note.: Authorities, which during preparation of the report did not supply complete data (Ministry of Interior SR, Ministry of Environment SR) were excluded.

Source: VFM

Optimization in budgetary and subsidiary organisations

Preliminary results show that the potential of savings is approximately 21% of total spending on support and cross-cutting activities (EUR 11¹⁰³ mil.) including in subordinate organisations. The spending review based on collected questionnaires estimates that expenditure on support and cross-cutting activities in subordinate organisations of 12 monitored authorities¹⁰⁴ amount to EUR 41 mil. and 14% of employees are involved in carrying out these activities.¹⁰⁵ Similarly to central authorities, preliminary results from cost analyses in subordinate organisations indicate that there are considerable differences from organisation to organisation. There is a notable trend of higher relative expenses on support and cross-cutting activities in smaller organizations. After achieving efficiency of median organisation in the given size group¹⁰⁶ the savings would be 21% of current total expenditure on support and cross-cutting activities (EUR 8.5 mil. in 2017, Graph 49).

Graph 49: Potential savings in support and cross-cutting activities in analysed budgetary and subsidiary organisations (EUR mil., 2017)



Source: VFM

¹⁰³ In prices/costs of 2020, approximately EUR 8.5 mil. in prices of 2017.

¹⁰⁴ The analysis included associate organizations of the Government Office and all ministries, excluding subordinate organizations of the Ministry of Interior SR and the Ministry of Environment SR and budgetary and subsidiary organisations with a branched structure.

¹⁰⁵ Information resulting from analysis carried out by the Value for Money Unit based on data collected between April 2018 to September 2018.

¹⁰⁶ The procedure in calculation of the savings was similar to the one used for central government authorities (Box 11). For comparability reasons, the organisations were segmented into three groups by number of employees (less than 50, 50-249, more than 250 employees).

Optimisation approaches

High variability of spending on support and cross-cutting activities and their similarity across organisations indicate the potential for optimisation of spending for these service. Identified were three basic and complementary approaches:

1) Optimization of support and cross-cutting activities under the current organization setup. The performed analysis of organizations identified potential savings in certain support and cross-cutting services. The method of achieving the potential is left at the discretion of the organization, examples include reduction of staff and their compensations, or better decisions in internal or external provision of services. The analysis however, does not assume any major changes in the organisation structure of the budget chapter (consolidation of offices, etc.). Further details about ways of achieving the savings can result from audits of organisation and process audits and/or wage audit.

Box 11: Performed optimisation audits

Optimization audit is a standard tool for increasing efficiency and quality of organizations. The objectives of the audit include process mapping, employment analysis followed by optimisation of the method of provision of any given activity rather than weakening of the activity. The audit evaluates the job responsibilities and complexity of work to identify problem processes and to propose measures for increasing efficiency in use of human resources, including temporary job contracts (work by agreement). Efficiency can be increased by reconsidering of supplier contracts or digitalization of activities, provided that it is preceded by optimization and the declared savings are achieved.

In the past, similar audits have been performed at the Ministry of Finance SR, Ministry of Culture SR, and the Ministry of Defence SR, with various level of implementation and sustainability of results. Analysis of operation was local rather than directed inwards and, as a rule, carried out by external suppliers. Above-departmental exemptions are activities of the Ministry of Interior SR focused on optimization of life situations or Ministry of Finance SR building the Central Economic System.

List of wage and process audits at ministries since 2004¹

Organization	Audit since 2004	Planned savings and selected recommendations	Implementation results (6 months after accepting the report)
Ministry of Finance (MoF SR)	Yes (2003)	Reduction by 314 FTE (37%) at the office	Fully implemented, savings achieved through basic and process optimisation. Funds used for wages.
	Yes (2007)	Reduction by 98 FTE (14%) at the office	
Ministry of Transport and Construction (MoTC SR)	Yes (2004)	Reduction by 17.3% FTE at the office	
Ministry of Defence (MoD SR)	Yes (2005)	Reduction by 609 FTE (23%) at the office and part of the budget chapter	Partly implemented (reduction by 7.6% FTE) through establishing centres of support services for IT, asset management, procurement, transport, legal services.
Ministry of Education (MoESRS SR)	Yes (2007)	Reduction by 349 FTE at budgetary and subsidiary organisations (21%)	
Ministry of Health (MoH SR)	Yes (2007, 2009)	Optimization of processes and the institutional structure in selected budgetary and subsidiary organisations (potential savings EUR 12-34 mil.)	

Ministry of Culture (MoC SR)	Yes (2008)	Reduction by 906 FTE (25%) within the budget chapter Establishing centres of support services	Partly implemented (reduction by 9.3% FTE), savings achieved through basic and process optimisation. No centres of support services were established
Ministry of Interior (Mol SR)	Partly (2018)	Mol SR planned to perform an internal audit of selected civil sections of the Ministry of Interior SR. The goal of the audit was to explore the existing processes including their resource intensity and to propose optimisation measures.	Audit still pending. The activity is still pending. Audited were district authorities which is the major part of the civil agenda of the department, and then it continued in support centres and in the Integrated Rescue System under the Crisis Management Section. The remaining parts are scheduled for the following period.
Government Office SR	Yes (2019)	Reduction by 45 FTE (8%) Outsourcing of servicing or performance units	At the date of this report (2020), implementation of the measures was not decided.
¹ Ministry of Economy SR, Ministry of Agriculture SR, Ministry of Foreign Affairs SR and Ministry of Environment SR did not submit information about wage and process audits; and no wage and process audits have been carried out at either Ministry of Labour SR or Ministry of Justice SR.			

2) Centralization of support and cross-cutting activities into departmental service centres combines optimisation of processes with principal changes which require cooperation between organisations. Foreign experiences¹⁰⁷ show that there is a potential to reduce the existing expenditure by 15-20% compared to the pre-optimisation condition. Similar results have been proven by examples of centralization of support activities in private sector in the Czech Republic and Slovakia¹⁰⁸. An integral part of this potential are the savings already achieved through optimisation at authorities itself. Besides economies of scale, gradual delegation of selected activities of subordinate organisations to authorities within the department would bring increase in efficiency and quality of provided services. Activities that are fit for centralization¹⁰⁹ include HR management, financing, legal services, public procurement, internal administration and IT.

Box 12: Centralization of support and cross-cutting activities in Slovakia

Centralization of financial security authorities of the Ministry of Interior resulted in reduction of expenditure and lower error rates in financial reporting. This is one of the first attempts of centralization of support services. In 1997, the Ministry established financial security authorities, 20 authorities were consolidated into one office and three branches. The office performs accounting activities for the whole Ministry of Interior SR. The number of employees was over time reduced from 300 to 120, thereof approximately 44% working outside Bratislava.

Almost a third reduction of employees was achieved through centralization of support services of the Ministry of Interior SR, through establishing Support Centres in 2015. Support Centres have regional competence and perform support activities such as HR management, accounting, budgeting or material and technical support for the police, fire and rescue forces, district authorities and establishments of the Ministry of Interior. Besides reduction of the number of employees, centralisation brought also other synergic effects in procurement of goods and services, accounting and financial management.

¹⁰⁷ State Shared Service Centre in Bulgaria.

¹⁰⁸ PwC.2014. Shared service centres 2014 – Moving towards Centres of Excellence.

¹⁰⁹ State Shared Service Centre in Estonia; Central Office of Labour, Social Affairs and Family (ÚPSVaR); Optimization of support activities of Ministry of Interior SR; PwC. 2019. Review of DataCentrum Budget Unit in Slovakia.

3) Foreign experience¹¹⁰ shows that establishing national common centres of support and cross-cutting activities would enable savings as high as one third of expenditure on activities which are fit for centralization. Similarly to departmental centres, national centralization can also bring economies of scale and improvement of quality of provided services. Provision of support services through national service centres would bring additional increase in efficiency through standardisation of processes, higher transparency of expenditure and better collection of data for managerial decisions. The pilot project could involve centralization of support and cross-cutting activities of three ministries with highest relative expenditure into the Ministry of Finance.

One of the first steps to centralisation of critical and complex activities is centralisation of complex litigations held against the Slovak Republic at one central government authority. A prerequisite to the above-mentioned step is resolution of the Government¹¹¹, instructing the Ministry of Finance SR to analyse litigations held against the Slovak Republic. The data resulting from the analysis will be the basis for preparation of central register of legal disputes, aiming for better coordination and early detection of complex disputes. Conclusion of the prepared task will be the basis for the specific form of centralization in management and prevention of legal disputes against the Slovak Republic.

Box 13: Centralization of support and cross-cutting activities abroad

Spending on support and cross-cutting activities can be reduced by centralisation of services. Several countries have already established shared service centres, e.g. Estonia, Bulgaria, UK or the Netherlands. It should be noted, however, that centralization changes the organization structure and delegates certain competencies outside the ministry.

Since 2013, Estonia saved nearly a third of their spending through centralization of two areas. Payroll accounting and human resources management were centralized in 2013. Since then, Estonia reduced their spending by 30% and obtained better information about employment. Centralisation was motivated by higher transparency of spending on employees, lower expenditure on support services and unification and improving quality of provided services.

Centralization started by unification of the information system, and the across-the-border solution was only implemented after validation of benefits. The consolidation of IT systems was followed by consolidation of professional services within ministries and then by sharing. At the beginning, involved were only four departments, for other ministries the involvement was optional. After benefits and quality of services were validated, participation is mandatory for all ministries.

Estonia used a part of the saved expenditure for improvement of working conditions and for raising salaries. Estonia has already centralized other support activities in the general government (a part of IT and asset management). Forward planning considers centralization of procurement and employee trainings. As many as 60% of staff working at shared service centres work outside the capital, i.e., at lower labour costs.¹¹²

Organizations which have already underwent centralization agree that one of the basic preconditions to successful centralization is standardization of processes and unification of information systems. In Slovakia, this role could be played by the project of reform of the support economic agenda of the government – the Central Economic System (CES) of the Ministry of Finance SR. The CES Project assumes centralisation of externally provided services with the aim to unify activities of ministries and their subordinate organisations, in

¹¹⁰ State Shared Service Centre in Estonia.

¹¹¹ Prevention and management of legal disputes against the Slovak Republic – underlying assumptions available online: <https://rokovania.gov.sk/RVL/Material/22980/1>.

¹¹² Information provided by the State Shared Service Centre in Estonia.

particular, in economic agenda. Thus, it is a prerequisite to centralisation of other governmental activities (Annex 16). The civil service central information system interlinked with the CES is also expected to further simplify the activities. It is expected to contribute to standardization of processes in support and cross-cutting activities such as employee records or selection procedures.

Table 12: Possibilities of optimization of support and cross-cutting activities

	Optimization: current institutional setup	Departmental service centres	State service centres
Term and complexity of implementation	1 year Lower intensity	2-3 years Medium intensity	3-5 years Higher intensity
Necessary investment		Necessity of in-depth analysis of processes Consolidation of IT systems Staff trainings Security of premises	Necessity of in-depth analysis of processes Consolidation of IT systems Staff trainings Security of premises
Assumptions	Identification of possibilities of optimization (audit) Decision about the manner of cost reduction under competence of offices	Optimization and standardization of support activities within department	Optimization and standardization of support activities Unification of support processes and the information system for selected activities (CES) Necessity to appoint the organisation in charge
Drawbacks	No improvement of efficiency of provided services (in case of optimization without modification of processes)	Cultural complexity of the change	Cultural complexity of the change Complexity of transformation
Benefits	Costs reduction (12-27%) Promptness of implementation	Cost reduction (10-20%) -reduction of number of employees -economies of scale possibility to place the centres outside the capital, to regions with lower labour costs Increasing efficiency and quality of provided services -elimination of double activities -concentration of innovations, skilled employees and management -focus on performance of core activities	Cost reduction (30%) - reduction of number of employees - economies of scale possibility to place the centres outside the capital, to regions with lower labour costs Increasing efficiency and quality of provided services - elimination of double activities - concentration of innovations, skilled employees and management - focus on performance of core activities -standardization of processes Better data collection -higher transparency of expenditure -better quality of data for managerial decisions

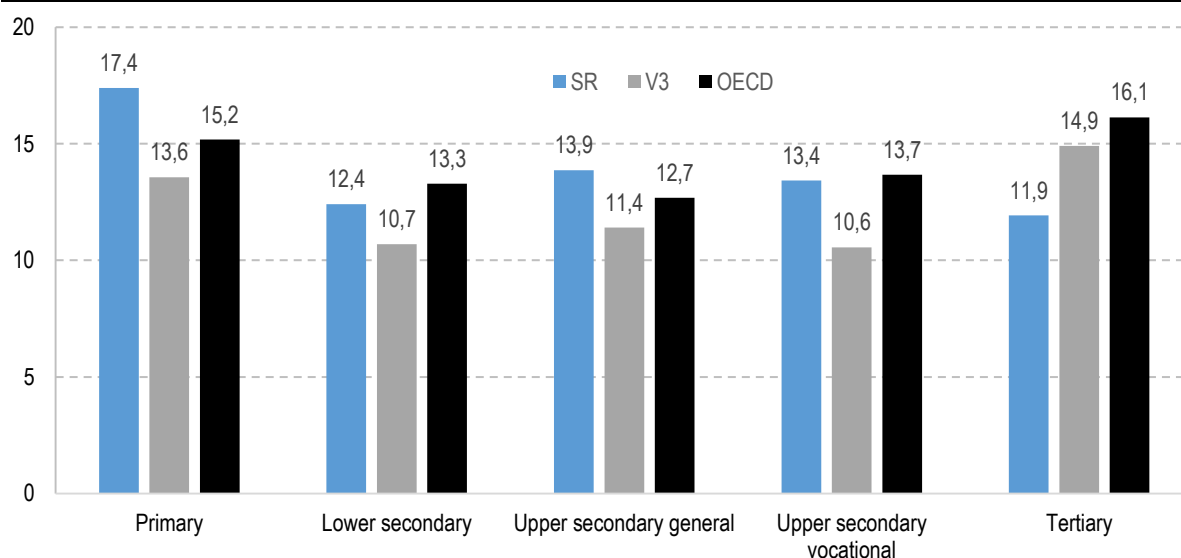
Source: Prepared by VfM based on: Deloitte(2015), Optimization of Support Activities of the Ministry of Interior SR; Shared Service Centre Republic of Estonia; Bulgaria Shared Service Centre; Paagman (2012); PwC (2019)

5.2 Education

- Over the past few years, teachers' salaries have been growing faster than salaries of other public employees, however, they still lag behind the international standard. The most lagging are salaries of young teachers and salaries of teachers at upper secondary schools with general programmes.
- The network of schools is less efficient than it used to be in the past and a large number of small schools commits financial funds and leads to lower proficiency of teaching. Optimization of the network can release EUR 17 mil. in regional school system yearly, thereof approximately 87% are wages.
- Teachers' earnings are not properly linked to quality of teaching. Measures recommended by the education spending review in this area have not been adopted so far.
- International comparisons show that Slovakia has too many university teachers. The number of university teachers and the number of other employees in tertiary education system are just slowly getting in tune with the falling numbers of students. Tertiary education institutions should make use of the favourable situation at the labour market to match the number of their employees with the lower number of students.
- Achieving the student-teacher ratio similar to the Czech Republic and adjusting the number of non-teaching employees to the existing number of students would release approximately EUR 91 mil. yearly from spending of tertiary-education institutions.

