

IS THERE ROOM FOR IMPROVEMENT IN WAGE SETTING IN POLAND'S PUBLIC ADMINISTRATION?

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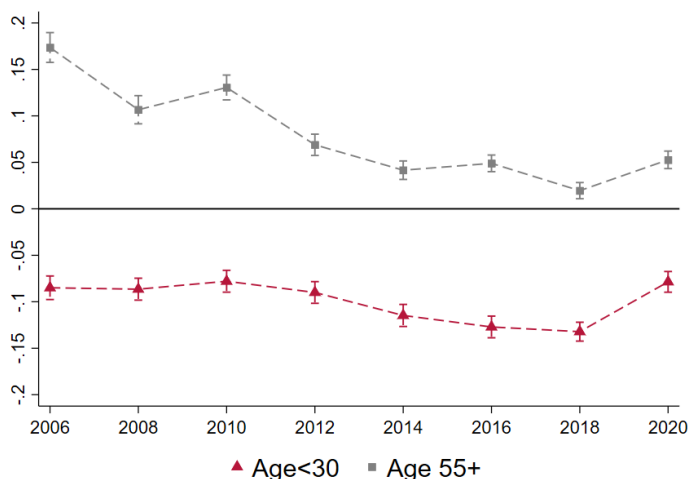
Main message

There are several areas for improvement in wage setting in the public administration sector in Poland. Public administration pays a lower premium for tertiary education and offers lower wages for young employees than the business sector. Instead, public administration provides large returns to job tenure, incentivizing lifelong employment. Such a model is conducive to the smooth functioning of the administration. However, it limits the possibilities of structural changes in employment. The present remuneration system may also lead to negative selection, where low-productivity workers remain in the public administration till retirement, while high-productivity workers choose employment in the business economy. To address these issues, we propose a reduction in automatic seniority premiums, an increase in basic wages, and better valuation of scarce skills.

Key facts

- Public administration employees earn, on average, **3%** less than business sector employees of the same experience, education level, and occupation (as of 2020).
- For people younger than 30, this public-private wage gap amounts to **-8%**.
- Public administration promotes lifelong employment and provides large returns to job tenure.
- In 12 out of 16 regions, public administration offers higher wages compared to the business sector.
- The public-private wage premium significantly declined from 2006 to 2018, but in 2020 the relative situation of employees in the public administration improved.

Estimates of the public administration wage gap, by age groups



Note: The public administration wage gap is the average percentage disparity between the salary of a public sector employee and that of a counterpart in the business economy, who is comparable in terms of occupation, education, and experience. The anniversary bonuses are not accounted for.

Source: Own elaboration based on the Structure of Earnings Survey

1. Introduction

Wage policies in the public sector play a critical role in ensuring the effective functioning of public services. In Poland, the public sector employs over 3 million individuals, accounting for 18.7% of total employment as of 2021. This paper focuses on assessing wage policies within the public administration, which employs 456,000 individuals, representing 15% of total public sector employment.

Despite its significance, the remuneration system in public administration lacks systematic evaluation. On the one hand, general rules shaping the structure of wages follow institutional inertia. On the other hand, funds for wage increases are assigned based on discretionary decisions. Furthermore, there is a scarcity of studies examining the adequacy of public sector wages. Our analysis reveals noteworthy disparities between the wage policies of public administration and those of the business sector. For instance, employees with tertiary education face considerable wage penalties when working in public administration, while individuals with lower education levels benefit from a public-private wage premium.

Wage policies in public administration promote lifelong employment. Salary increases are tied not only to promotions but also to a universal seniority premium, reaching its peak of 20% for employees with a minimum of 20 years of professional experience. Our findings indicate that employees in the 55+ age group earn 5% more than their counterparts in the business sector, considering experience, education level, and occupation. In addition, employees with at least 20 years of experience receive anniversary awards, not accounted for in the present analysis. Conversely, individuals younger than 30 face an 8% wage penalty associated with working in public administration. Consequently, public administration may attract individuals seeking long-term employment contracts.

However, this model hampers the flexibility of public administration. It impedes the recruitment of young employees and incentivizes older workers to extend their careers beyond retirement age. As many tasks performed by the administration employees are routine cognitive, new technologies present an opportunity to substantially increase the effectiveness of public administration. However, structural changes in employment might be necessary to fully reap the benefits of digitalization.

