

BOSNIA AND HERZEGOVINA (BIH) PUBLIC SECTOR LABOR MARKET AND ITS IMPLICATIONS



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Acronyms

BiH	Bosnia and Herzegovina
CAPI	Computer Assisted Personal Interviewing
EBFs	Extra-Budget Funds
ECA	Europe and Central Asia Region
EAs	Enumeration Areas
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
GDP	Gross Domestic Product
HRM	Human Resource Management
KM	Bosnian Convertible Mark
LFS	Labor Force Survey
OECD	Organization for Economic Co-operation and Development
RS	Republika Srpska
SOEs	State-Owned Enterprises
STEM	Science, technology, engineering, and mathematics
STEP	Skills Towards Employability and Productivity Measurement Survey
TMS	Training Management System
WB	The World Bank
WGI	Worldwide Governance Indicators
WWBI	Worldwide Bureaucracy Indicators

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Executive Summary

1. **Bosnia and Herzegovina (BiH) faces the dual and interlinked challenge of lack of jobs and low quality of public services.** Labor force participation rates, especially of women, are among the lowest in Europe, and the country faces high and sustained levels of unemployment, especially of the youth. Even within the employed sector there are concerns regarding the quality of jobs, including high levels of informality. The dearth of quality jobs is linked to skills mismatches between the demand and supply of labor, which in turn reflects the relatively low quality of human capital of workers, and poor education and health services.

2. **The objective of this report is to examine the “public sector labor market” in BiH and its implications for this twin challenge.** The public sector labor market is defined as the employment, compensation, management, and work environment practices of the government and state-owned enterprises (SOEs). These practices influence the employment choices of individuals, such as whether to work and preferences over public sector or private sector employment. They also affect the selection, retention, motivation, and productivity of public sector workers, which in turn impact the ability of the government to effectively deliver its variety of outputs. The report measures these features of the public sector labor market through an original household survey conducted by the World Bank (WB) in 2021-22 that is representative of the urban areas of the Federation of Bosnia and Herzegovina (FBiH) and the Republika Srpska (RS). This report is, to the authors’ knowledge, the first such analysis of the potential effects of the public sector labor market on crowding out private sector jobs in BiH and provides additional granular evidence of the human resource management practices in the public sector to complement the several, more qualitative assessments that have been done to date.

Main findings

3. **The public sector in BiH is a large employer, particularly of more educated workers and women.** The public sector employs 44 percent of all formal sector salaried workers, among the largest in Europe, and is a disproportionately large employer of highly skilled workers, with 58 percent of all tertiary educated workers employed in either the civilian government or SOEs. Forty-nine percent of all employed women work in the public sector, though they are concentrated in the education and health sectors, and under-represented in senior managerial positions, which is in line with the global pattern. This large public sector footprint in the skilled labor market may also be influencing the educational choices of workers. While the educational backgrounds of workers in the two sectors differs given the different nature of jobs in the public and private sectors, what stands out is the low percentage of workers who have degrees in science, technology, and mathematics fields (STEM) that are deemed critical for innovation and the high-growth technology sectors. Only 30 percent of all workers in BiH have a STEM degree, much lower than other countries in Europe, and therefore it is not surprising that firms in BiH complain of significant skills mismatches between what is required in jobs and what workers have to offer.

4. **Public sector workers receive a significant compensation premium compared to similar private sector employees across all types of jobs and skill levels.** Using well established statistical techniques that control for worker observable characteristics (i.e., worker age, gender, and education), the survey

reveals that public sector workers earn on average 19 percent higher gross wages (including allowances) than comparable formal private sector workers. This wage premium is higher in BiH than most other European countries. The premium is even higher when pecuniary and non-pecuniary benefits are included as a higher proportion of public sector workers receive a job contract, health insurance, paid annual leave, parental leave, pensions, and most importantly, have greater job security as they are much less likely to be dismissed from their jobs. Workers in SOEs, who are in many ways the most comparable to private sector workers given that they are employed in manufacturing jobs, also earn a 17 percent wage premium. Notably, the public sector premium is the highest for the most educated workers and for more technical jobs which, together with the large representation of tertiary educated workers in the public sector, suggests the presence of potential skilled labor shortages for the private sector.

5. **There is a strong preference among individuals for working in the public sector.** Higher compensation would suggest that the public sector is the preferred employer, and this finding was confirmed by the WB survey. Forty-eight percent of job seekers reported preferring working in the public sector, as compared to only 29 percent who reported a preference for the private sector. This public sector preference was highest amongst tertiary educated workers and among workers below the age of 30, which has clear implications for youth unemployment. The WB survey also found that those who reported a preference for the public sector were twice as likely to have rejected an existing job offer compared to individuals with a preference for the private sector, suggesting that the public sector labor market may be leading to a longer duration of unemployment as workers wait for public sector jobs. Unsurprisingly, higher salary, job security, and better working conditions are the main reasons why unemployed workers prefer the public sector.

6. **These preferences for public sector employment are likely to have been further strengthened by the impact of the Covid-19 pandemic which had more severe impacts on private sector workers.** Results from the survey show that public sector workers were less affected from the pandemic in terms of job loss or reduced working hours. Even for women, who as a group, experienced worse economic outcomes from the pandemic, fared better in the public sector compared to the private. For example, 43 percent of the women in the private sector revealed they were not able to work the same number of hours and 30 percent saw a decrease on their wages, as compared to 28 percent and 10 percent respectively of women in the public sector.

7. **The public sector is the favored employer, but it is not selecting the most able and motivated workers because of a lack of transparency and merit in recruitment.** While most respondents believe that the public sector is the best possible career option, far fewer think that the best workers join the public sector. The starkest evidence of lack of merit in recruitment is the high importance of political connections in securing public sector employment. The survey asked respondents to rank the importance of several factors to find a good job. While, as expected, workers ranked years of experience and work performance in their current position as important, the two most important criteria given for finding a job in the public sector were support from a politician or someone with political links, or personal connections from individuals in the public sector. The survey also found that the recruitment system fails to attract and screen for candidates driven by public sector motivation, an important driver of performance in the public administration.

8. **The WB survey also revealed weaknesses in the management and accountability of public sector workers.** A high proportion of workers from both civilian government (38 percent) and SOEs (37 percent) stated that their performance had not been evaluated in the past two years and another 13 to 14 percent revealed their performance had been only evaluated once in that time. This irregularity of performance evaluations points to an organizational culture that does not value accountability or staff growth. The survey also shows that performance evaluations have relatively weak impact on career paths, salary determination or prospects for dismissals. Personal and political connections, by contrast, were reported as being influential in salaries and careers of public sector workers, particularly in SOEs. For example, 45 percent of SOE workers stated that these political connections were important for getting a promotion, and approximately 39 percent believed that these connections helped get salary increases. A majority of the public sector workers also stated that management rarely rewards them for any innovative behavior, such as searching for new ways to improve their jobs. Moreover, only a minority of public sector employees (25 percent) responded having undertaken any training in the past year, pointing to both limitations in access to training and a lack of incentive to participate in capacity development programs.

9. **Public sector workers, particularly younger workers, are less motivated today than when they joined the public sector.** Beyond the issues of finding work in the first place, public sector workers below the age of 30 have self-assessed motivation levels that are 11 percent lower than when they started their employment, as compared to 10 percent higher for their private sector counterparts. The reasons given for less motivation are linked to the performance management and work environment factors discussed above. Worker motivation levels are also correlated to management quality.

10. **Finally, a policy weakness is the absence of good data on the public sector labor market to inform HRM practices and broader evidence-based policy making and implementation.** Given the political difficulties in implementing public sector pay reform, a robust evidence base is necessary to justify any actions and to build a coalition for reform. In line with BiH's institutional fragmentation, administrative data systems are scattered across the FBiH and RS entities, and within FBiH across the cantons. There is no consolidated database, or registry, that captures information of all general government employees and their wages either at the level of these jurisdictions or countrywide. The regular household surveys, such as the Labor Force Survey, also do not capture full information on sector of employment and all elements of compensation that make it difficult to measure public-private compensation differentials.

Recommendations

11. **Reforming the public sector labor market will be politically and technically challenging, and a necessarily gradual, process.** A core reform is to ensure that public sector wages remain competitive enough to attract and retain high-quality public sector workers while not becoming too high and creating disequilibria in labor markets resulting in queuing and crowding effects in the private sector labor market. Clearly, the current wage levels are indeed too high, but reducing wages, even gradually over time, is politically very difficult. Therefore, this report does not recommend any action in this area but rather emphasizes using data and evidence to inform future actions. Given these challenges, the set of recommendations, summarized below, should be viewed as politically more feasible priority areas of engagement that can be incrementally improved. These areas are identified as they are not only major weaknesses in BiH but also as there is a solid body of empirical evidence as to their potential impact.

Recommendation	Actions	Timeline Short-term (<1 year) Medium-term (1-3 years)
<i>Better data management</i>	<ul style="list-style-type: none"> • Institutionalize data sharing across government levels for more informed human resource planning • Strengthen administrative data by developing registries of government employees • Improve the Labor Force Survey to better measure public sector employment and the compensation premium. Regularly conduct specialized household surveys to comprehensively measure the public sector labor markets and its implications • An annual, publicly disclosed report on public sector employment and compensation can create the impetus for reform 	<ul style="list-style-type: none"> • Short-term • Medium-term • Short-term • Medium-term
<i>Connecting people to jobs</i>	<ul style="list-style-type: none"> • Address the legal and social barriers women face in entering and remaining in the labor market which is biasing their employment choices towards the public sector. • The government can implement mentoring and role models' programs in school to shift the aspirations and expectations of women regarding their careers. • The government should continue to expand affordable childcare, eldercare, and day-care facilities which, evidence shows, have positive effects on female labor supply. • The government can adjust its recruitment practices in ways to increase job seeker's incentives to take up private sector jobs while overcoming their selection into specific education degrees. 	<ul style="list-style-type: none"> • Medium-term • Medium-term • Medium-term • Medium-term
<i>Merit-based recruitment</i>	<ul style="list-style-type: none"> • Use rigorous competency-based exams to screen candidates • Interviews should assess both technical competencies and public service motivation 	<ul style="list-style-type: none"> • Short-term • Short-term
<i>Investing in training</i>	<ul style="list-style-type: none"> • Invest in competency-based training of staff, including for improving technical competencies targeted to different categories of workers (i.e., teachers, nurses, civil servants, and SOE board and managers); and cross-cutting competencies like leadership, communication, and problem-solving • Improve the culture and incentives of training through training design and assessing trainings in performance evaluations • Avail of the opportunities offered by digital technologies by developing an online training platform for public sector workers 	<ul style="list-style-type: none"> • Short-term • Medium-term • Medium-term
<i>Strengthening management</i>	<ul style="list-style-type: none"> • The public sector should undertake regular and robust performance evaluations • Establish a competency framework for leaders that includes strategic thinking, organizational goal setting, change management, human resource management, and community engagement as required competencies 	<ul style="list-style-type: none"> • Medium-term • Short-term

	<ul style="list-style-type: none">• Implement a mix of different types of capacity building approaches for managers, including traditional curriculum-based training and peer-based exchanges• Use awards and recognition for well-performing SOEs to spur improvements in their human resource management practices	<ul style="list-style-type: none">• Medium-term• Short-term
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Chapter 1: Context and Objectives

12. **Bosnia and Herzegovina (BiH) faces the dual and interlinked challenge of jobs and low quality of public services.** As of 2021, only an estimated 39.6 percent of Bosnian adults had jobs, 15.9 percent of the labor force was unemployed, and 52.3 of adults were inactive.¹ This low employment, particularly of youth, is partly due to skill mismatches in the labor market, which in turn reflects the low-quality of human capital due to poor education and health services. BiH has a Human Capital Index of 0.58, implying that a child born today will be 58 percent as productive when she grows up as she could be if she enjoyed complete education and full health. This is lower than the Europe and Central Asia (ECA) average of 0.69.² For example, students in BiH lose the equivalent of 3.1 years of schooling because of the poor quality of education, and less than 50 percent of 15-year-olds have basic proficiency in reading, math, and science, well below the European Union (EU) average of 76 percent.³

13. **A major institutional reason for this dual challenge is the large public sector that crowds out private sector jobs and fails to effectively deliver on regulations, infrastructure, or services.** The World Bank's Systematic Country Diagnostic for BiH encapsulates these broad governance challenges and their impacts on firm productivity and citizen wellbeing, and underlines the need to move from growth driven by public sector spending to growth which is led by private sector competitiveness and productivity.⁴ BiH has one of the largest public sectors in the world, with general government expenditures of approximately 40 percent of GDP, and well-known problems of institutional fragmentation, duplication of structures, political patronage, and weak government systems. Several World Bank reports have detailed how these institutional and governance challenges hurt fiscal sustainability, budgetary and human resource management, and the delivery of education and health services.⁵

14. **The objective of this report is to use new, micro-level data to provide a more focused analysis of the 'public sector labor market' and its implications for jobs and government productivity.** The public sector labor market is defined as the employment, compensation, management, and work environment practices of the general government and state-owned enterprises (SOEs). This public sector labor market has certain unique features that distinguish it from the overall labor market given that the government sets wages based on laws and regulations, rather than market demand and supply, and often the sole provider of outputs and therefore faces no, or limited, competition.⁶ These practices influence the employment choices of individuals, such as whether to work and preferences over public sector or private sector employment. They also affect the selection, retention, and motivation of public sector workers, which in turn impact the ability of the government to effectively deliver its variety of outputs. The report measures these features of the public sector labor market through an original household survey conducted by the WB that is representative of the urban areas of the Federation of Bosnia and Herzegovina (FBiH) and the Republika Srpska (RS). This report is, to the authors' knowledge, the first such

¹ Labor Force Survey 2021

² <https://thedocs.worldbank.org/en/doc/7c9b64c34a8833378194a026ebe4e247-0140022022/related/HCI-AM22-BIH.pdf>

³ PISA 2018

⁴ World Bank (2020)

⁵ World Bank (2017); World Bank (2022)

⁶ Ehrenberg & Schwartz (1986); Gregory & Borland (1999)

analysis of the potential effects of the public sector labor market on crowding out private sector jobs in BiH and provides additional granular evidence of the human resource management problems in the public sector to complement the several qualitative and sectoral assessments that have been done to date.

15. **The report also explores how the COVID-19 pandemic may have further influenced employment choices.** The workplace closures and job losses may have skewed preferences even more towards public sector employment as the public sector was generally insulated from these disruptions. These differential impacts were particularly pronounced for women given that the public sector in BiH, as detailed in this report, is a disproportionately large employer of women.

16. **The report responds to the Government's priorities of addressing the jobs challenge.** The government's ambitious Reform Agenda, adopted in 2015, and the 2019-2022 Joint Socio-Economic Reforms, adopted in 2019, both prioritize public administration and labor market reforms but do not explore the connections between the two. A key reason for the disconnect lies in the lack of detailed empirical evidence on the broad implications of the public sector labor market, a gap that this report aims to close.

17. **The report also informs the global challenge of more and better jobs.** The public sector is often the single largest formal sector employer in a country, particularly in low and middle-income countries, and understanding the public sector labor market and its implications is critical to the goal of growing formal sector jobs in the world, and of broadening economic opportunities to women. The empirical approach of using a 'public sector labor market household survey' can be easily replicated in other settings to support countries in their objectives for jobs and economic transformation.

Context

18. **Increasing labor force participation and employment are urgent priorities for BiH.** While the country has achieved steady growth of approximately 3 percent of GDP over the last decade, this growth has not generated sufficient jobs to improve employment outcomes. A large share of BiH's working-age population (ages 15 to 64) is underutilized, either outside the labor force or unemployed or underemployed. Although labor force participation rates have increased from 43 percent in 2017 to 48 percent in 2021, they remain among the lowest in Europe, particularly for women who have a labor force participation rate of 37 percent, the third lowest in Europe after Moldova and Kosovo (Figure 1A).⁷ A majority of the working age population that is out of the labor force is inactive and neither in education, employment, or training. Only 40 percent of the working age population was employed in 2021, with the female employment rate 22 percentage points below that of men (1B). BiH's high unemployment rate is of particular concern because despite modest recent dips it has remained persistently high irrespective of the business cycle and appears to be long term in nature, with an estimated 69 percent of unemployed individuals being out of work for longer than 12 months.⁸ Unemployment consistently tops the list of

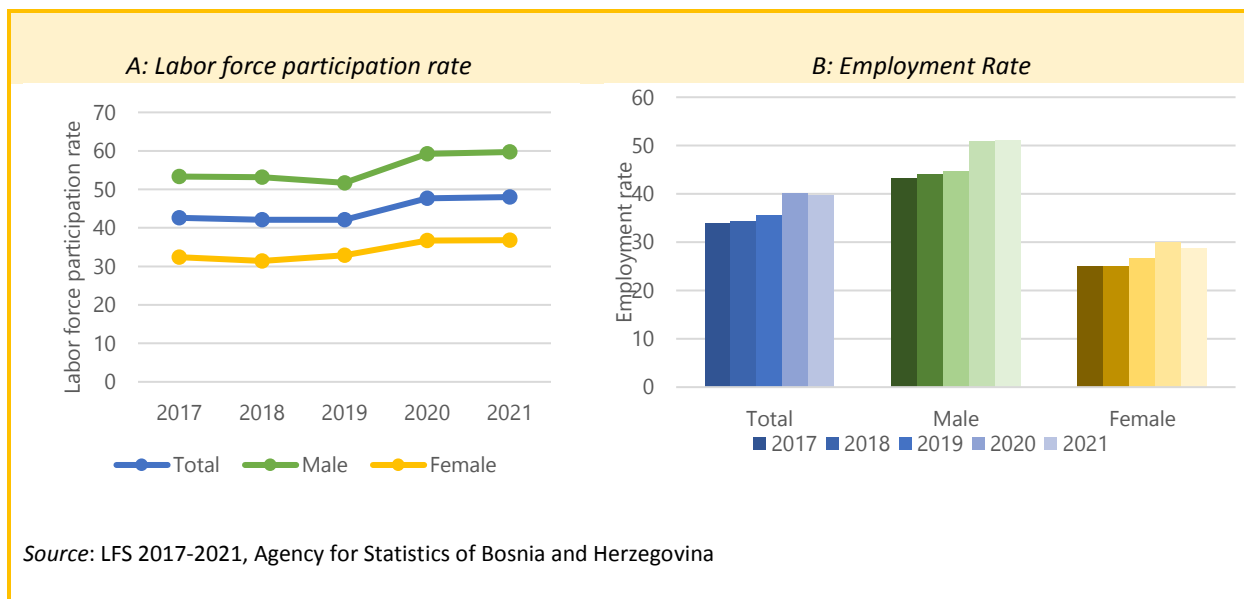
⁷ World Bank (2022)

⁸ WB staff estimates based on LFS

Bosnians' concerns in opinion polls and a third of surveyed Bosnians consider leaving the country and working abroad.⁹

19. **Even among the employed, there are additional concerns regarding the type and quality of jobs available to attract and retain workers, and skills mismatches between jobs and workers.** While the private sector has added jobs in the past decade, most of these are in low-productivity, low-paying sectors such as agriculture, manufacturing, transport, and wholesale and retail trade.¹⁰ The share of employment within the informal sector has historically been high, averaging 30 percent of total.¹¹ Small (10-49 employees) and micro (<10 employees) enterprises account for almost half of employment in the country and are typically less productive than larger firms.¹² Firms also complain about not finding adequately skilled workers, in part because of emigration of highly skilled workers, such as doctors and nurses, and in part due to a lack of alignment between educational and training curricula and what employers' need. BiH has one of the highest shares of emigrants to local population in the world (50 percent) and in 2018 almost 30 percent of those who emigrated were between 18 to 35 years old, which is both a cause and a symptom of disequilibrium in the local labor market and of the limited ability of the private sector to attract, recruit, and develop a vibrant workforce.¹³ An indication of skills mismatches between what is taught and what is demanded by employers is that only 24 percent of technicians and associate professionals (construction, mechanical, and electrical workers) have the appropriate level of education to meet the needs of their jobs, based on International Labour Organization (ILO) classifications.¹⁴

Figure 1. BiH main labor market outcomes



⁹ Regional Cooperation Council (2022)

¹⁰ World Bank (2023)

¹¹ ILO (2019)

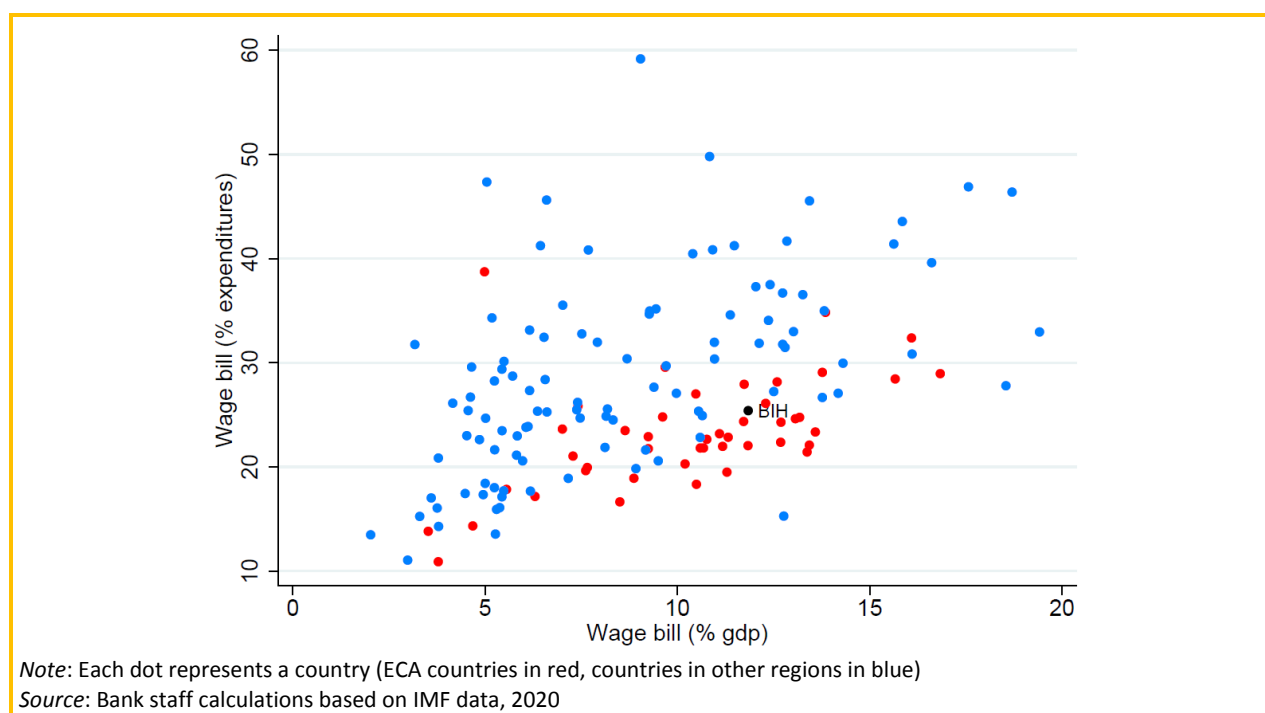
¹² BiH Agency for Statistics (2018)

¹³ World Bank (2020)

¹⁴ World Bank (2023)

20. **The BiH public sector is large with a significant footprint in the economy and labor market.** Cross-nationally, BiH has a high general government wage bill as a share of GDP (Figure 2), averaging 11.6 percent of GDP for the past decade. Including the wages for staff of health institutions or employed through extra-budgetary funds—potentially adding 3 to 4 percent of GDP—makes BiH an even bigger outlier in comparison to ECA countries or countries at similar income levels. The public sector is even bigger given the large number of state-owned enterprises (SOEs) operating in the country. As of 2019, there were 315 and 235 SOEs in FBiH and RS, respectively.¹⁵ The latest available data suggest that there were 80,000 people working in the SOE sector in 2017, or 11 percent of total employment in the country.¹⁶ SOEs also have significant presence in the manufacturing, construction and infrastructure, and the mining sectors, which are generally considered private sector dominated industries. This has important implications for the relative returns to public sector employment over private sector positions within these industries, as will be detailed in the report.

Figure 2. BiH has a high wage bill cross-nationally



21. **Insights from the government’s labor force survey (LFS) suggest that the public sector is distorting labor market outcomes but provides only a partial picture.** In general, public sector workers in BiH experience large compensation premia, which includes receiving 35 percent higher base wages than similar workers in the private sector, getting higher allowances (108 percent premium), having shorter working hours (8 percent fewer hours worked per week), and having more job security.¹⁷ Additionally, the

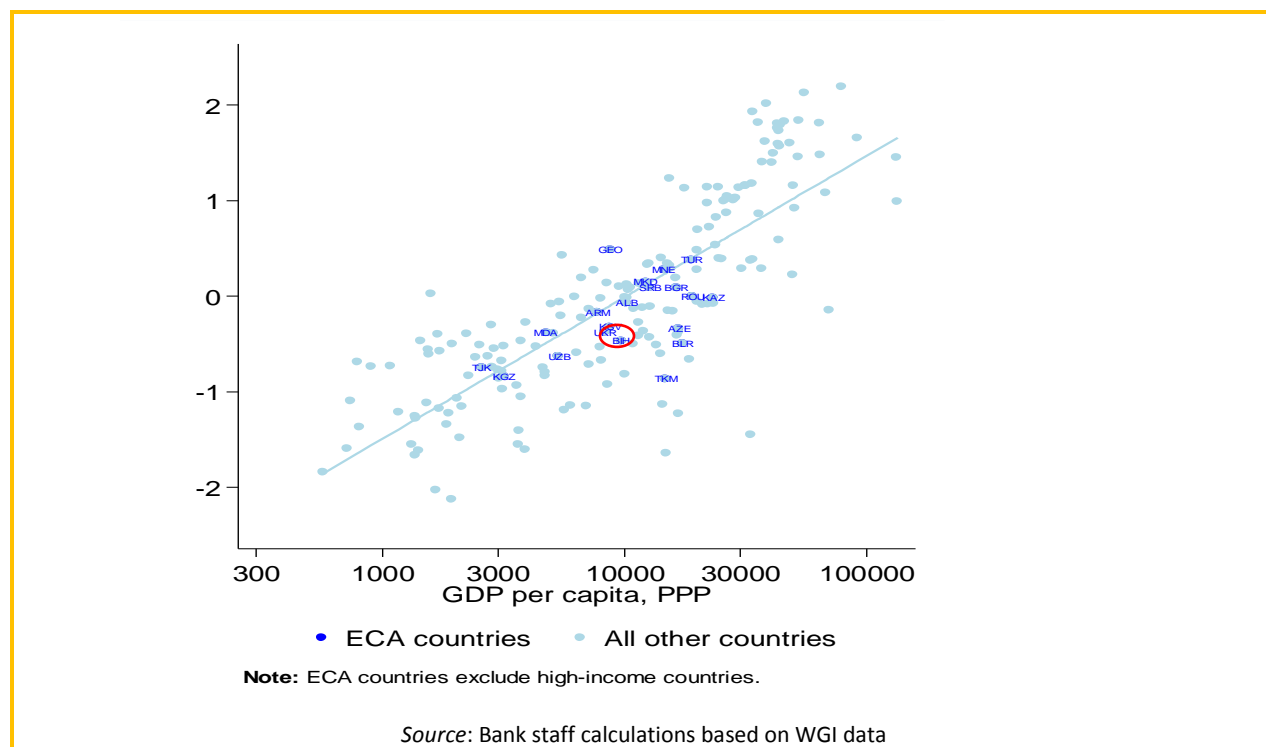
¹⁵ EBRD (2022)

¹⁶ Cegar and Parodi (2019)

¹⁷ BiH Labor Force Survey 2016, authors’ calculations. The wage, allowance, work hours, and job security premia are statistically significant and robust to inclusion of personal characteristics. Similar results reported for other years in IMF 2015, WB 2017a.

wage gap increases with worker education levels resulting in strong incentives for employment in the public sector for tertiary educated workers. The LFS however, was not designed to analyze the public sector labor market as that is not its purpose, which necessitated a new survey. For example, it does not allow for a disaggregation of public sector employees between the general government and SOEs, captures only limited information on allowances and benefits, and does not measure preferences for different types of employment to explore the relationship between public sector employment and wage policy and labor market outcomes.