Slovak education sector employs approximately one in every three public employee and pays approximately one third of public spending on wages. In 2018, the education sector was employing more than 90 thousand teaching and professional staff, 10 thousand of university teachers and researchers and 50 thousand non-teaching employees. From international comparison, employment in the entire education sector is on an average level (Graph 11), but the distribution between education levels is different. Compared to OECD countries, Slovakia's student-teacher ratio in lower, mainly at universities, and considerably higher in primary education and at upper secondary schools with general programmes (Graph 50).

Graph 50: Student-teacher ratio, international comparison (2017)



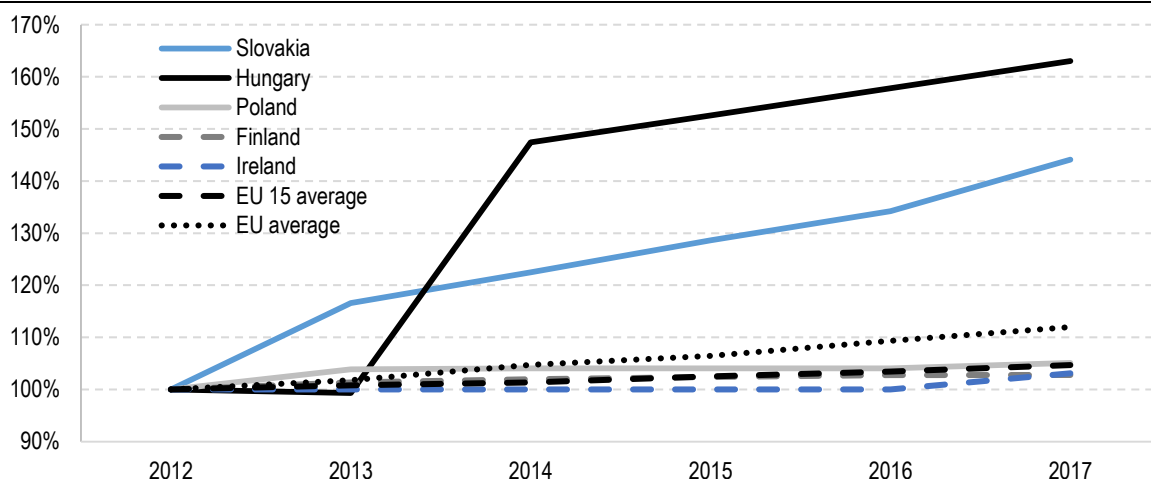
Note: The data for the universities mean number of students per teaching staff

Source: OECD 2019

Although over the past few years Slovak teachers' salaries have been increasing, international comparisons show that Slovak teachers still earn less than their peers abroad. In Slovakia, teachers' tariff salaries were growing faster than in EU countries: from 2012 to 2017 the salaries increased by approximately 44%, while the EU average (for

available data) was 12%. Over the same time, in Slovakia earnings of tertiary educated employees increased by approximately 20%, and thus earnings at Slovak primary and secondary schools were equivalent to 65% of salaries of tertiary educated employees. After salaries increase by 10% in 2019 and 2020, the nation-wide average is expected to be approximately 68% equivalent to earnings of tertiary educated employees. In V3 countries teachers earn, on average, more than 70% and in OECD and EU22 between 85-100% equivalent to earnings of tertiary educated employees, and over the past years, in V3, OECD and EU22 the percentage is growing.

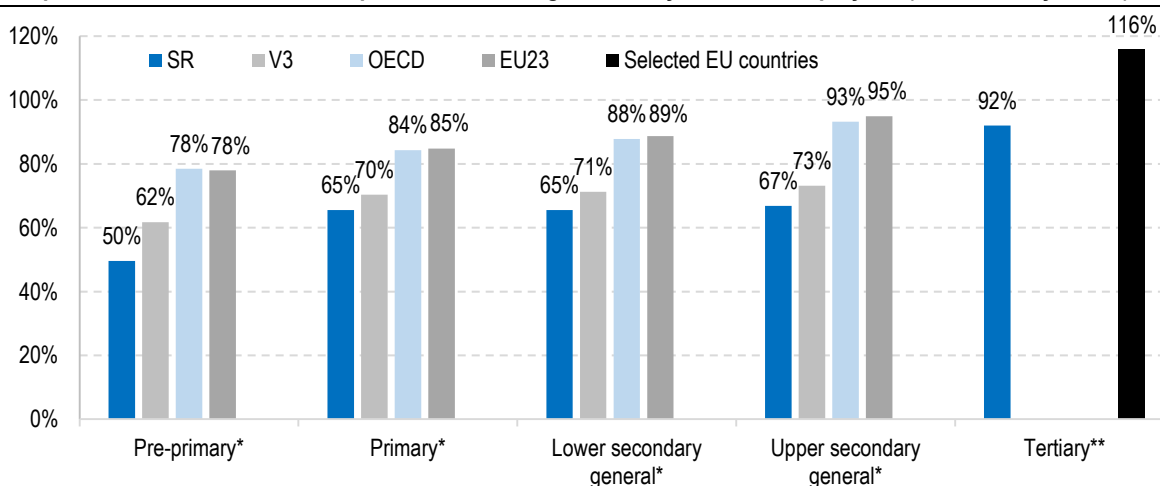
Graph 51: Growth of teachers' tariff salaries in EU countries



Source: OECD

International differences in teachers' salaries are the largest for teachers in pre-primary education (Graph 52), however, in most countries tertiary educational attainment is required for pre-primary teachers (minimum Bachelor's degree, while in Slovakia upper secondary education is acceptable). There is no detailed international comparison of university teachers' earnings, however, Eurostat's Structure of Earnings Survey shows that earning in Slovakia are lower at this education level as well.

Graph 52: Teachers' salaries as equivalent to earnings of tertiary educated employees (2017, Tertiary - 2014)



Source: *OECD, 2019, ** Structure of Earnings Survey (SES) SES

Strong performers in the last PISA testing, such as Estonia, Finland or Poland, pay their teachers better than Slovakia (Graph 53). Salaries of Slovak teachers are catching up with earnings of other tertiary-educated employees, however the pace is rather slow (Graph 39). Between 2010 and 2018, teachers' salaries in regional school system increased by approximately 47%, and university teachers' salaries increased by 39%. Over the same period, earnings of tertiary-educated employees in Slovakia increased by 30%. By contrast, Slovak students are

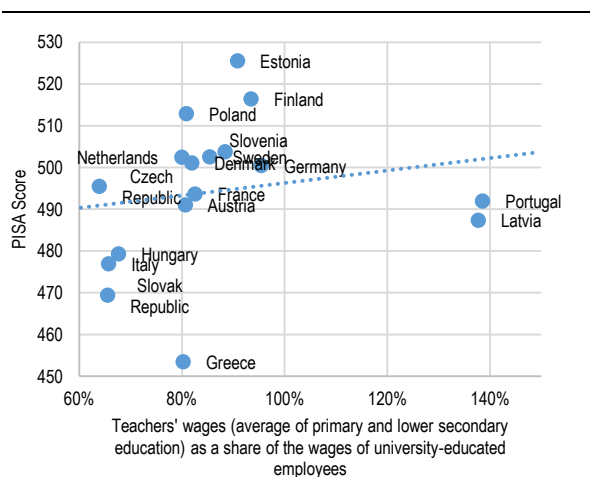
scoring worse in PISA testing. Nevertheless, examples from Argentina (Galiani et al., 2002) and other countries (Gillies, 2010) indicate that changes in education systems often become evident on later student cohorts.

In Slovakia, young teachers' salaries lag behind earnings of their tertiary-educated peers by much more than it is abroad. Teachers aged 25–34 years earn, on average, only 64% equivalent of earnings of their tertiary-educated peers, while the OECD average is 94% (Graph 54). Upper-secondary and university students and teachers involved in the survey¹¹³ also responded that they see low salaries as the major obstacle to attractiveness of the teaching profession.

There was a rise in young teachers' salaries from September 2019. The Education Spending Review (hereinafter only the "Spending Review") recommended a stronger rise in salaries of young teachers (IEdP, VfM, 2017). The measure was implemented effective from September 2019, however, even after the rise, Slovak young teachers still lag behind their peers abroad more than the other age groups.

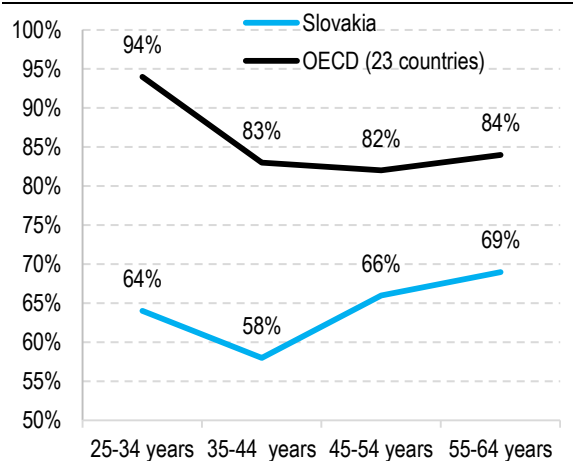
The key challenge for sustainability of the system is to attract smart fresh graduates to counterbalance the ageing of the teacher population. By 2030, it will be necessary to replace around 25 thousand teachers in regional school system, who are expected to retire (the estimate was made considering the decreasing number of students (Graph 16).

Graph 53: Teachers' salaries (2017) and the average scoring in PISA (2018)



Source: OECD, prepared by VfM

Graph 54: Primary school teachers' salaries as % equivalent to earnings of tertiary-educated employees, by age (% , 2017)



Source: OECD, 2019, IEdP

Regional school system

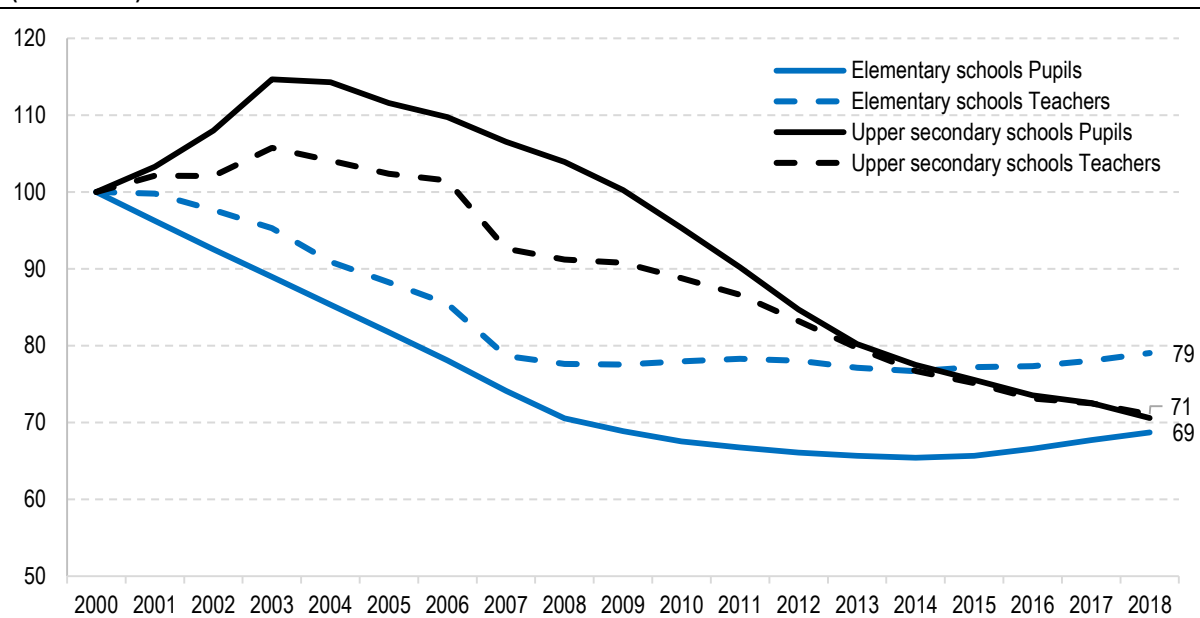
In consequence of the existing negative demographic trends and protection of small schools, the network of primary schools is less effective than in the past. While the number of basic-school¹¹⁴ students since 2000 dropped by 31%, the number of teachers decreased by approximately 21%. The network of upper secondary schools was adapted better, as the reduction in the number of teachers nearly matches the falling trend in students (Graph 55). One of the reasons for the uneven decrease is lower maximum limit for number of students in basic school classrooms and protection of small schools by increasing the normatives (per-student grant). Efficiency should be improved through introduction of minimum schools size limits for inclusion in

¹¹³ The respondents involved in the survey included 1 060 students leaving from upper secondary vocational schools and upper secondary schools with general programmes, 962 students of education study programmes and 1 075 students of non-teaching study programmes. A detailed analysis of attractiveness of teaching profession and results of the survey are currently prepared by the IEdP.