We propose curbing the automatic salary increases tied to tenure. By redirecting the saved funds towards basic wages, younger employees would primarily benefit while maintaining neutrality for those with moderate experience. Additionally, introducing skill allowances could establish wage differentiation across various occupations, aligning with the market valuation of specific skills.

This paper consists of five more sections. In section 2, we present the institutional setting. In section 3, we estimate the public-private wage gap across various socio-demographic and occupation groups. In section 4, we investigate returns to experience in public administration and compare these with selected sectors of the business economy. In section 5, we discuss regional variation in the public-private wage gap. Section 6 provides policy conclusions.

2. Wage setting in public administration

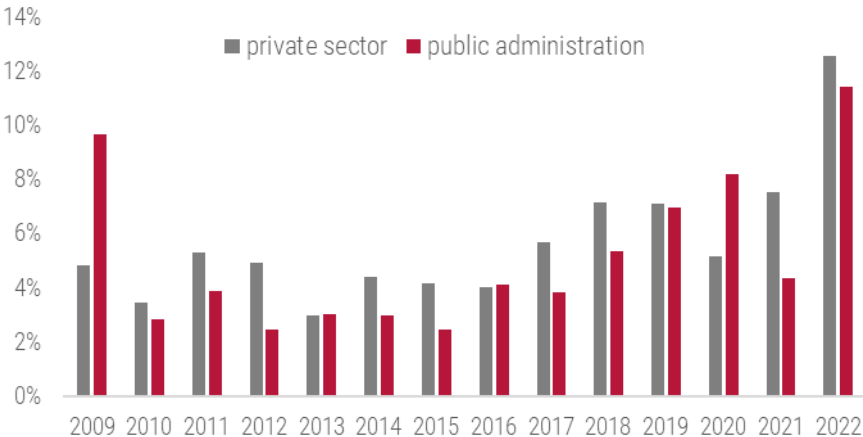
In this section, we explain regulations that govern wage determination in public administration. There are some rules that apply to the whole public administration sector, but there are also differences between state (central) administration and local self-government administration.

Total wages in public administration are significantly higher than the basic wages negotiated and then stated in the employment contract. Employees are entitled to three mandatory bonuses. Firstly, they receive an annual “thirteenth salary,” which amounts to 8.5% of their annual wage. Secondly, monthly wages are increased by a seniority premium of up to 20%. One percentage point is added for each year of tenure, starting from a 5% bonus in the fifth year of employment. The tenure period is calculated based on the collective experience from all previous employers, including those in the private sector. Lastly, there are anniversary bonuses. Employees who have worked for 20, 25, 30, 35, 40, and 45 years receive one-time payments amounting to, respectively, 75%, 100%, 150%, 200%, 300%, and 400% of their monthly wage. Additionally, employees in public administration often receive discretionary quarterly bonuses.

In state administration, basic wages are determined by a uniform base amount and individual multipliers. However, in 2009-2018 and in 2021-2022, the base amount was frozen, and wage increases were due to higher individual multipliers. Therefore, the wage growth varied between individuals and between entities, as the average wage growth in an entity was linked to its budget constraints. For instance, in 2021, wage growth in ministries amounted to 14.5%, while it was only 5.2% in regional (voivodeship) offices, which are also part of the state administration¹. Increases in the base amount were only implemented in 2019 (by 2.3%), in 2020 (by 6%), and in 2023 (by 7.8%, while the inflation rate in 2022 amounted to 16.6%).

The government also sets minimum basic wages for local self-government administration. These minimum wages are differentiated across 22 classes of jobs. However, in 2022 most of these rates were below the national minimum wage. Consequently, changes in wages in local self-government administration are influenced more by national minimum wage hikes and labour market conditions than by dedicated government regulations. Despite this non-systematic approach, the overall wage growth in public administration has exhibited a positive correlation with wage growth in the private sector over the past 13 years (Figure 1).

Figure 1 Wage growth in public administration and private sector



Note: Annual wage growth is calculated using average wages in the first half of each year
 Source: Own estimations based on Statistics Poland data (2023 and earlier)

¹ Based on the report by the Chancellery of the Prime Minister (2022).