Figure 3. BiH has a less effective government compared to ECA countries and countries at similar income levels



22. **Despite its size, the BiH public sector provides inadequate services, due to institutional fragmentation, excessive politicization, and weak budgetary and human resource management practices.** BiH has maintained macroeconomic stability with low levels of public deficits and debt, and therefore the main problem is the low levels of productivity of the large public sector. A rough aggregate measure of low public sector productivity is that the country scores below other countries at similar levels of income on the Worldwide Governance Indicators' (WGI) Government Effectiveness index (Figure 3). Sectoral studies reveal poor education and health outcomes despite high levels of government expenditure, such as low enrollment in early childhood education, low learning outcomes, a high burden of non-communicable diseases, and high levels of citizen dissatisfaction with these services.¹⁸ Analysis of the public administration, health, and education sectors point to the institutional factors behind BiH's poor social outcomes.¹⁹ These include institutional fragmentation due to BiH's complex structure, high levels of arrears in the health sector due to weak financial and human resource management, lack of merit

¹⁸ World Bank (2020)

¹⁹ World Bank (2022)

in recruitment, deficiencies in performance management, and weak accountability.²⁰ The urgent need therefore is not only to right size the public sector but also make it more efficient by improving the motivation and performance of public employees.

Report structure

23. **This study centers on two broad questions on the public sector labor market and its implications for jobs and service delivery.** First, how is the public sector influencing workers' employment choices in the labor market, specifically preferences for public sector versus private sector employment. And second, what is the nature of personnel management practices in the public sector and their implications for public sector workers' motivation and accountability. This study aims to provide answers to these questions using a novel survey of over 3,000 BiH households that is representative of the urban areas of FBiH and RS. The first question has not been studied in the context of BiH, and answering it is the main contribution of this report. Additionally, given the survey took place during workplace closures in effect due to the COVID-19 pandemic, enables the report to also explore the differential impacts of the crisis on jobs in the public and private sectors that may also influence employment preferences. The second question has been widely studied, but not using a data source like a household survey that provides additional insights, such as comparisons of human resource management practices between the public and private sectors, and differences within the public sector between the civilian government and SOEs, and by gender and age. The report adds to the existing evidence base on why the large public sector workforce of BiH is not effectively delivering government outputs.

24. **This report is organized as follows.** Chapter 2 presents the conceptual framework underpinning the report as well as the methodology and sampling strategy used in the collection and analysis of the survey data. Chapter 3 presents the main findings on public sector and labor allocation, exploring the following sets of questions: how large is the employment footprint of the public sector? How big are the compensation differentials for public sector workers compared to similar private sector workers in similar jobs? What additional pecuniary and non-pecuniary benefits does the public sector offer? What are the stated preferences for sector of employment of job seekers, and what are the main attributes they seek in jobs? Chapter 4 analyzes key personnel drivers of public sector productivity, asking whether there is merit in recruitment in the public sector, whether there is performance-oriented management and a work environment conducive to innovation, and what the levels of motivation of public sector workers are. Chapter 5 concludes by presenting a discussion of the key policy implications and recommendations emerging from the analysis.

²⁰ SIGMA 2017, EC 2019, World Bank 2022.

Chapter 2: Conceptual Framework and Empirical Methodology

Conceptual framework

25. **This report is grounded in the conceptual framework of a public sector labor market that is characterized by three sets of practices (Figure 4).** First are the employment practices, which include the size and composition of public sector employment in terms of the types of jobs and workers, and selection methods that determine the ability and the incentives of workers who join the public sector. Second are the compensation practices, which include wages, allowances, benefits, and non-monetary and less tangible elements of compensation like job stability. Third are the management practices and the work environment within the public sector, which include the regularity and robustness of performance appraisals, merit-based promotions, an organizational culture conducive to hard work and innovation, and opportunities for training. The definition of the public sector used in this report is the civilian government (i.e., excluding the military) and SOEs.

26. **The public sector labor market has potentially significant effects on the employment choices of workers.** These include whether and where to work; how to search for jobs and to maximize the chances of obtaining a desired job; and whether to stay with a current employer or seek alternative employment within the country or emigrate. Studies have found that public sector labor market practices, if not designed well, can distort incentives and lead to suboptimal labor outcomes.²¹ Careful design is especially important given that the government is not driven by profit maximization nor responds directly to market effects like demand and supply for determining recruitment or establishing wages. Given this rigidity in compensation, when public sectors offer above-market compensation it can create skills shortages in the private sector by skewing individual preferences towards government jobs, particularly for fresh university graduates who may reject private sector job offers while queuing for public sector entry-level job openings. The same factors can raise the minimum acceptable wage for private sector jobs as job seekers wait for government job openings leading to prolonged voluntary unemployment.²²

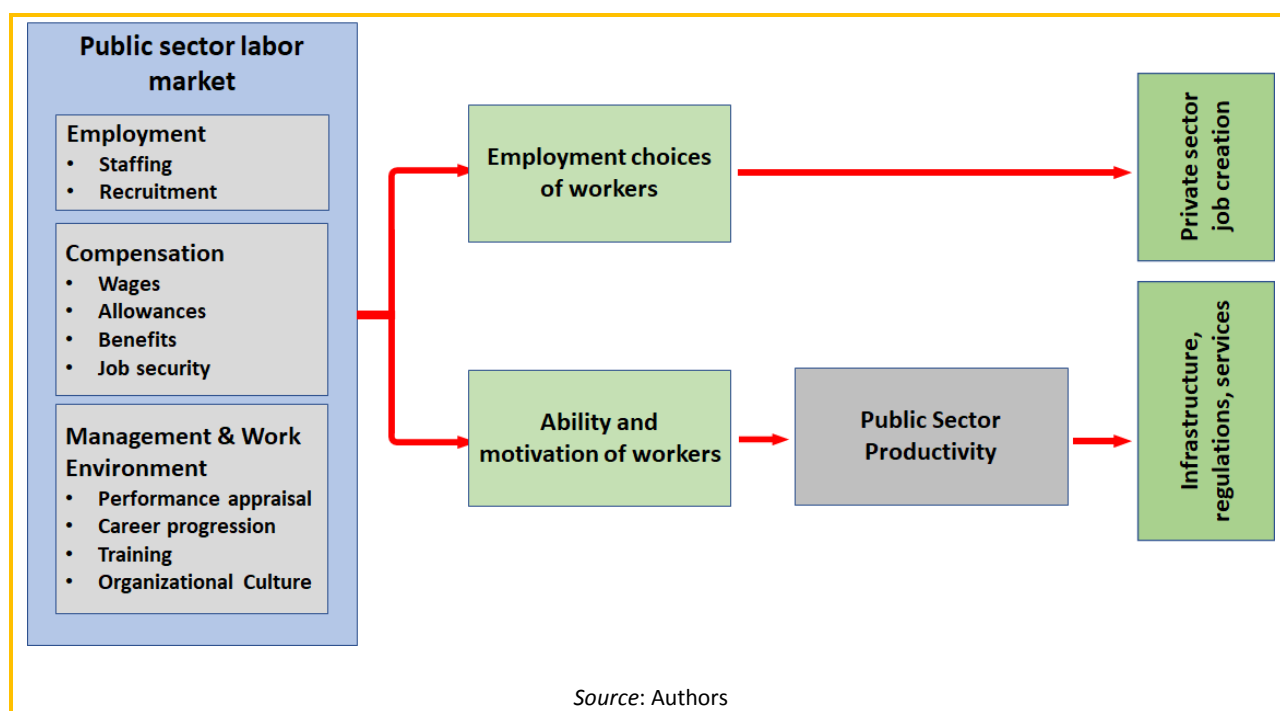
27. **All three sets of practices of the public sector labor market impact the ability and motivation of workers, which in turn impacts the quality of the infrastructure, services, and regulations delivered by the government.** Merit, instead of political appointments, as the main criterion for selection and promotion is the hallmark of the Weberian bureaucracy and can help create strong professional norms that drive performance. By contrast, if individuals are selected into the public sector primarily based on personal and political connections then this not only implies lower ability and less motivated workers but also may lead to an underinvestment in technical skills by the youth as educational qualifications are less important as a screening criterion for public sector employment. Managers affect staff through their

²¹ Finn (1998); Quadrini and Trigari (2007), Ardagna (2007); Cavallo (2005); Holmlund and Linden (1993); Pappa (2005); Horner, Ngai & Olivetti (2007)

²² Reservation wages are shaped by a number of factors, including an individual's personal and household wealth, and presence and generosity of government unemployment insurance programs and other transfers (Kuhn & Riddell 2019, Chetty 2008, Krueger & Mueller 2010, Krueger & Meyer 2002). These factors, however, would be expected to have an across-the-board effect, irrespective of job sector. The mechanism highlighted here—distorted job sector preferences—explains why reservation wages might be higher for private relative to public sector jobs. Further, see World Bank 2014, Amin et al 2012, Bradley et al 2011, Sestito & Viviano 2011

human resource management practices such as performance evaluation and training, in addition to determining the organizational practices that structure the day-to-day work, like setting organizational goals, aligning staff to those goals, and regularly monitoring their achievement. They also have at least a partial impact on the culture of the department, unit, or team that they lead, as does the overall work environment of an organization. Mission driven organizations, such as public bureaucracies, perform best when they attract and retain pro-social intrinsically motivated employees,²³ and they are most likely to do so when they recruit on the basis of rigorous meritocratic criteria and when they manage and motivate the workers in a fair and transparent manner, through rewards for performance.²⁴

Figure 4. Conceptual framework for the report



28. **This conceptual framework is limited in its scope as it excludes an analysis of the private sector and the impact of government labor and social protection policies.** Employment choices of workers are clearly influenced by the dearth of good formal private sector jobs in BiH which in turn are reflective of a variety of factors—the predominance of micro-enterprises, low levels of firm productivity and innovation—that are beyond the scope of this report. Therefore, workers’ preferences may be as much a consequence as a cause of private sector job creation, or lack thereof, suggesting a two-way arrow between employment choices of workers and private sector job creation in the conceptual framework. The social protection system also creates disincentives for formality and incentives for over-reporting

²³ Studies have shown that in mission-driven environments, intrinsically employees work harder and are less likely to shirk than extrinsically (profit) motivated employees (Khan 2023, Deserranno 2015, Dal Bo et al 2013, Besley & Ghatak 2005, Dixit 2002).

²⁴ Meyer-Sahling et al 2018, Akerlof & Yellen 1990. Some studies have found that higher salaries discourage intrinsically motivated candidates (see Keefer & Banuri 2013) but there is no consensus in the literature (see Finan et al 2017)

unemployment through its linking of health insurance to registered unemployment.²⁵ The majority of workers who are registered as unemployed may in fact be working in the informal sector and claim to be unemployed so as to receive health insurance. The design of social assistance transfers to the poor, and untargeted and generous war veterans benefits also creates disincentives to work. The role of these regulations has been studied in detail elsewhere and is not repeated in this report.²⁶

Empirical methodology

29. **The analysis presented in this report is based on an original household survey that is representative of urban working-age adults in FBiH and RS.** A household survey presents an ideal source of data for this study given its ability to probe, at the individual-level, the experiences, behaviors, and choices of public and private sector workers in a common manner, enabling controlled comparisons between the two groups. The survey was limited to urban areas to examine the interplay between the public sector and the formal private sector and to maximize the policy relevance of the report within available resources. The priority was to understand the implications of public sector employment practices on formal sector jobs in BiH, most of which are located within urban centers as opposed to rural areas where approximately 75 percent of all jobs are in the informal sector.²⁷

30. **The survey consisted of eight modules (Figure 5).** These included three modules capturing a range of individual and household characteristics that may influence the outcomes of interest. There were three modules that measured labor market practices as experienced by employees in different sectors, including how they found the job, formal and informal recruitment procedures, compensation, management, and promotion. The module for jobseekers includes indicators on their preferred job search channels, their search duration, reasons for rejecting job offers, and desire to exit the labor market or emigrate. A module on attitudes and behaviors explored motivation, risk aversion, and innovation.

31. **The sampling for the survey was done in two stages to ensure representativeness of public and private sector employment.** The first was a relatively short survey of basic questions related to individual demographics and sector of employment (public vs. private) fielded to all households (approximately 19,000) within 192 urban enumeration areas (EAs) in the RS and FBiH. These EAs were identified using the latest master sampling frame of 2018 from the BiH Agency for Statistics based on the latest Census data from 2013. This stage 1 survey was used to draw the random sample of approximately 3200 households for the second stage, and main, survey (Figure 6). Of these, approximately 1800 households were in FBiH (55 percent of total households) and 1400 in RS (45 percent of total households) and the sample was stratified to be representative of public and private sector employment in the urban areas of the two entities. All data was collected in face-to-face interviews using Computer Assisted Personal Interviewing (CAPI).

²⁵ World Bank (2018)

²⁶ World Bank (2023), World Bank (2019).

²⁷ ILO (2020)

Figure 5. The World Bank household survey modules

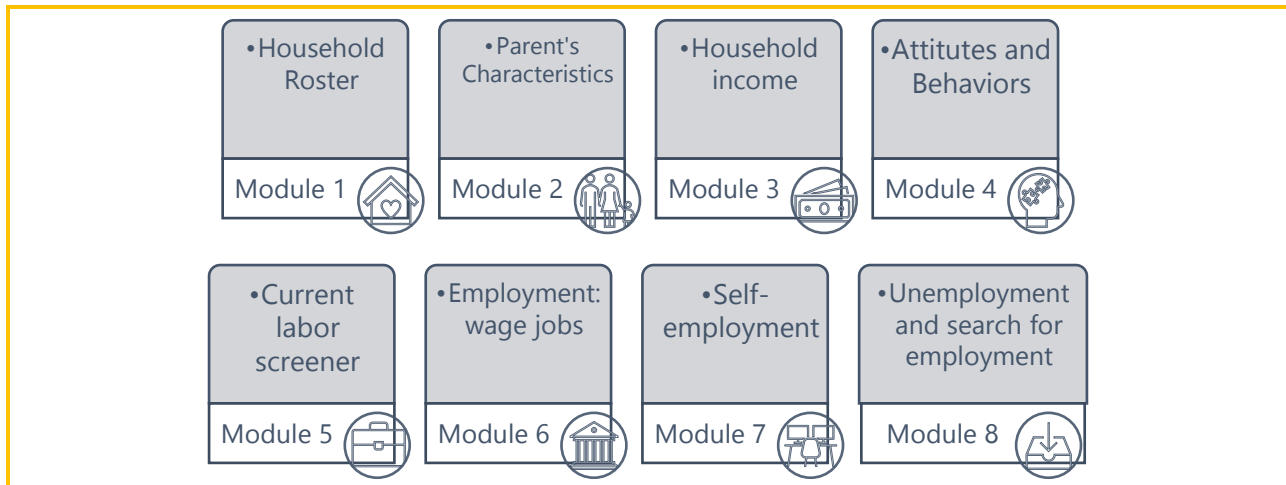
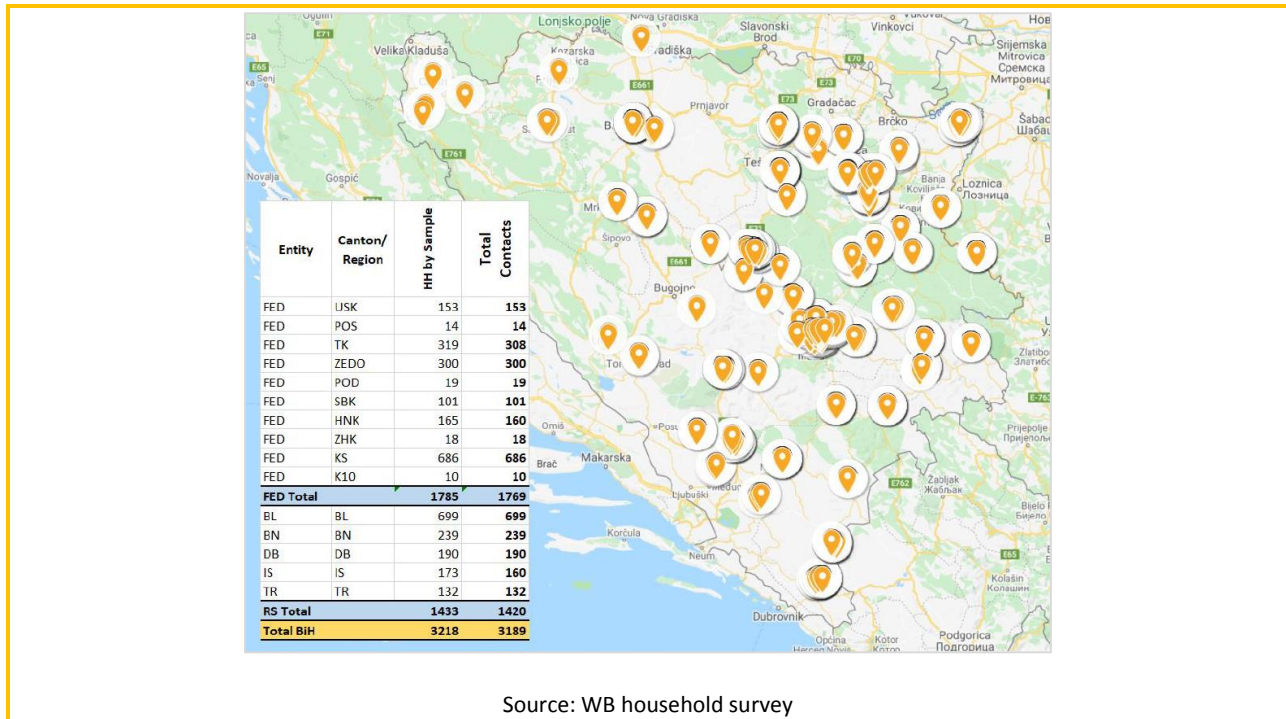


Figure 6. Location of enumeration areas where the survey was conducted



32. **The COVID-19 pandemic and resulting lockdowns delayed the rollout of the survey and created some challenges.** Although the stage 1 survey was completed by June 2020 and the sample drawn for the main survey, households were not willing to be interviewed for understandable fear of infection, which led to a decision to halt the survey for public health reasons and not to affect the credibility of the survey results. The survey recommenced in June 2021 as the COVID-19 situation improved and was completed by February 2022. The resulting year-long delay between the selection of the sample and enumeration created some unique challenges. First, there were unexpected changes within households as previously employed individuals either lost or changed their jobs or household members moved (due to marriages,

or for employment, etc.). Second, there were higher than expected refusal rates by households due to hesitancy around interaction with the survey team. To address these problems, replacement households were identified from the original sampling frame and were surveyed. As a result, almost 100 percent of the targeted interviews were completed (Table 1). Comparing indicators on the key demographics of the BiH populations from the Census 2013 data, the achieved sample does not display any large and concerning differences, except in the share of respondents within the 56 to 65 age group and those of Croat ethnicity (Table 2), which may be due to their high levels of emigration. The delay in the rollout of the survey also offered the opportunity to add an additional module of questions to test the differentiated impact of the COVID-19 economic slowdown on public and private sector jobs and how this affected worker's sectoral preferences.

Table 1. Enumeration areas by Entity and completion rate of household sample

Entity	Canton/Region	Population (2013)	Target number of HHs in sample	Completed surveys	Completion Rate
FBiH	Una-Sana	273,261	153	153	100%
FBiH	Posavina	43,453	14	14	100%
FBiH	Tuzla	445,028	319	308	97%
FBiH	Zenika-Doboj	364,433	300	300	100%
FBiH	Bosnian-Podrinje	23,734	19	19	100%
FBiH	Central Bosnia	254,686	101	101	100%
FBiH	Herzegovina-Neretva	222,007	165	160	97%
FBiH	West Herzegovina	94,898	18	18	100%
FBiH	Sarajevo	413,593	686	686	100%
FBiH	Canton 10	84,127	10	10	100%
FED TOTAL			1,785	1,769	99%
RS	Banja Luka	185,042	699	699	100%
RS	Bijeljina	107,715	239	239	100%
RS	Doboj	71,441	190	190	100%
RS	Istocno Sarajevo	61,516	173	160	92%
RS	Trebinje	31,433	132	132	100%
RS TOTAL			1,433	1,420	99%

Source: World Bank staff calculations based on 2013 census data,

Table 2. Comparison of population data and achieved individual sample

		Population Estimates		Survey Sample		Difference
		Population	Share	Sample	Share	
Gender	Male	1,732,270	49.1%	2,032	49.0%	-0.1%
	Female	1,798,889	50.9%	2,117	51.0%	0.1%
	16-25	470,798	13.3%	490	11.8%	-1.5%
	26-35	504,951	14.3%	462	11.1%	-3.2%
	36-45	490,404	13.9%	580	14.0%	0.1%
	46-55	537,503	15.2%	579	14.0%	-1.3%
	56-65	481,788	13.6%	825	19.9%	6.2%
	65+	501,996	14.2%	601	14.5%	0.3%
Ethnicity	Bosniaks	1,769,592	50.1%	2,210	53.3%	3.2%
	Croats	544,780	15.4%	206	5.0%	-10.5%
	Serbs	1,086,733	30.8%	1,603	38.6%	7.9%
	Total	3,531,159		4,149		

Chapter 3: The Public Sector Labor Market and Employment Choices

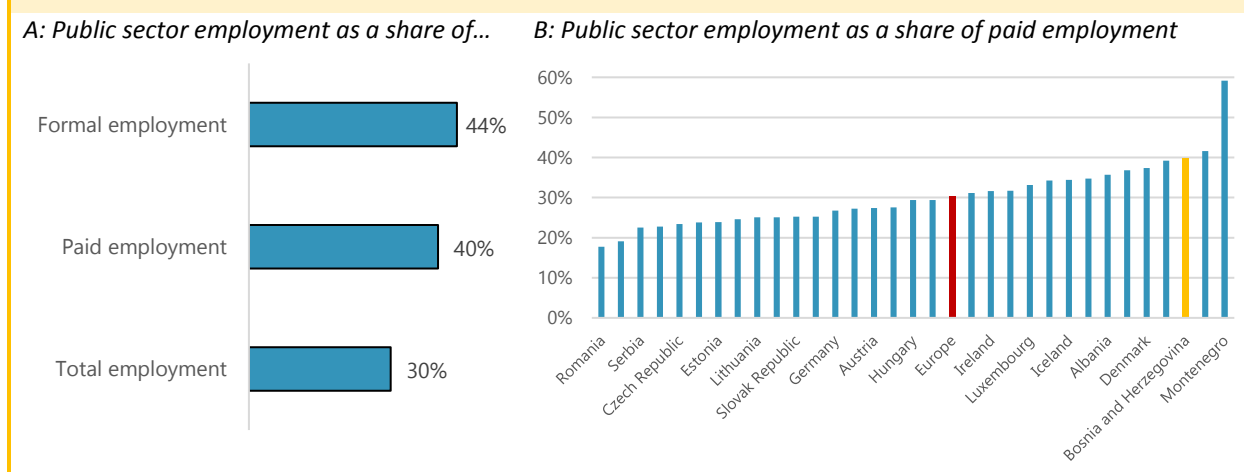
33. **This chapter presents three sets of analyses on the influence of the public sector labor market on employment choices.** First, it presents data on the labor market footprint of the public sector, both in terms of its overall size and for specific demographic groups and industries that constitute it. Second, it analyzes the public-private compensation gap for similar workers in similar jobs, factoring in gross wages as well as financial and non-financial benefits. Third, it explores the stated sectoral preferences of job seekers and decisions they make in choosing employment. On all three sets of factors, the evidence presented in this chapter provides strong indications that public sector compensation practices are skewing preferences of workers towards the public sector. The chapter also shows how the economic crisis induced by the COVID-19 pandemic had differentiated impacts on jobs in the public and private sectors, which likely reinforced these preferences for public sector employment.

34. **An important caveat is that analyzing the implications of the public sector labor market on private sector employment is methodologically complex and this report only analyzes one of several possible channels of influence.** A comprehensive analysis would need to examine “general equilibrium effects” as the public sector also influences economic growth and related employment implications. For example, government employment and compensation policies impact the wage bill, fiscal space, debt, and macroeconomic stability. Public sector workers are also consumers in the economy who spend their government salaries buying goods and services produced by private firms in the economy. Therefore, the public sector labor market also impacts overall employment by stimulating or retarding economic growth. While the WB survey cannot explore these additional channels on labor market outcomes, it does provide evidence on one important mechanism, namely the relationship between public sector wage and employment practices and labor market decisions of individuals.

The size and composition of public sector employment

35. **The public sector is a large formal sector employer in BiH compared to other European countries.** The public sector is responsible for 30 percent of total employment in the country (Figure 7A). This metric measures the overall labor market footprint of the public sector. However, given that all public sector jobs are salaried workers with benefits, the size of the public sector relative to paid employment (which excludes those workers that are employed in non-paid occupations, as well as employers, and self-employed individuals) is a better indicator of the importance of the public sector in the formal economy. The share of public sector employment is 40 percent of paid employment and 44 percent of formal paid employment (i.e., including only salaried employment who are working on formal written contracts or receive employer sponsored social benefits). The BiH public sector (as a share of paid employment) is the third largest in Europe (Figure 7B).

Figure 7. The public sector is a large employer within BiH and compared to other European countries



Source: World Bank, Worldwide Bureaucracy Indicators

36. **Public sector workers in urban areas are roughly evenly split between the civilian government and state-owned enterprises.** Looking at employment by type of public sector organization, 52 percent of public sector workers are employed by the government and 48 percent by SOEs (Figure 8A), suggesting that SOEs account for roughly 15 percent of total employment. Given that the WB household survey was restricted to urban areas, this data may be overstating the national employment footprint of SOEs but nonetheless underlines the importance of this sector in urban areas and for formal employment. Other studies come to similar estimates of the scale of SOE employment in BiH.²⁸ Besides the divide between SOE and civilian governments, another avenue for analysis is to look at employment by industry. Using this metric, the study finds that 25 percent of the total public sector workforce in BiH is employed in public administration, followed by those working in the provision of social service such as education (20 percent), healthcare (13 percent), and public utilities (9 percent) (Figure 8B). Additionally, 34 percent of public sector employees are working within various areas of economic activity, ranging from construction, manufacturing, and infrastructure.

37. **The public sector is a disproportionately large employer of more educated workers.** Fifty-eight percent of all tertiary-educated workers are employed in the public sector, while the private sector is the majority employer for secondary and primary educated workers (Figure 9A). Within the public sector, the proportion of tertiary educated workers is higher in the civilian government than in SOEs (Figure 9B). The public sector is a particularly important employer of educated women—60 percent of all tertiary educated women work in the public sector—in part because of its predominance in the provision of services, jobs that women are disproportionately represented in, as detailed below.

²⁸ For example, Cegar and Parodi (2019) estimate that over 80,000 individuals are employed within the SOE sector in BiH, or nearly 11 percent of total employment.