¹¹⁴ Basic schools provide primary and lower secondary education.

the school network and/or minimum number of students in a classroom¹¹⁵, however, there is a free system of exceptions and no sanctions have been defined. The efficiency of the school network is expected to get improved in the near future thanks to increase in the number of students¹¹⁶.

Graph 55: Trends in numbers of students and teachers at elementary and upper secondary schools (2000=100%)



Source: SCoSTI SR, VfM calculations

The government protects small elementary schools¹¹⁷ by compensation benefit, which is granted equally on primary-school and lower-secondary school students. However, availability of education in view of closeness to physical infrastructure is more important for younger students. The relevancy of the measure is disputable with respect to older students, in particular considering the fact that small schools appear to have lower proficiency at secondary education level (IEdP, 2016b). The problem is indirectly indicated by low scoring by pupils from small schools in certain years, although, the testing does not reflect, for instance the students' socio-economic background (IEdP, VfM, 2017).

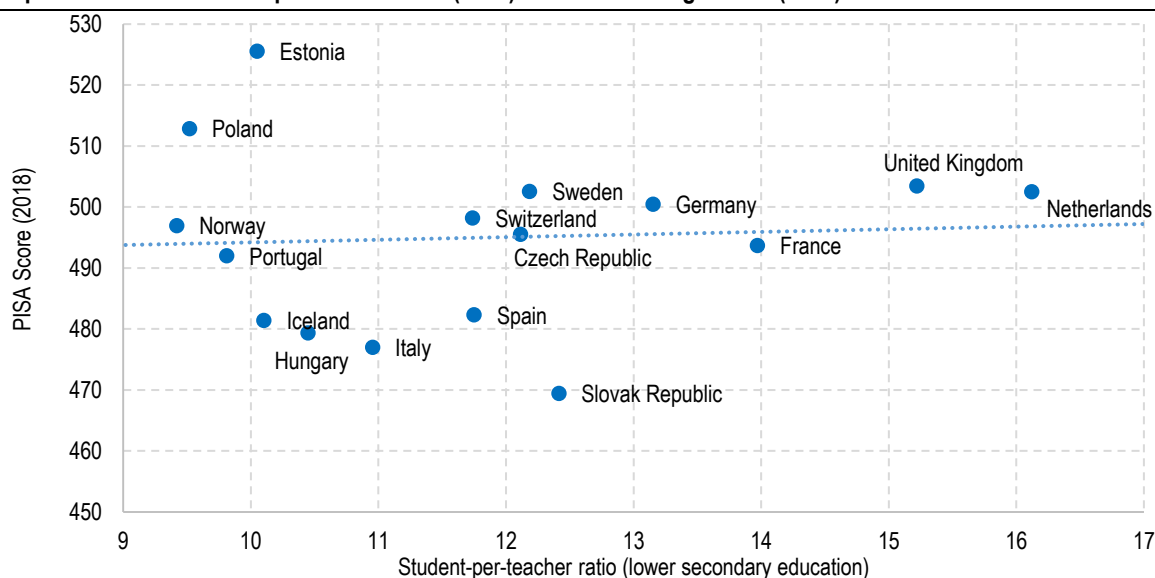
Rationalization of the school network may improve quality of education and, at the same time, release approximately EUR 14 mil. The spending review recommended that the Ministry of Education adopt measures to encourage rationalisation of the network. The Educational Policy Institute estimated maximum cumulative savings at approximately EUR 14 mil., thereof approximately 85% (EUR 12 mil.) are spent on wages. Pursuant to the 2018 Summary Implementation Report (IJ, 2019b) the Ministry of Education so far has not made any progress in this regard.

¹¹⁵ Under Art. 16(7) of Act No. 596/2003 Coll. on public administration in the school system and school self-government, when entering a school in the network, the Ministry of Education takes account of relevant and comprehensive deployment of schools and education facilities.

¹¹⁶ The Statistical Office of the Slovak Republic forecasted that over the next few years, the population of 6-14 year olds will be mildly growing over the next few years. The population of 15-18 year-olds will be growing in number with a mild delay. The positive demographic trend is already seen at primary schools and by 2023, average size of primary schools is expected to increase from the current 211 to 222 students. By 2023 the average number of primary-school students in a class is expected to grow from 18.5 to 19.4 and the students-per-teacher ratio is expected to grow from 13.9 to 14.5.

¹¹⁷ For quantification purposes, small schools are schools with less than 50 students.

Graph 56: National student-per-teacher ratio (2017) and PISA testing scores (2018)



Source: OECD, prepared by VFM

Low student-per-teacher ratio does not necessarily mean better results achieved by the students. Countries with higher student-per-teacher ratio are also able to score above average PISA testing¹¹⁸ (Graph 56). More students per teacher also does not mean higher percentage of low-performing students. OECD concludes that above certain minimum level of total funds distribution of additional expenditure is more important than total amount of funds (OECD, 2012a). Therefore additional funds for the education sector should be conditional on implementation of reform measures which, along with growth of salaries, will ensure also improvement of results.

A less efficient network and the resulting higher number of employees compared to the past, block financial funds which could be used for rewarding quality. The current system also aims to reward quality of teaching, although conclusions of the education spending review are that the efforts fail. One of the currently applied method of linking teachers' salaries to quality of their teaching is classification of teachers into tariff classes based on attained career level, and the other one are credit allowances.

The current system of attestations is formalistic and is unable to sufficiently assess the level of teachers' professional competencies. The spending review also concludes that another major problem is poor quality of attestation institutions. Tertiary education schools with attestation authority differ in quality¹¹⁹, and, what is more, the Methodology and Pedagogy Centre is currently not subject to accreditation. Implementation of accreditation for providers of continuing education programmes is recommended by the National Reform Programme (MoF SR 2018). The recently considered proposal is to replace the existing system of formalized theory-focused attestations with a certification based on demonstration of teaching skills and the created portfolio.

No major changes have been made with the credit allowance, which is another tool for linking teachers' salaries to quality of teaching¹²⁰. In 2017, 65% of teachers were receiving credit allowances, total annual spending was above EUR 51 mil. and, on average, it accounted for 3.5% of average teachers' earnings¹²¹. **The spending review, however, concluded that the credit allowance refers to attending educational programmes and no consideration is given to how the programmes contributed to quality of teaching.** The survey carried out by the Slovak Chamber of Teachers (SCT, 2014) and the *To dá rozum* project (Miškolci, 2018)

¹¹⁸ In Slovakia, 6 350 students from 292 schools underwent the PISA 2015 testing. For more information about PISA testing see: http://www.nucem.sk/sk/medzinarodne_merania/project/5.

¹¹⁹ This is proven by, for example, assessment by the Accreditation Commission or the Academic Ranking and Rating Agency.

¹²⁰ Credits can be earned for attending accredited continuing education programmes, but also for passing a doctoral or a degree language examination in a foreign language, study abroad, or authorship or co-authorship of approved or recommended textbooks and workbooks.

¹²¹ For components of employees in the education system see Annex 17.

conclude that one of the two main motivations for attending continuing education is to earn credits for the credit allowance and/or for a rise in salary. Yet, a high-quality continuing education for teachers is a substantial part of the system, however linking it to earnings is associated with certain risks and problems¹²².

The credit allowance was replaced with allowance for professional development¹²³, however, the Interim Implementation Report (IJ, 2019b) concluded that in the transition period (until 08/2026) the transformation of the credit allowance into allowance for professional development does not change the existing motivation to attend the education programmes. Obtaining the allowance for professional development is, again, conditional on attending certain types of education, which does not change the financial motivation of teachers and is not a guarantee of higher quality of teaching.

Funds released from the credit system should be used for other forms of rewarding quality – personal allowance or bonuses. Data underlying these types of compensation should also include evaluation from the headmaster, however, there are no clearly defined evaluation criteria. Moreover, the personal allowance and/or bonuses are unvested and, consequently, no specific financial funds are earmarked for this purpose. That causes considerable variability between schools in payment of personal allowance and bonuses (IEdP, VfM, 2017). The share of bonuses and personal allowance needs to be increased, although there is lack of funds as credit allowance has been maintained¹²⁴.

Box 14: Non-teaching employees and service centres

Besides higher number of teachers and lower quality of teaching, ineffective network of schools is also associated with higher operating expenditure, e.g., non-teaching employees. Since 2009, the number of non-teaching employees approximately follows the existing trends in population of students, although no analysis of efficiency has been made.

Centralization of support activities carried out by non-teaching staff can save money in larger towns. For that purpose, large towns, such as Dunajská Streda or Košice, establish Service Centres for schools and education facilities. The key role of the Service Centres is to relieve schools of activities which are not directly related to education. The Service Centres typically ensure repairs and maintenance, comprehensive HR and payroll activities, all economic activities, procurement of goods, services and works, energy and water management, occupational health and safety and fire protection issues and also complex technical activities, including technical surveillance of performed works and supplies to nursery schools, primary schools or other facilities. Cooperation of several neighbouring schools in common addressing of a part of their non-teaching agenda could bring savings, and improve quality of the process, in particular, relieve the school management of unnecessary burden. Additionally, this could be the first step to cooperation between neighbouring schools also in other areas.

Employment at tertiary-education institutions¹²⁵

Public universities employ in total nearly 21 thousand employees, thereof 53% are teachers and scientists and 47% are non-teachers – office and support staff at schools and associated facilities. Similar proportion of teachers and non-teaching staff is also at universities in the Czech Republic. Although education systems

¹²² For further details on continuing education in comments to *Bez kreditov neodidem* (IEdP, 2016a).

¹²³ Act No. 138/2019 Coll. on teaching employees and professional employees.

¹²⁴ Validity of already earned credits was prolonged until 2026.

¹²⁵ There are four types of tertiary-education institutions in Slovakia: public, government, private and foreign. Private and foreign institutions however, do not obtain any public funds for their teaching activities and their employees are not employees of the general government. Three public universities are formal budget-funded or budget-subsidised organizations of respective departments, and account for a small percentage of tertiary-education institutions (approximately 3%). Public universities are established by law enacted by the National Council of the SR; in 2018, there were 20 public universities in Slovakia.

considerably differ from one another, do not substantially deviate from countries with 2010 data available¹²⁶ (OECD, 2012b). In 2017, the spending on wages and social security contributions for employees of public universities amounted to approximately EUR 400 mil., thereof approximately two thirds were spent on teachers and scientists, and one third on other employees.

Salaries of university teachers account for only 92% of the average earnings of tertiary-educated employees (Structure of Earnings Survey 2014). Pursuant to the survey, earnings of university teachers in EU countries equal, on average, 116% equivalent to earnings of tertiary-educated employees.

Despite falling number of students, over the past few years, the number of employees is just slowly getting adapted to the trend (Table 13). The international comparison also implies a very low number of students per member of academic staff, while in 2017 OECD ratio was approximately 16, in Slovakia it was only 12¹²⁷ (Graph 50). Similar comparison with the Czech Republic shows 12.5 students per member of academic staff in Slovakia vs 14.9 in the Czech Republic.

Table 13: Numbers of employees (FTE) and students at public universities

	2000*	2005*	2008*	2010	2012	2014	2016	2018
Public university employees (th.)	20.7	21.4	21.4	21.7	21.5	21.6	20.9	20.5
thereof teachers	9.0	9.6	9.6	10.0	9.9	9.9	9.7	9.5
researchers	1.4	1.4	1.5	1.5	1.6	1.7	1.5	1.4
non-teachers	10.3	10.4	10.3	10.1	10.0	10.0	9.7	9.5
Public university students (th.)	137.1	181.5	195.0	179.7	164.9	147.6	128.6	116.4
thereof full-time	94.3	114.8	133.9	128.9	125.0	117.4	104.9	96.9
part-time	35.0	56.3	51.3	39.7	30.0	21.9	16.9	13.4
PhD.	7.8	10.4	9.8	11.1	9.9	8.2	6.8	6.2
Students-per-employee ratio**	6.6	8.5	9.1	8.3	7.7	6.8	6.2	5.7
thereof teachers	15.2	19.0	20.3	17.9	16.7	14.8	13.3	12.2
academic staff	13.2	16.6	17.6	15.5	14.4	12.7	11.5	10.6
non-teacher	13.3	17.4	18.9	17.8	16.5	14.8	13.2	12.2

Note: * Estimated by VfM from SCoSTI data. ** Full-time and part-time.

Source: Annual Reports about the state of tertiary education, SCoSTI, VfM calculations.

The growth in state subsidies and the method of financing does not sufficiently motivate universities to optimization of their employees. Teaching at universities is financed by a fixed amount, which is distributed among schools based on numbers of their students. Total amount of the financial support is fixed, independent of total number of students and growing every year, although the % of GDP remains lower than the OECD average. Universities, however, did not make use of the annual growth for a stronger rise in salaries or higher investments, but mostly for retaining the existing number of employees, even in case of lower number of students. **Reduction of numbers of university teachers¹²⁸ to match the level of the Czech Republic and the number of non-teachers to match the 2010 level would release every year approximately EUR 91 mil.¹²⁹. The funds could be used by universities for more than 20% rise of salaries, or other expenditure¹³⁰. For better comparability of systems, the spending review recommends that in the first phase numbers of university teachers are reduced to match the Czech Republic level by 2027. After a detailed analysis, the goal can be stated more precisely.**

¹²⁶ Later editions of the Education at a Glance do not include this statistics.