3. Adequacy of public administration wages

In this section, we analyze the differences in wages in the public administration and business economy, aiming to establish whether “similar” workers – of the same experience, education and occupation – earn a “wage premium” or suffer a “wage penalty” in public administration, compared to their counterparts in business entities. The methodology of analysis is detailed in Frame 1.

Frame 1. Methodology of estimating the public-private wage gap

To assess the adequacy of wages in public administration (NACE section O), we compare them against wages in the business economy (by which we mean industry and market services, in line with the Eurostat definition). We estimate a so-called public-private wage gap using microdata from the Structure of Earnings by Occupation Survey, which allows us to adjust earnings for a number of individual characteristics.

An important advantage of this survey is that there is no selection bias due to the answer-refusal of individual workers. Questionnaires are filled in by employers, which ensures the accuracy of data. The annual sample size for public administration ranges from 47 thousand observations in 2006 and 2008 to 67 thousand observations in 2018. They represent 420 – 480 thousand employees. In the sample, there are no representatives of major uniformed services such as soldiers or police officers. Our baseline estimations focus on total wages that include obligatory and discretionary bonuses, except for the anniversary awards. However, we also report the results for basic wages. For each year, we estimate the following regression:

$$\ln(\text{wage}_i) = \beta * \text{adm}_i + \gamma_o * \text{occ}_{o,i} + \delta_e * \text{edu}_{e,i} + \eta * \text{exp}_i + \theta * \text{exp}_i^2 + \epsilon_i$$

Where *wage* is calculated on a full-time equivalent basis, *adm* is a dummy variable denoting employment in public administration, *occ* is a vector of circa 100 dummy variables representing ISCO occupations minor groups, *edu* is a vector of dummy variables representing educational attainment and *exp* stands for total years of professional experience.

We find a public sector wage penalty, which has increased over time. In 2006, public administration employees enjoyed a wage premium of 3%, meaning they earned, on average, 3% more than comparable workers in the business economy. However, by 2012, this gap was reversed, reaching -6% in 2018 (Figure 2). In 2020, the average wage penalty in the public sector decreased but remained negative at -3%. In other words, in 2020, the earnings of public administration employees were lower by 3% than the earnings of business economy employees of the same experience, education, and occupation. However, this overall indicator masks substantial heterogeneities.

Wage setting in public administration tends to disadvantage young employees, while older employees in the sector benefit from a considerable wage premium (Figure 3). In 2020, this wage premium amounted to 5%, not including the anniversary bonuses, for which data is not available. In contrast, the earnings of young workers are 8% lower than the wages of their counterparts (of the same age, education, and occupation) in the business economy. Therefore, public administration may not be an attractive employer for labour market entrants.

Returns to education in public administration turn out to be lower than in the business economy (Figure 4). In 2020, tertiary-educated public administration employees earned, on average, 10% less than “similar” business economy employees, while public administration workers with upper secondary education enjoyed a wage premium of 10% (compared to the business economy). An even larger premium of 14% was observed among employees with elementary, lower secondary, or basic vocational education. However, this group is small and accounts for only 4% of employment in public administration.