Figure 8: Distribution of public sector workers by organization and industry

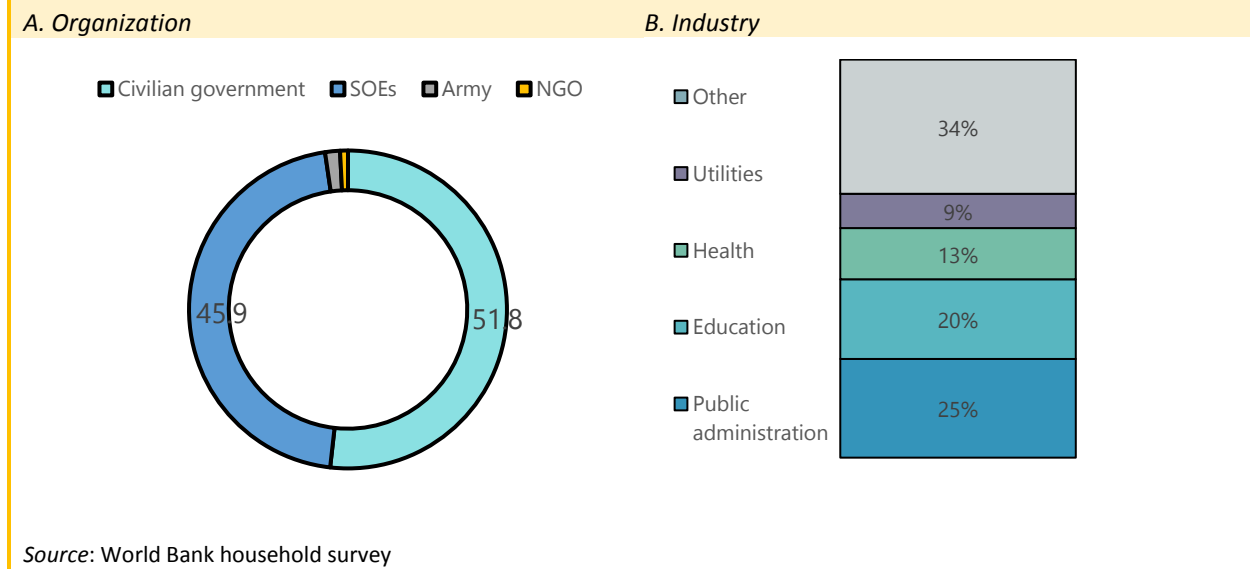
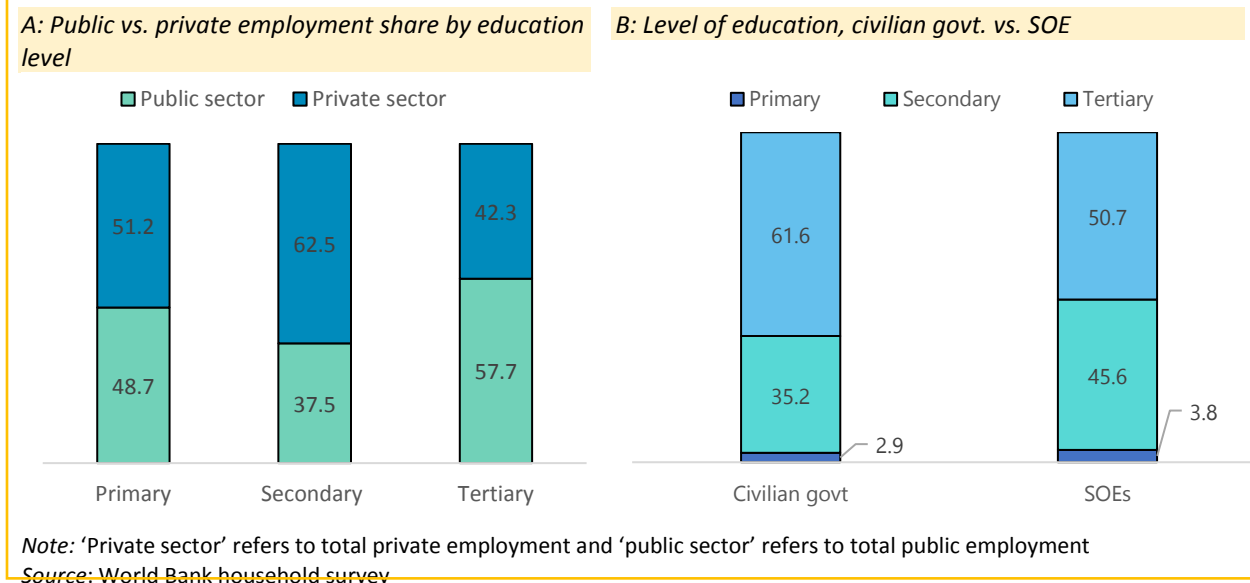


Figure 9. The public sector is a large employer of tertiary educated workers



38. **The public sector is a large employer of women, but this employment is concentrated in only a few sectors.** Even though the women have a much lower employment rate—only 30 percent of women are employed in the country—they are highly represented in the public sector workforce. Forty-nine percent of employed women work in the public sector, of which 32 percent work in the civilian government where they outnumber men, and 17 percent work in SOEs (Figure 10A). There may be selection effects behind why women may prefer to work in the public sector such as better working conditions, or job security. Moreover, existing social norms about the traditional role of women could limit their professional opportunities, incentivizing them to select certain fields of study and employment.

Fifty percent of female public sector workers are employed in the health and education industries, compared to 17 percent of men in the same sector (Figure 10B).

39. **Women are less represented within senior managerial level positions as well as in technical positions in the public sector, even more so than in the private sector.** Only 2.4 percent of women have senior level occupations in the public sector as compared to 8.2 percent in the private sector; and 9.3 percent of women occupy technical positions in the public sector compared to 46 percent in the private sector (Figure 11A). Women are less represented in these positions despite being more qualified than men, as more women in the public sector have completed tertiary education (Figure 11B). Therefore, while the public sector offers an important opportunity for women to participate in the labor market, this opportunity is still constrained and the public sector, as the leading employer, has limited impact in driving broader economic opportunities for women.

Figure 10. Public sector has a higher female representation, but women are concentrated in a few sectors

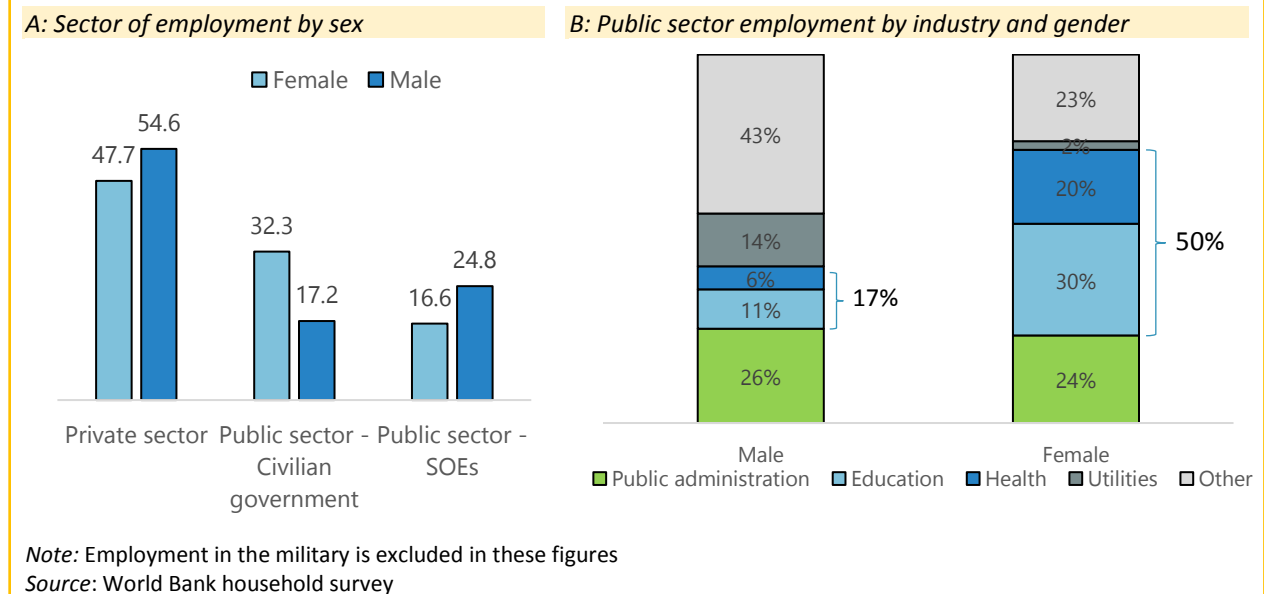
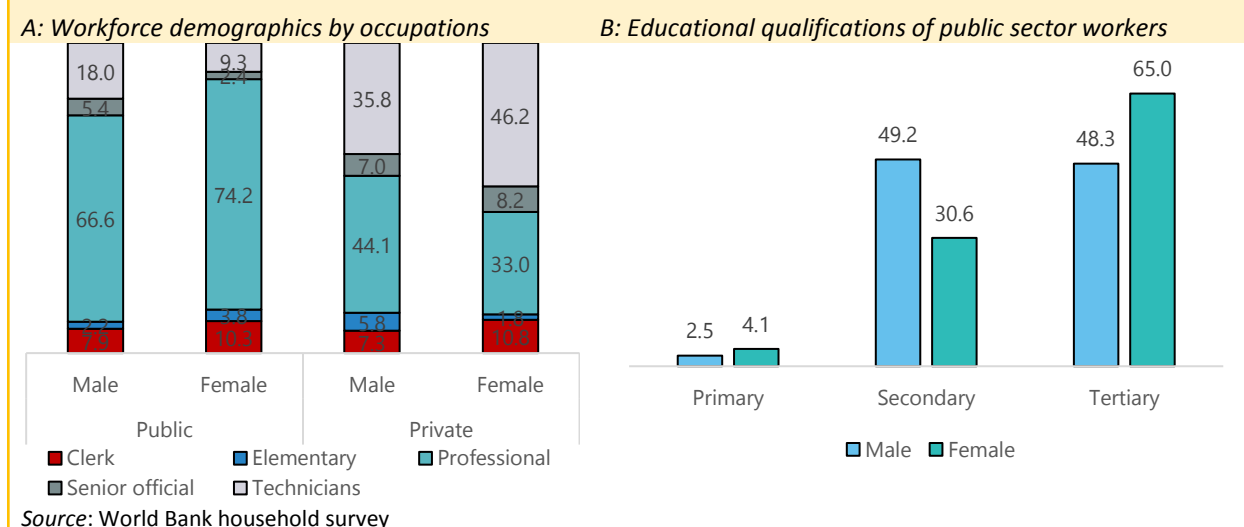


Figure 11. Female workers concentrate in low-paying occupations despite having higher qualifications



40. **The large public sector footprint in the labor market may be influencing educational choices of workers, particularly women.** While the educational backgrounds of workers in the two sectors differs given the different nature of jobs in the public and private sectors, what stands out is the low percentage of workers who have degrees in science, technology, and mathematics fields (STEM) that are deemed critical for innovation and the high-growth technology sectors. Approximately 29 percent of all workers have a STEM degree, with 26 percent and 33 percent in the public and private sectors respectively (Figure 12). Data from other countries in Europe reveal a higher proportion of graduates from STEM programs, notably 81 percent in Netherlands, Georgia, and Luxembourg; 79 percent in Norway and Montenegro; 77 percent in Italy; 71 percent in Romania; and 61 percent in Hungary.²⁹ The predominance of degrees in education, health, and the social sciences may reflect the prevalence of these types of jobs in the public sector that is skewing educational choices of the youth, particularly women. Women in particular are choosing to specialize in humanities and education (only 19 percent have a STEM degree) which are in high demand in public sector jobs. These differences in technical skills between men and women may also lead to occupational segregation, hindering women’s ability to find suitable employment in the private sector.

41. **Firms in BiH complain of significant skills mismatches, which is not surprising given these educational choices of tertiary educated workers.** Fifty-two percent of firms in the country believe that the education system does not equip students to meet the skills needs of their business and 48 percent believe it does not produce people with the skills ranked as important for their firms.³⁰ Another 41 percent of firms believe the education system does not produce people with the up-to-date knowledge of methods, materials and technology that are required in the private sector (Figure 13). Moreover, a recent survey by the Public Employment Institute in FBiH found that employers in FBiH indicated dissatisfaction with nontechnical skills such as social skills, computer skills, and foreign language ability—skills that are

²⁹ UNESCO, 2020

³⁰ [World Bank. 2018. Bosnia and Herzegovina: Skills Towards Employability and Productivity \(STEP\) Skills Measurement Employer Survey 2016-2017 \(Wave 3\)](#)

transversal rather than requiring a particular degree. The rapid growth of technologies, emergence of new digital tools, and enhanced collective reliance on ICT during the COVID-19 pandemic together highlight the importance of regularly updating and upgrading workers' skills.³¹

Figure 12. A low proportion of workers have STEM degrees

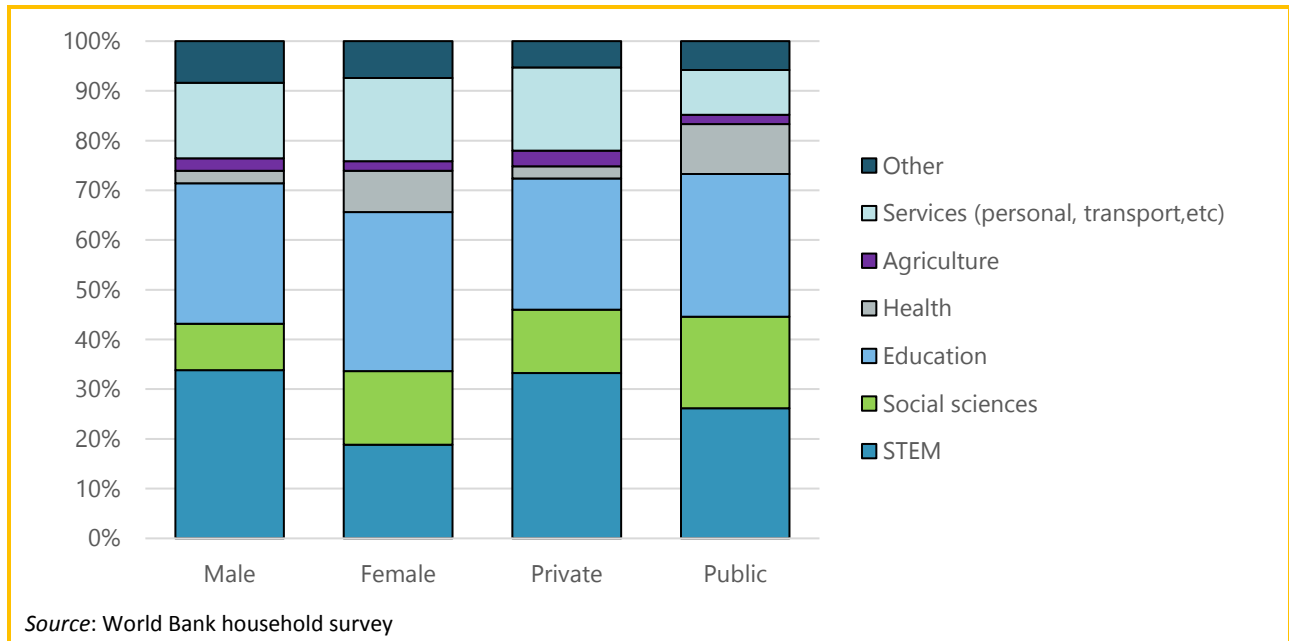
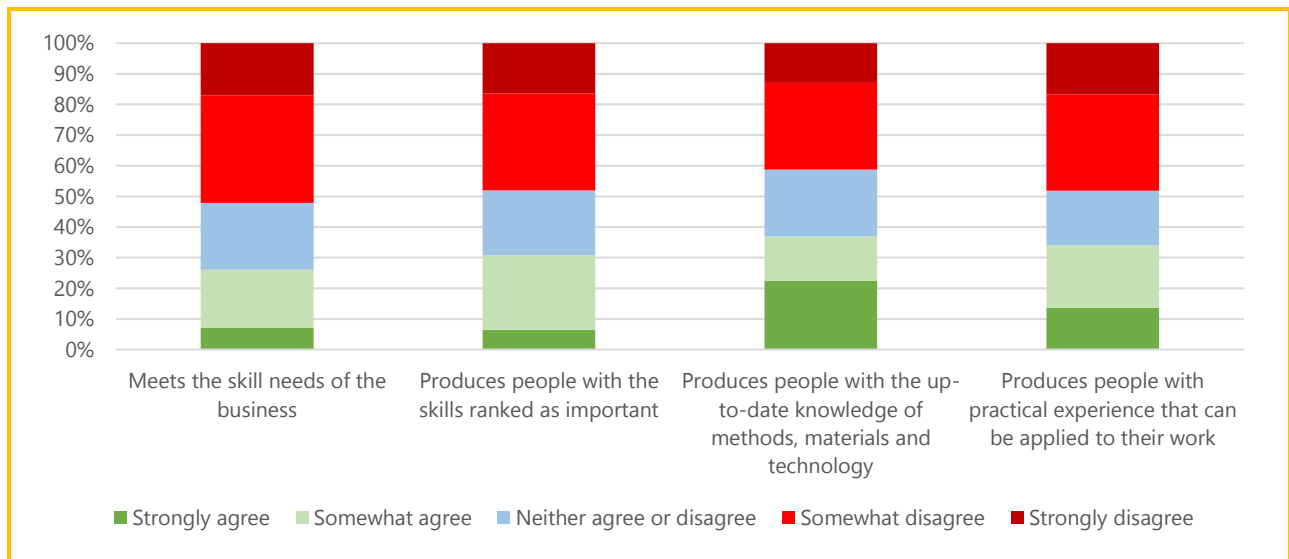


Figure 13. Firms state that the education system is not producing the needed skills.



Note: Responses to the survey question "you agree/disagree that the education system..."

Source: World Bank's Skills Towards Employability and Productivity (STEP) Skills Measurement Employer Survey 2016-17.

³¹ OECD (2021)

Public-private compensation differentials

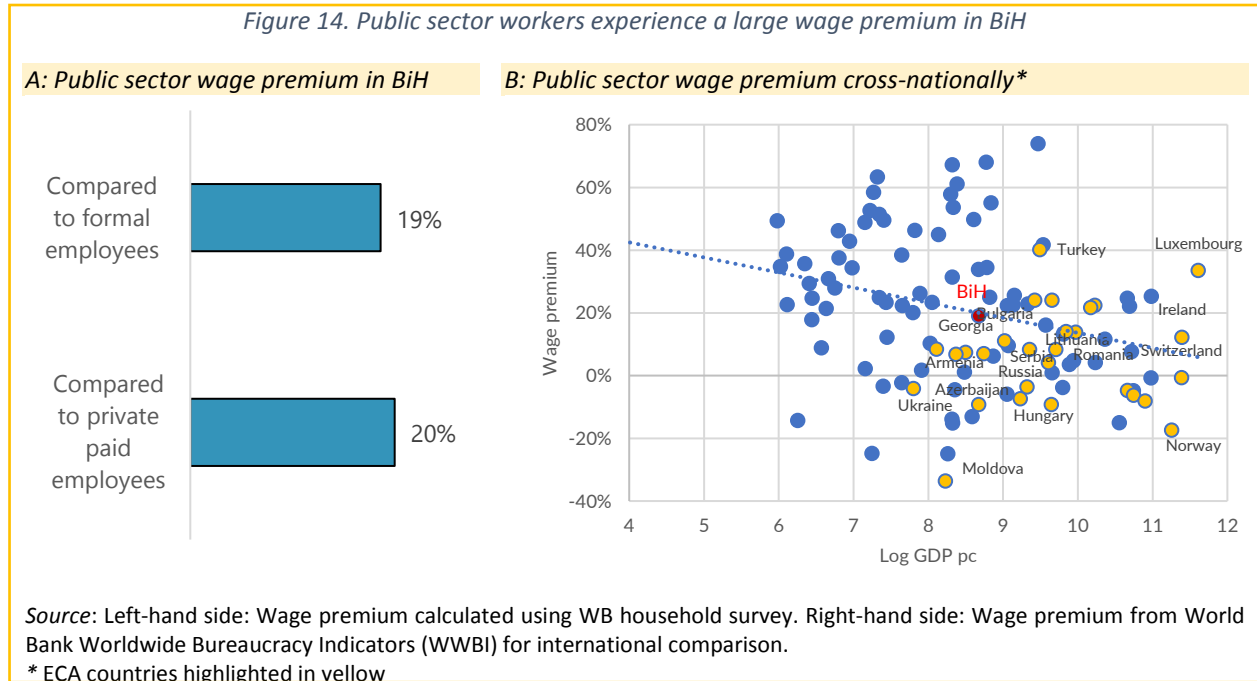
42. **Estimating public-private compensation differentials is methodologically complicated as it requires comparing similar workers in similar jobs in the two sectors and including all elements of compensation in the comparison.** The nature of jobs in the two sectors is different as public sector workers concentrate in industries like public administration, education, healthcare, and public safety that are not well represented in the private sector in which jobs in the agricultural, retail, services and manufacturing sectors are more common. There are, however, overlaps between the public and private sector labor markets that enable like-for-like comparison of public-private wage differentials. For example, while they may not be the majority, private schools and hospitals also employ teachers and medical practitioners, respectively. Similarly, both public and private sector organizations employ individuals in key roles including managers, technicians, or clerical workers. Another difficulty is that estimating total individual compensation—which includes base wages, as well as the allowances, bonuses, and monetized in-kind payments like housing and transportation that employees receive—often encounters data limitations. Finally, there are unobservable differences between the workers in the two sectors, such as ability, risk aversion, and public service motivation, which complicates wage comparisons.

43. **Public sector compensation should theoretically be designed in cognizance of its influence on the broader labor market.** Under the theory of “compensating wage differentials,” a particular job should pay more (or less) than another if there are other non-wage undesirable (or desirable) characteristics of that job that need to be compensated for. The optimal design of public sector wages should allow for a small penalty in base wages in the public sector given the greater presence of both financial and non-financial benefits in the public service.³² Lower monetary compensation in the public sector combined with higher non-monetary benefits, such as job security and the opportunity to serve the public, would imply that total *de facto* compensation that individuals receive is roughly equal in the two sectors. Public sector wages should also track wages in the private sector (with a small penalty) while ensuring no gap emerges between the public and private sectors due to wage rigidities in the public sector. Under this optimal compensation policy, the public sector will be competitive without being distortionary, and there will not be any shortage of skills or qualified applicants in either sector.

44. **Public sector workers in BiH, in contrast to this theoretical ideal, receive a significant wage premium compared to similar private sector employees.** Wage premiums are estimated using a standard statistical approach, elaborated in the Methodological Annex, employing Mincerian wage regressions controlling for observable worker or market characteristics such as age, gender, educational qualifications, work experience, and location. Two regressions are run in sequence with added granularity. First, wages of the average public sector worker are compared to the average salaried worker in the private sector. Second, the regressions are restricted to only formal sector employees to allow for a more precise comparison of similar public and private sector workers. The results show that public sector workers earn on average 20 percent higher gross wages (including allowances) compared to salaried works in the private sector, and 19 percent higher wages when compared to formal private sector workers (Figure 14A). Moreover, cross-national data from the WB’s Worldwide Bureaucracy Indicators reveals that public sector workers in BiH experience a higher premium compared to other countries in the ECA region (Figure 14B). These estimations, while not completely overcoming the methodological challenge of

³² Gomes (2018)

estimating the precise counterfactual of employment in the public versus the private sector for any specific individual, do provide a solid illustration of the relative levels of wages in the public and private sector. Given these high premia, it is not surprising to see a higher preference for public sector jobs, as explored in detail below.

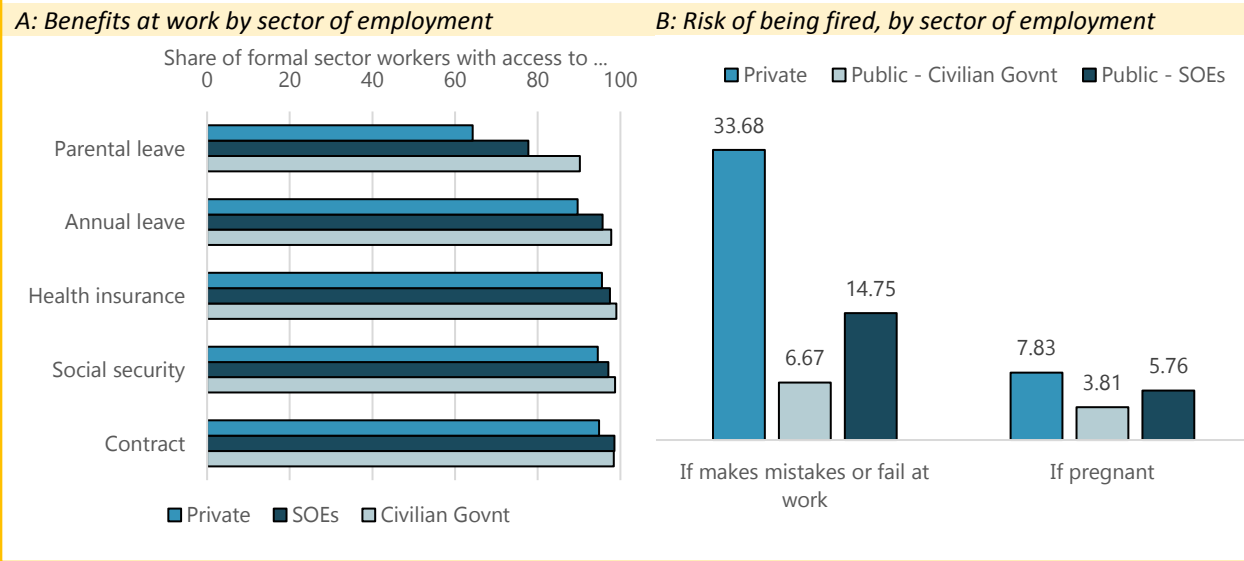


45. **These calculations are likely underestimating the overall compensation premium given the much higher prevalence of pecuniary and non-pecuniary benefits in the public sector.** Given the higher proportion of jobs with written job contracts, health insurance, paid annual leave, parental leave, or post retirement pensions public sector than in the private sector (Figure 15A), it is not surprising that public sector workers also show a positive total compensation premium when benefits are taken into account. Further, the significance of this premium may be even more important when non-financial incentives that individuals receive from employment in the public sector, such as job security, are factored as public sector workers are much less likely to be dismissed for poor performance or other reasons, especially among those employed in civilian government (Figure 15B). Unionization is another important benefit for public sector workers, with 47 percent of public sector workers responding as being part of a trade union, compared to only 5 percent of workers in the private sector. While having an important effect on wages, unions can also influence other aspects of the work by providing standardized grievance procedures and strict seniority ladders, among others.

46. **Workers in SOEs also receive a significant wage premium compared to their private sector counterparts.** Public sector workers who are employed in state owned enterprises are more comparable to private sector employees than government workers as they are employed in industries that have a large private sector presence, such as manufacturing. The WB survey reveals that the average worker within SOEs earns an estimated 17 percent more than a similar formal sector salaried worker in the private

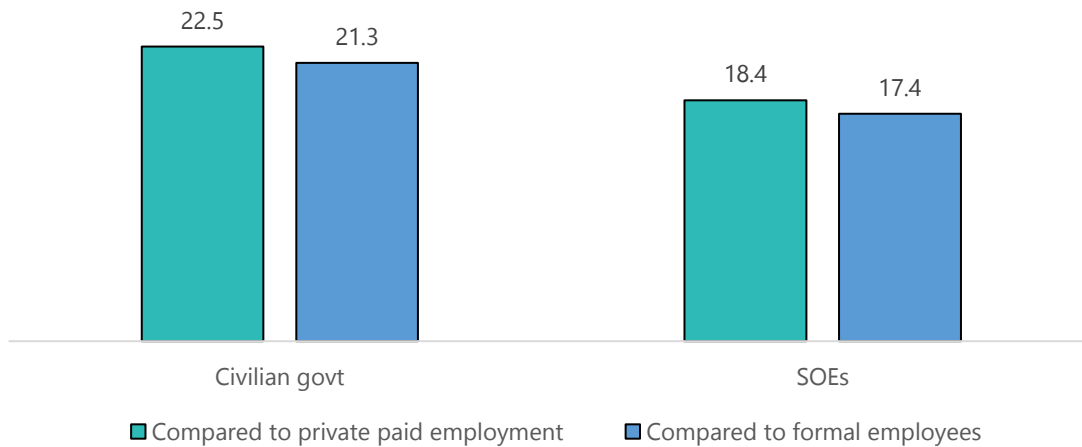
sector (Figure 16).³³ Therefore, while SOEs tend to be less profitable than private sector firms in BiH³⁴, they are likely attracting talent from the private sector, with implications for overall productivity in the economy.