¹²⁷ Using the international methodology, estimating the scope of study of part-time students. In Table 13, part-time students are included in the calculation at the same weight as full-time students, therefore the result for 2016 in the table above is 12.6 students per teacher.

¹²⁸ University researchers are not reflected in the calculation, i.e., it is assumed that the number will be retained.

¹²⁹ The quantification does not reflect one-off costs related to cancellation of a job.

¹³⁰ Calculation details - Annex 18.

Linking university teachers' salaries to quality is similar to the regional school system. Teachers' salaries are derived from tariff tables structured by career degrees (Assistant Professor, Professor) and number of years served. Besides mandatory teaching experience, promotion to higher career degree is mostly conditional on measurable outputs from scientific activity (articles, quotations), and any criteria above the scope of legal requirements are specified by schools themselves. University teachers, however, are better off compared to teachers in the regional school system thanks to higher personal allowances (10%) and bonuses (15%) from total pay, which is a room for rewarding quality. Moreover, like teachers in the regional school system, since 1.1.2019, university teachers and researchers can be employed under the Labour Code, provided that their earning is at least as high as specified in tariff table.

5.3 State-owned enterprises

- **91 state-owned enterprises employ approximately 73 thousand employees, they are paid comparably to the private sector.**
- **State-owned enterprises are labour intensive, for almost three out of five largest state-owned employers the share of personnel costs in operating costs exceeds 50%.**
- **Comparison on company level with Czech public corporations indicates ineffectiveness, which is to be examined by performance audits.**

The Slovak Republic, through general government authorities, owns 91 enterprises¹³¹, employing approximately 73 thousand employees.¹³² The government does not have a direct impact on employment and level of salaries in state-owned enterprises, but can influence it indirectly through the Company's management and required dividends. Employees of state-owned employers are employed under the Labour Code, i.e., are not subject to higher-level collective bargaining held by the Government. In many of these enterprises, personnel costs account for more than a half of operating costs (Table 14).

Table 14: Major state-owned enterprises (2018)

Company	Average number of employees	Personnel costs (EUR mil.)	Operating costs (EUR mil.)	Average gross wage (EUR)	In general government	Personnel/operating costs (%)
Railways of the Slovak Republic	13,684	253	397	1,139	yes	64%
Slovak Post	12,837	176	297	847	no	59%
ZSSK CARGO	5,513	94	264	1,054	no	36%
ZSSK (railway passenger transport)	5,877	115	312	1,203	yes	37%
Social Insurance Agency	5,195	100	147	1,191	yes	68%
Forests Administration Agency	3,635	78	231	1,328	no	34%
Slovak Water Management Company	3,314	58	109	1,075	no	53%
VšZP (<i>health insurance company</i>)	2,102	51	85	1,510	yes	60%
National Highway Company (NDS)	1,698	45	229	1,640	yes	20%
Slovak Radio and TV (RTVS)	1,378	33	112	1,498	yes	30%

Source: VřM

Box 15: State-owned enterprises

The designation of a state-owned enterprise results from ownership relations rather than from legal form. The state can also own other than so-called state-owned enterprises. The key factor determining ownership by the state is the shareholding, not the legal form (limited-liability company, joint-stock company, etc.).

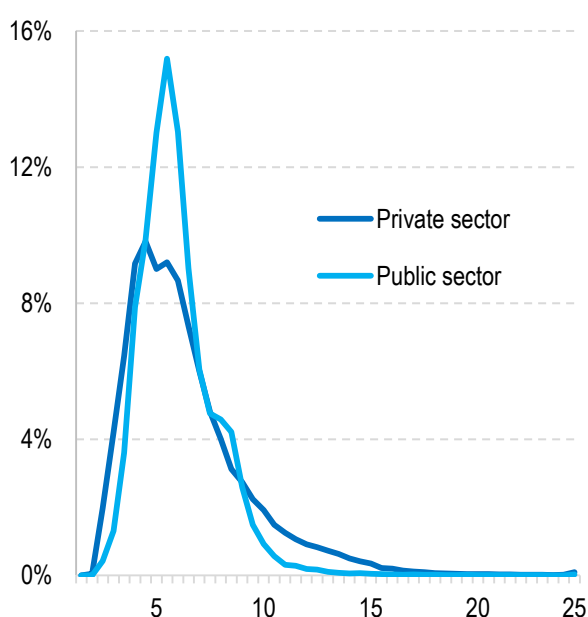
¹³¹ The sum includes all legal forms. For further details about methodology of classification of state-owned enterprises see Box 15.

¹³² This is data about number of employees in state-owned organisations as disclosed in the Register of Organisations.

A state-owned enterprise does not have to be classified in the general government sector. Classification in the general government sector is determined by the ESA 2010 methodology (Box 3). A state-owned enterprise is an autonomous legal entity, the founder of the entity is the state through a central general government authority and the assets of the entity are owned by the state. Operations of a state-owned enterprise can have a negative impact on activities performed in public interest, which does not have to be performed for profit-making purposes. Any loss incurred by the company can be compensated by a subsidy from the state¹³³.

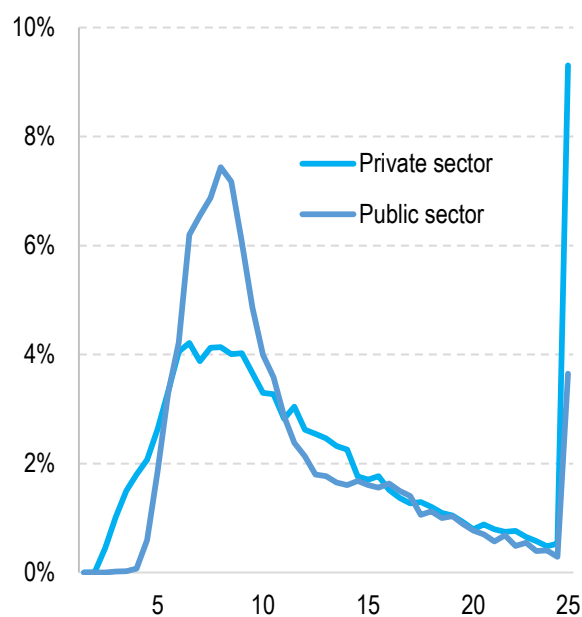
Spread of wages in state-owned enterprises is lower than in the private sector. The distribution curve for employees performing work that requires similar skills (Chapter 3.1) is more narrow and sharp compared to the private sector¹³⁴ (Graph 57, Graph 58).

Graph 57: Percentage of persons of skill level 2 employed under Labour Code by sectors and hourly wage (2017)



Source: ISLC; calculation by VfM

Graph 58: Percentage of persons of skill level 4 employed under Labour Code by sectors and hourly wage (2017)



Source: ISLC; calculation by VfM

Comparison of cost-effectiveness on company level enables to better consider specifics of each business. State-owned enterprises also provide public goods and profit-making is not necessarily their primary goal. Therefore, for a more fair comparison, the enterprises were compared to state-owned enterprises in the Czech Republic. Subject to the comparison were five largest Slovak state-owned employers.

Slovak Railways (ŽSR) employs double the number of employees per kilometre than their Czech peer. Thus, in Slovakia one kilometre of railway tracks is managed, on average, by nearly four employees, while in the Czech Republic it is less than two (Graph 59). Slovak Railways (ŽSR) employs nearly 14 thousand of employees, which is just 3 600 less than the Czech Railways. Moreover, compared to the Czech Railways, Slovak Railways (ŽSR) spend on average by EUR 440 (by 22%) less per employee and average gross wages in Slovak Railways are by EUR 326 lower.

¹³³ For example, in accordance with Resolution No. 390/2013 of the Slovak Government, a so-called Compensation is paid to Railways of the Slovak Republic to cover a part of costs related to transportation of passengers by ZSSK.

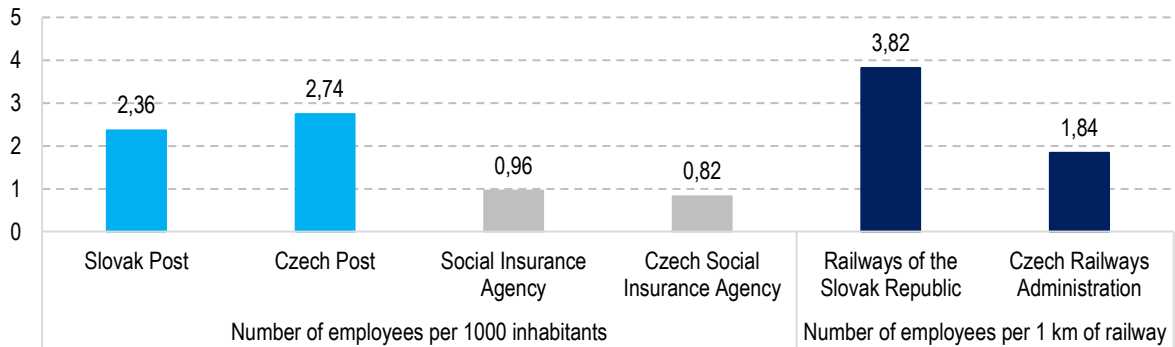
¹³⁴ Around 66% of employees of state-owned enterprises, performing activities of intermediate complexity, earn between EUR 4.75 – EUR 7.25 per hour, while in private sector it is around half of that number. Similarly, a narrower spread refers to earnings of experts in state-owned enterprises – 60% of them earn between EUR 6.25 - EUR 11.25 per hour; while in private sector such wage is earned by 41% of employees.

The Slovak Social Insurance Agency (SIA) employs more employees compared to its Czech peer, the number per 1000 inhabitants is by 20% higher (Graph 59). While in Slovak Social Insurance Agency the ratio is 1 046 inhabitants per SIA employee, in the Czech Republic one employee serves, on average, by 167 more inhabitants.

In view of wage costs, the Slovak Post is more efficient than their Czech peer. The Slovak Post employs by 12% less employees per 1 000 inhabitants than their Czech peer. While in Slovak Social Insurance Agency the ratio is 424 inhabitants per employee of the Slovak Post, in the Czech Republic one employee serves, on average, by 59 less inhabitants.

Operation of both ZSSK Cargo and ZSSK is less effective than operation of their Czech peers. Czech Cargo managed to transport by nearly 30% tonne-kilometres more per employee (Graph 60). The higher productivity is reflected in average gross wages, and thus employees of Czech Cargo earn by EUR 400 more than their Slovak peers.

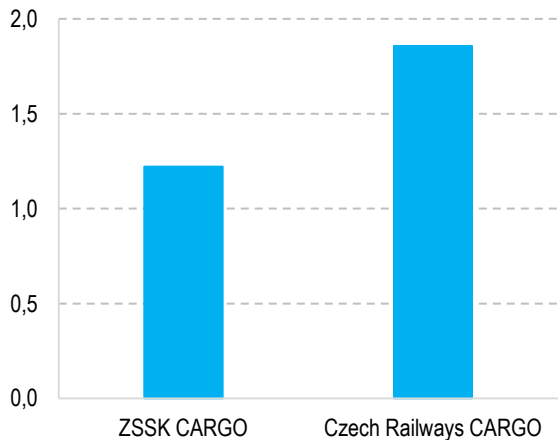
Graph 59: Comparison of numbers of employees at state-owned enterprises (2018)



Source: VFM, Annual reports of the companies

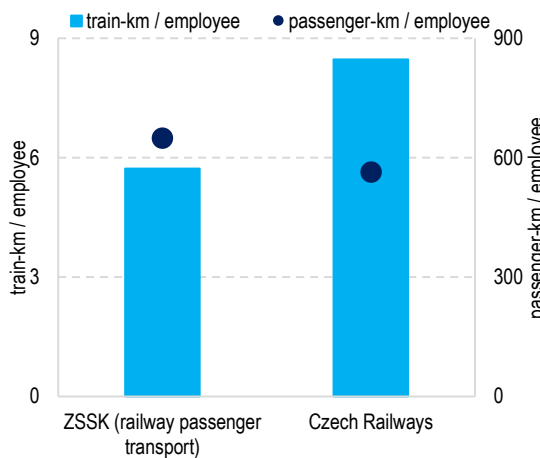
Performance of ZSSK (railway passenger transport company) is even worse in passenger train-kms per employee. ZSSK's performance is just 2/3 of the performance of its Czech peer. On the other hand, ZSSK transports by 20% more passengers (i.e., passenger-km) (Graph 61). The results, however, are influenced by zero-fare-transport for certain groups of inhabitants.

Graph 60: Tonne-kilometres (in million) per employee (2018)



Source: VFM, Annual reports of the companies

Graph 61: Number of passenger train-km and passenger-km per employee (thousand kms; 2018)



Source: VFM, Annual reports of the companies

Efficiency of state-owned enterprises could be best assessed by a separate detailed analysis, including comparison between similar private companies in Slovakia and abroad. An example to such analysis is the audit of the Slovak Water Management Company performed as a part of the Environment Spending Review. The audit identified the key reasons affecting corporate effectiveness (Box 16).