Figure 2 Estimates of the overall public administration wage gap

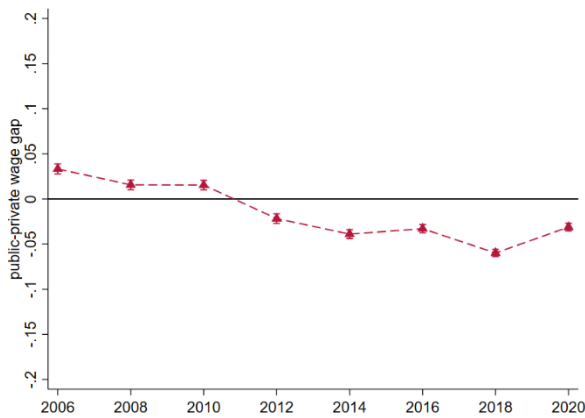


Figure 3 Estimates of the public administration wage gap, by age groups

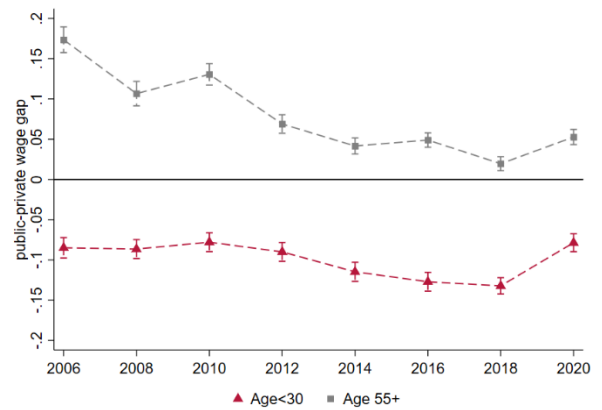


Figure 4 Estimates of the public administration wage gap, by education level

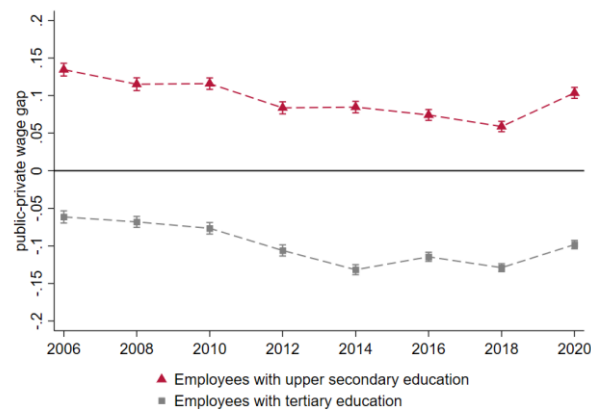


Figure 5 Estimates of the public administration wage gap, by gender



Source: Own estimations based on the Structure of Earnings Survey

The estimates of the public-private wage gap also differ along the gender dimension (Figure 5). The public sector remunerates women better (no wage penalty in 2020 among women compared with a wage penalty of 5% for men). However, the detailed analysis of the differences in gender wage gap between the public administration and the business sector is beyond the scope of the present paper.

The public administration wage premium varies strongly across occupations (Table 1). Occupations such as cleaners and helpers, drivers, and legal, social, and cultural professionals experience the highest public sector wage premium. On the other hand, ICT professionals, managers, and business and administration professionals face a negative public sector wage gap. The substantial negative wage gap in selected occupations, as well as the overall negative wage gap for young employees, implies that public administration may encounter difficulties in recruiting employees.

In certain occupations, the wage gap becomes more pronounced when considering the highest-paying jobs. In Table 1, we report the ratios of the 95th percentile of the occupational wage distributions in the business sector and public administration. The highest-paid ICT professionals earn 75% more in the business sector. Similarly, best-performing business and administration professionals can earn 40% more in the business sector. Therefore, public administration may encounter problems in hiring and retaining the most skilled professionals.

Table 1 Public-private wage gap across occupations, 2020

Occupation (ISCO sub-major group)	Public wage premium	Top wages (p95) ratio: business to administration	% of public administration employment
Cleaners and helpers	20.7%	0.88	1.5%
Drivers and mobile plant operators	16.8%	1.03	1.3%
Legal, social and cultural professionals	12.1%	0.93	8.2%
Personal service workers	10.8%	1.05	1.6%
Legal, social, cultural associate professionals	10.6%	1.22	4.3%
Health associate professionals	9.1%	1.11	1.1%
Numerical and material recording clerks	8.8%	0.89	1.5%
Other clerical support workers	5.2%	1.04	3.6%
Health Professionals	2.0%	1.15	1.9%
General and keyboard clerks	1.6%	1.18	8.7%
Business and Administration Associate Professionals	-7.9%	1.28	20.3%
Science and engineering associate professionals	-10.2%	1.38	1.2%
Chief Executives, Legislators and senior officials	-10.3%	2.51	3.8%
Science and engineering professionals	-11.3%	1.41	5.5%
Business and administration professionals	-13.1%	1.40	21.9%
Managers	-21.8%	1.95	6.3%
ICT professionals	-34.1%	1.75	1.4%

Note: We only report results for occupations that constitute at least 1% of employment in public administration. Source: Own estimations based on the Structure of Earnings Survey