Figure 15. The public sector compensation premium is higher if pecuniary and non-pecuniary benefits are included



Source: World Bank household survey

Figure 16. The wage premium for public sector workers by sector of employment



Source: World Bank household survey

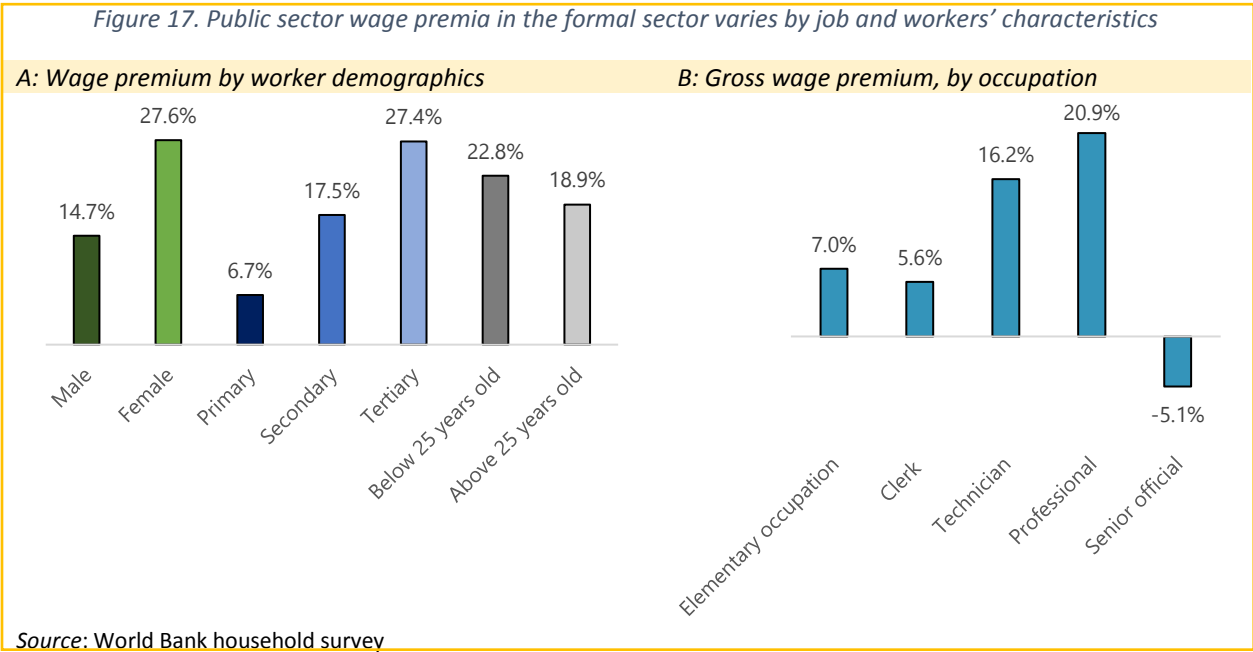
47. **The public sector wage premium is higher for women and younger workers.** Females enjoy a wage premium in the public sector that is almost twice as large as that for males (27 percent as compared

³³ Other research also has similar findings of SOE wage premium. See EBRD (2022); IMF (2019)

³⁴ IMF (2019)

to 14 percent, Figure 17A), which is a function of their concentration in healthcare and education jobs that have a much higher premium, and their underrepresentation in senior positions where the public sector has a small wage penalty (Figure 17B). Younger workers (below the age of 25) receive a higher premium than older workers, which has implications for youth unemployment as discussed below.

48. **The premium is also higher for more educated workers and for those working in technical and professional occupations.** Tertiary educated workers have a public sector wage premium of 27 percent, which, together with the large representation of tertiary educated workers in the public sector, suggests potential skilled labor shortages for the private sector (Figure 17A). This pattern in BiH of increasing premium with education contrasts with the pattern found globally where the trend is usually the opposite. For example, data from the Worldwide Bureaucracy Indicators shows that globally, tertiary educated workers receive a premium of 2 percent compared to a 12 percent and 9 percent respectively for secondary and primary educated workers.³⁵ Individuals employed in the technical and professional occupational classifications, which include jobs such as doctors, nurses, teachers, engineers, lawyers, and IT experts, also receive a significant premium in the BiH public sector (Figure 17B). Only senior officials working in managerial occupations earn a small, five percent wage penalty as compared to individuals employed in senior managerial positions in the private sector.

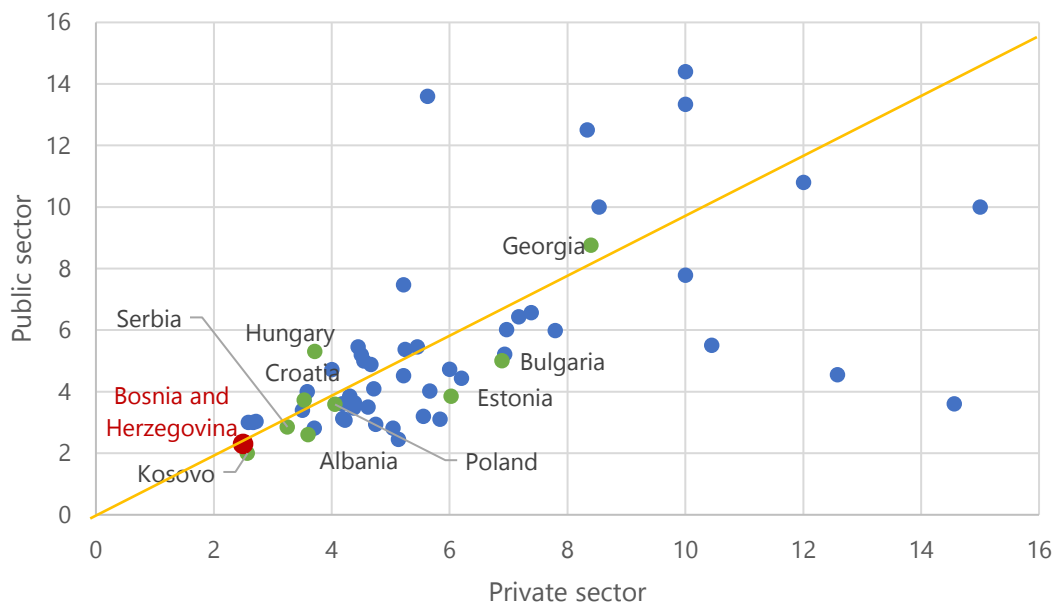


49. **The BiH public sector also pays competitive wages for positions in the upper ranges of the salary distribution.** A commonly used metric for comparing pay at the upper ends of the salary distribution is the pay compression ratio which is the ratio of the 90th percentile wage to the 10th percentile wage in the salary distribution. In most countries the pay compression ratio is higher in the private sector as private sector organizations typically have steeper hierarchies than public sector organizations, with pay rising more sharply with seniority. Pay dispersion between high and low earners in the private sector has

³⁵ World Bank (2021).

also increased over the past four decades, with occupations like finance and information technology paying much higher wages compared to similarly educated workers in other occupations. In BiH, however, the pay compression ratio is roughly similar in the public and private sectors, with the top 10 percentile of wage earners in the civilian government earning 2.3 times the wages of the bottom percentile, as compared to 2.5 times to both in the private sector and SOEs (Figure 18).

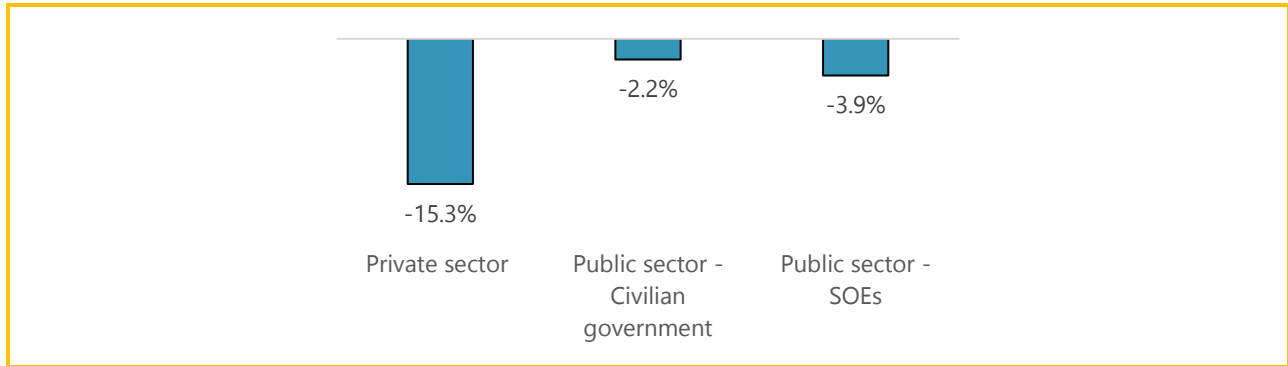
Figure 18. Pay compression ratios by sector cross nationally



Note: The 45-degree line represents equal values for the two axes. Regional comparators in green.
 Source: Worldwide Bureaucracy Indicators (WWBI)

50. **Women earn less than men for doing the same work in both public and private sectors.** In BiH, the male to female wage ratio shows that women experience a 7 percent wage penalty over their male counterparts. Moreover, women face wage penalties in both sectors compared to their male counterparts working similar jobs with similar hours after accounting for differences in age, and educational qualifications. The government is relatively more equitable given that the magnitude of this gender wage gap is much larger in the private sector (Figure 19), a pattern also found globally. Likely explanations for the higher gender wage gap in the private sector include occupational segregation (women work disproportionately in low-paying jobs) and greater discrimination in wage setting. Even in the public sector, the gender wage gap varies by type of institution. Women working in civilian government earn on average 2.2 percent less than males with similar characteristics while those in employed in SOEs earn, on average, 3.9 percent less than men. This public sector gender pay gap for similar workers in similar jobs may be the outcome of differential access to allowances and salary supplements, different opportunities for promotion within an occupation, and the impact of differential norms on family care responsibilities.

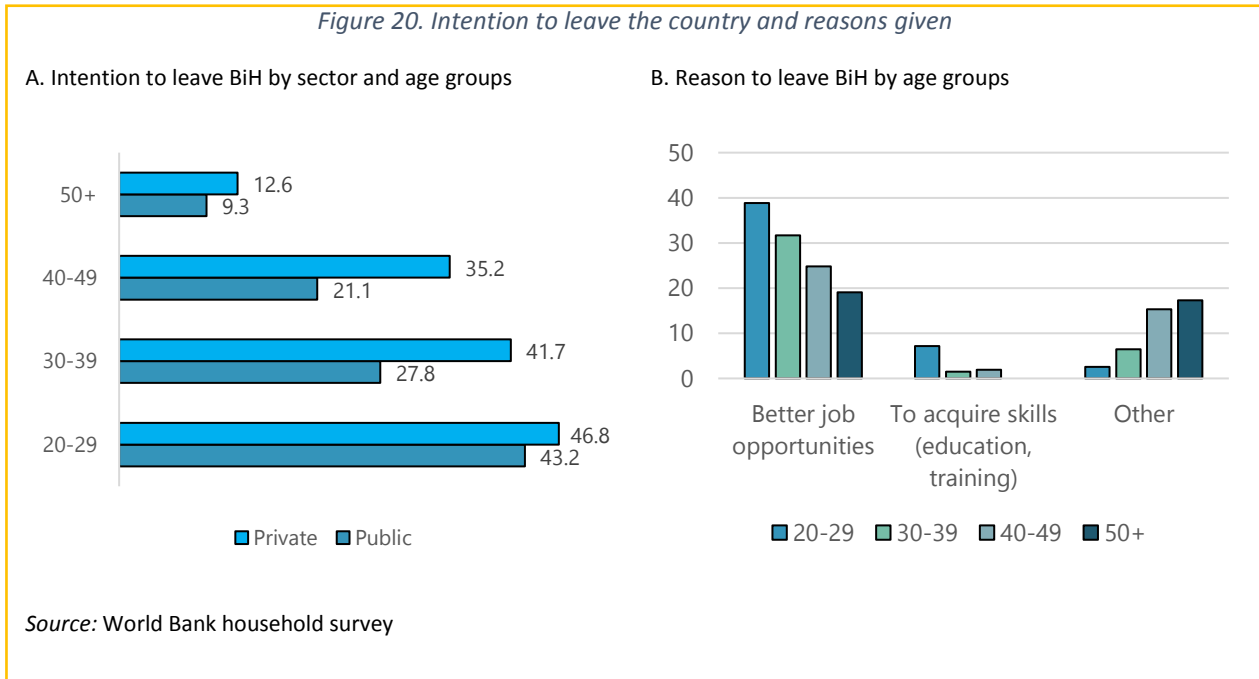
Figure 19. The gender wage gap by sector of employment



Source: World Bank household survey

51. **Public sector workers are also less willing to migrate, another indicator of their higher compensation.** When the survey asked the workers if they have intentions to leave BiH in the near future, a higher proportion of private sector workers across all age groups answered in the affirmative (Figure 20A). These differences were particularly high in the 30 to 50 age group. A high proportion of workers below the age of 30 in both sectors intended to migrate. The reasons dominating this intention differ between age groups and reflect on the job mismatches discussed. While “to improve the standard of living” was the most frequent for all age groups, a higher proportion of younger workers mentioned they would like to leave the country to find better job opportunities, again to a much higher extent than any other group (Figure 20B).

Figure 20. Intention to leave the country and reasons given

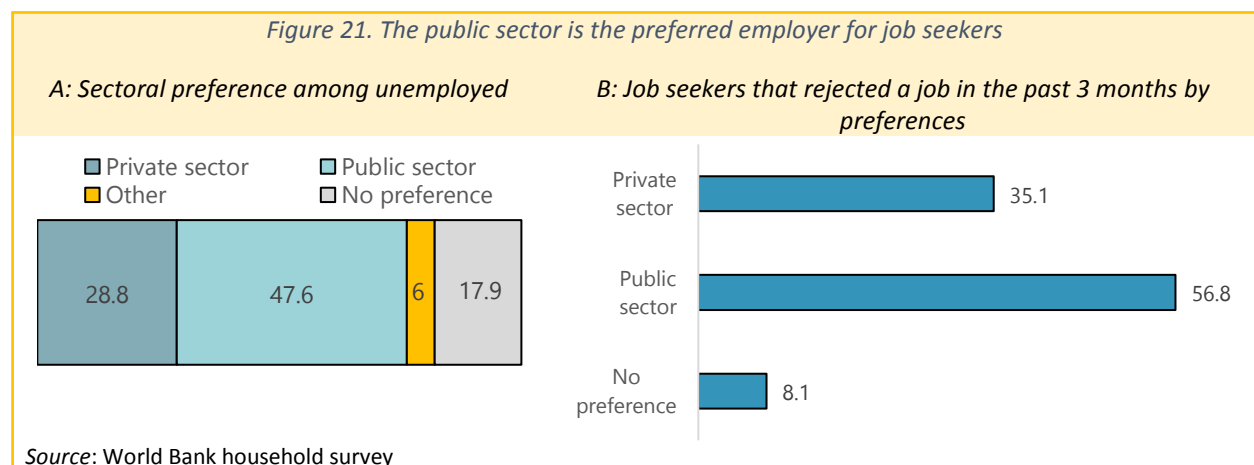


Source: World Bank household survey

Sectoral preferences of the unemployed

52. **There is a high prevalence of unemployment, particularly among the youth, in BiH.** Approximately 62 percent of adults are not working and the unemployment rate among the 18-29 age group is 36 percent.³⁶ The proportion is even higher among young women, as 67 percent of them are not employed. A higher unemployment rate among young women could be explained in part by skills mismatches. As discussed before, the type of education degrees pursued by men and women differ considerably in BiH. Discriminatory social norms include women’s unpaid work responsibilities, discrimination in the workplace and traditional family relations combined with a limited access to affordable, quality long-term care arrangements or childcare³⁷. Moreover, high youth joblessness can be interpreted as the result of a slow, incomplete transition from school to work—in other words, an extended period of entry into the labor market for those seeking jobs for the first time. While there can be several reasons for this slow transition, including a relatively underdeveloped private sector that does not create sufficient formal sector jobs, this report focuses on young people’s expectations and preferences for high paying jobs which are more prevalent in the public sector.

53. **There is strong preference for working in the public sector among the unemployed.** The survey asked respondents who were not employed and were actively seeking employment, if they held a preference for working in either the public or the private sector or were indifferent and would accept any available position. Forty-eight percent of job seekers reported a preference for working in the public sector, as compared to only 29 percent who preferred private sector jobs, while 18 percent express no preference (Figure 21A). This preference for public sector jobs may also be leading to longer duration of unemployment as job seekers wait to get a public sector job. Moreover, despite an apparent excess supply of people entering the labor market, they are still rejecting job offers. Figure 21B shows that job seekers who expressed a preference for working in the public sector are much more likely to have rejected an existing job offer in the three months prior to the interview compared to individuals with a preference for private sector jobs (57 percent as compared to 35 percent).

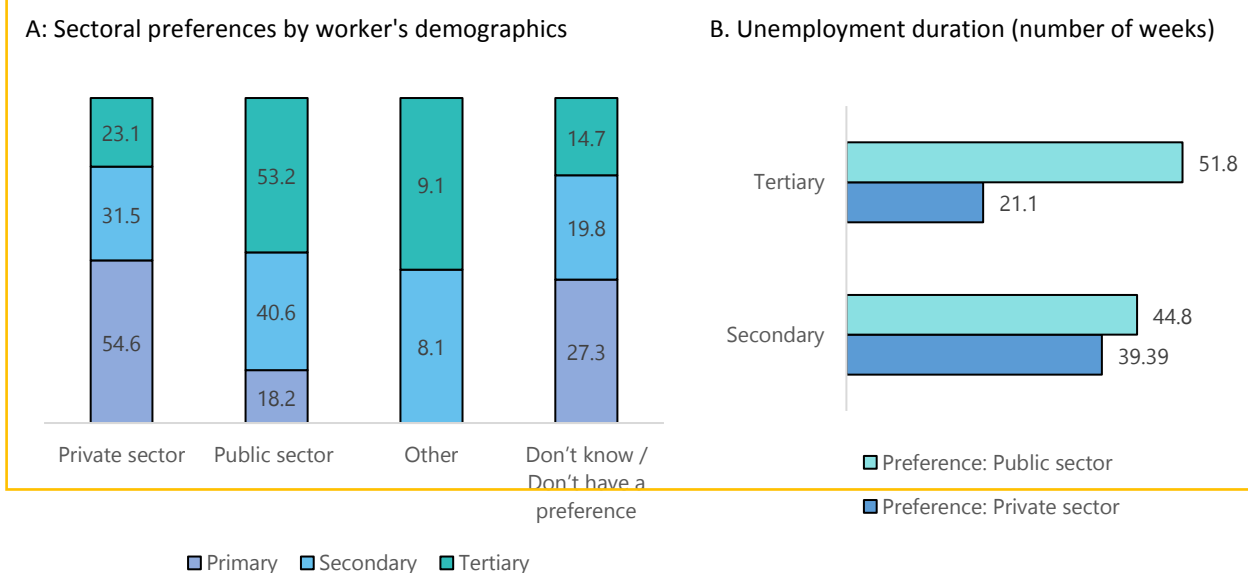


³⁶ LFS (2021)

³⁷ OECD (2021)

54. **The preference for public sector jobs is also higher among more educated job seekers.** Youths who leave school with a secondary education require relatively more time to transition into work compared to those with tertiary education and fifty-three percent of the unemployed with a tertiary education prefer to work in the public sector, as compared to 23 percent who prefer the private sector (Figure 22A). Moreover, tertiary educated individuals with a preference for public sector employment are also unemployed for 31 more weeks than those who prefer private sector employment, another indicator of how the public sector labor market is particularly impacting the choices of the most skilled workers (Figure 22B). This longer duration of unemployment may be due to a more intense and selective job search among those with higher education after completing their studies, compared to less-educated job seekers. However, a very long period of job search can lead to skills degradation.

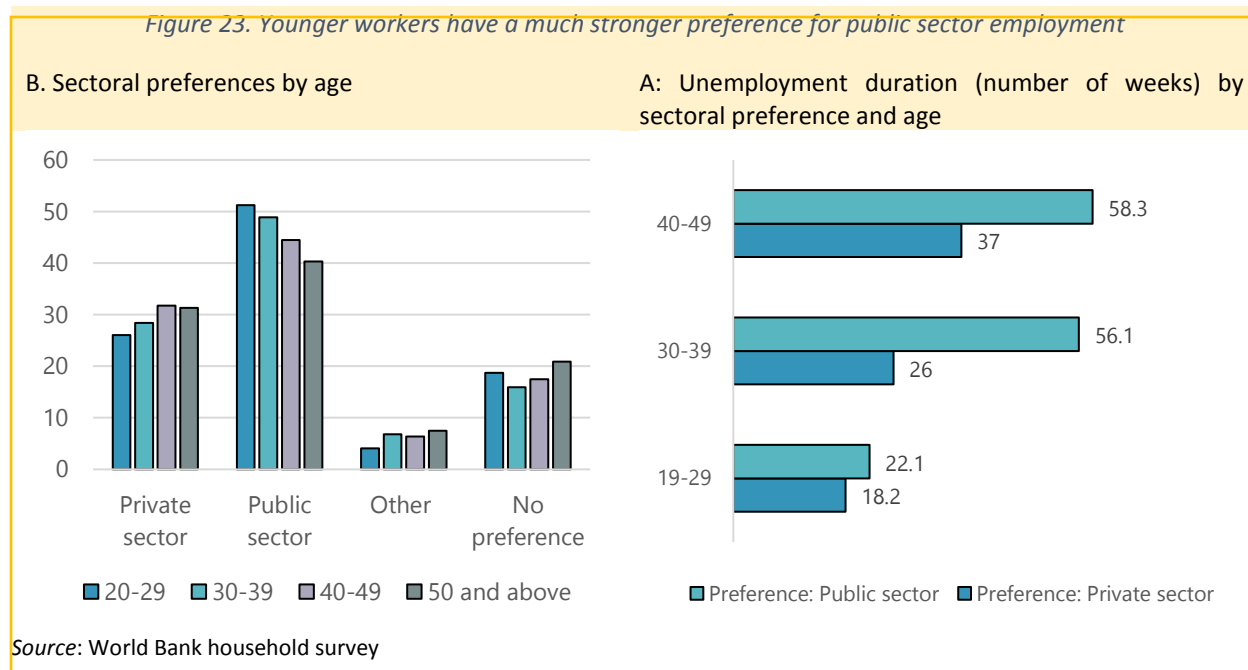
Figure 22. More educated workers have stronger preferences for public sector employment



Source: World Bank household survey

55. **Unemployed younger workers also prefer to work in the public sector.** Given that public sector turnover is in general low, and vacancies are more likely to occur for entry-level positions, the higher wage premium observed in younger cohorts suggests that the distortionary effects of higher public sector salaries are more pronounced for this segment of the population, which may contribute to the high levels of youth unemployment. Indeed, self-declared preferences for public sector employment are higher among younger workers with approximately half of younger workers (below the age of 40) that are looking for a job preferring to work in a public sector job compared to only 27 percent who prefer the private sector (Figure 23A). This sectoral preference is negatively correlated with age, as workers at the opposite end of the age pyramid (above 50 years old) report lower levels of preference for the public sector over the private sector. The duration of unemployment is higher for those expressing public sector preference across all age cohorts and is particularly pronounced for the 30-39 age group in which those who prefer the public sector spend on average 56 weeks looking for a job as compared to 26 weeks for those who

prefer the private sector (Figure 23B). BiH also has the highest duration of unemployment among younger workers compared to other countries in the region.³⁸



56. **Unemployed women have slightly stronger preferences for the public sector than men.** Forty-seven percent of unemployed women preferred working for the public sector, as compared to 43 percent of men, which, combined with limited new jobs in the public sector, may contribute to the higher unemployment rate for women (Figure 24A). The strongest evidence for the higher preference of public sector among women is that, on average, women are willing to work for relatively lower wages (as compared to men) in the public sector. In the survey, all unemployed people were asked what is the minimum monthly salary that would be required for them to accept a job in the public sector, their so-called “reservation wage”.³⁹ Women indicated that they are willing to accept a lower wage for working in the public sector compared to men; their reservation wage for a public sector job is 25 percent lower than that of men (Figure 24B). Moreover, the survey finds that the unemployment duration is particularly high for highly educated women who prefer to work on the public sector, with women spending on average 57 weeks looking for a job compared to 43 weeks for men.

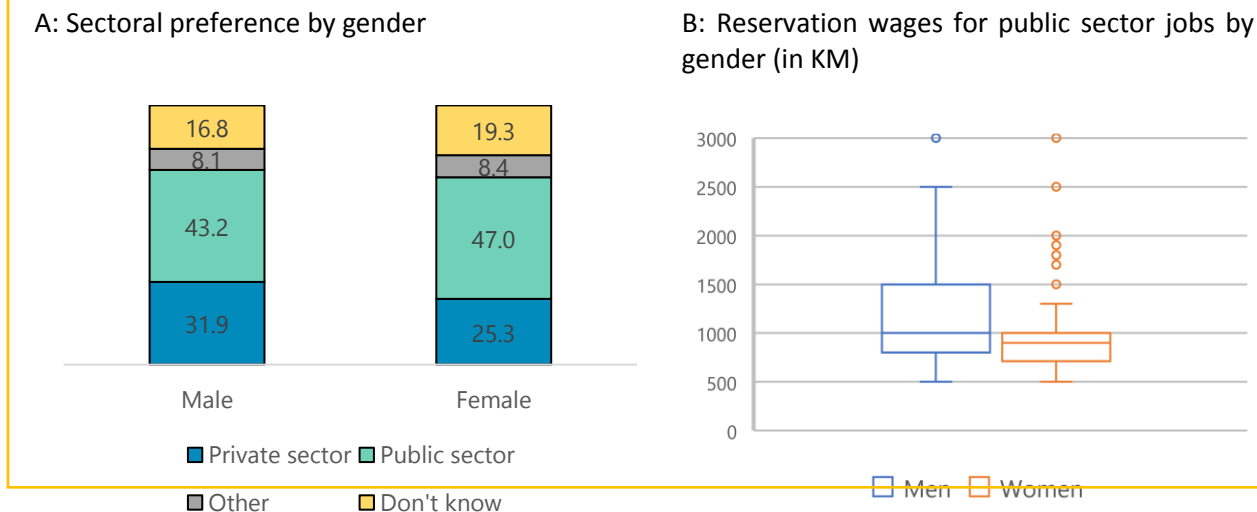
57. **Some of the reasons for women’s lower reservation wage are related to social norms that constrain women from entering the labor market, as well as the fewer private sector job opportunities.** The latter is related to the discussion above of women selecting into specific education specializations. The household survey reveals the presence of unbalanced unpaid work between men and women. It shows that 32 percent of women who are looking for a job mentioned they were out of the labor market

³⁸ Regional Cooperation Council (2022)

³⁹ Reservation wages can be considered a crude measure of sector preference. If an individual considers public sector work to be intrinsically better than private sector work, there should be a range of wage offers that they are willing to accept if the job were in the public sector but not if the job were in the private sector.

because they were doing home activities or being housewives, as opposed to only 5 percent of men. Additional literature also finds that the gender differences in reservation wage setting highlights the extent to which men and women harbor different aspirations about labor market wages prior to their entry into the labor market, which may reflect perceived wage discrimination or different opportunity costs of labor market entry.

Figure 24. Public sector jobs are preferred by unemployed women



Source: World Bank household survey

58. **Higher salary, job security, and better working conditions are the main reasons why unemployed workers prefer the public sector.** These findings show that the unemployed are aware of the public-private wage gap and the greater pecuniary and non-pecuniary benefits of the public sector, and that these differences are influencing their sectoral preferences (Figure 25). The higher compensation is not only influencing job seekers towards the public sector but also likely results in higher worker retention rates further raising the value of a public-sector job.

59. **The preference for public sector employment is higher in BiH compared to other countries in the region.** Data from the 2022 Balkan Barometer shows that one-third of individuals in BiH choose government agencies and 29 percent choose SOEs as their favorite potential employer, compared to the average of 28 and 23 percent for the Western Balkans on average, one of the highest in the region (Figure 26). This preference is unsurprising given the high public sector wage premia discussed above.