Implementation of measures from the 2017 audit was expected to reduce annual operating costs of the Slovak Water Management Company by EUR 20 mil. by 2020 plus another EUR 10 mil. within next 2 years. As many as 50% (EUR 10 mil.) of the savings planned to be achieved by 2020 is reduction of expenditure on compensations

Box 16: Performance audit in the Slovak Water Management Company

To save financial funds, it is necessary to optimise operating and capital expenditures, including potential savings in personnel costs. Audit of the Slovak Water Management Company by Boston Consulting Group (BCG) in 2017 analysed the existing situation and identified the key reasons impairing the Company's efficiency. Through gradual implementation of more efficient procedures, the Slovak Water Management Company was expected to reduce its annual operating costs by 2020 by EUR 20 mil. and within the following two years by additional EUR 10 mil.

Plan for improving efficiency of the Slovak Water Management Company, š.p. pursuant to BCG

Phases	Measures	Time plan
Implementation of simple measures	Optimization of purchases, elimination of unnecessary activities, rationalization of the fleet of mechanisms	2018
Centralization and initial optimization	Management centralization, centralization of core and support activities	2018-2020
Further optimization and outsourcing	Advance monitoring and on-the-job analysis, partial outsourcing of simple and support activities	2020-2022

Key findings in HR management include:

- duplication of activities in consequence of decentralised management (three levels),
- low level of decentralisation of executive and support activities,
- a large number of small units (a manager and two or three subordinates),
- internal performance of cyclical activities without higher added value.

Potential measures include:

- reduced number of employees by 9% compared to 2015,
- centralized investments management.

of employees.

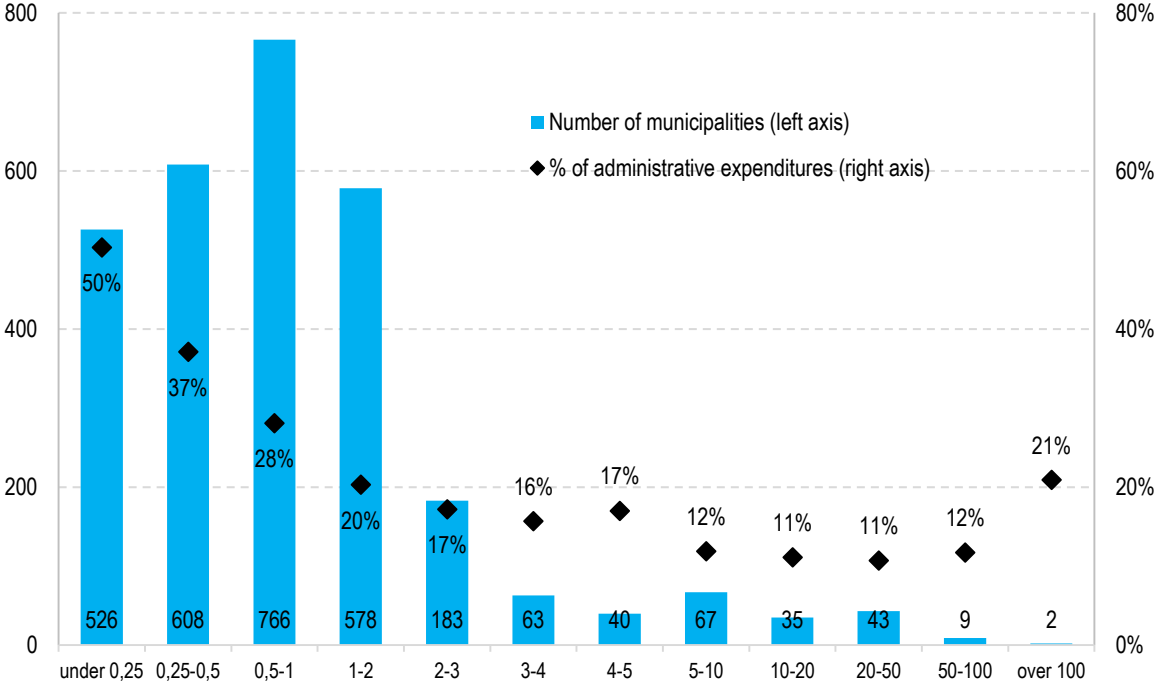
5.4 Optimisation of arrangement of the local government

Concentration of local government into larger units can release funds and improve quality of services. IFP analysis (2017) estimated potential savings in administration at EUR 51 – 316 mil. yearly depending on the elected model. Currently, **the savings could be EUR 64 – 396 mil. yearly.** Parametric change of arrangement is one of few tools which can be used by the NC SR to initiate a change in employment in local governments.

Self-governments in Slovakia are three times smaller than the EU average, and the fact that all municipalities are obliged to provide similar services irrespective of their size results in inefficiency. The average population of a Slovak municipality is 1 850, i.e., 3 times less than the EU28 average (5 765) and 5 times less than OECD average (9 440). Municipalities with population below 250 spend nearly half of their spending for administration itself – salaries and bonuses for mayors, municipal councillors and several municipal officers

(principal, accountant, etc.) and also for goods and services used for their operation (Graph 62). Only the other half is spent on provision of services such as services of the registry office, road maintenance, social area or development of the municipality. By contrast, municipalities with population between 5 - 100 thousand can allocate nearly 90% of their spending in provision of public services and development.

Graph 62: Number of municipalities of a given size and percentage of spending on administration (2015)



Source: IFP, 2017

6 Annexes

Annex 1: Calculation of potential savings in personnel costs from reduction of workforce by 10%.

The calculation of the potential reduction in personnel costs of admin staff in general government by 10% included total personnel costs paid from the government budget on government employees and employees working in public interest. The potential savings do not include personnel costs of government and public employees in regional school system (falling under budget chapters of the Ministry of Interior SR, Ministry of Labour, Social Affairs and Family SR and Ministry of Health SR, and non-teaching staff falling under Ministry of Interior SR) and staff in orphanages. Among those excluded from the potential reduction were also public employees at the financial administration owing to their merger with customs officers since 2020.

Table: Potential savings in personnel costs from reduction of admin staff by 10% (2020, in EUR mil.)

	Personnel costs	Commitment 10%
Government and public employees - total	1 956.4	195.6
<i>Civil service (excluding public office and positions abroad)</i>	876.1	87.6
<i>Public service (basic)</i>	965.2	96.5
<i>Public service (selected)</i>	61.2	6.1
<i>Public service (Labour Code)</i>	53.9	5.4
Total exemptions	484.6	48.5
<i>Non-teaching staff in regional school system</i>	251.8	25.2
<i>Financial administration (excluding customs officers)</i>	184.7	18.5
<i>Orphanages</i>	48.1	4.8
Potential savings		147.2

Source: VfM calculation based on data from the General Government Budget 2020

Annex 2: Expected savings from IT projects

Promoter (Chapter)	Project	Type of savings	Savings 2021		Savings 2022		Savings 2023		Savings 2029	
			FTE	EUR mil.	FTE	EUR mil.	FTE	EUR mil.	FTE	EUR mil.
MoF SR	Central Economic System*	HR	-	-	-	-	62	1.2	1 032	19.6
		operation						0.0		1.7
MoF SR	IS Electronic Invoicing*	HR	-	-	-	-	-	-	78	1.5
		operation								-0.5
MoF SR	Building a framework infrastructure for secure information and communication for the Financial Administration of the SR	HR	-	-	-	-	21	0.5	21	0.5
		operation						-4.2		-4.2
MoE SR	IT platform for better regulation under RIA 2020 strategy	HR	1	0.0	3	0.0	4	0.1	10	0.2
		operation				0.1		0.0		0.0
MoC SR	Conservation IS (PAMIS)	HR	-	-	-	-	-	-	23	0.5
		operation								-0.7
MoLSAF	Digitalisation of services at the National Labour Inspectorate (inspectors and office staff)	HR	-	-	-	-	25	0.5	25	0.5
		operation						-0.4		-0.5
MoJ SR	Commercial Register SR	HR	16	0.3	36	0.6	37	0.6	51	0.8
		operation				0.1		0.2		0.1
MoJ SR	Optimisation of management and operation processes Prison and Court Guard Service (office staff + guard)	HR	-	-	-	-	-	-	520	9.9
		operation								-1.8
MoJ SR	Centralized Case Management System– CSSR	HR	-	-	-	-	-	-	502	10.8
		operation								-0.0
MoESRS SR	Digitalisation of services of regional and tertiary education system SR	HR	-	-	386	7.3	386	7.3	386	7.3
		operation				-0.7		-0.7		-0.7
MoI SR	Central components for administrating proceedings in the general government	HR	-	-	-	-	461	11.2	415	10.1
		operation						-2.2		-2.2
MoI SR	Digital working environment for MoI SR staff (workdesk)	HR	-	-	-	-	-	-	291	7.1
		operation								-1.5
MoI SR	Weapons and Ammunition Register	HR	-	-	-	-	50	1.0	50	1.0
		operation						-0.3		-0.3
MoI SR	Processes and data management for district authorities, police, fire and rescue forces	HR	-	-	-	-	-	-	52	5.2
		operation								-1.6
MoI SR	Trade register	HR	-	-	-	-	38	0.8	38	0.8
		operation						-0.0		-0.0
MoH SR	Analytical tool supporting economic regulations by MoH SR	HR	-	-	-	-	-3	-0.1	0	0.0
		operation						-0.2		-0.1

Promoter (Chapter)	Project	Type of savings	Savings 2021		Savings 2022		Savings 2023		Savings 2029	
			FTE	EUR mil.	FTE	EUR mil.	FTE	EUR mil.	FTE	EUR mil.
MoH SR	Integrated systems of public health authorities	HR	-	-	318	7.0	304	6.7	275	6.1
		operation								
MoH SR	Implementation and integration of the support information system (IS ÚRPO)	HR	-	-	-	-	100	2.2	100	2.2
		operation						0.2		0.2
MoEnv SR	Equal access to spatial data and services*	HR	-	-	-	-	29	0.6	103	2.3
		operation								-0.5
SIA	Modernization of benefit agenda of the Social Insurance Company	HR	-	-	18	0.4	64	1.4	90	1.9
		operation						2.8		2.9
ŠU SR	Unified statistical data information system	HR	-	-	-	-	102	2.1	102	2.1
		operation						-0.4		-0.4
ÚPREKAPS	Project for development of IS for electronic services of the Regulatory Authority	HR	-	-	-	-	50	1.0	50	1.0
		operation						-0.2		-0.2
DPMOII	Comprehensive information system for performance and support management	HR	-	-	3	0.1	3	0.1	3	0.1
		operation						-0.3		-0.3
DPMOII	Open Data 2.0 – Development of central components for open data security	HR	-	-	-	-	2	0.0	2	0.0
		operation						0.2		0.2
DPMOII	Data integration: providing access to tertiary education data bases including open data, through data integration platform*	HR	74	1.3	132	2.3	126	2.2	78	1.4
		operation						-0.3		-0.3
DPMOII	Increasing the utility value of digital services for citizens, businesses and general government institutions (slovensko.sk 2.0)*	HR	-	-	6	0.1	4	0.1	2	0.0
		operation						-1.3		-2.4
GO SR	Central civil service information system *	HR	-	-	-	-	-19	-0.4	36	0.7
		operation								-0.2
PPO	Public procurement system (SVO)*	HR	-	-0.0	341	6.5	338	6.4	342	6.5
		operation						-0.7		-0.7
ZSSK	Information system of comprehensive services for passengers	HR	-	-	11	0.2	11	0.2	11	0.2
		operation						1.0		1.5
Total		HR	91	1.6	1 254	24.6	2 194	45.6	4 690	100.3
		operation						-7.6		-13.2

*Including savings in other departments

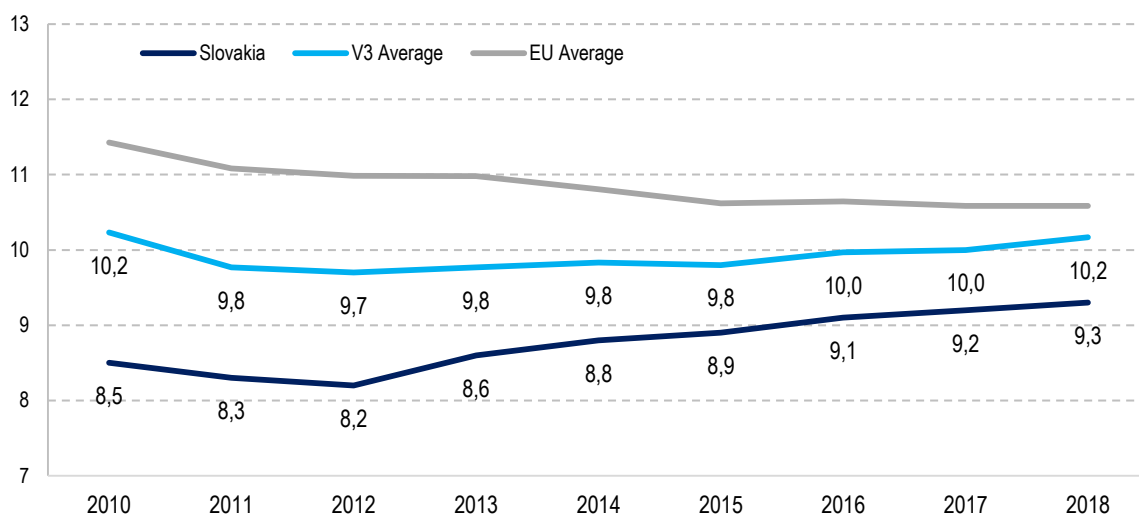
Source: VřM

Annex 3: Overview of economic classification categories and items of wage and personnel costs and compensations of employees under ESA 2010