Figure 6 Estimates of the overall public administration wage gap, basic wage

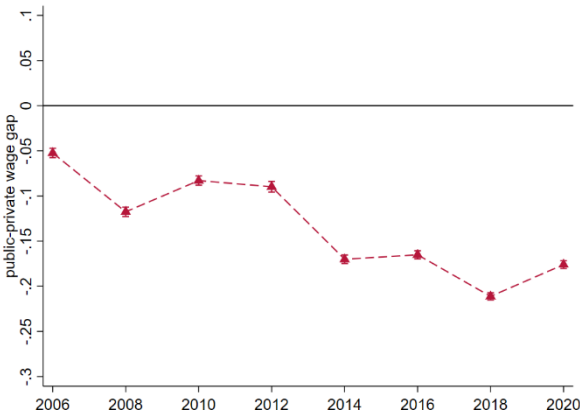


Figure 7 Estimates of the public administration wage gap, basic wage, by age groups



Source: Own estimations based on the Structure of Earnings Survey

Public administration pays bonuses more frequently than the business economy. Therefore we also look at the public-private wage gap from the perspective of basic salaries. Without bonuses, the wage gap between the public administration and the business economy amounts to -18% as of 2020 (Figure 6; compared with -3% for total wages). For older employees, the gap is estimated at -9% (Figure 7; contrasting with a wage premium of

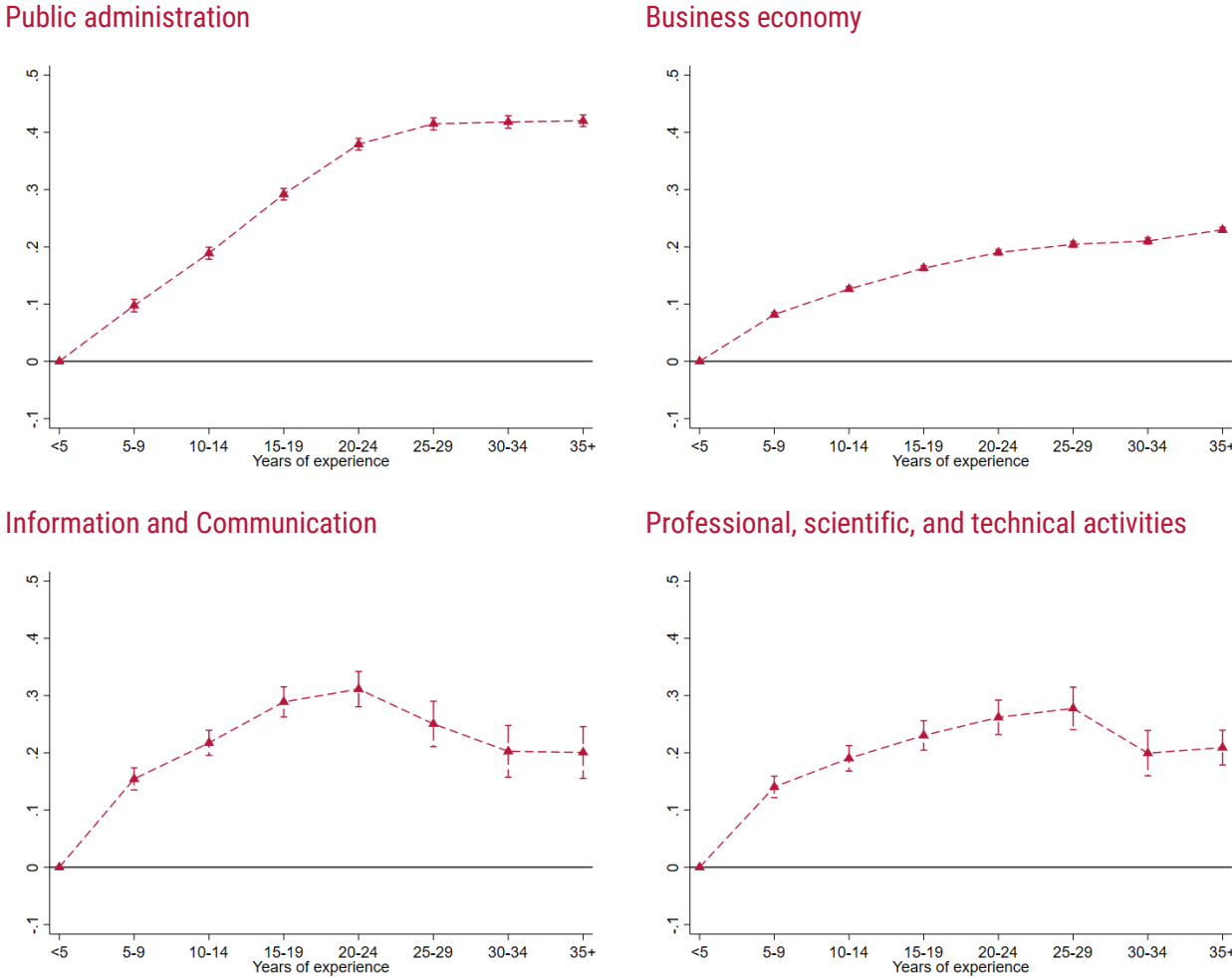
5% for total wages). Although the total wage is a more relevant indicator, the basic wage is also important as this is the value negotiated during the recruitment process. Moreover, it is common for public administration to suspend discretionary bonuses during economic downturns.