Figure 25. Reasons why unemployed prefer public sector jobs

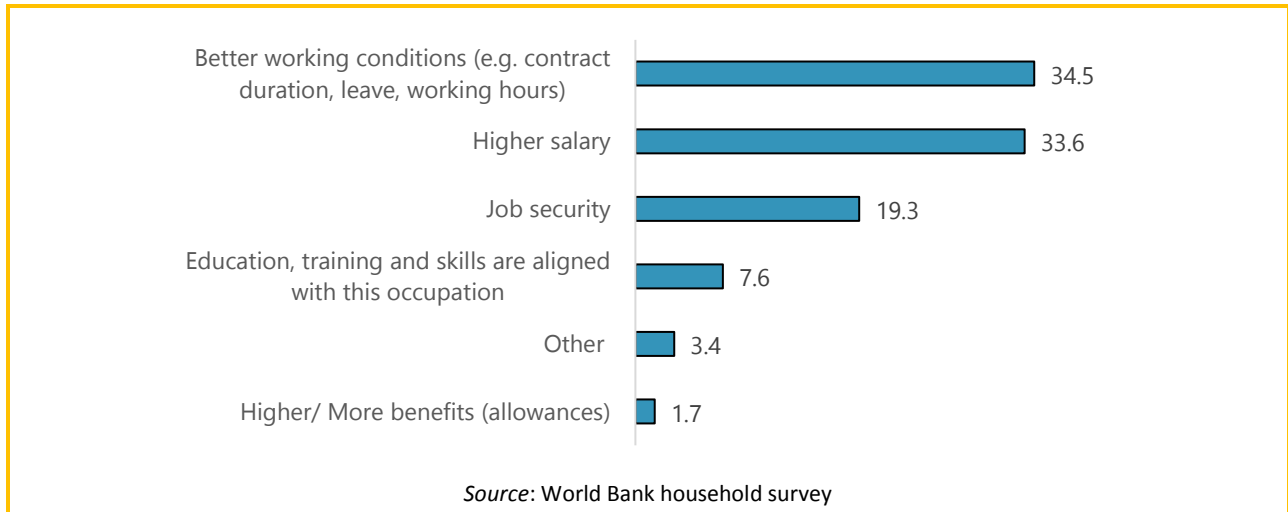
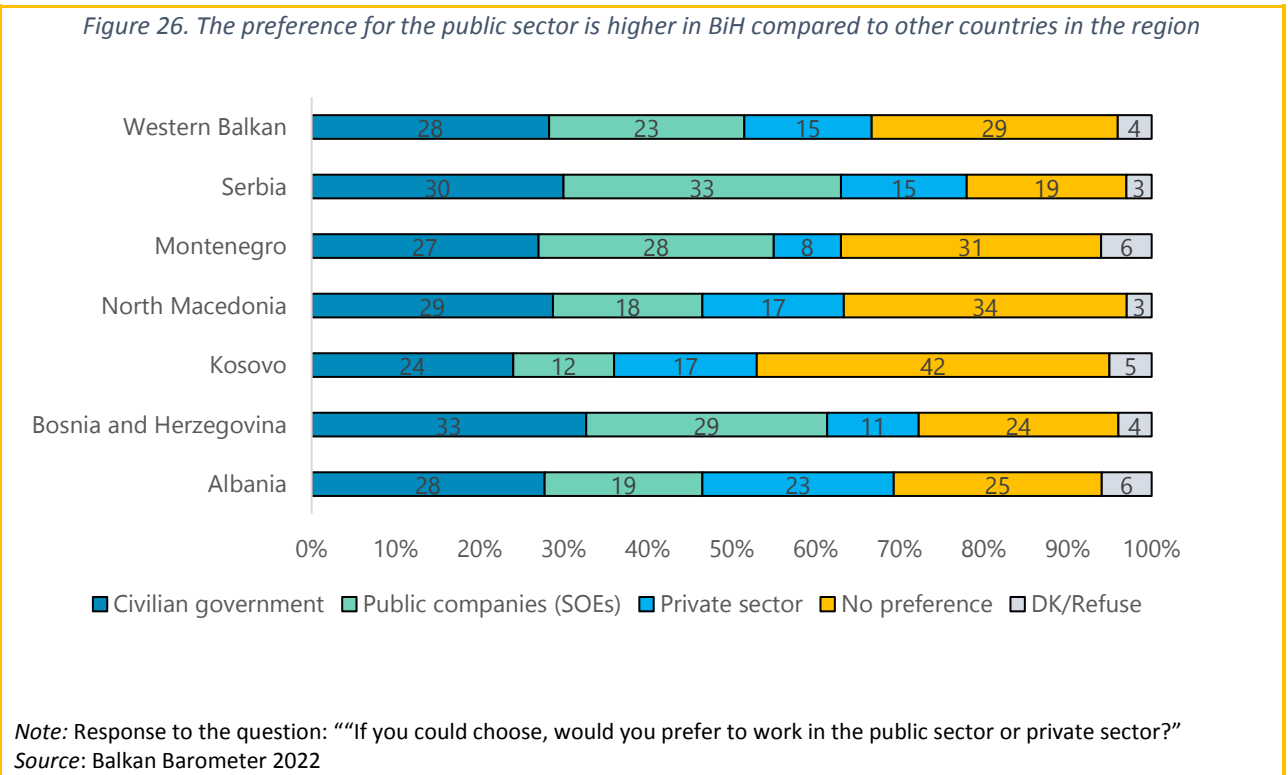


Figure 26. The preference for the public sector is higher in BiH compared to other countries in the region



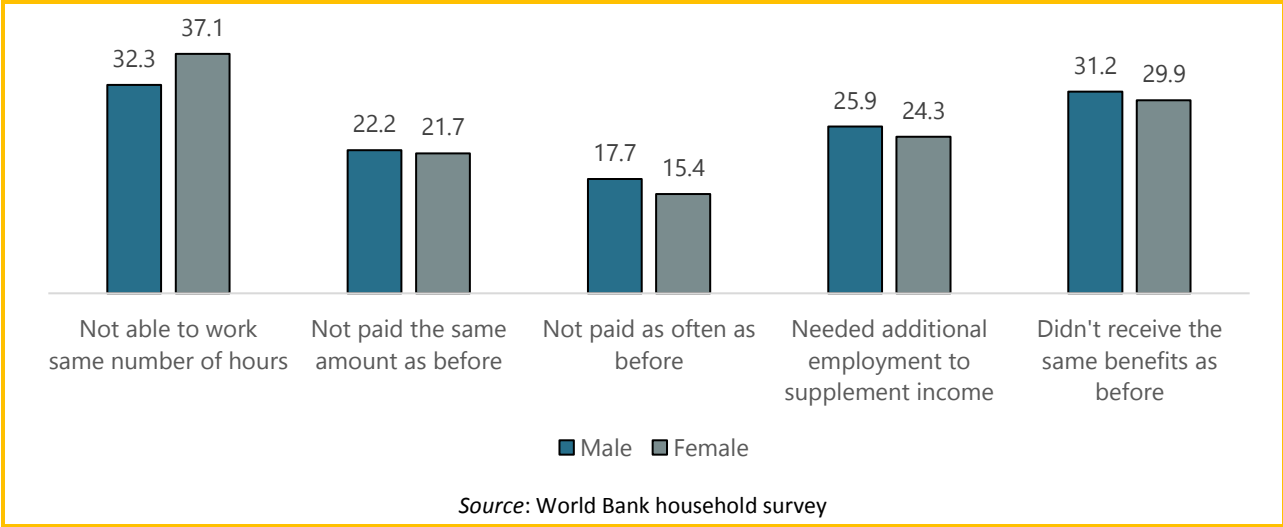
Unequal impacts of Covid on labor markets

60. **These preferences for public sector employment are likely to have been further strengthened by the impact of the COVID-19 pandemic.** It is now well documented that the pandemic impacted the labor market in an unequal way, affecting women, younger individuals, and less educated workers

disproportionately. Additionally, in terms of sector of employment, results from the survey show that public sector workers experienced less severe impacts compared to their private sector counterparts, which may also have affected the preferences of those individuals looking for jobs. Results also show that women employed in the public sector were less affected by the pandemic, compared to their private sector counterparts.

61. **More women experienced a larger decrease in the number of hours worked during the lockdown, as compared to their male counterparts.** In terms of the direct impacts of the COVID-19 pandemic in the overall labor market, the survey asked different questions on coping mechanisms that individuals needed to take in order to maintain their employment as well as any changes that took place in terms of their work status and work productivity during the lockdowns. In that sense, 37 percent of women responded saying they were not able to work the same number of hours as they did before the lockdown, compared to 32 percent of men who experienced fewer working hours. On the other hand, more men answered they were not paid as often as before (17.7 percent), compared to 15.3 percent of women. Moreover, a high proportion of workers (around 22 percent from both sexes) answered they were not paid the same amount as before the pandemic and received fewer benefits (roughly 30 percent), and a quarter of workers stated they needed additional employment to supplement their income (Figure 27).

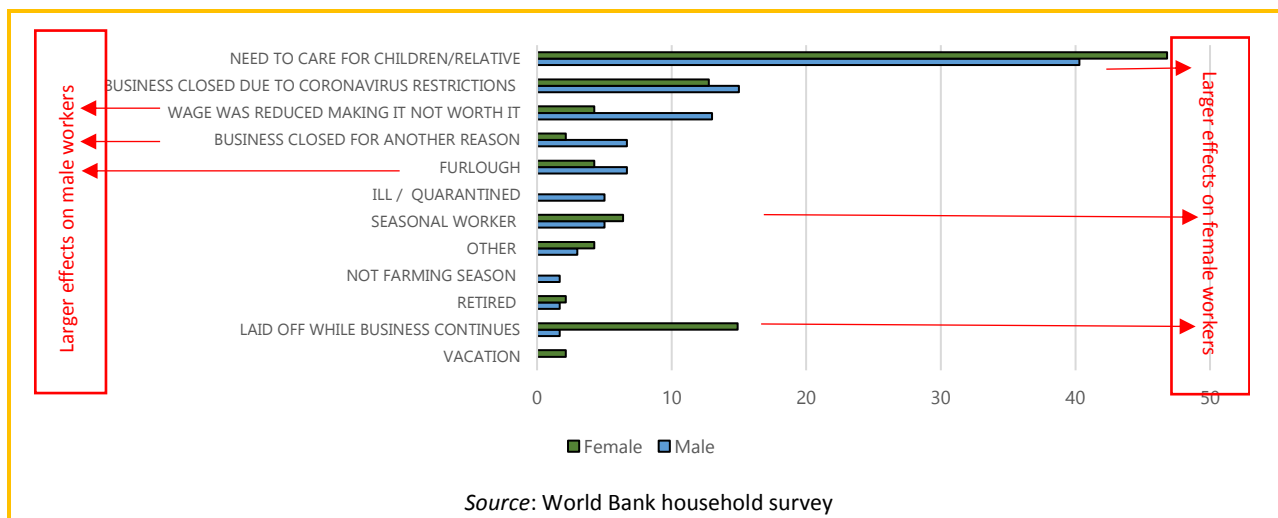
Figure 27. Direct impacts of lockdown by sex



62. **In terms of job losses, an equal proportion of male and female workers had to change jobs due to the lockdown, however the reasons vary significantly.** Around 7.6 percent of workers mentioned they had a different job compared to the one they had before March 2020, and this proportion is similar between men and women. However, the reasons for this change differ considerably and are potentially related to existing social norms and roles about gender that make women more vulnerable to job loss. For instance, 15 percent of women were laid off while business continued operation, compared to less than 2 percent of men. Moreover, 4 percent of women revealed they needed to take care of children while no men referred to this reason for a change in jobs. On the other hand, more men (13 percent)

mentioned the wage on their previous job was reduced making it not worth it to keep it, compared to 4 percent of women (Figure 28).

Figure 28. Reasons for work change (compared to March 2020) by sex

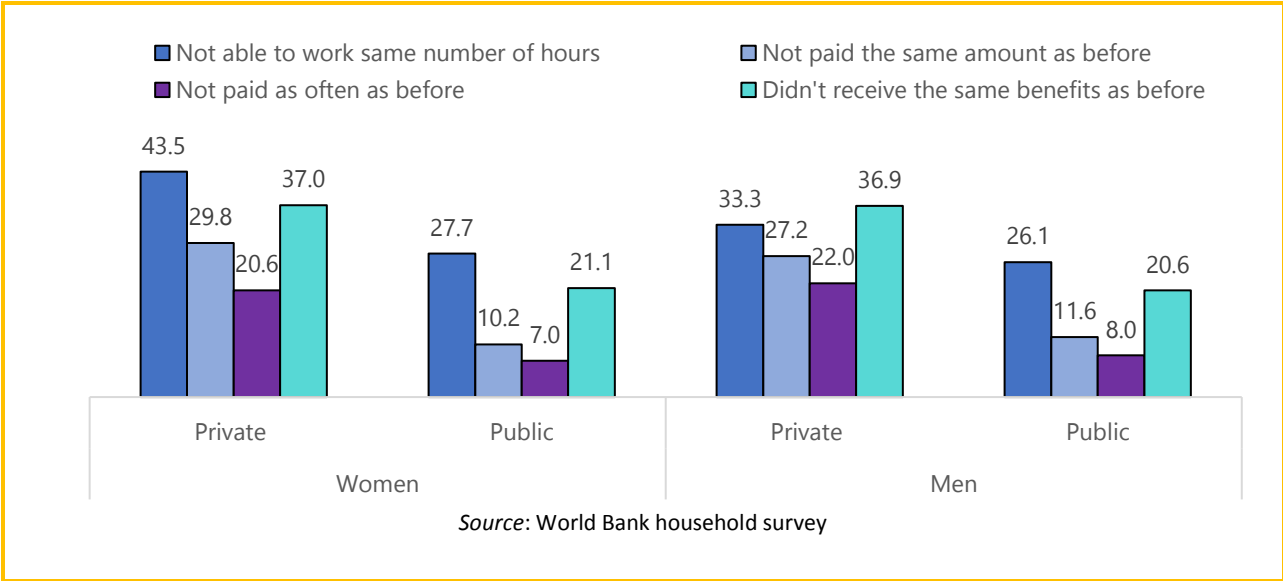


63. **The impact of the lockdown was more severe among private sector workers.** Public sector workers were less affected by the cessation of activity and reduction of operations due to the pandemic, which may be due to various factors, such as the higher share of public sector workers employed in essential functions which could not be discontinued, stronger job security in the public sector, and different contractual arrangements. Some reasons behind a harder impact in the private sector are related to the high levels of job informality in the country. The sectors in which the informal workers are largely represented were also the hardest hit by the pandemic, including the wholesale and retail trade and manufacturing. Moreover, the size of the firms or economic units in which these workers are employed may have also played a role, as the majority of workers in the informal economy work as own-account workers in small firms of less than 10 people, which are more vulnerable to shocks. More private sector workers stated they were not able to work the same number of hours during the pandemic compared to their public sector counterparts; a higher proportion of private sector workers stated that they were not paid the same amount as before or paid as often and didn't receive the same benefits as before (Figure 30). These less severe impacts on public sector workers combined with a perception of higher job security and wages can help explain the sectoral preference for public sector jobs among those looking for a job.

64. **The negative impact of the pandemic was particularly acute for women working in the private sector.** As shown above, the type of occupation remains significantly gender segregated in BiH. Since more women are employed in the education and health industries and more likely to be front-line workers, all of which have a high representation in the public sector, a lower share of women in this sector have suffered negative impacts from the lockdown. On the other hand, 43 percent of the women in the private sector revealed they were not able to work the same number of hours, almost 30 percent saw a decrease on their wages and 37 percent didn't receive the same benefits as before (Figure 30). Given this situation that could lead to a decrease in women's participation in the labor force, immediate steps are needed to

ensure that the impact of the COVID-19 pandemic on female activity rates does not persist and threaten to reverse the progress achieved by the country in the recent decades around gender equity.

Figure 29. Direct impact of lockdown by sector of employment



Chapter 4: The Public Sector Labor Market and Worker Productivity

65. **This chapter provides the main findings of the WB household survey on key human resource management dimensions in the public sector.** A wealth of academic literature and public employee surveys in several countries done by the WB, show how a wide array of human resource management practices (both within public organizations and private firms) are strongly correlated with the motivation and productivity of workers. Specifically, the chapter focuses on three main sets of findings from the survey—on recruitment, personnel management, and on the attitudes and behaviors of workers. Given the difficulties in measuring effort and outputs, positive attitudes, and behaviors, such as a desire to serve the public, are essential for public sector productivity. Evidence shows that selecting the right people and keeping staff motivated through sound management are the main drivers of positive work attitudes and behaviors. A recent review of the growing body of field experiments that explores the personnel economics of the state finds that type of individuals who work in the public sector will ultimately depend on how candidates are screened.⁴⁰ The main criterion for recruitment should be meritocracy and founded in a strong competency-based assessment of applicants, instead of patronage. The same review finds evidence that financial and non-financial incentives matter for bureaucratic performance, and that the efficacy of these incentives in motivating staff depends on the robustness of internal accountability mechanisms, such as performance evaluation systems.

Merit-based recruitment

66. **Merit-based recruitment of competent and driven staff is the cornerstone of government effectiveness.** While all human resource management (HRM) practices need to function well for a high-performing management system, the starting point is attracting and selecting the right people. If the human resource “inputs” are not fit for the advertised positions in the first place, or do not possess the general competencies required to work effectively and are not motivated to serve the public, it will be significantly more challenging to use other aspects of HRM practices (such as performance management, compensation, and training) to compensate for this absence and have such staff deliver high-quality public goods and services. Research has shown that merit-based recruitment is a strong predictor of high public-sector performance. Hiring based on the quality of the candidate, rather than personal or political connections, forms a basic pillar in a performance-oriented bureaucracy model⁴¹. Meritocracy correlates with economic growth and lower levels of corruption and nepotism,⁴² which in turn is associated with greater motivation and higher performance of civil servants.⁴³

67. **The WB household survey revealed significant challenges in transparency and merit in recruitment in the public sector in BiH.** The first piece of evidence of this problem is that while most respondents believe that the public sector is the best possible career option, far fewer think that the best workers join the public sector. Similar majorities of public and private sector workers (68 percent and 63 percent, respectively) agree or strongly agree with the statement “among graduates of the country's most elite universities, a career in the public sector is considered the best possible career option” (Figure 30).

⁴⁰ Finan, F., Olken, B. A., Pande, R. (2015).

⁴¹ Meyer-Sahling, J, C. Schuster, and K. Mikkelsen. (2018)

⁴² Fukuyama, F. (2013).

⁴³ Meyer-Sahling, J, C. Schuster, and K. Mikkelsen. (2018)

This finding is in line with the strong preference for public sector employment noted in the previous chapter. However, far fewer believe that the best workers end up being selected to join the public sector, with 33 percent of public sector workers and 36 percent of private sector workers agreeing with the statement that “among graduates of the country's most elite universities, the best and brightest join the public sector” (Figure 31). The differences in responses to these two related questions is suggestive of a recruitment system that is not selecting candidates based on merit, as explored further below.

Figure 30. Survey respondents believe that the public sector is the best possible career option

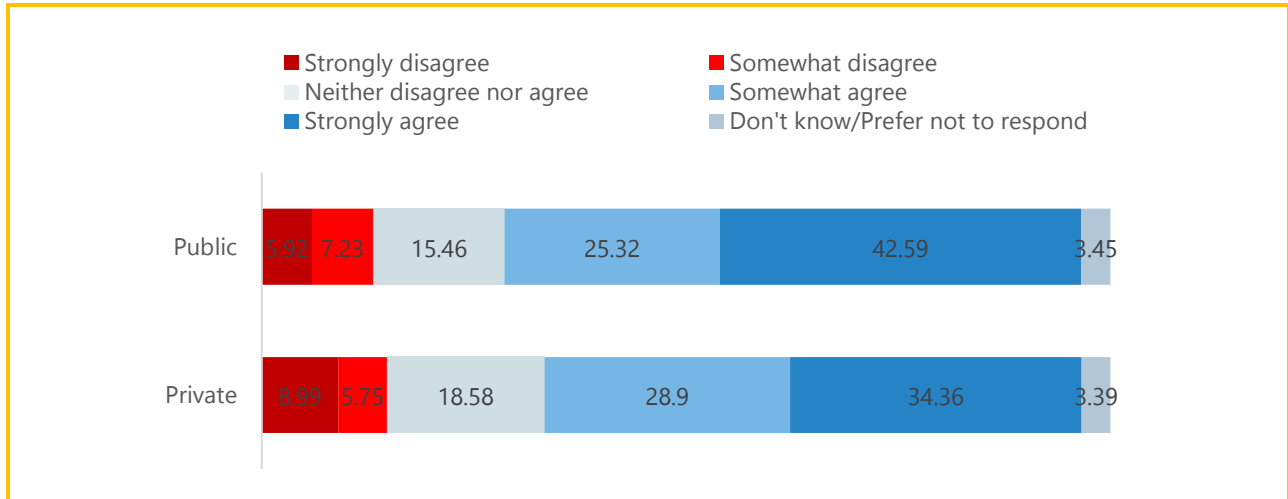
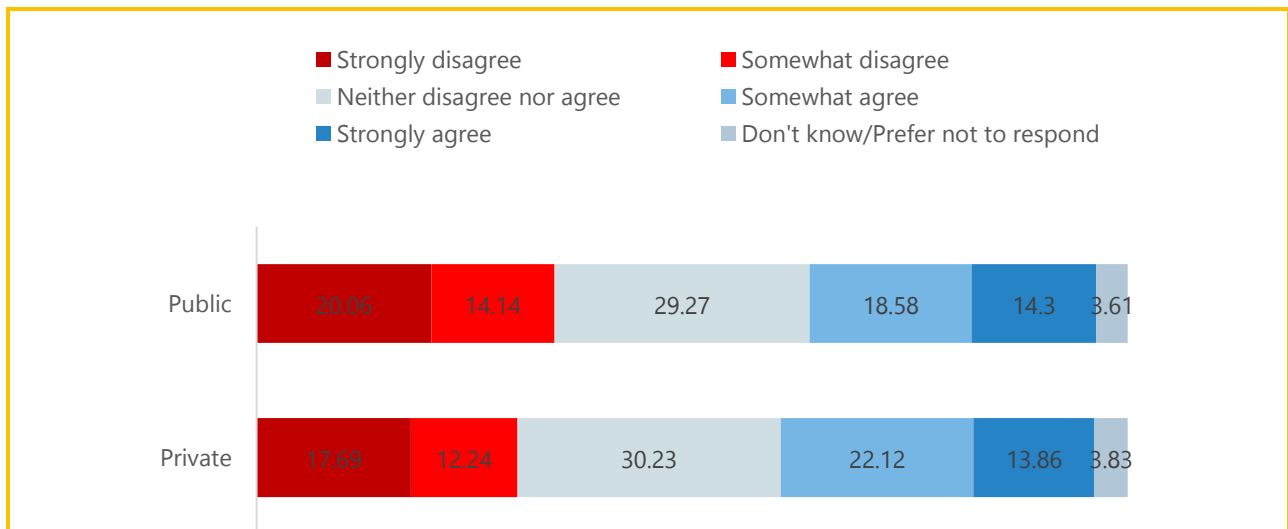


Figure 31. Survey respondents do not believe that the best and the brightest join the public sector

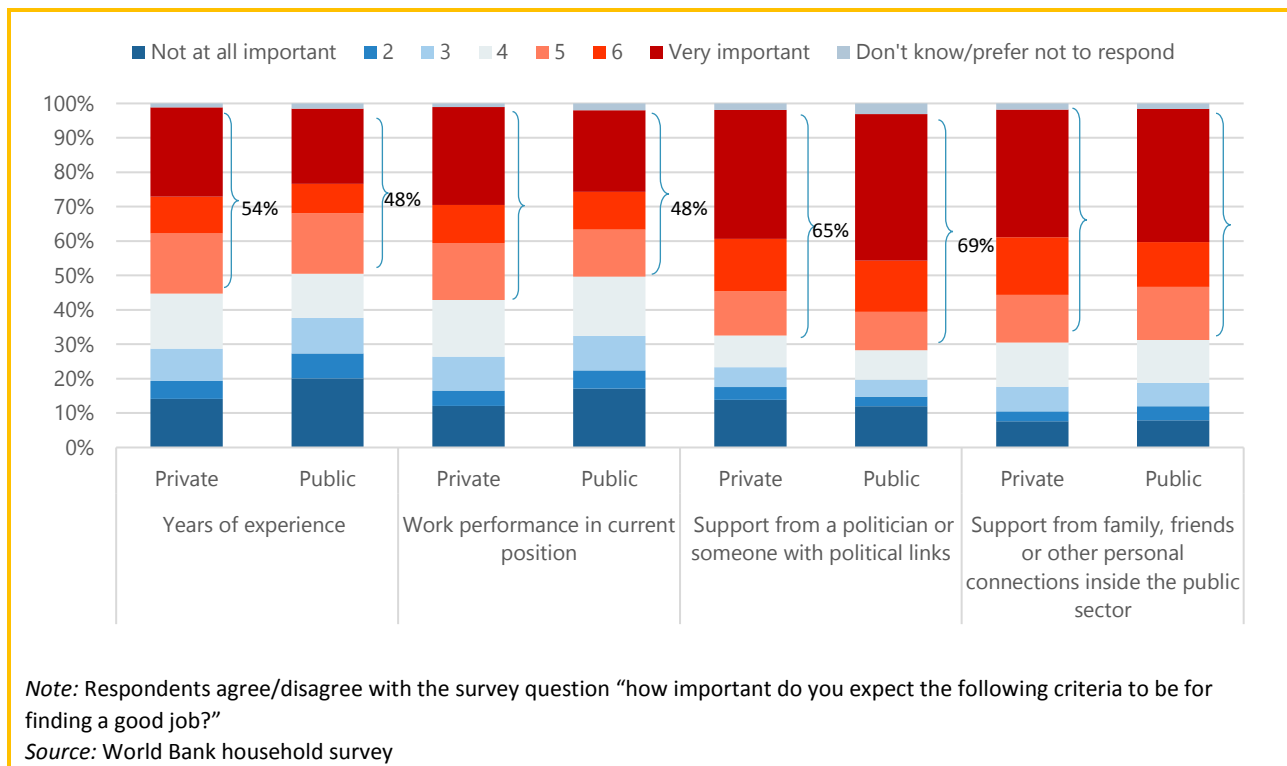


Note: The above two figures measures responses to the following survey questions: “Do you agree/disagree with the statement “among graduates of the country's most elite universities, a career in the public sector is considered the best possible career option”; “do you agree/disagree with the survey statement “among graduates of the country's most elite universities, the best and brightest join the public sector”

Source: World Bank household survey

68. **The starkest evidence of lack of merit in recruitment is the high importance of political connections in securing employment.** The survey asked respondents to rank the importance of several factors to find a good job. While workers ranked years of experience and work performance in their current position as important (as expected), the two most important criteria given for finding a job by either public or private sector workers were support from a politician or someone with political links, and personal connections with individuals in the public sector. Sixty-nine percent of public sector workers, and 65 percent of private sector workers, stated that political connections are important for finding a good job. Recruitment based on political connections is the antithesis of a canonical Weberian bureaucracy, and these statistics are far higher in BiH than in other countries for which data is available. For instance, in Kosovo, 25 percent of public sector workers believe that having political connections is very important to get a job in the civil service; in Albania, Croatia, Slovakia, and Estonia only 15 percent, 14 percent, 5 percent, and 2 percent of respondents agree with this statement respectively.⁴⁴ Moreover, a high proportion of both public sector and private sector respondents (67 percent) highlight the importance of support from family and other personal connections inside the public sector as very important for finding a good job (Figure 32). When leveraging a personal network to navigate the job market becomes so predominant, qualified candidates without connections may either be left out or discouraged from applying to jobs. In these cases, personal relationships risk becoming more important than investment in certain skills, contributing to a widespread of skills mismatches.

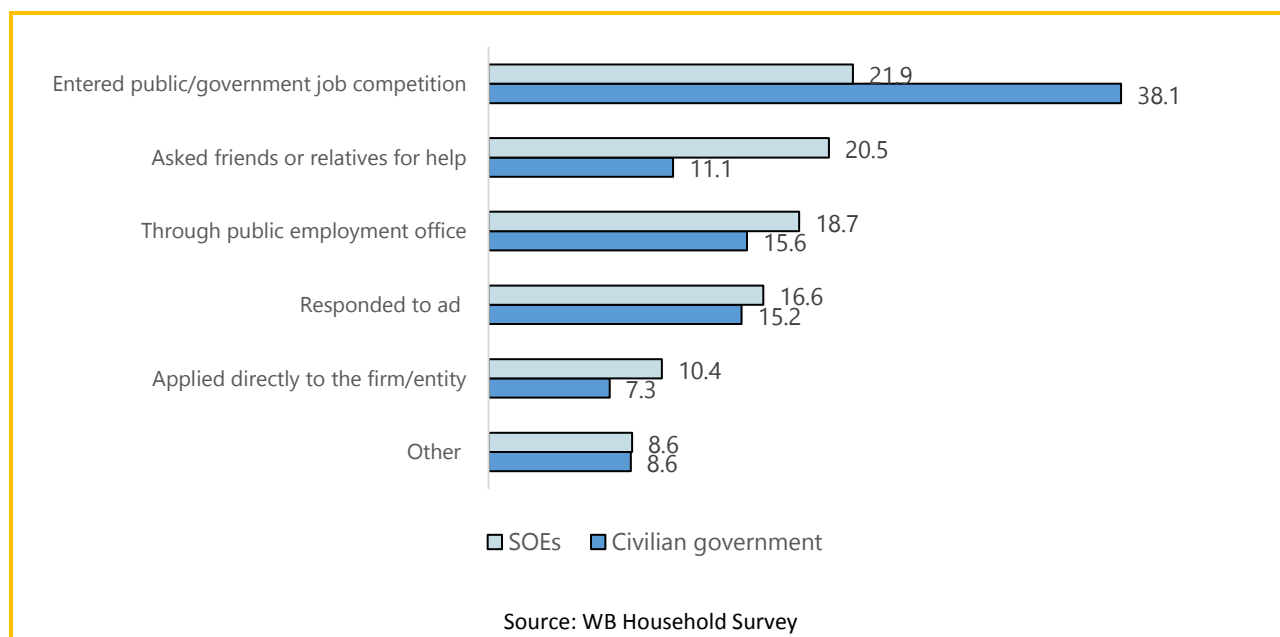
Figure 32. Respondents believe that support from politicians and individuals with personal connections in the public sector are the most important criteria for finding a good job



⁴⁴ Global Survey of Public Servants

69. **The survey also revealed that open competition is not always the basis of entering public sector employment.** When asked about the primary way in which workers in the public sector found their current jobs, public job competition was the most common response, but was far from being the norm, with 38 percent and 22 percent of civilian government and SOE workers respectively stating that this was how they got their jobs (Figure 33). A significant proportion of public sector workers, particularly in SOEs, asked friends or relatives for help to enter their current jobs. This finding is consistent with the analysis presented above that only a small proportion of respondents believe that the best and brightest join the public sector and with the perception that other factors such as personal connections may be influencing hiring decisions.