Compensation of employees	Personnel costs	Wage costs	610 Wages, salaries, service incomes and other personal payments	
			611 Basic- tariff salary, personal, basic, functional salary including compensations	
			612 Extra payments and bonuses	
			613 Standby allowance, compensation for emergency services	
			614 Remunerations	
			615 Other personal compensations	
				616 Extra pay and additional pay
				620 Insurance premiums and contributions to insurance companies
				621 Insurance premiums payable to VsZP (<i>public health insurance company</i>)
				623 Insurance premiums payable to other health insurance companies
			625 Insurance premiums payable to the Social Insurance Agency	
			627 Contributions to supplementary pension insurance companies	
			628 Insurance premiums payable to special accounts	
			629 Contributions to old age pension savings	
			630 Goods and services	
			631 Travel allowances (a part of expenses)	
			637 Services (selected sub-items)	
			640 Current transfers	
			642 Transfers to individuals and non-profit legal entities (selected sub-items)	

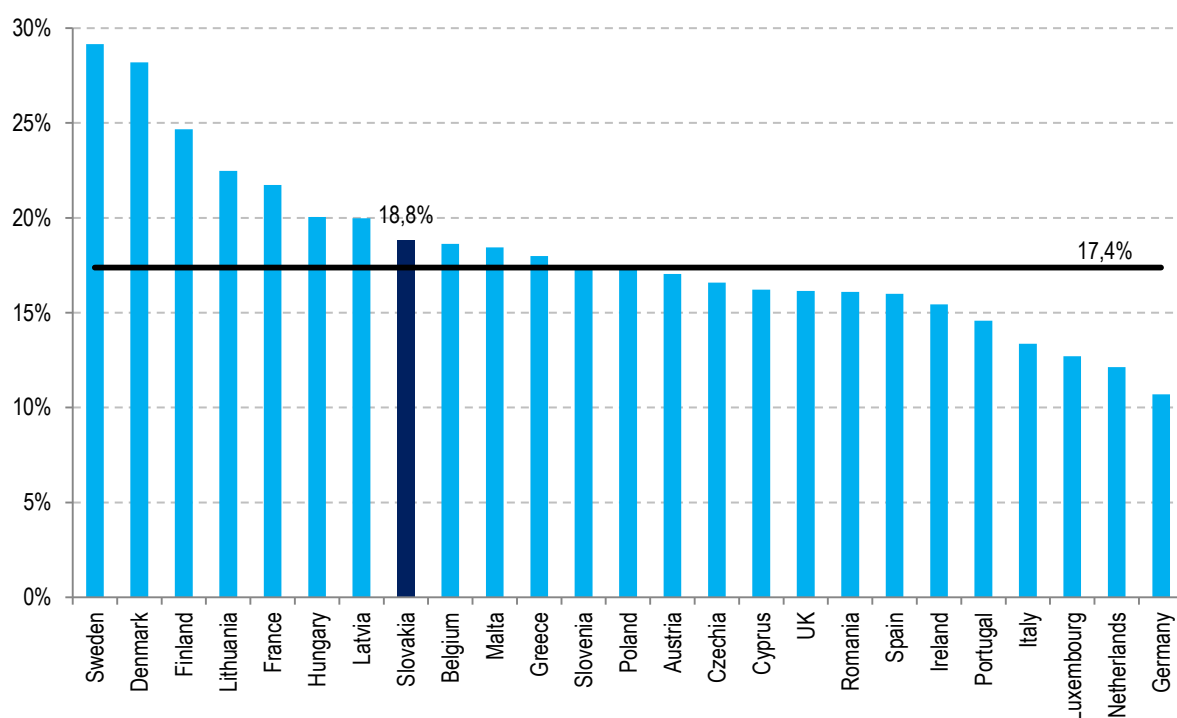
Source: Prepared by VfM

Annex 4: Trends in total amount of compensations of employees in the general government sector (%GDP)



Source: Eurostat, Government finance statistics

Annex 5: Number of employees of the general government sector as a share in total employed population (% , 2018)



Source: Eurostat

Annex 6: Impact of change in number of employees in selected professions on international average

	Impact on HR	Year of comparison	Source
Nurses (incl. institutional and out-patient care)	3 611	2015	OECD Health at a Glance, IHP
Primary school teachers (incl. church and private schools)	2 077	2016	OECD Education at a Glance
Medical doctors (incl. institutional and out-patient care)	185	2015	OECD Health at a Glance
Firefighters	133	2015	International Association of Fire and Rescue Services, https://www.ctif.org/
Judges	-60	2016	Eurostat
Prosecutors	-377	2014	CEPEJ
Secondary school teachers (incl. church and private schools)	-106	2016	OECD Education at a Glance
Tertiary-education teachers	-2 103	2016	OECD Education at a Glance
Police officers	-3 720	2016	Eurostat
Government employees	130	2014	Eurostat SES
Social services	8 479	2016	Statistical Yearbook of Labour and Social Affairs, Statement Soc 1-01

Source: Prepared by VfM

Annex 7: Impact of change in wages of selected professions on international average

	Annual envelope 2019*	Change vs average	Year of comparison	Source
Institutional nurses incl. non-public	458	-15%**	2015	OECD Health at a Glance and VfM forecast
Teachers - regional schools incl. private and church schools	1 871	-30%	2016	OECD Education at a Glance
Institutional doctors incl. non-public	470	-13%	2015	OECD Health at a Glance
Social services***	356	-21%	2014	Eurostat, Structure of Earnings Survey SES
Government employees	880	-14%	2014	Eurostat, Structure of Earnings Survey SES
Tertiary-education teachers	272	-21%	2014	Eurostat, Structure of Earnings Survey SES
Customs officers	76	-6%	2015	OECD Government at a Glance
Judges	98	+4%	2014	CEPEJ Structure of Earnings of public employees
Firefighters***	108	-14%	2017	(Czech Statistical Office), Structure of Earnings in SR (Statistical Office SR)
Prosecutors	66	+26%	2014	CEPEJ
Police officers	736	+4%	2015	OECD Government at a Glance
Selected constitutional officers	8	+3%	2019	VfM Survey

*Estimated by VfM

Source: Prepared by VfM

** Nearly all this difference should be eliminated by rise in salaries in 2019

*** Comparison with the Czech Republic

Annex 8: List of Pay Regulations in the Public Sector

Pay Regulation
Act No. 120/1993 Coll. on remuneration of certain constitutional officers of the Slovak Republic, as amended
Act No. 391/2004 Coll. on salaries of the European Parliament members and on changes and amendments to certain acts
Act No. 385/2000 Coll. on judges and lay judges and on changes and amendments to certain acts as amended
Act No. 154/2001 Coll. on prosecutors and candidate prosecutors, as amended
Act No. 16/1993 Coll. on Office of the President of the Slovak Republic, as amended
Act No. 38/1993 Coll. on the organisation of the Constitutional Court of the Slovak Republic, proceedings before the Constitutional Court and position of constitutional judges, as amended
Act No. 39/1993 Coll. on the Supreme Audit Office of the Slovak Republic, as amended
Act No. 350/1996 Coll. on the Rules of Procedure of the National Council of the Slovak Republic, as amended
Act No. 564/2001 Coll. on the public defender of rights, as amended
Act No. 218/1949 Coll. on state economic support of churches and religious societies, as amended
Act No. 73/1998 Coll. on civil service of Police Force, the Intelligence Service, Prison and Court Guard Service and the Railway Police, as amended
Act No. 200/1998 Coll. on civil service of customs officers and on changes and amendments to certain other acts, as amended
Act No. 315/2001 Coll. on the Fire and Rescue Forces as amended
Act No. 281/2015 Coll. on civil service of professional soldiers of the armed forces of the Slovak Republic and on changes and amendments to certain acts as amended
Act No. 55/2017 Coll. on civil service, as amended
Act No. 215/2004 Coll. on protection of classified information and on changes and amendments to certain acts as amended
Act No. 151/2010 Coll. on foreign service and on changes and amendments to certain acts.
Act No. 553/2003 Coll. on remuneration of certain employees performing work in public interest and on changes and amendments to certain acts as amended
Act No. 311/2001 Coll., the Labour Code, as amended
Act No. 18/2018 Coll. on personal data protection and on changes and amendments to certain acts

Pay Regulation

Act No. 176/2015 Coll. on commissioner for children and commissioner for people with disabilities and on changes and amendments to certain acts, as amended

Act No. 663/2007 Coll. on minimum wage, as amended

Act No. 578/2004 Coll. on healthcare providers, healthcare professionals and professional organisations and on changes and amendments to certain acts, as amended

Act No. 185/2002 Coll. on the Judicial Council of the Slovak Republic and on changes and amendments to certain acts, as amended

Act No. 250/2012 Coll. on regulation in the network industries

Source: Prepared by VfM

Annex 9: Wage differential between the public and the private sector

Wage differential is most frequently estimated by econometric methods using one of the following procedures:

1. The easiest way is to adjust the standard wage equation by adding a "dummy" variable representing the public sector. The "dummy variable" then absorbs all wage variabilities between employees of the public and the private sector, which cannot be explained by other observable characteristics of employees and their positions:

$$\log(W_i) = \alpha \cdot public_i + \beta X_i + \varepsilon_i$$

where W_i is the amount of wages and X_i are explaining characteristics (educational attainment, age group, gender, job position, etc.) for employee i . Coefficient β expresses percentage change in wages caused by change in certain characteristics (age or education), coefficient α expresses average percentage change in earnings of public employees compared to private sector employees with similar other characteristics.

2. The first approach assumes that the public sector and the private sector "assigns value" to employee characteristics in a similar way, i.e., for example, that both sectors assign similar percentage value to e.g., higher educational assignment. This assumption does not necessarily have to be true – for example, one of the sectors may appreciate attained education more highly than the other, while the other may prefer skills. A more variable option is to modify the model to include also this possibility, i.e., to apply two different coefficients for certain variables: one for the public sector and other one for the private sector. The disadvantage is a worse interpretability of results (the result may be, e.g., that sector A pays, in general by 10% less than sector B, but pays by 13% more to tertiary-educated employees and by 5% less to young employees).
3. The Oaxaca-Blinder (1973) decomposition method of wage differentials, which was later improved by Oaxaca and Ransom (1994) aggregates results into an easily interpretable form.

The method is based on a separate estimation of all β_v and β_s coefficients for the public and the private sector, and the "non-discriminating" coefficient β^* , which is usually estimated as a common-regression coefficient. These estimates are then used for splitting the differential into an explained E and unexplained (U) portion:

$$\overline{\log(W_v)} - \log(\overline{W_s}) = (\overline{X_v} - \overline{X_s})\beta^* + [\overline{X_v}(\hat{\beta}_v - \beta^*) + \overline{X_s}(\beta^* - \hat{\beta}_s)] \equiv E + U$$

where \overline{W}_i is the average wage for the public and the private sector, \overline{X}_i are average control variables (age, education,...) for the sectors and $\hat{\beta}_i$ are separately estimated coefficients of equations for the public and the private sector. While the first part E expresses the wage gap explained by different values of the explanatory variables (e.g., age or occupational position), the other part U refers to difference in wages earned by employees with similar characteristics in the public and the private sector. Thus, it refers to the

effect of unobserved differences between employees of the public and the private sector and also lower earning in one of the sectors, which are without explanation.

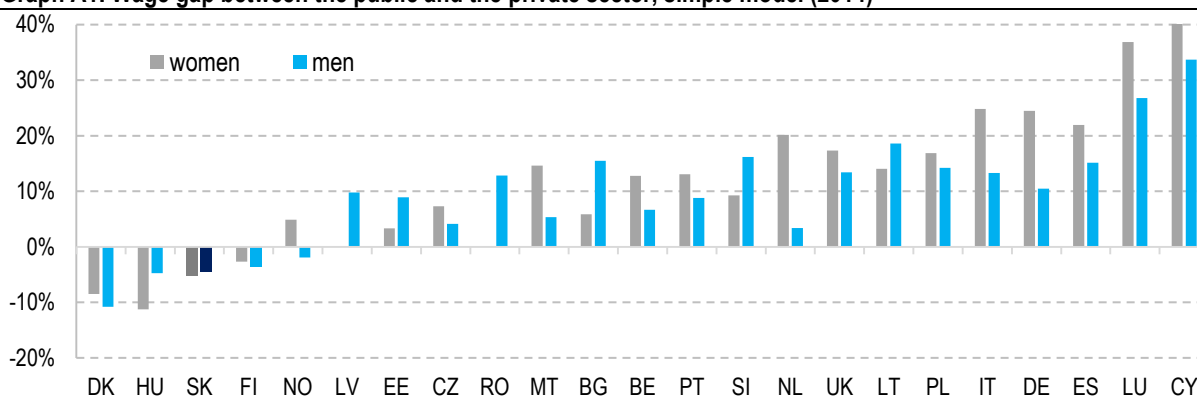
The spending review used the data from SES statistical survey¹³⁵. October average hourly wage was used as the dependent variable and the following data were used as explanatory variables for each employee:

- gender (man/woman);
- age group (young – aged below 29 years, middle-aged – 30 - 49 year olds and old –50+ year olds);
- educational attainment (below secondary, secondary, tertiary);
- occupational position (measured at first ISCO classification level);
- type of employment (permanent employment contract, temporary employment contract or apprenticeship);
- NACE sector split into 3 groups – industry (B,C,D,E and F sectors), services with lower added value (G and I sectors) and other services.

Simple OLS analysis with “dummy” variable reflecting age and educational attainment of employees identified a negative wage gap for men and women in Slovak public sector. Assuming that both sectors equally appreciate educational attainment and skills (approximated by age), hourly wages of public employees in Slovakia are by approximately 5% lower than those earned by their peers in the private sector (Graph A1). These two factors – education and age – explain approximately 25% of the variability in hourly wages of Slovak employees.

Most countries in the sample achieved a positive wage gap for the benefit of the public sector. There may be several reasons for such results – most countries pay higher wages to their public employees than the private sector would be willing to pay, or owing to shorter working time public employees earn higher hourly wages although their monthly pay is comparable to private sector employees. On the other hand, the results may reflect the fact that employees of the public sector are in many respects the best-qualified persons from among tertiary educated employees (doctors, scientists, teachers).