4. Returns to experience

In this section, we examine the returns to experience in public administration. This is motivated by the previously shown results that older employees in public administration enjoy a wage premium while young workers are subject to a wage penalty.

The returns to experience in public administration are exceptionally large. Employees with 25 or more years of experience earn salaries that are 42% higher than those of the least experienced workers with the same occupation and education level (Figure 8). In comparison, the returns to experience in the business economy are only similar during the first ten years of employment. After that, these returns become much lower than in the public administration, amounting to 20% for individuals with 25 to 29 years of experience. This comparison raises the question: what is the underlying rationale for wage policy in public administration?

Figure 8 Relationship between experience and labor earnings in selected sectors, 2020



Note: In this figure, we report the estimated increase in hourly wage with experience relative to persons with less than 5 years of professional experience. The anniversary bonuses are not accounted for. We control for occupation and education level. Source: Own estimations based on the Structure of Earnings Survey

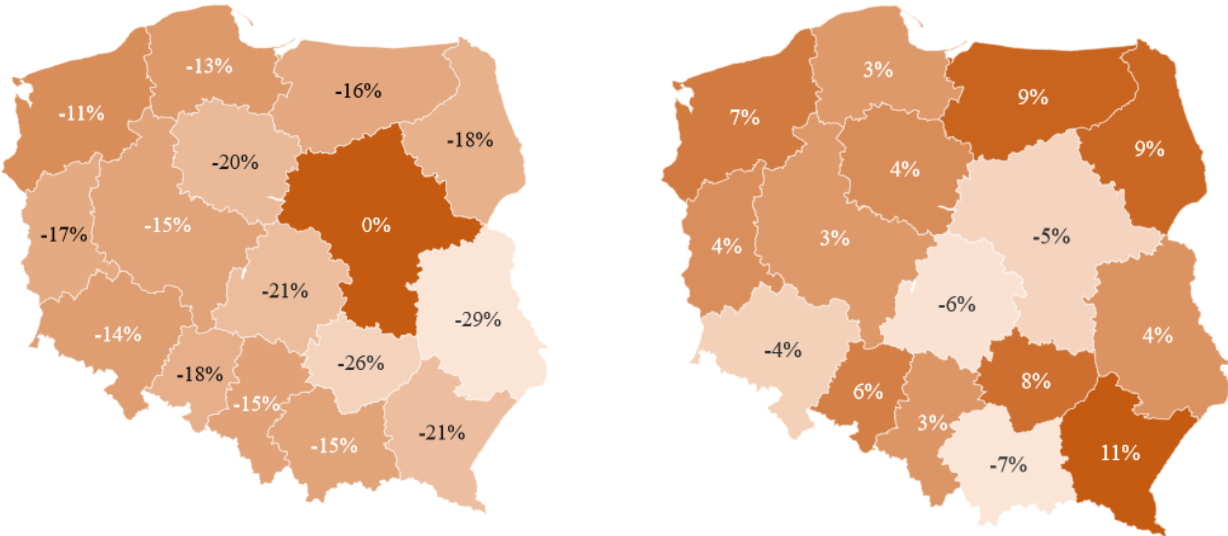
The human capital accumulation motive does not seem to be a sufficient justification for the large returns to experience in public administration. We calculate these returns in the human capital-intensive sectors (that is, in information and communication, and professional activities, depicted in the bottom panel of Figure 8). The maximum wage premium associated with experience amounts to 31% for employees in the information and communication sector with 20-24 years of experience. In these sectors, wage gains from experience become negative after 25 or 30 years of experience. This stands in contrast with public administration, where we do not observe a decline in wages with experience. Therefore, the compensation structure in public administration appears to be partly connected to the goal of fostering employee loyalty and minimizing staff turnover. However, this approach may not be compatible with the dynamically changing labour market and technological revolutions of the 21st century.