Figure 33. The ways in which public sector workers entered their current jobs



70. **These weaknesses in the public sector recruitment system in BiH have also been identified in sectoral analyses.** Teacher recruitment practices in FBiH, for example, vary across jurisdictions, with some cantons, such as Tuzla, having more rigorous and centralized processes while others, such as Sarajevo, having school-based selection with non-meritocratic criteria like years of registered unemployment.⁴⁵ There is also wide variation across cantons in the authority of school principals, and appropriate checks and balance, in organizing the public competition for teacher vacancies. Entering through open competition also does not guarantee that the screening for candidates is rigorous or transparent. Research suggests that in many public institutions, the formation and operation of selection commissions, setting of written examinations, conduct of personal interviews, and final selection of candidates are either not done or are subject to bias and favoritism, with ethno-political parties having sway over the process and outcomes.⁴⁶ Historically, as recruitment processes remain opaque and discretionary, political parties and leaders have often used personal networks to trade public jobs for political support,

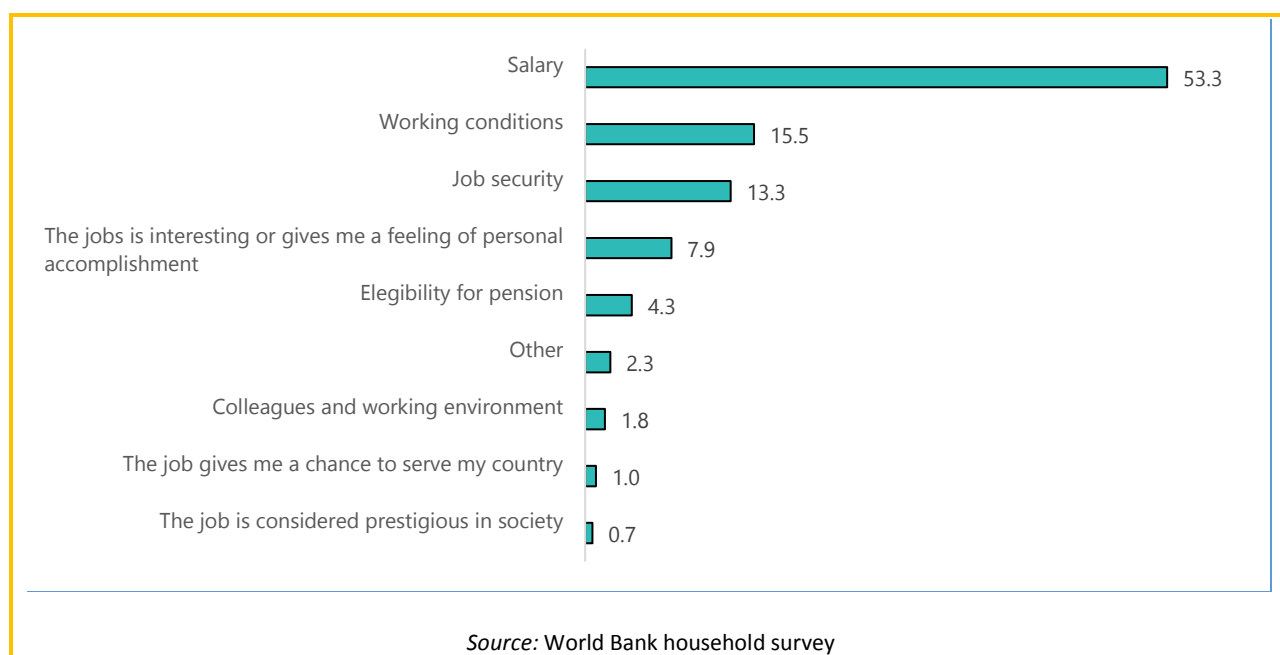
⁴⁵ World Bank (2022).

⁴⁶ Meyer-Sahling et al (2015). According to Meyer-Sahling's detailed study, screenings are so easy that 80 percent of candidates in FBiH and over 90 percent in RS successfully pass.

contributing to the large public sector observed in the country.⁴⁷ Political patronage can have negative implications on the distribution of job opportunities given that the presence of such informal networks usually develops within limited socioeconomic strata and can put those from less affluent families at a disadvantage, but this requires further analysis.

71. The public sector attracts applicants who are more motivated by salary and job stability than by the opportunity to serve the public. Given the difficulties in monitoring effort and output in public administration jobs, public service motivation, seeing the purpose and value of work and commitment to remain in the public sector are key determinants of individual and organizational performance.⁴⁸ However, a ranking of the three most important attributes of their public sector jobs shows that the reason that is ranked first most frequently is salary, selected by more than half of the respondents who work in the public sector. This result is not surprising given the wage premium experienced by public sector workers. The other most valued attributes of their public sector jobs include working conditions, duration of the contract and benefits, followed by job security (Figure 34). By contrast, only 1 percent of respondents listed ‘the job gives me a chance to serve my country’ as the most important attribute of the job.

Figure 34. Public sector workers’ views on the most important attributes of a job in the public sector



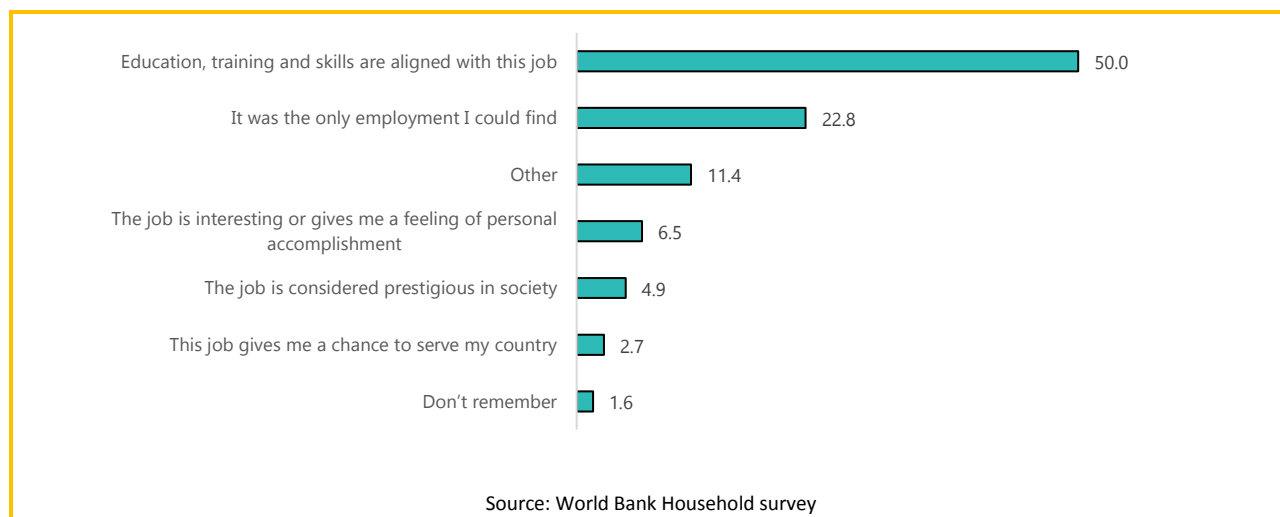
72. Younger workers are also less motivated by a desire to serve the public in their reason for joining the public sector. When asked about the main reasons that influenced them to take their jobs, less than 3 percent of workers between the ages of 20 and 39 mentioned the job gives them a chance to

⁴⁷ World Bank (2019), Bosnia and Herzegovina. Growth and Jobs: Reform Priorities for Promoting Better Private Sector Jobs, World Bank Group, Washington, D.C.

⁴⁸ For instance, see Cantarelli, P., Belardinelli, P. and Belle, N. (2016); Ritz, A. (2009); Dixit, A. (2002); Ewenstein, B., Hancock, B., Kimm, A. (2016).

serve the country (Figure 35). Moreover, the influence of education on the job is especially common among younger workers and points towards the discussion elaborated in the previous chapter that showed this segment of the population sorts into educational degrees that are more in demand in the public sector. Half of the young cohort of 20 to 39 mentioned their education, skills and training are more aligned with their job in the public sector. Twenty-two percent also mentioned that the public sector job was the only employment they could find, which may be reflective of skills mismatches discussed in the previous chapter.

Figure 35. Main reasons that influence the decision to take the job (public sector workers aged 20-39)



Personnel Management and Work Environment

73. **Personnel management practices, organizational culture, and work environment significantly impact the motivation, capacity, and productivity of workers.** There is growing evidence that performance management, specifically goal setting and regular performance feedback, influences employee motivation. One study, based on a survey of 23,000 civil servants across countries in Africa, Asia, Europe, and Latin America, found that higher levels of self-reported performance orientation in public administration (civil servants reporting that performance mattered for promotion and rewards) were correlated with higher levels of self-reported satisfaction and work motivation.⁴⁹ In another survey, staff who reported having managers that regularly evaluated their performance were more motivated and satisfied than staff whose managers did not evaluate performance.⁵⁰ Literature also points to the importance of various less tangible or formal incentives, which motivate through their intrinsic value, such as work environment or social recognition.⁵¹ Clearly, continuous skill-building through training and an organizational culture that encourages problem-solving and innovation are also crucial.

74. **Performance management is weak in the public sector.** A high proportion of workers from both civilian government (38 percent) and SOEs (37 percent) stated that their performance had not been

⁴⁹ Meyer-Sahling, J, C. Schuster, and K. Mikkelsen. (2018)

⁵⁰ World Bank (2020)

⁵¹ Rose, M. (2014); Kogan Page; Watkins, J., Beschel, R., (2010).

evaluated in the past two years and another 13 to 14 percent revealed their performance had been only evaluated once in that time (Figure 36). This irregularity of performance evaluations points to an organizational culture that does not value accountability or staff growth. The survey also shows that performance evaluations have relatively weak impact on public sector salaries and prospects for dismissals. Only 28 percent of civilian government workers and 34 percent of SOE workers believe that their performance evaluation ratings have had an influence on their salary. Similarly, when asked if their performance evaluation could lead to a dismissal, only 26 percent of civilian government workers agreed with the statement (Figure 37). By lacking such alignment between evaluation and salary progression, employees may lose sight of how their daily work feeds into the broader mission of their organization, and how they contribute to society through public service.

Figure 36. Frequency of performance evaluations of public sector workers in the past two years

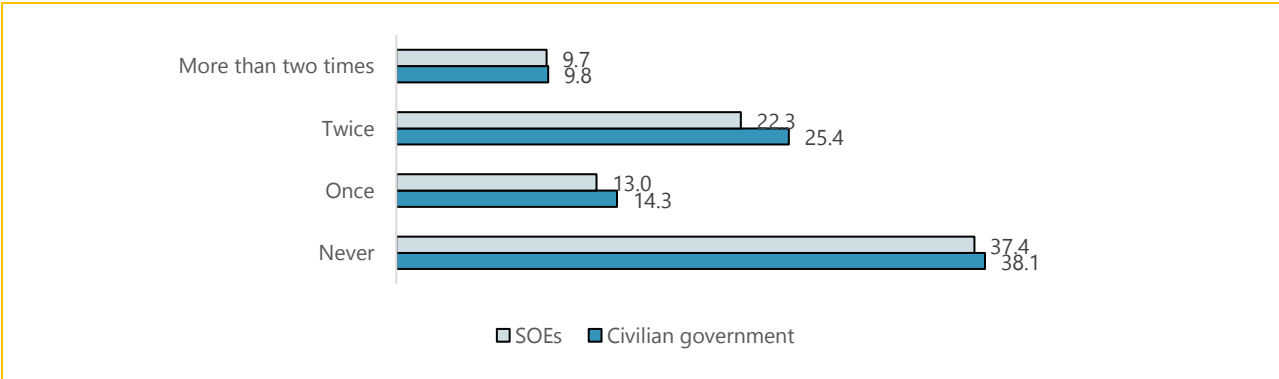
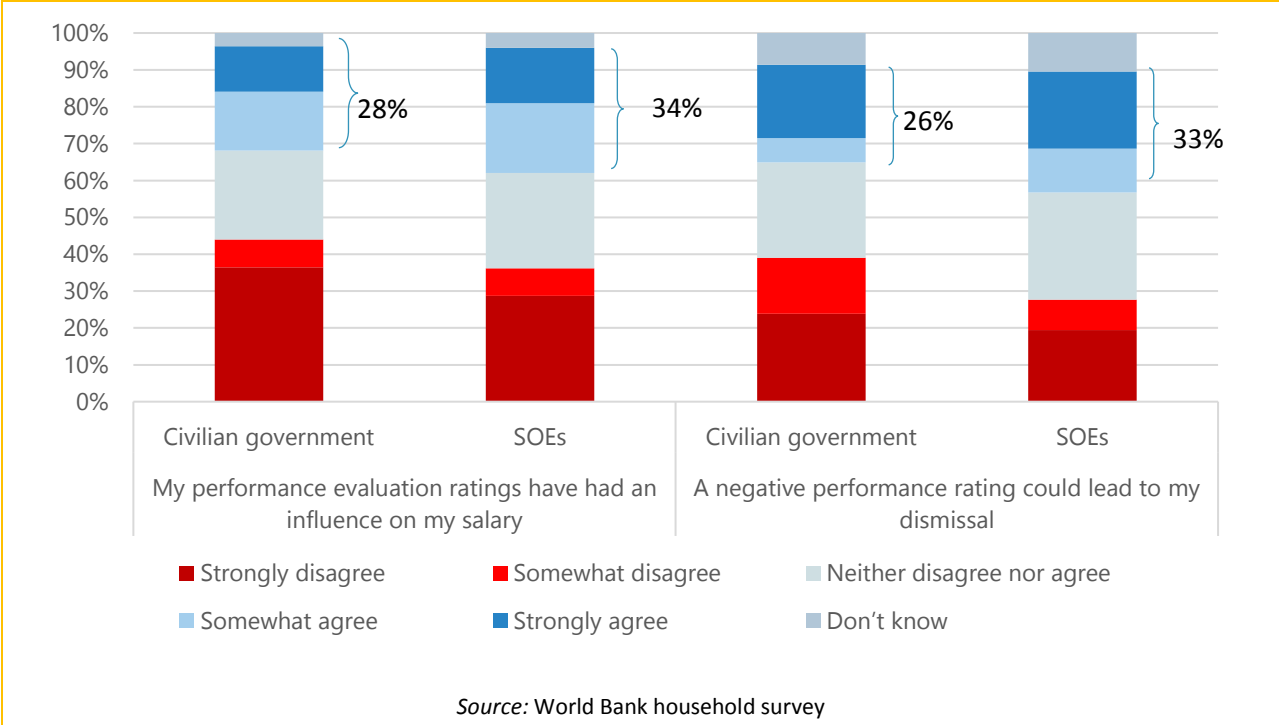


Figure 37. Views of public sector workers on the impact of performance evaluations



Source: World Bank household survey

75. **Personal and political connections, by contrast, influence salaries and careers of public sector workers.** As in the above finding on the importance of personal or political connections on hiring decisions in the public sector, these patronage related factors also affect promotions and turnover decisions in the civilian government and SOEs. Fifty percent of SOE workers stated that knowing friends or family connected to the employer was important for getting a promotion to a better job, 44 percent mentioned this was important to get a salary increase, almost 50 percent believed it important to protect against unfair dismissal and 47 percent believe this is important to go to courts in case of cuts in salary or benefits (Figure 38). The responses from civilian government workers were slightly lower, but nonetheless high. Similarly, the importance of having connections to politicians or to individuals with connections to politicians was also stated as important for all these aspects. For example, 45 percent of SOE workers stated that these political connections were important for getting a promotion, and approximately 39 percent believed that these connections helped get salary increases (Figure 39). This high level of patronage in human resource management is striking and points to an organizational culture lacking in performance orientation or accountability.

Figure 38. Public sector workers state that friends or family members connected to their employer are important for a variety of reasons

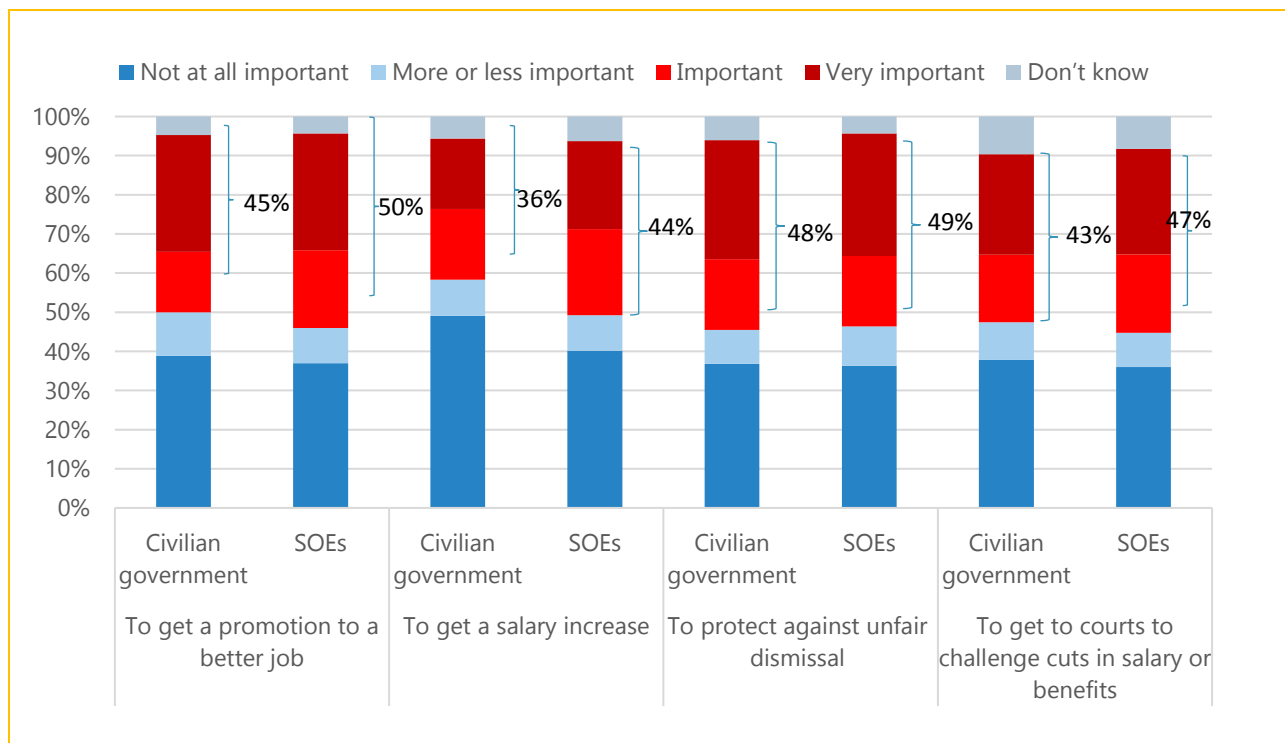
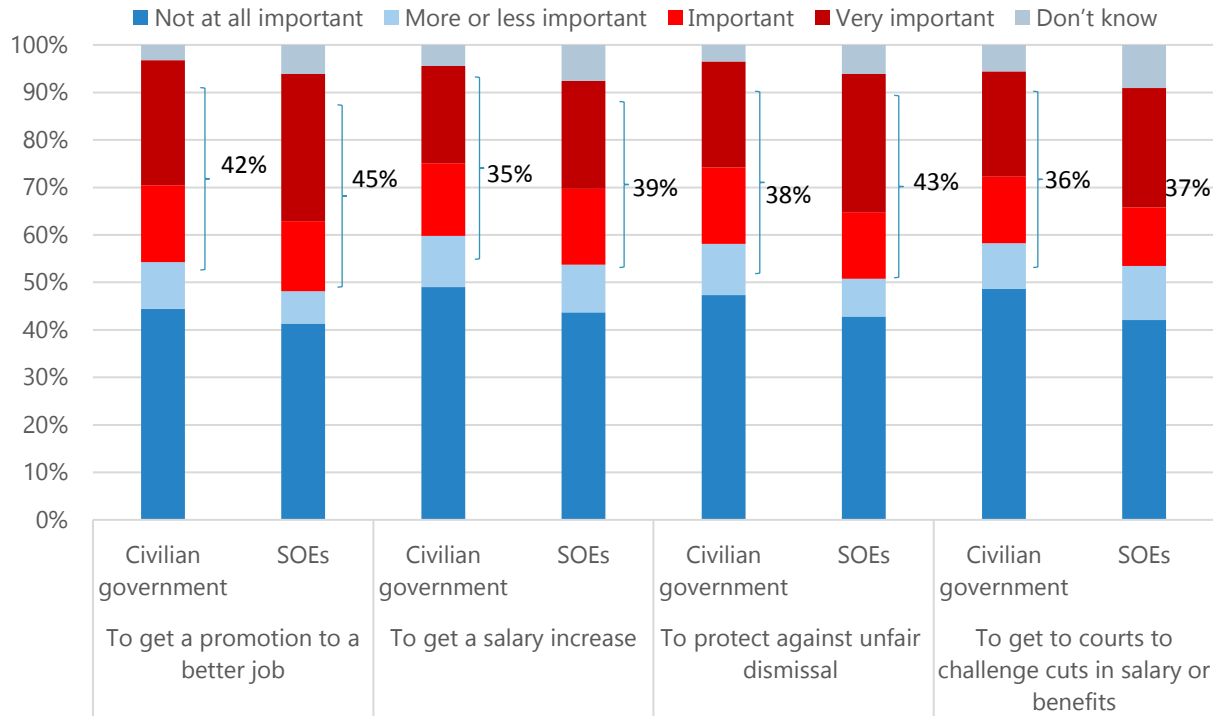


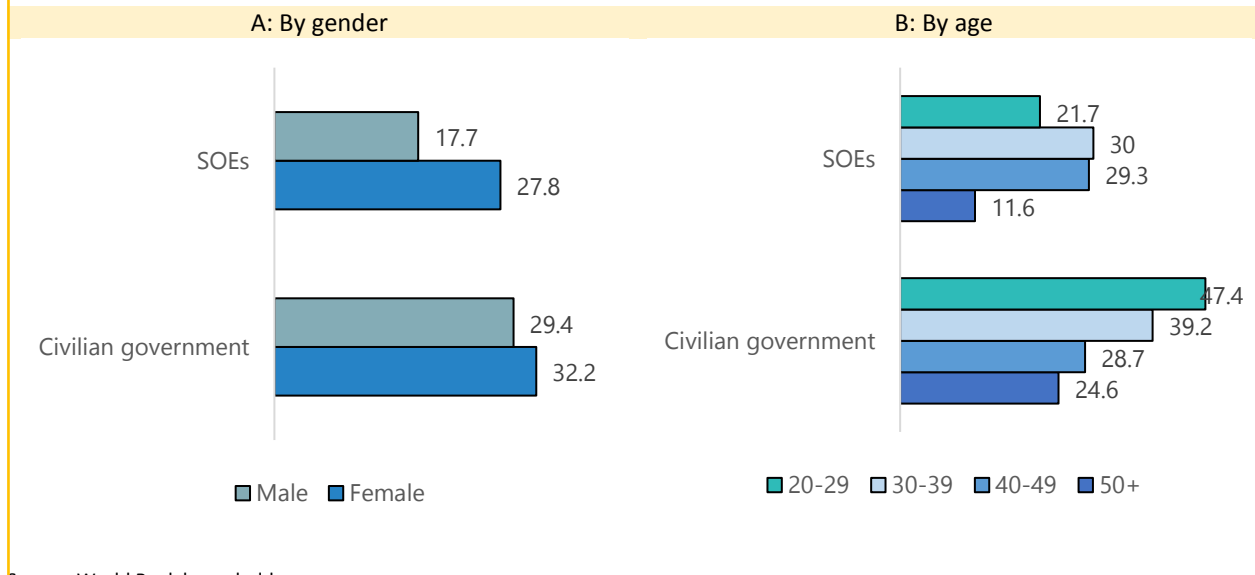
Figure 39. Public sector workers state that having connections to a politician or someone with links to political parties or politicians are important for several reasons



Source: World Bank household survey

76. **A minority of public sector employees undertake training, pointing to both limitations in access to training and a lack of incentives.** Only 31 percent of civilian government workers and 21 percent of SOEs workers stated they undertook any in-service training in the past year to improve their skills, with a higher proportion of women doing training than men (Figure 40A). The trainings are most common among education and health workers, with 45 percent and 34 percent of them respectively stating they undertook training in the past year, which may be reflective of professional development requirements in these sectors. Encouragingly, younger civilian government workers, who are more likely to benefit from training, were more likely to undertake training, though the opposite is true among SOEs workers (Figure 40B).

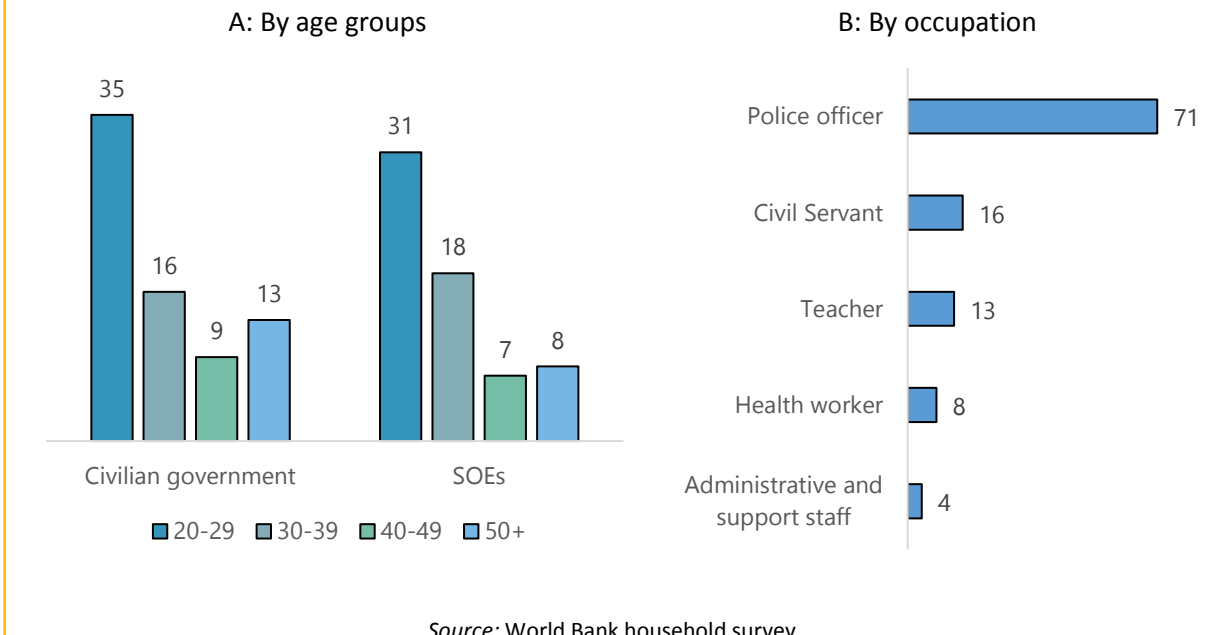
Figure 40. Proportion of workers who undertook training in the past year to improve skills, by workers' characteristics



Source: World Bank household survey

77. **Among the workers who undertook training, there was wide variation by age and occupation in the number of days of training undertaken.** Civilian government and SOE workers below the age of 30 taking 35 days and 31 days of training respectively in the past year, much higher than any other age group (Figure 42A). There is also considerable heterogeneity when looking at the number of days of training by occupation of public sector workers. Even though trainings are most common among education workers, the number of days of training undertaken by teachers is 13 days on average, much lower than for civil servants and police officers, and suggesting that the professional development requirements are not being implemented in practice (Figure 42B). The lack of regular training for mid-career and older age cohorts points to both an underinvestment in continuous skills development in the public sector and an organizational culture that does not incentivize lifelong learning.