Graph A1. Wage gap between the public and the private sector, simple model (2014)



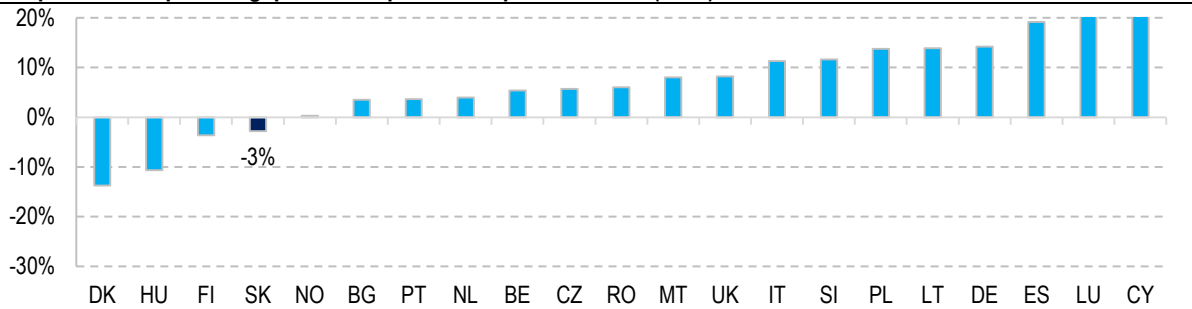
Note: Depicted are only statistically significant differences; assuming 1% significance threshold.

Source: Eurostat, VIM calculations

A detailed comparison results from the Oaxaca & Blinder (1973) and Oaxaca & Ransom (1994) econometric analysis which breaks down the wage differential into an explained and unexplained portion. Under this methodology, earnings of employees in the public sector, after taking into account all other characteristics, are by approximately 3% lower than earnings of their peers in the private sector (Graph A2). Thus, in the panel of EU countries, Slovakia belonged to the minority where, after taking account of all available characteristics public employees earn less than their peers in the private sector.

¹³⁵ SES – Structure of Earnings Survey. The analysis uses data from the SES 2014 statistical survey. These are latest available data from the survey, which is carried out on a pan-European basis just once in 4 years. The data from SES 2018 survey were not yet available at the time of preparation of this document.

Graph A2. Unexplained gap between public and private sector (2014)

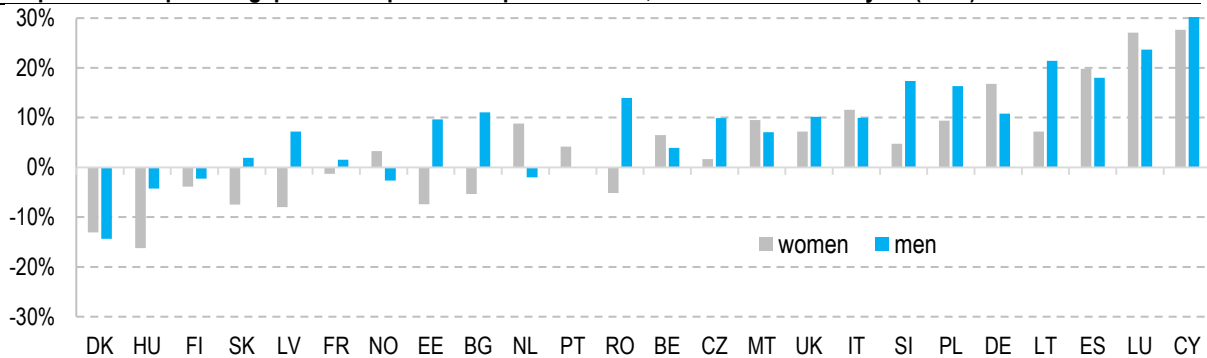


Note: Depicted are only statistically significant differences; assuming 1% significance threshold.

Source: Eurostat, VfM calculations

A separate analysis shows that men's average earnings are just above earnings of comparable men in the private sector, while average earnings of women is nearly by 7% lower (Graph A3). The difference between men and women does not seem to result from different valuation of the same characteristics for men and women in the public sector, and therefore it has been caused by other (unmeasurable) characteristics, or is attributable to discrimination.

Graph A3. Unexplained gap between public and private sector, men vs women analysis (2014)

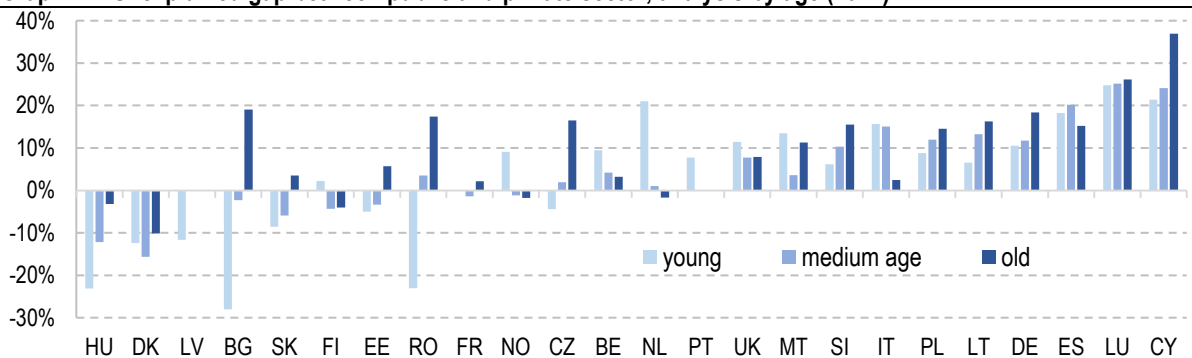


Note: Depicted are only statistically significant differences; assuming 1% significance threshold.

Source: Eurostat, VfM calculations

The results of regression confirm lower valuation of young employees, although the difference is diminishing with age (Graph A4). Young public employees aged below 29 years earn by 9% less than their peers in the private sector, in the age group of 30 – 49-year-olds, the difference is 6%. Just older public employees aged 50+ have comparable earnings, they earn on average by 3% more than their peers in the private sector.

Graph A4. Unexplained gap between public and private sector, analysis by age (2014)

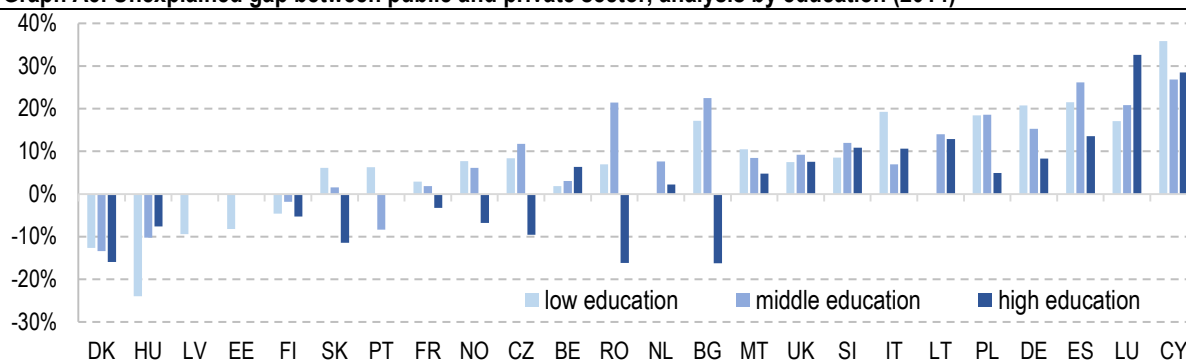


Note: Depicted are only statistically significant differences; assuming 1% significance threshold.

Source: Eurostat, VfM calculations

The analysis also confirms existence of a wage gap among tertiary-educated public employees. After taking account of all other factors, tertiary-educated public employees earn by 11% less than their peers in the private sector (Graph A5). With lower educational attainment, the situation turns to the benefit of the public sector, and, after taking account of other characteristics, public employees with primary educational attainment earn by 6% more than their peers in the private sector.

Graph A5. Unexplained gap between public and private sector, analysis by education (2014)



Note: Depicted are only statistically significant differences; assuming 1% significance threshold.

Source: Eurostat, VfM calculations

Analysis of all age and educational attainment combinations shows that those whose wages are most lagging behind are tertiary-educated young and middle-aged public employees. After taking account of other factors, these employees earn by 15-17% less than their peers in the private sector. The difference for older tertiary-educated employees is not statistically significant, not even with 10% significance threshold.

Unexplained gap between the public and the private sector

	young	middle-age	older	women	men
Low education	8%***	6%***	7%***	2%***	13%***
Secondary education	-4%***	1%**	3%***	-5%***	8%***
Tertiary education	-15%***	-17%***		-11%***	-11%***
women	-14%***	-10%***	-2%*		
men	-3%***	-1%**	8%***		

Source: VfM calculations

Annex 10: Results of the probit regression

Probit regression			Number of observations =	1 635
			LR chi2(4) =	37.53
			Prob > chi2 =	0.0000
Log likelihood = -1093.2874			Pseudo R2 =	0.0169
sv	coefficient	Standard deviation	p-value	95% reliability interval
woman	0.15	0.07	0.02	(0.02; 0.28)
age	0.01	0.00	0.00	(0.01; 0.02)
wage_year_before	0.00	0.00	1.00	(0.00; 0.00)
Tertiary education	-0.21	0.07	0.00	(-0.35; -0.07)
_cons	-0.29	0.15	0.05	(-0.59; 0.00)

Source: VfM calculations

Annex 11: Change in earnings upon change of employment (± 3 months)

	Percentual change		Statistical significance of the difference	Total number of observations
	Private \rightarrow Public	Public \rightarrow Private		
Total	11.2	14.0	***	6,058
Gender				
Women	10.0	8.9		3,851
Men	13.3	22.8	***	2,207
Age				
18 - 24	11.2	23.4	***	506
25 - 29	15.5	15.1		1,172
30 - 34	9.8	17.9	***	884
35 - 44	9.9	13.0	**	1,787
45 - 54	10.6	10.2		1,213
55 +	9.3	6.7		495
Educational attainment				
Secondary	6.6	15.0	***	2,816
Tertiary	16.0	12.4	*	2,644
Earning before change				
1. quantile	38.9	36.5		1,467
2. quantile	11.2	18.3	***	1,473
3. quantile	-0.1	10.0	***	1,339
4. quantile	-6.1	1.3	***	1,063
5. quantile	-10.3	-2.1	***	716
NACE				
Manufacturing	-1.3	29.7	***	1,083
Wholesale and retail trade	11.4	9.0		413
Transportation and warehousing	9.9	14.1	**	873
Accommodation and catering services	22.5	5.0	***	166
Information and communication	10.0	30.1	***	201
Financial and insurance services	-5.2	19.9	***	220
Expert scientific and tech activities	31.2	16.5	***	496
Administrative and support services	9.3	16.0	***	413
Education	16.6	11.6	***	372
Healthcare and social assistance	16.2	-1.9	***	970
Habitual residence				
Bratislava	14.6	15.4		599
Western Slovakia	7.5	18.2	***	686
Central Slovakia	11.8	19.8	***	487
Eastern Slovakia	10.9	11.4		481

Source: VFM calculations

Annex 12: Change in earnings upon change of employment (±12 months)

	Percentual change		Statistical significance of the difference	Total number of observations
	Private → Public	Private → Public		
Total	20.6	22.6	*	1,797
Gender				
Women	18.0	18.0		1,082
Men	24.5	29.0	**	715
Age				
18 - 24	14.4	46.2	***	59
25 - 29	26.8	24.2		290
30 - 34	25.1	27.2		252
35 - 44	16.9	22.2	**	607
45 - 54	20.5	17.6		432
55 +	20.0	9.8		157
Educational attainment				
Secondary	16.2	27.5	***	863
Tertiary	23.9	19.1		772
Earning before change				
1. quantile	44.4	47.2		505
2. quantile	15.8	28.8	***	487
3. quantile	8.9	14.2	*	387
4. quantile	-1.1	4.3	*	252
5. quantile	0.3	4.8		166
NACE				
Manufacturing	9.5	39.7	***	340
Wholesale and retail trade	17.7	20.4		129
Transportation and warehousing	17.5	24.2	*	260
Accommodation and catering services	41.7	-3.3	***	42
Financial and insurance services	-8.1	37.1	***	61
Expert scientific and tech activities	44.9	19.2	***	131
Administrative and support services	26.9	33.0		95
Education	13.4	14.9		115
Healthcare and social assistance	27.9	8.0	***	303
Habitual residence				
Bratislava	18.0	22.6		164
Western Slovakia	19.6	29.5	**	198
Central Slovakia	22.1	27.6		127
Eastern Slovakia	17.3	20.3		140

Source: VFM calculations

Annex 13: Working conditions of employees (total for 2017)

Occupation	Time worked per month (in hours)		Overtime paid per year (in hours)		Weeks of taken vacation		Days of sick leave	
	public	private	public	private	public	private	public	private
Legislators, managers	135.1	146.8	14.2	11.1	6.0	4.5	4.5	3.9
Professionals	130.0	144.0	33.3	20.1	7.1	4.6	6.7	4.9
Technicians and assoc. professionals	133.9	144.0	24.3	31.4	5.4	4.5	7.2	5.6
Clerical support workers	131.6	142.0	12.2	28.5	5.3	4.3	9.0	7.3
Services and sales workers	133.6	145.2	41.8	44.2	5.4	4.4	10.7	9.7
Skilled agricultural workers	130.7	147.1	40.5	48.5	5.3	4.3	14.9	18.0
Craft and related trades workers	135.8	138.7	55.1	68.0	4.9	4.4	8.6	13.1
Plant & mach. operators, assemblers	142.5	140.9	113.7	72.9	4.8	4.3	7.9	12.7
Elementary occupations	132.8	137.7	31.7	46.5	5.4	4.4	11.9	14.9
Other not elsewhere classified	129.6	142.9	21.3	29.8	6.3	4.2	8.1	8.4
Total	132.3	142.4	32.8	41.7	6.1	4.4	7.9	9.1