5. Regional differences in public wage premia

In this section, we report heterogeneity of public administration wage premia and penalties across regions. This is an important aspect, considering that salaries in the business economy exhibit discrepancies among different administrative regions (voivodeships). Consequently, uniform wage policies may make public administration an attractive employer in certain regions while rendering it less competitive in others. However, wages in public administration are, to some extent, aligned with the local labour market conditions. For instance, average wages in cities with a *powiat* status are higher by 19% than wages in other *powiat* offices, which are typically located in small towns.

From a regional perspective, the highest wages in the public administration are observed in the *Mazowieckie* Voivodeship, the nation’s capital region, where the majority of central administrative bodies are located. In state administration, average wages are considerably higher (by 31% as of 2021) than average wages in local self-government administration in Poland (Statistics Poland 2022). In other regions, public administration employees with similar characteristics (education, age, and occupation) experience a significant regional wage penalty (compared to *Mazowieckie*), ranging from -11% to -29% (Map 1).

Map 1 Regional wage penalties in public administration, *Mazowieckie* as a reference region, 2020 Map 2 Regional public-private wage premia, 2020



Source: Own calculations based on the Structure of Earnings Survey

Estimates of the public-private wage gap at a regional level indicate that, in the majority of regions, public administration employees earn more than their counterparts in the private sector (Map 2)². Only four voivodeships, including *Mazowieckie*, the capital region, and three other relatively developed ones (*Małopolskie*, *Dolnośląskie*, and *Pomorskie*), exhibit public administration wage penalties when compared to the private sector. Meanwhile, the largest public administration wage premia are observed in less developed regions.

6. Conclusions

In this paper, we have examined the wage setting in public administration in Poland. We compared wages of public administration employees with their counterparts in business economy and we identified significant differences between the remuneration systems in these two sectors.

Public administration does not offer competitive wages to young employees, and tertiary-educated ones. Furthermore, the public wage penalty is particularly pronounced in high-skilled occupations such as ICT professionals, managers, and business and administration professionals. As a result, the public administration encounters challenges in recruiting specialists whose skills are crucial for enhancing the overall effectiveness of the sector.

To improve wage setting and address these issues, we propose three changes:

- Reduce the gap between the wages of senior and junior employees
- Reward scarce skills that are highly valued in the business economy
- Estimate wage gaps at the level of individual institutions and adjust wages accordingly

Firstly, the returns to experience are too large. Therefore, the mandatory seniority premium, which goes up to 20%, should be gradually phased out. Similarly, the award for a long tenure should be reduced, and, for instance, capped at the value of one monthly wage. The saved funds could be used to increase basic wages and thus reduce the public wage penalty faced by young employees. Limiting automatic rises in salary with tenure is also a general recommendation given by the OECD (2019).

Secondly, wages in public administration should be more reflective of the market valuation of scarce skills. Introducing skill allowances into the existing job structure would help create differentiation and reward employees with in-demand skills. This would make public administration more competitive in attracting specialists who are crucial for enhancing the overall effectiveness of the sector.

Thirdly, while the overall wage landscape in public administration may indicate marginal differences compared to the business sector, it is essential to address cases where salaries are particularly low in specific institutions. The government should calculate public-private wage gaps at the level of individual institutions and allocate additional funding to entities with significantly negative wage gaps.

² We estimate the public-private wage gap separately for each of the 16 NUTS2 regions in Poland. We use the analogous specification as for the national estimations.

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