Figure 41. Number of days of training undertaken in the past year



78. **The public sector rarely rewards problem-solving or innovation by its workers.** The survey asked respondents about the extent to which workers search for new working methods or techniques in their jobs and whether their organizations reward them for this problem-solving and innovative behavior. The survey reveals that while there is a desire to innovate from the workers' perspective, there are limited rewards for innovation from the management in the public sector. Thirty percent of workers mentioned that they are always or very often searching for new working methods or techniques in their jobs. However, only 7 percent mentioned they get rewarded for this behavior frequently, and 40 percent stated that their organization never rewards new ways of working and doing things (Figure 42). Younger workers in civilian government, who as discussed before, are more likely to undertake training are also the most positive about incentives for innovation, with 42 percent of the 20-29 age group stating that their organization rewards new ways of working and doing things (Figure 43). The generally negative responses by the older cohorts may also explain why they don't undertake training as there are may be few rewards for using such training to improve performance in the job.

Figure 42. Public sector workers believe that their organization rarely rewards innovation

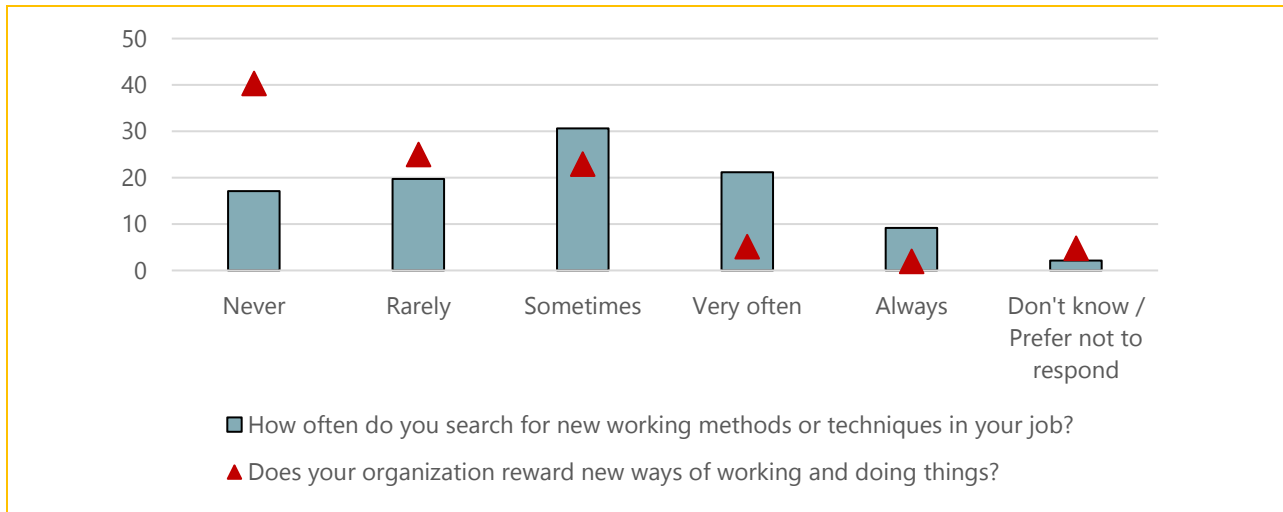
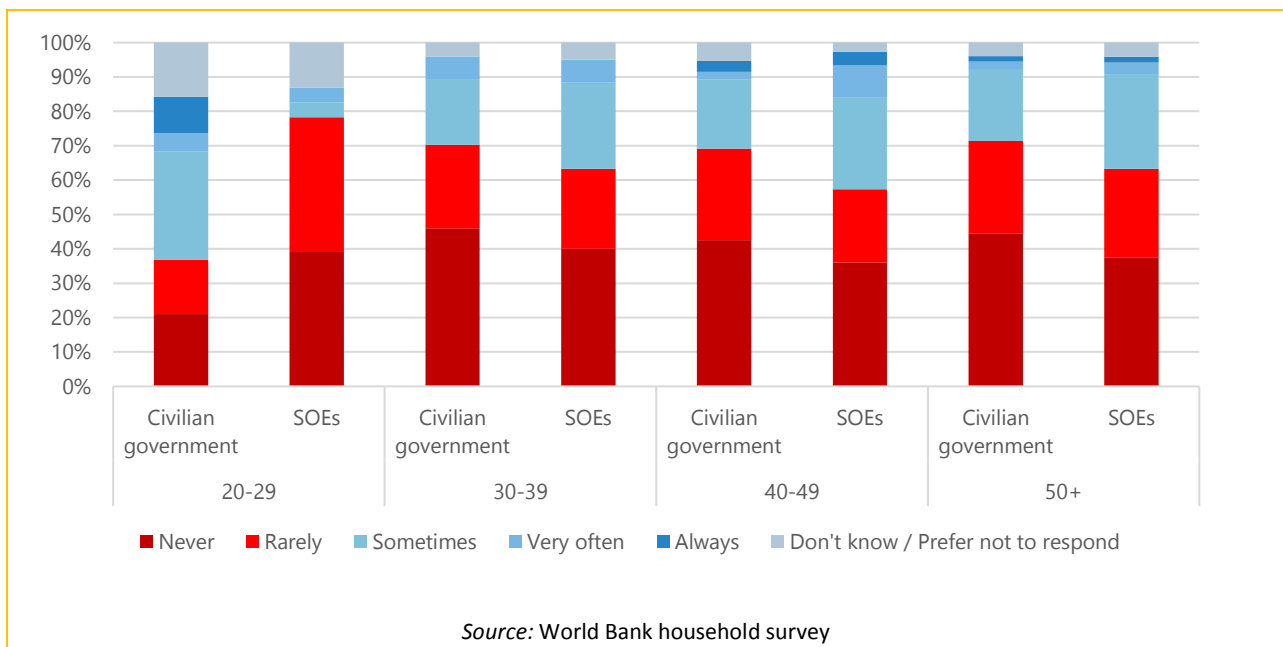


Figure 43. Views on innovation by the different age cohorts of public sector workers



Source: World Bank household survey

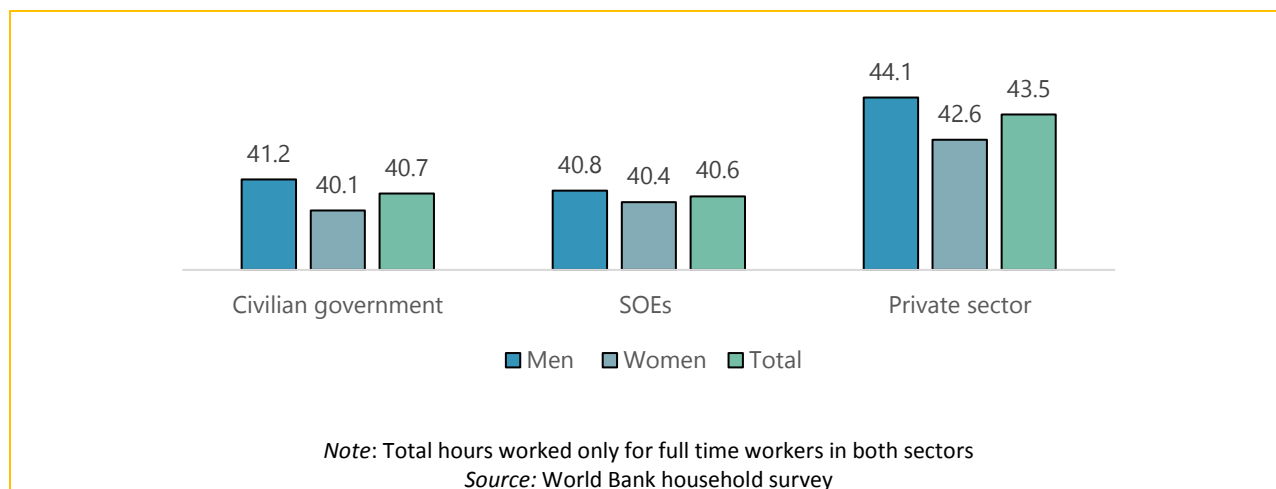
Attitudes and behaviors

79. **A performance and results-oriented public sector requires motivated staff.** Motivating employees can be achieved through a combination of various practices, such as formal performance management, compensation and other forms of monetary rewards and career progression opportunities. Motivation is also a result of the nature of the tasks public sector workers perform, primarily because they share some idealistic or ethical purpose served by their organization.

80. **Effort is a standard, but blunt, measure of motivation and the survey found that workers in the public sector in BiH work on average 3 hours less per week than private sector workers.** Civilian

government and SOE workers state that they work on average 40 hours a week, which corresponds to the Labor Code standard which sets the normal duration of a working week to 40 hours and suggests that this response may be reflective of the hours these workers are supposed to work rather than what they may actually work (Figure 44). Private sector workers stated that they work on average 43 hours per week, with significant heterogeneity in responses. Women work slightly less than men in both sectors.

Figure 44. Number of hours worked for full time workers by sector of employment



81. **Public sector workers, particularly younger workers, are less motivated today than when they joined the public sector.** Survey respondents were asked to imagine that when they started their current employment their general motivation to work was 100 (set as baseline) and were asked to rate their current level of motivation with a number relative to that. On average, public-sector workers are 5 percent less motivated than when they started (on average, answered as current motivation being at around 95.2), with the lowest score among civilian government workers (Figure 45A). Private sector workers have similar levels of motivation relative to when they started their job (answered 102). The differences in motivation between the public and private sectors is highest among the younger cohorts. For example, the youngest cohort of public sector workers in SOEs score their current motivation levels at 89 compared to 104 for their private sector counterparts (Figure 45B).

82. **The reasons given for less motivation are linked to the performance management and work environment factors discussed earlier.** For civilian government workers, work environment is the main reason why they feel less motivated compared to when they started their jobs, as pointed by 35 percent of respondents. Career progression affects the motivation of both civilian government and SOEs in similar ways and salary progression matters more for the motivation of workers in SOEs (Figure 46). These results shed light on the importance of a good performance management and work environment for motivating workers in the public sector.

Figure 45. Public sector workers are less motivated today as compared to when they joined

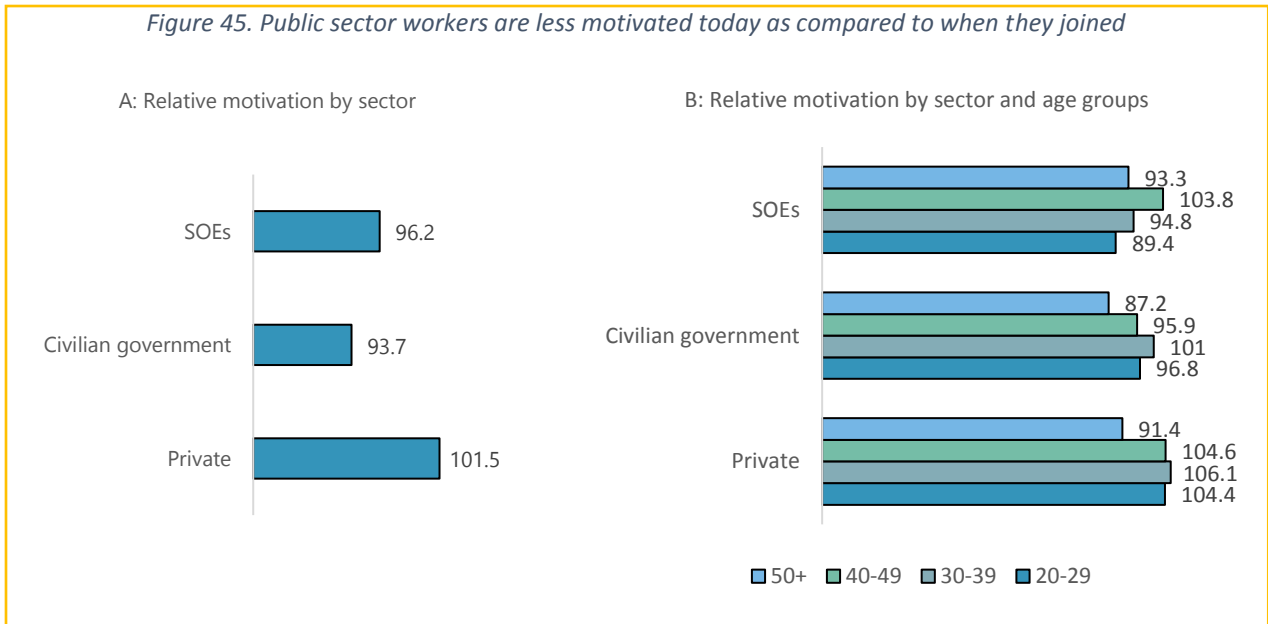
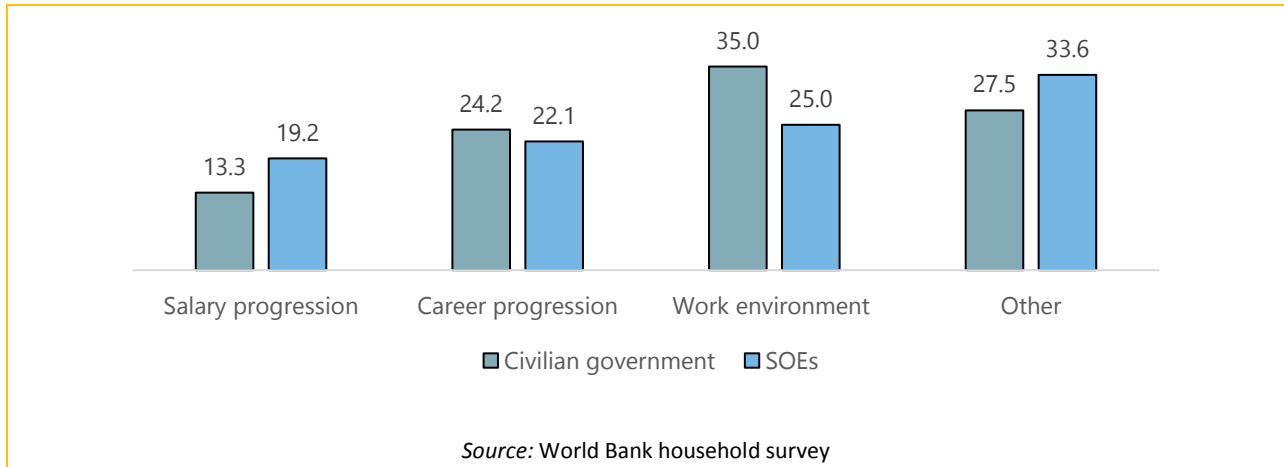
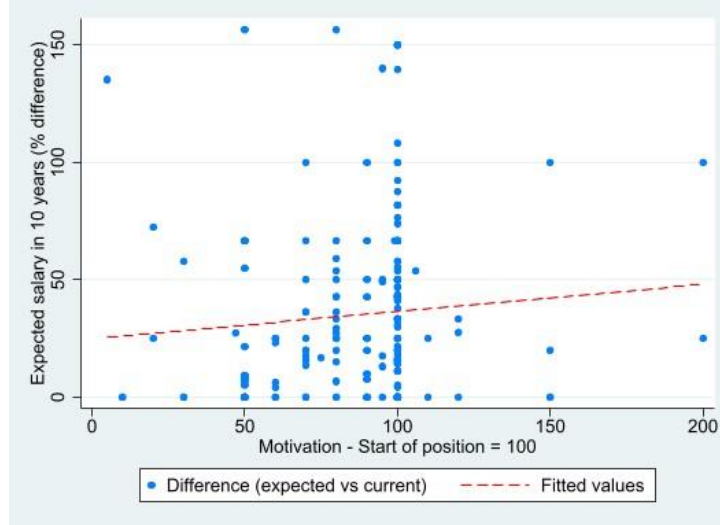


Figure 46. Reasons for less motivation among public sector workers



83. **Public sector motivation is positively correlated with expectation of higher future salaries.** Public sector workers experience a high wage premium compared to their private sector counterparts which creates strong preference for public sector employment. Additionally, public officials also mentioned that the salary is one of the most important attributes of their jobs in the public sector. Given these facts, it is not surprising to see that expectation of higher salaries for public sector workers are positively correlated with their current level of motivation in the job (Figure 47). Staff that reported having higher levels of motivation compared to when they initially joined the public sector workforce are more likely to have higher expectations for future salaries. This is an important finding on the relative importance of future wage expectations on worker motivation in the BiH public sector.

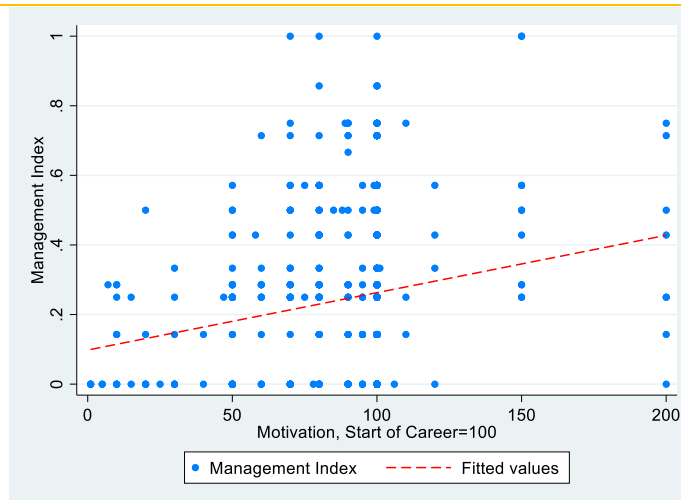
Figure 47. Relation between motivation score and expected salary in 10 years for public sector workers



Source: World Bank household survey

84. **The quality of management also matters for employee motivation.** The analysis created an index of management practices from the survey questions on the frequency and implications of performance evaluations, trainings, and rewards and recognition.⁵² The management index is positively correlated with the motivation score of these workers (Figure 48).

Figure 47. Relation between management index and motivation score for public sector workers



⁵² The questions considered in the Management index include: “Agree or disagree: 1) Hard work has led to better performance evaluation ratings; 2) My performance evaluation ratings have had an influence on my salary; 3) A negative performance rating could lead to my dismissal; 4) The leadership of the organization/firm where you work encourages employees to come up with new ideas to improve the way the organization/firm performs”; “How many times have your performance been formally evaluated?: at least once”; “Does your organization reward new ways of working and doing things? : very often or always”.

85. **Public sector workers are more risk averse than private sector workers which has implications for employment choices and innovation.** To measure risk aversion, the survey presents scenarios with different expected monetary payoffs and different levels of risk associated with the scenarios. In each scenario, there are two options to choose from: receiving a guaranteed amount of money and a gamble between a lower and higher amount, each of which has an equal probability, but with a higher expected payout. A choice of the guaranteed payoff displays risk aversion, with the scale of the aversion measured by the size of the expected payoff forgone. Respondents were asked to choose between the two options over five rounds with the game ending whenever individuals chose the guaranteed payout over the chance to win a larger payout. The survey results revealed that a higher proportion of workers in the public sector choose the guaranteed payoff and therefore are more risk averse compared to private sector workers. Additionally, even for workers who chose the “riskier” option, public sector workers chose the “safer” option earlier than private sector workers. For example, 51 percent of public sector workers chose the guaranteed payoff of 500KM over a gamble that had 50% probability of paying either 400KM or 1000KM. Only 44 percent of private sector workers made this choice. This behavior can be associated with the reasons why workers decide to pursue a career in public service, mainly to get a stable salary and job security.

Chapter 5. Policy Recommendations

86. **This report has provided new and detailed evidence on the implications of the public sector labor market on jobs and government productivity in Bosnia and Herzegovina.** It has shown that the high share of public sector jobs combined with high overall compensation and job security skews individuals' preferences for employment towards the public sector. It has also revealed some major weaknesses in core human resource management practices in the public sector, particularly in recruitment and management, which imply that the large public sector is not selecting the most able and motivated workers, or keeping them incentivized, accountable, and adequately trained, to effectively deliver government functions.

87. **Reforming the public sector labor market will be politically and technically challenging, and policy recommendations need to find a balance between what is necessary and what is doable.** A core reform is to ensure that public sector wages remain competitive enough to attract and retain high-quality public sector workers while not becoming too high that they create disequilibria in labor markets resulting in queuing and crowding-out effects in the private sector labor market. Clearly, current pay levels are indeed too high relative to the private sector, but reducing wages, even gradually over time, is politically very difficult. Therefore, this report does not recommend any action in this area but rather emphasizes using data and evidence to inform future actions. Similarly, while the report documents certain structural inefficiencies in the size and composition of the public service, given the political difficulties in rightsizing the public sector workforce, the report avoids any recommendations on public sector workforce reductions. Improving the productivity of public sector organizations also faces technical challenges given the difficulties in measuring outputs and given that a variety of factors influence organizational productivity that makes it difficult to single out any specific reform as the "silver bullet" that can be transformative.

88. **Given these challenges, the set of recommendations below were chosen as the politically more feasible priority areas of engagement that can be incrementally improved over the short and medium-term.** Short-term recommendations are those that can feasibly be implemented over the next six months to a year, while medium-term recommendations have an indicative timeframe of two to three years as they are more technically challenging and may need to be sequenced after the short-term recommendations are completed. These areas are identified as they are not only major weaknesses within BiH's public sector employment and compensation practices but also supported by a solid body of empirical evidence as to their potential impact.

Better data management

89. **High quality data on the public sector labor market is a necessary precursor for more informed HRM practices and broader evidence-based policy making and implementation.** Given the political difficulties in implementing public sector pay reform, a robust evidence base is also necessary to justify any actions and to build a coalition for reform. In line with BiH's institutional fragmentation, administrative data systems are scattered across the FBiH and RS entities and Brcko District, and within FBiH across the cantons. Entities have separate organic budget laws, treasury laws, civil service laws, and laws on salaries of civil servants and public employees, with cantons having their own regulations sometimes overlapping

with the entity-level regulation.⁵³ There is no consolidated database, or registry, that captures information of all general government employees and their wages either at the level of these jurisdictions or country-wide. Payroll and human resource management in both FBiH and the RS are decentralized and dispersed across government levels. For example, cantons and municipalities maintain their own data that is not shared with the respective Entity government. Data from the hundreds of health facilities on health workers is dispersed across cantons and facilities in FBiH. Neither of the entities has a centralized registry with comprehensive data on SOEs employees.

90. **Recommendation 1: Data sharing should be institutionalized across government for more informed planning (short-term).** Given the lack of centralized information on levels of staffing and remuneration practices, introducing formal data sharing requirements across the various jurisdictions from the facility level up to government ministries can, in the long run, lead to the development of a centralized data system that accounts for all public sector workers (including permanent and contract workers employed at the national and sub-national levels) and includes all elements of compensation (including base wages, allowances, and other de facto pecuniary benefits and payments such as honoraria and per diems). These systems can also be helpful in assessing the factors affecting the high and dispersed nature of public sector wage experiences across different segments of workers in the public sector as estimated above.

91. **Recommendation 2: Administrative data can be improved by establishing unified, live databases of government employees in each of the two Entities (medium-term).** The two Entities have in the past signaled their desire to have unified registries of employees, one for each entity that captures information on all government personnel paid from public funds. The WB has at the request of the entity Ministries of Finance and with support from the European Union, provided technical assistance on the functional and technical designs of the registries, and the associated legal reforms needed to establish and authorize the registries. The objective of the Registries is to help each Entity create a single comprehensive, regularly updated repository of pay and employment data on all their public employees, including at central government level, cantons, health care institutions, Extra-Budgetary Funds (EBFs) and local governments. Moreover, to develop transparent technocratic institutions, there is a need of a strong public employment and compensation management practices. Thus, conducting payroll audits and building comprehensive databases of public employment and compensation would help inform human resource management including control over hiring and allowances, linking compensation to employee performance and developing codes of conduct. Digital technologies can be useful in this context. However, there has been little progress to date, particularly in FBiH, mainly for political economy reasons. This report provides another justification for the importance of this reform and the need to continue the dialogue with the government counterparts for the establishment of the registries. The RS government's commitment to establish the Registry and expand its scope to all public sector employees, including those in SOEs signals the potential for making actual improvements⁵⁴.

92. **Recommendation 3: Administrative data should be complemented with surveys to provide information on public-private wage gaps and human resource management practices (short-term).** The

⁵³ World Bank, 2019. "Analysis of Payroll Information Systems"

⁵⁴ The Government of Republika Srpska, Expose of the Prime Minister, December 2022, RS Economic Reform Program 2023-2025.

implementation of the above recommendations would greatly benefit from the development of additional diagnostic instruments on public sector HRM practices. The existing Labor Force Surveys (LFS) conducted by the BiH Agency for Statistics can be improved to better capture information on the public sector. The LFS, for example, does not distinguish between the general government and SOEs within the public sector and does not provide comprehensive information on all elements of compensation to provide an accurate picture of the scale of public sector employment or the public-private wage gap. While an improved LFS is necessary, it cannot provide all the data needed to measure the different aspects of the public sector labor market (since that is not its main purpose) and therefore, specialized surveys, such as the WB household survey, are necessary to provide information to guide targeted policy reforms. Such a survey also provides a baseline against which progress, or lack thereof, can be measured through follow-on surveys. The Entities, for example, can use the survey to track a key set of indicators, such as employment preferences and reasons for search unemployment; the attractiveness of the public sector as an employer; human resource management; and worker motivation. Ideally, these improvements should coincide with the capacity development of current public officials to leverage this data collection to better measure the quality of public sector management practices (in a similar fashion as this report).

93. **Recommendation 4: An annual, publicly disclosed report on public sector employment and compensation can create the impetus for reform (medium-term).** One approach that can increase transparency and accountability around policy decisions on the public sector labor market is the public disclosure of employment and compensation information. Some countries produce annual reports on public sector employment and wages to disclose progress on various reforms and for informing future policy developments, and involve academics, think tanks, and institutions like fiscal councils, for fact-checking and to lend credibility to their analysis.⁵⁵ Involving academia and think tanks can create more evidence-based policies, build a culture of rigorous evaluation, and help insulate employment and compensation from detrimental politicization. These reports, drawing on administrative and survey data, can for example, annually monitor the public sector wage premium to ensure that no gap emerges between the public and private sectors due to wage rigidities in the public sector that can cause a departure from a theoretical optimum.

Connecting people to jobs

94. **There should be an emphasis on encouraging more women to seek employment, particularly private sector employment.** While addressing the jobs challenge will require interventions that go beyond public sector labor market policies, and therefore are beyond the scope of this report, one element of addressing unemployment and low labor force participation is addressing the regulatory, social, and aspirational constraints that orient women towards public sector employment.

95. **Recommendation 5: The government should ameliorate the legal and social barriers women face in entering and remaining in the labor market which is skewing their employment choices towards the public sector (medium-term).** BiH's labor legislation has some restrictions that bars women from participating in some occupations or work during night hours and potentially dissuades them from

⁵⁵ Examples include the Australian Public Service Remuneration Report and the UK: Annual Report on Senior Salaries.

undertaking studies in certain fields or degrees and later, entering the labor market.⁵⁶ These restrictions further reinforce the social norms for women to pursue careers in fields commonly associated with their traditional roles in society, such as in education, health and social services, which are demanded by the public sector, as opposed to the STEM fields that may be more demanded by the private sector. Although the original intention of the restrictions was to protect women and women’s reproductive health and were commonplace globally, countries within the ECA region and outside have subsequently been reforming their regulations to include gender neutral protection rights and leaving employment decisions to the worker. In the case of “dangerous” jobs, the government, employers, and trade unions should work together to establish safe working conditions that can help promote female participation while also protecting men already employed within these jobs.

96. **Recommendation 6: To overcome the sorting into specific degrees that leave women with public sector jobs as the only option, the BiH governments can implement mentoring and role models’ programs in school to shift the aspirations and expectations of women regarding their careers (medium-term).** International experience suggests that policies to influence aspirations and expectations, such as programs based on role models and mentoring and media interventions (e.g., television and radio campaigns), can have impact on women’s educational choices.⁵⁷ Moreover, labor market intermediation and labor market information systems can provide students with the information needed to make more informed choices about their school-to-work transitions and on what topics to specialize in based on current labor market outcomes, which can also be critical in shifting social norms that push women into certain fields of study or occupations.