Note: Full-time employees, who worked all year with the employer

Source: ISLC, VFM calculations

Annex 14: Average size of budget chapters, their administrative staff and subordinate organisations, 2011-2018

	Chapters (budget organisations)			Admin staff			Subordinate budget-funded organizations		
	Number of employees	Wage expenditures (EUR mil.)	Average wage spending (EUR)	Number of employees	Wage expenditures (EUR mil.)	Average wage spending (EUR)	Number of employees	Wage expenditures (EUR mil.)	Average wage spending (EUR)
Ministry of Interior SR	44,827	611.7	1,132	1,290	17.6	1,095	43,538	594.0	1,137
Ministry of Defence SR	20,035	267.1	1,112	531	9.2	1,397	19,505	257.9	1,102
Ministry of Labour, Social Affairs and Family SR	13,097	128.3	811	419	7.8	1,499	12,678	120.4	792
Ministry of Justice SR	11,287	177.1	1,305	308	4.6	1,203	10,979	172.4	1,309
Ministry of Finance SR	10,264	141.9	1,151	661	13.6	1,673	9,603	128.3	1,113
Ministry of Education, Science, Research and Sports SR	4,265	49.7	1,256	499	9.8	1,578	3,765	39.9	882
Ministry of Agriculture and Rural Development SR	2,961	37.2	1,060	561	9.9	1,435	2,399	27.3	948
Ministry of Health SR	2,391	25.0	872	265	4.6	1,350	2,126	20.4	800
General Prosecution SR	1,837	49.5	2,240	282	8.6	2,470	1,555	40.9	2,189
Slovak Academy of Science	1,606	18.9	1,022				1,606	18.9	982
Ministry of Transportation and Construction SR	1,509	22.3	1,254				1,509	22.3	1,233
Ministry of Foreign and European Affairs SR	1,199	50.4	3,503				1,199	50.4	3,500
Ministry of Culture SR	1,171	12.4	878	186	3.2	1,382	985	9.2	775
Geodesy, Cartography and Cadastre Authority SR	928	8.6	957	65	1.3	1,627	863	7.3	705
Ministry of Environment SR	951	12.9	1,195	457	7.8	1,380	494	5.2	871
Statistical Office SR	866	10.0	975	866	10.0	946			
Ministry of Economy SR	804	12.2	1,262	405	7.6	1,518	399	4.6	967
Government Office SR	507	8.9	1,455	493	8.7	1,426	14	0.1	836
Chancellery of the National Council SR	504	12.3	2,033	504	12.3	2,033			
Supreme Audit Office SR	292	5.0	1,429	292	5.0	1,374			
National Security Authority	216	4.5	1,748	216	4.5	1,713			
Supreme Court SR	216	6.7	2,553				216	6.7	2,566
Public Procurement Office	157	2.9	1,498	157	2.9	1,429			
Industrial Property Office SR	134	1.6	981	134	1.6	951			
Administration of State Material Reserves SR	106	1.5	1,169	106	1.5	1,142			
Nuclear Regulatory Authority SR	104	2.6	2,006	104	2.6	1,937			
Office of the Constitutional Court SR	96	2.3	1,978	96	2.3	1,957			
Slovak Office of Standards, Metrology and Testing SR	90	1.4	1,320	73	1.2	1,383	16	0.2	1,064
Regulatory Office for Network Industries	88	1.6	1,469				88	1.6	1,482
Office of the President SR	80	1.7	1,827	80	1.7	1,755			
Antimonopoly Office SR	64	1.3	1,655	64	1.3	1,619			
UPVII	187	4.8	2,105	187	4.8	2,076			
Office of Public Defender of Rights	35	0.6	1,486				35	0.6	1,489
Office for Personal Data Protection SR	34	0.5	1,276				34	0.5	1,282
Council for Broadcasting and Retransmission	30	0.5	1,303				30	0.5	1,302
Office of the Judicial Council SR	6	0.4	2,127				6	0.4	5,629
TOTAL	122,827	1 692.8	1,148	11,174	229.8	1,667	111 653	1 463.0	1,092

Source: BPS MoF SR

Annex 15: Areas of support and cross-cutting activities

Support and cross-cutting activities were identified based on Rules of Organisation. Cross-cutting and support nature of the activities was validated in cooperation with the Personal Office of the Ministry of Finance SR. The activities were then divided into 11 areas, which was then followed by collection of data about internal and external resource intensity. During calculation of potential savings data was consolidated excluding 3 areas where it was impossible to clearly separate expenditure on professional activities from support activities. Excluded from the comparison were property rights, Office of the State Secretary and the Chancellery of the General Secretary of the Service Office.

Table: Support and cross-cutting activities

Area	Examples of core activities	Included in comparison
Internal administration and asset management	Security, cleaning, registry office Asset management, transportation, catering	Yes
Financing	Accounting, budget of the chapter, payments under the budget chapter	Yes
Law and legislation	Legal services of the office Legislation – support function rather than factual, (development of subject matter of legislation)	Yes
Office of the Ministry	Administrative support Protocol, communication, internal audit	Yes
International relations	Membership in international organizations (no factual or professional membership-related issues)	Yes
IT	Operation of IT- helpdesk, release and maintenance of computers and telephones; systems administration, IT projects	Yes
Human resources	Compensations, HR management, education selection of employees, hiring	Yes
Public procurement	Methodology and public procurement (excluding factual preparation of the subject matter of procurement)	Yes
Office of the State Secretary	Administrative support	No
Chancellery of the Gen. Secretary of Service Office	Administrative support	No
Property rights and management of budget-subsidised and budget-funded organizations	Administration of subordinate organizations	No

Source: VFM

Annex 16: Areas of support and cross-cutting activities fit for centralization

	Human resources	Financing	IT	Internal administration	Public procurement	Law and legislation	Property rights and mgt of BSO	International relations	Chancellery of Gen. Sec. service office	Office of the State Secretary	Office of the Minister	
Optimization within the office	Activities intended for optimization depend on specific institution											
	Optimization method is within the competence of offices (e.g.: reduction of number of employees and wages/ bonuses, better outsourcing/ insourcing decisions)											
Departmental service centres	Selected activities fit for centralization								n/a			
	Central Economic System			n/a								
State service centres	Selected activities fit for centralization								n/a			

Source: Prepared by VfM

Annex 17: Average earnings of employees in education

Components of wages earned by employees of public regional education (2017)

	Teaching and professional employees		Non-teaching employees	
Tariff salary plus wage replacements	875	81%	461	79%
Personal allowance	36	3%	60	10%
Credit allowance	37	3%		
Other allowances	42	4%	9	2%
Overtime	17	2%	3	1%
Bonuses	70	6%	50	9%
Total	1,076	100%	583	100%

Source: SCoSTI, VfM calculations

Components of wages earned by employees of public universities (2017)

Wage components	Tertiary-education teachers		Research and art employees		Non-teachers	
Tariff salary plus wage repl.	1,082.4	72%	844.8	67%	526.8	61%
Personal allowance	152.0	10%	155.6	12%	146.9	17%
Overtimes					11.2	1%
Bonuses	222.7	15%	192.4	15%	142.8	16%
Other	56.5	4%	67.8	5%	43.0	5%
Total	1,513.6	100%	1,260.6	100%	870.7	100%

Source: SCoSTI SR

Annex 18: Details of calculation of released funds in tertiary education

- University students per teacher ratio:
 - Slovak Republic: 12,5
 - Czech Republic: 14,9
 - difference 16%
- Financial packet for personnel expenditures on tertiary-education teachers
 - in 2017: EUR 235.1 mil.,
 - estimate for 2019: EUR 268 mil.
- **Released funds, estimate for 2019: EUR 43 mil., estimate for 2020: EUR 47 mil.**
- Number of non-teaching employees:
 - year 2010: 10 103
 - year 2017: 9 617
 - non-teaching employees necessary for number of students of 2010: 7 124
 - difference 26%
- Financial packet for personnel expenditures on non-teaching tertiary-education employees:
 - year 2017: EUR 136 mil.
 - estimate for 2019: EUR 156 mil.
- **Released funds, estimate for 2019: EUR 40 mil., estimate for 2020: EUR 44 mil.**
- **Total released funds, estimate for 2019: EUR 83 mil., estimate for 2020: EUR 91 mil.**

Source: SCoSTI SR, OECD 2018b

Annex 19: Companies subject to comparison between Slovakia and Czech Republic (EUR mil.; 2018)

Company	FTE, or. average number	Personnel costs	OPEX	Total costs	Ratio personnel/ total
Railways of the Slovak Republic	13,684	253	397	495	51%
Slovenská pošta, a.s. (<i>Slovak Post</i>)	12,837	176	297	328	54%
ZSSK Cargo Slovakia, a.s.	5,513	94	264	289	33%
ZSSK Slovensko, a.s. (<i>railway passenger transport</i>)	5,877	115	312	402	28%
Social Insurance Agency	5,195	100	147	153	65%
Czech Railway Track Administration	17,307	411	957	1,117	37%
Czech Post	28,994	501	675	818	61%
Czech Railways Cargo	6,958	172	433	442	39%
Czech Railways – passenger transport	14,592	347	721	901	39%
Czech Social Security Administration Agency	8,721	120	233	244	49%

Source: VřM, Annual Reports

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8 List of Acronyms

Acronym	Description
BA	Bratislava
BCG	Boston Consulting Group
OHS	Occupational health and safety
CES	Central Economic System
CELSI	Central European Labour Studies Institute
CEPEJ	European Commission for the Efficiency of Justice
SCoSTI	Slovak Centre of Scientific and Technical Information
ČD	Czech Railways
CR	Czech Republic
ČSÚ	Czech Statistical Office
DRG	Diagnosis-related Groups – payment for diagnosis
EC	European Commission
ECBC	Economic Classification of Budget Classification
EP	European Parliament
EC	European Communities
ESA 2010	European System of National and Regional Accounts
EU	European Union
FSES CU	Faculty of Social and Economic Sciences, Comenius University
FTE	Full-time equivalent
GSSO	General Secretary of the Service Office
GDP	Gross Domestic Product
FRF	Fire and Rescue Force
IEP	Institute for Environmental Policy
IFP	Institute for Financial Policy
ICT	Information and Communication Technologies
ILO	International Labour Organisation
IMF	International Monetary Fund
ISCO	International Standard Classification of Occupations
ISLC	Information system on labour costs
IT	Information technologies
IEdP	Institute for Education Policy
IHP	Institute for Health Policy
CTU	Confederation of Trade Unions
MoTC SR	Ministry of Transport and Construction of the Slovak Republic
MoF SR	Ministry of Finance of the Slovak Republic
MoE SR	Ministry of Economy of the Slovak Republic
MoC SR	Ministry of Culture of the Slovak Republic
MWC	Minimum wage claims
MoD SR	Ministry of Defence of the Slovak Republic
MoARD SR	Ministry of Agriculture and Rural Development of the Slovak Republic
MoLSAF SR	Ministry of Labour, Social Affairs and Family of the Slovak Republic
MoJ SR	Ministry of Justice of the Slovak Republic
MoESRS SR	Ministry of Education, Science, Research and Sports of the Slovak Republic

Acronym	Description
Mol SR	Ministry of Interior of the Slovak Republic
MoH SR	Ministry of Health of the Slovak Republic
MoFEA SR	Ministry of Foreign and European Affairs of the Slovak Republic
MoEnv SR	Ministry of Environment of the Slovak Republic
NACE	Statistical classification of economic activities
NASES	National Agency for Network and Electronic Services
NATO	North Atlantic Treaty Organization
NBS	National Bank of Slovakia
NHIC	National Health Information Centre
NIP	National Labour Inspectorate
NPEU	National Programme for Education and Upbringing
NC SR	National Council of the Slovak Republic
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics (UK)
OP II	Operational Programme Integrated Infrastructure
Exp	Expectation
PIAAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
PN	Sick leave
BSO	Budgetary and subsidiary organisations
BIS	Budget and Information System
RSS	Regional School System
SAS	Slovak Academy of Sciences
SES	Structure of Earnings Survey
SK	Slovakia
SCT	Slovak Chamber of Teachers
SVS	Secondary vocational school
SIA	Social Insurance Agency
SR	Slovak Republic
BPS	Budget Policy Section
SCSSF	Service centres for schools and school facilities
SWMC	Slovak Water Management Company
GB	Government budget
SS	State Secretary
SO SR	Statistical Office of the Slovak Republic
TIS	Transparency International Slovakia
UK	United Kingdom of Great Britain and Northern Ireland
VfM	Value for Money Unit
DPMOII	Deputy Prime Minister's Office for Investments and Informatisation
ORECPS	Office for regulation of electronic communication and postal services
GO SR	Government Office
PPO	Public procurement office
PHA SR	Public Health Authority of the Slovak Republic
PS	Public sector
HEI	Higher education institution/University

Acronym	Description
PHEI	Public higher education institution
PI	Public interest
V3	Hungary, Poland, Czech Republic
LC	Labour Code
ZSSK	Railway Company Slovakia (passenger transport)
PCGS	Prison and Court Guard Service
BS	The baseline scenario
ES	Elementary school
SAO SR	Supreme Audit Office of the SR
OoNC SR	Office of the National Council of the Slovak Republic
OP SR	Office of the President of the Slovak Republic
OoPDR SR	Office of the Public Defender of Rights of the Slovak Republic
OoCC SR	Office of the Constitutional Court of the Slovak Republic