97. **Recommendation 7: The government should continue to expand affordable childcare, eldercare, and day-care facilities which, evidence shows, have positive effects on female labor supply (medium-term).**⁵⁸ Affordable childcare and eldercare lessen women’s home-care burden and increases the opportunity cost of leaving the labor force. Policy options for BiH to explore include expanding publicly provided childcare centers; implementing public subsidies to private childcare provision and use; creating education and accreditation programs to prepare caregivers; developing a system and plan to increase the quality of services with attention to costs, particularly the provision of quality care centers; and revising the legal framework to be adaptable to the demands and expectations of care. Moreover, it is important that the country not only invest in childcare resources but also formal systems to support the elderly. Formalized daycare and at-home support for elderly BiH citizens will facilitate more women’s entry into the workforce.⁵⁹

⁵⁶ Bosnia and Herzegovina’s Labor Code (Article 41) states “Night work by pregnant women as of the sixth month of pregnancy, mothers and adoptive parents, as well as a person entrusted with childcare pursuant to a decision issued by the competent authority, until the child has turned two years of age, shall be forbidden.” Moreover, Article 59 states “A woman may not perform underground labor (in mines), unless she holds a managerial position, which does not require physical labor, or she works in a healthcare or welfare service, i.e., if a woman has to spend a certain amount of time in underground training or has to occasionally enter the underground part of a mine for the purpose of practicing an occupation which does not include physical labor.

⁵⁷ World Bank 2020. *Diagnosis of Gender in Paraguay: The Transition from Education to Employment in Women*

⁵⁸ See, for example, Attanasio, Low, & Sanchez-Marcos (2008); Nollenberger & Rodríguez-Planas (2011); Sánchez-Mangas & Sánchez-Marcos (2008)

⁵⁹ World Bank (2017)

98. **Recommendation 8: The government should adjust its recruitment practices in ways to increase job seeker's incentives to take up private sector jobs (medium-term).** Government hiring and compensation policies contribute to the higher preferences for a public sector job and students select into education specialization that are perceived to be valued by the government. This situation induces queuing and underemployment as well as skills shortages for the private sector. Merit-based hiring of graduates with work experience could encourage job seekers to take up an initial job in the private sector because it would increase their chances of landing a government job. Moreover, shifting government recruiting toward applicants with qualifications in science, technology, engineering, and mathematics (STEM) and ICT may induce more students to pursue these fields influencing current and future job seekers' by affecting their perceptions and preferences in favor of pursuing more relevant opportunities in the growing segments of the country's economy.

Merit-based recruitment

99. **Given that the public sector is highly sought-after employer, it is imperative that it selects individuals that have both high ability and possess a strong desire to serve the public.** The WB survey found that although workers from both public and private sectors believe that the public sector is the best possible career option, only a small proportion of public sector workers believe that the best candidates join the public sector and respondents revealed high levels of politicization in the recruitment process. While the various civil service laws mandate a competitive recruitment process, this requirement applies only to the subset of public employees that are classified as 'civil servants', and hiring, particularly in SOEs, is not often done through open competition. The survey revealed that support from politicians and family members was believed to be the most important factor in finding a good job, and that the recruitment system fails to attract and screen for candidates driven by public sector motivation, an important driver of performance in the public administration. These survey findings are in line with other reports by the European Commission and OECD SIGMA that note that excessive discretion is allowed by regulations in the Entities, which notably do not prescribe appointing the best candidate to the post, and allow political appointees to influence the recruitment process, particularly at senior positions. They also corroborate sectoral assessments done by the WB which find, for example, that teacher selection involves non-meritocratic criteria and there is undue political influence in the selection of hospital and clinic directors.⁶⁰ The development of a stronger, meritocratic application and selection process would greatly improve the quality of recruits that the public sector selects and can have important implications on their motivation and productivity once selected.

100. **Encouragingly, the FBiH Civil Service Commission is implementing reforms to institutionalize merit-based recruitment of civil servants that can be replicated for other categories of staff and in SOEs.** A new decree and accompanying rule book specify the following reforms: electronic applications for published vacancies; competency-based testing through exams of all applicants, with different tests for different categories of jobs; and more rigorous criteria for interviews that follow the test, including the composition of the selection committee and guidance for interview questions on soft skills. These reforms

⁶⁰ World Bank (2022), World Bank (2019).

can be the blueprint that can be applied across the public sector and form the basis of short and medium-term recommendations.

101. **Recommendation 9: Competency-based screening of candidates is a well-established way of improving transparency and merit in recruitment (short-term).** The regulations governing recruitment in the entities do not mandate written examinations as a necessary screening mechanism. These written examinations could help ensure that the best workers are hired and could be used as a tool for restricting entry in the public sector. Recent research has shown, for example, that selecting teachers and school principals on the basis of standardized tests that measure cognitive ability, subject matter expertise, and socio-emotional skills results in improved student learning outcomes.⁶¹ Such specialized competitive exams have been used for recruitment in the high growth Asian countries, as well as in parts of continental Europe, including for entrance into the European Commission. Effective screening requires a solid competency framework to identify the core technical and behavioral requirements of different public sector jobs, and tests to select for these competencies. Some countries also establish centralized competency centers, under, for example, a Civil Service Commission or equivalent central government human resource management agency, to manage the selection for at least the administrative and policy jobs. It is likely that different tests will be required for different categories of jobs, with assessments for managers particularly emphasizing organizational, decision-making, and communication skills.

102. **Recommendation 10: Interviews should systematically assess candidates' competencies and public service motivation (short-term).** Research suggests that selection commissions in the government lack systematic criteria for the evaluation of candidates during the interview process and are vulnerable to undue political influence.⁶² It is therefore recommended to introduce 'interview rating sheets' that specify criteria based on which candidates can be systematically evaluated and a standardized interview report that transparently scores the candidates on these criteria, as is planned in the FBiH draft decree. These ratings should be based on a predetermined competency framework around the core requirements of the job being recruited for to better assess the ability of candidates to fulfill the responsibilities of the office if selected. Given the importance of public service motivation for high-performing employees in the public sector, interviews should specifically assess this aspect of the candidates' motivation for the position, rather than just motivation in general (which can have many drivers, such as job security). For instance, the European Commission has a special 20-minutes motivation-interview, which includes questions of the origin of the interest in the work, as well as career expectations.

Investing in training

103. **Recommendation 11: Regular competency-based in-service training is necessary to ensure that staff skills are continuously upgraded (short-term).** Analytical work has identified several deficiencies in the technical competencies of different categories of public sector workers that can guide the design of training curricula. Teachers, for example, are skilled in most aspects of fostering a classroom culture that is conducive to learning, but do not commonly use practices to promote students' socioemotional learning

⁶¹ Estrada (2019); Araujo, Heineck, and Cruz-Aguayo (2020).

⁶² Meyer-Sahling, J.-H., K. S. Mikkelsen, D. Ahmetovic, M. Ivanova, H. Qeriqi, R. Radevic, A. Shundi, and V. Vljakovic. (2015)

skills such as collaboration, social problem-solving, and emotion regulation.⁶³ The majority of nurses do not possess a university degree, and there is an urgent need to build their skills in patient care planning, coordination with social and long-term care services, and in managing teams to deliver more integrated and patient-focused care, as in most high performing health systems.⁶⁴ The large presence of the SOE sector suggests the need for a broad array of technical competencies for the board of directors and senior management, covering topics ranging from corporate governance, the role of the board, strategy and risk management, financial and human resource management, the control environment, and transparency and disclosure.⁶⁵

104. **The in-service training should cover not only staff's topical knowledge, but also broader competencies like leadership, teamwork, and strategic, critical, and innovative thinking.** The OECD, for example, has identified four necessary skills for public servants: policy advice, working with citizens, collaboration in networks, and commissioning and contracting. Encompassing these four skill sets are three competencies: strategic thinking, professional expertise, and innovative capabilities.⁶⁶ Maximizing the impact of digital technologies in the workplace also requires more critical thinking and problem solving, communication, teamwork, and creativity.⁶⁷ These are general skills, which many traditional education systems fail to impart, and therefore need to be emphasized in in-service training curricula that can be applied across public sector occupations and jobs.

105. **Recommendation 12: Digital technologies provide new opportunities for expanding access to competency-based training (medium-term).** In BiH, the Training Management System (TMS) is an online tool used by the respective civil service agencies at the state level and the entities to manage training processes, but not to deliver training content to participants.⁶⁸ Online learning platforms are the backbone of competency development in high-performing civil services such as Singapore, and in emerging economies like India. They greatly reduce the opportunity costs for workers to undertake training and can offer a variety of demand-based courses that meet the needs of jobs. India, for example, is developing an online learning platform for civil servants that develops content based on a competency platform and provides a variety of courses prepared in collaboration with academic and industry.⁶⁹

106. **Recommendation 13: Besides capacity building activities, there is a need to improve the culture and incentives around training so that it is not viewed merely as a “box ticking” exercise and that the learning from the training is incorporated in everyday work (medium-term).** A WB impact evaluation in

⁶³ World Bank (2022).

⁶⁴ World Bank (2019)

⁶⁵ See World Bank (2021) <https://state-owned-enterprises.worldbank.org/toolkit/leadership-training-toolkit-state-owned-enterprises> for details.

⁶⁶ OECD. (2017)

⁶⁷ World Bank (2016).

⁶⁸ The system is designed to: Keep records of the training and training participants; Process and manage training applications of civil servants; Share information on scheduled trainings; Keep records of training credits, training hours, and possible final exam results; Monitor reports of training evaluations; Generate summary reports per training session; Print certificates of completion; and Upload training documents to training sessions: <https://www.ilearn.gov.ba/Home/MoreInfo>

⁶⁹ Government of India. 2021.

Ghana showed that the design of training programs can make them more impactful in a job.⁷⁰ In one treatment, trainees collaborated to identify challenges within their units, and discussed how to overcome barriers to reforms through an action plan. The evaluation found that this action-oriented training module helped improve productivity of civil servants. Capacity building should be combined with improved incentives for workers to undertake training, with standards established on the extent of training that should be taken, and workers' performance evaluation assessing both trainings undertaken and the use of the training on the job. Managers, like workers, also need to be incentivized to improve performance management. Increasingly, managers in OECD countries have a different performance appraisal system than the rest of the civil service, with an emphasis on their achievement of strategic organizational goals as well as their managerial and leadership skills.⁷¹

Strengthening management practices

107. **Recommendation 14: Given the potential impact on staff motivation and performance, the public sector should undertake regular and robust performance evaluations (medium-term).** The survey found that a relatively high proportion of public servants had not undergone a performance evaluation, and those that did so perceived a weak link between the evaluations and rewards and sanctions. There is also anecdotal evidence that appraisals, when done, inflate the performance of employees to meet the statutory requirement that only those above a certain threshold can be considered for promotion.⁷² The perceived lack of performance rewards through monetary incentives like salary raises or promotions can have a negative effect on the motivation of workers. Besides this form of incentives, evidence from other contexts find that quality performance conversations as well as regular informal feedback also have an important potential in motivating staff. Public recognition and training and travel opportunities can also contribute to higher motivation. Finally, simply creating a trustful and friendly work environment and providing quality leadership to teams can make a significant difference in employees' attitudes and behaviors.

108. **Recommendation 15: Strengthening management requires establishing a competency framework for leaders, and a combination of capacity building and improving the incentives to take organizational and people management seriously (short-term).** Most OECD countries use competency frameworks for senior managers to guide human resource management, including workforce planning, recruitment, training, and performance evaluation.⁷³ There is a large literature that shows that improving the capacity of managers through different types of trainings can increase organizational productivity.⁷⁴ On content, these trainings should aim to strengthen the core attributes of management—goal setting and monitoring, goal alignment, performance feedback, and supporting staff to enable them to deliver on their goals. To be effective coaches, managers will also need targeted training in assessing employee skills, mastering difficult conversations, and giving constructive feedback. For example, in Ireland, managers

⁷⁰ Azulai, M., Fornasari, M., van Acker, W., Rasul, M., Rogger, D., & William, M.J. (2021).

⁷¹ Kuperus, H. & Rode, A. (2016).

⁷² SIGMA Monitoring Report for 2022, page 92. <https://www.sigmaweb.org/publications/Monitoring-Report-Bosnia-and-Herzegovina-May-2022.pdf>

⁷³ Ibid

⁷⁴ McKenzie et al. (2021)

need to undergo 30 hours of training specifically on performance appraisal and, in Canada, managers receive special training on performance management from the Canada School of Public Service.

109. **Recommendation 16: A mix of different types of capacity building approaches should be implemented, including traditional curriculum-based training and peer-based exchanges of ideas (medium-term).** Traditional, class-room style management training programs have been successful at improving organizational practices and outcomes and are cost-effective.⁷⁵ In addition, components that aim to improve attitudes, such as mindset training and aspiration nudges, can enhance the learning impacts of traditional training approaches. Consulting programs, providing intensive and tailored support to organizations and managers to improve their operational practices have also been very effective, although are relatively expensive to implement.⁷⁶ Group-based consulting programs, by leveraging peer-learning incentives, have been found to have positive effects on learning and implementing best practices, and on organizational efficiency, while exhibiting substantially lower costs per participant.⁷⁷ Mentoring and peer-based learning programs have also been found to improve short-term organizational outcomes, and are most impactful when lower-performing managers get matched with better-performing ones who are not seen as competitors.⁷⁸

110. **Recommendation 17: the government can use awards and recognition for well-performing SOEs to spur improvements in their human resource management practices (medium-term).** International experience suggests that prizes and awards, which are commonly used in many countries, can be successful in improving firm capabilities provided that the governance of the awards is transparent and fair, and if firms are not otherwise financially and institutionally constrained.⁷⁹ The award can be non-monetary, as research shows that simple recognition and prestige attached to the award can be sufficient to motivate performance. Drawing on this evidence, the government can devise an award that is tailor-made for SOEs, and that emphasizes improvements in employment practices, such as management, use of digital technologies, and investments in employee training.

⁷⁵ Ibid

⁷⁶ Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., Roberts, J. (2013).

⁷⁷ Iacovone, L., Maloney, W. & McKenzie, D. (forthcoming).

⁷⁸ Cai, J. & Szeidi, A. (2018).

⁷⁹ Cirera et al (2021).

Methodological Annex

Wage premium estimation

Estimating public sector wage competitiveness compared to the private sector is methodologically complicated. The standard approach in the academic literature is to measure differences in total compensation between the public and private sectors for statistically similar workers in similar jobs. Given the demographic differences of workers between the two sectors, this approach ideally requires controlling for observable worker characteristics (such as age, education, work experience, and gender) that impact human capital and prevailing market wages (by controlling for location) all of which can affect earnings. However, accounting for unobserved characteristics such as ability, risk aversion, and public service motivation are difficult due to lack of information on these factors. Further, to lend greater precision to estimates, controlling for occupations can refine the estimates around wages.

A simple raw comparison of average wages in the private and in the public sector is potentially misleading as public sector workers are often older and more educated than their private sector counterparts, have different career objectives and motivations, and also work on occupations that are not equally well represented in the private sector. Taking this into account, Mincerian earnings regressions were utilized specified with a dummy variable indicating the sector of the individual.⁸⁰ The basic specification is as follow:

$$\log w_i = \alpha + \beta \cdot PUBLIC_i + X_i \cdot \gamma + \epsilon_i \quad (1)$$

Where β is the adjusted public-private wage differential; $\log w_i$ is logged nominal wages in local currency of employee i ; $PUBLIC_i$ is a dummy equal to 1 if the employee works in public sector; and X_i is a vector of the standard controls consisting of age, gender, age squared, level of education, and location.

Reported premiums are transformed based on equation (2) as the untransformed $\hat{\beta}$ only gives an approximation of the actual premium and the discrepancy becomes larger when the $\hat{\beta} > \pm 20\%$. This simple transformation allows for a more precise estimation of premia.

$$\% \Delta y = 100 * (e^{\beta_1 \Delta x} - 1) \quad (2)$$

The decision to use a simple regression specification was in part due to a relative tradeoff between a well-specified equation and an inability to provide estimates that can be set against similar assessments

⁸⁰ The two main empirical approaches in the literature are the Mincerian wage regression with a dummy variable indicating whether the worker is employed in the public sector or private sector; and the Oaxaca-Blinder decomposition which does not assume that the returns to education, gender, age, and other observable worker characteristics are the same in the public and private sector. The latter method decomposes the wage differential into a part that can be explained as resulting from worker endowments, and an unexplained part presumably due to economic rents that the public sector enjoys. The two approaches in general give similar results (Gittleman and Pierce 2011), so the analysis uses the dummy variable method as it is simpler to present. To allow the public sector earnings differential to vary between individuals, Mincer-style wage gaps by gender, age, occupation, skill level and other characteristics were estimated.

undertaken for multiple countries that are included in the WB's Worldwide Bureaucracy Indicators to allow for a comparison of cross-country differences. For a similar reason, there is no variable in the raw data that may reasonably allow for a more precise instrument for wage differentials while controlling for selection or endogeneity. Additionally, incomes within the data are also limited to self-reported wages, and include bonuses, allowances, and in-kind payments, which is significant in the public sector.

Gender wage gap by sector

In order to estimate the gender wage gap, Mincerian earnings regressions were used, similar to the above, except in these, the specified with a dummy variable indicating the gender of the individual. The basic specification is as follow:

$$\log w_i = \alpha + \beta \cdot FemPub_i + X_i \cdot \gamma + \epsilon_i \quad (1)$$

Where β is the adjusted gender wage differential within the public sector; $\log w_i$ is logged wages in local currency of employee i ; $FemIndPub_i$ is a dummy=1 if female employee works in public sector (civilian government or SOEs) or private sector; and X_i is a vector of standard controls consisting of age, age squared and level of education.

Reported premiums are transformed based on equation (2) as the untransformed $\hat{\beta}$ only gives an approximation of the actual premium and the discrepancy becomes larger when the $\hat{\beta} > \pm 20\%$.

$$\% \Delta y = 100 * (e^{\beta_1 \Delta x} - 1) \quad (2)$$

References

- Amin et. al. (2012). *After the spring: Economic transitions in the Arab World*. Oxford University Press.
- Akerlof, G. & Yellen, J. (1990). *The fair wage-effort hypothesis and unemployment*. *The Quarterly Journal of Economics*. Vol. 105, No. 2, pp. 255-283.
- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A.L. (2000). *Manufacturing Advantage: Why High-Performance Work Systems Pay Off*. Economic Policy Institute, Cornell University Press.
- Attanasio, Orazio, Hamish Low, and Virginia Sánchez-Marcos. (2008). *Explaining Changes in Female Labor Supply in a Life-Cycle Model*. *American Economic Review*, 98 (4): 1517-52.
- Azulai, M., Fornasari, M., van Acker, W., Rasul, M., Rogger, D., & William, M.J. (2021). *Building State Capability through Impact Evaluation in Ghana*. World Bank Group.
- Baig, F. A., Han, X., Hasnain, Z., & Rogger, D. (2021). *Introducing the Worldwide Bureaucracy Indicators: A New Global Dataset on Public Sector Employment and Compensation*. *Public Administrative Review*, 81(3):564 – 571.
- Banuri, S.; Keefer, P. (2013). *Intrinsic Motivation, Effort, and the Call to Public Service*. Policy Research Working Paper. No. 6729. World Bank, Washington, DC. © World Bank.
- Blank, R. (1985) *An analysis of Worker's Choice between Employment in the Public and Private Sectors*. *ILR Review*. Vol. 38, No. 2, p. 211-224.
- Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., Roberts, J. (2013). *Does Management Matter? Evidence from India*. *The Quarterly Journal of Economics*, 128(1), 1–51.
- Boxall, P., & Purcell, J. (2011). *Strategy and Human Resource Management (3rd ed.)*. Palgrave Macmillan.
- Bradley et. al. (2014). *Gender wage gaps within a Public Sector: Evidence from Personnel Data*. *The Manchester School*. Vol. 83, issue 4, p. 379-397.
- Cai, J. & Szeidi, A. (2018). *Interfirm Relationships and Business Performance*. *The Quarterly Journal of Economics*, 133(3), 1229–1282.
- Cantarelli, P., Belardinelli, P. & Belle, N. (2016). *A Meta-Analysis of Job Satisfaction Correlates in the Public Administration Literature*. *Review of Public Personnel Administration*, Vol. 36(2), p. 115-144
- Cegar, B. & Parodi, F. (2019). *State-Owned Enterprises in Bosnia and Herzegovina: Assessing Performance and Oversight*. IMF Working Paper, European Department. International Monetary Fund. Washington, DC.
- Cingolani, L., Thomsson, K. (2015). *Minding Weber More Than Ever? The Impacts of State Capacity and Bureaucratic Autonomy on Development Goals*. *World Development* 72: 191–207
- Cirera, X., Frias, J., Hill, J., & Yanchao, L. (2020) *A Practitioner's Guide to Innovation Policy: Instruments to Build Firm Capabilities and Accelerate Technological Catch-Up in Developing Countries*. The World Bank, Washington, DC

- Dixit, A. (2002). *Incentives and Organizations in the Public Sector: An Interpretative Review*. Journal of Human Resources, Vol. 37, Issue 4, 696-727.
- EBRD (2022) *Bosnia and Herzegovina country diagnostic: Private investment challenges and opportunities*. European Bank for Reconstruction and Development. London, United Kingdom.
- Ehrenberg, R. G., & Schwarz, J. L. (1986). Public-sector labor markets. *Handbook of labor economics*, 2, 1219-1260.
- Ewenstein, B., Hancock, B. & Kimm, A. (2016). *Ahead of the Curve: The Future of Performance Management*. McKinsey Quarterly.
- Finan, F., Olken, B., and Pande, R. (2017). *The Personnel Economics of the Developing State*. In Handbook of Economic Field Experiments. Vol. 2 Elsevier, pages 467 – 514.
- Fukuyama, F. (2013). *What is governance? Governance*, 26(3), 347-368
- Furstenberg, F. & Kaplan, S. (2004). *Social capital and the family*. In J. Scott, Treas, & M. Richards (Eds.). *The Blackwell companion to sociology* (pp. 218-232). The urban villagers. New York: Free Press.
- Gomes, P. (2018). *Heterogeneity and the public sector wage policy*. International Economic Review, Volume 59, Issue 3, p. 1469-1489.
- Gregory, R. G., & Borland, J. (1999). Recent developments in public sector labor markets. *Handbook of labor economics*, 3, 3573-3630.
- Iacovone, L., Maloney, W. & McKenzie, D. (forthcoming). Improving Management with Individual and Group-Based Consulting: Results from a Randomized Experiment in Colombia. https://drive.google.com/file/d/1cWBEaAqGGF2tfU20VrTjblxvVfLV_k7i/view
- ILO (2019) *Overview of the informal economy in Bosnia and Herzegovina*. International Labor Organization. Geneva, Switzerland.
- IMF (2005). *Concluding Statement of the 2005 Article IV IMF Mission to Bosnia and Herzegovina*.
- Krstic, G. & Sanfey, P. (2006) *Mobility, poverty, and wellbeing among the informally employed in Bosnia and Herzegovina*. Economic Systems 31 p. 311-335.
- Kuperus, H. & and Rode, A. (2016). *Top Public Managers in Europe: Management and Employment in Central Public Administrations*. Ministry of the Interior and Kingdom Relations, The Hague.
- Meyer-Sahling, J., Mikkelsen, K., Ahmetovic D., Ivanova, M. Qeriqi, H., Radevic R., Shundi, A. & Vlajkovic, V. (2015). *Improving the Implementation of Merit Recruitment Procedures in the Western Balkans: Analysis and Recommendations*. ReSPA, Danilovgrad, Montenegro.
- Meyer-Sahling, J, C. Schuster, and K. Mikkelsen. (2018). *Civil service management in developing countries: what works?* London: UK Department for International Development.

Nollenberger, N. & Rodríguez-Planas N. (2015). *Full-time universal childcare in a context of low maternal employment: Quasi-experimental evidence from Spain*. Labour Economics, Vol. 36, p. 124-136.

OECD. (2017). *Skills for a High Performing Civil Service*. OECD. <https://www.oecd.org/gov/skills-for-a-high-performing-civil-service-9789264280724-en.htm>

Pauwe, J. (2009). *HRM and Performance: Achievements, Methodological Issues and Prospects*. Journal of Management Studies, 46(1), 129-142.

Rauch, J.E., & Evans, P. (2000). Bureaucratic structure and bureaucratic performance in less developed countries. Journal of Public Economics, vol. 75, issue 1, 49-71.

Rasul, I. & Roger, D. (2016). *Management of Bureaucrats and Public Service Delivery: Evidence from the Nigerian Civil Service*. The Economic Journal. Vol. 128, issue 608, p. 413-446.

Regional Cooperation Council (2022). *Balkan Barometer Public Opinion 2022*.

Ritz, A. (2009) *Public Service Motivation and Organizational Performance in Swiss Federal Government*. International Review of Administrative Sciences, Vol. 75(1), p. 53 – 78

Rose, M. (2014) *Reward Management*. London, UK: Kogan Page.

Sánchez-Mangas, R. & Sanchez-Marcos, V. (2008). [Balancing family and work: The effect of cash benefits for working mothers](#). Labour Economics, Vol. 15, p. 1127-1142

Sestito, P. & Viviano, E. (2011). *Reservation wages: explaining some puzzling regional patterns*. Review of labor economics and industrial relations. Vol 25, issue 1, p. 63-88.

Watkins, J. & Beschel, R. (2010). *Non-monetary Awards for Public Sector Programs and Institutions: Survey of Selected International Experience*. Global Expert Team (GET) Note. World Bank, Washington, DC.

Whitener, E. M. (2001). *Do 'High Commitment' Human Resource Practices Affect Employee Commitment? A Cross-Level Analysis Using Hierarchical Linear Modeling*. Journal of Management, 27(5), 515-535.

World Bank (2023). *Bosnia and Herzegovina Jobs Diagnostic and Implications of Coal Transition*. The World Bank, Washington, DC.

World Bank (2022). *Country Partnership Framework for Bosnia and Herzegovina for the period FY23-FY27*. The World Bank, Washington, DC.

World Bank (2022). *Bosnia and Herzegovina: Functional Review of Education Service Delivery*

World Bank (2022). *Western Balkans Regular Economic Report, No.22, Fall 2022: Beyond the Crises*. The World Bank. Washington, DC.

World Bank (2021). *Public Sector Employment and Compensation: An Assessment Framework*. EFi Insight: Governance. Washington, DC: World Bank.

World Bank (2020). *Liberia Forestry Development Authority: An Institutional Capacity Assessment*. The World Bank, Washington, DC

World Bank (2020). *Bosnia and Herzegovina: Systematic Country Diagnostic Update*. The World Bank, Washington, DC.

World Bank. (2019). *Bosnia and Herzegovina Growth and Jobs: Reform Priorities for Promoting Better Private Sector Jobs*. Washington, DC: World Bank.

World Bank (2019). *Bosnia and Herzegovina: Functional Review of the Health Sector*. The World Bank, Washington, DC.

World Bank (2018). *Bosnia and Herzegovina: STEP Skills Measurement Employer Survey 2016-2017 (Wave 3)*. World Bank, Washington, DC.

World Bank (2018). *Bosnia and Herzegovina's economic journey: Through peace and transition to prosperity*. World Bank, Washington, DC.

World Bank (2017). *World Development Report 2017: Governance and the Law*. World Bank. Washington, DC.

World Bank (2017). *Promoting Women's Access to Economic Opportunities in Bosnia and Herzegovina. Policy Note*. World Bank. Washington, DC.

World Bank (2014). *Back to work: Growing with jobs in Europe and Central Asia*. The World Bank. Washington DC.

World Bank (2014). *Arab Republic of Egypt - More Jobs Better Jobs: a priority for Egypt*. The World Bank. Washington, DC.

World Bank (2014). *Gender at work: a companion to the World Development report on Jobs*. The World Bank. Washington, DC.

World Bank (2013). *Jobs for shared prosperity: time for action in the Middle East and North Africa (Vol. 4)*. The World Bank. Washington, DC.

Yasin, S. and Langot, F. (2018). *Informality, public employment, and employment protection in developing countries*. *Journal of Comparative Economics*, 46(1):326 – 348.