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INNOVATING BUREAUCRACY FOR A MORE CAPABLE GOVERNMENT

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ABBREVIATIONS

DAI	Digital Adoption Index
GDP	gross domestic product
I2D2	International Income Distribution Database
ISCO	International Standard Classification of Occupations
IT	information technology
PPP	purchasing power parity
SRB	Sindh Revenue Board (Pakistan)
WMS	World Management Survey
WWBI	Worldwide Bureaucracy Indicators

EXECUTIVE SUMMARY

The ability, motivation, and productivity of bureaucrats are key determinants of governments' ability to implement policies and deliver infrastructure and services to citizens effectively. Despite their importance, the role of the administrators and managers who are responsible for regulating, financing, and monitoring the work of service providers has been a "black box," largely due to lack of good data. Drawing on new datasets compiled by the World Bank—a cross-country dataset on public employment and wages covering 114 countries, surveys of 20,000 civil servants in 7 countries, and microlevel administrative datasets in 2 countries—this report presents empirically driven findings on five questions:

1. What are the main features of the public sector labor market in terms of employment and compensation?
2. What are bureaucrats' attitudes toward their jobs and their behaviors toward each other?
3. How well are they managed?
4. Are they using digital technologies to innovate?
5. And finally, how can we measure whether they are productive?

The public sector is often a country's predominant employer and pays a wage premium, with significant implications for the overall labor market. Globally, public employment is 30 percent of wage employment and 38 percent of formal sector employment, and accounts for the majority of formal sector employment in South Asia and Sub-Saharan Africa. Thirty-nine percent of all employees with tertiary education work in the public sector, and the figure is as high as 60 percent in several countries. Public sector workers also on average earn higher wages than private sector workers of similar education and age; the public sector wage premium is approximately 16 percent across

72 countries and does not vary with country income. The size of the wage premium, however, is sensitive to the choice of the private sector comparator and differs across occupations. The average premium decreases to 9 percent if public sector workers are compared only to formal sector workers, and public sector pays relatively lower wages than the private sector to senior officials and professionals. These wage differentials, however, underestimate the public sector premium for total compensation, as a much higher proportion of public sector workers receive benefits like health insurance or pensions than private sector workers. Given its large footprint on the labor market, the challenge of more and better jobs in developing countries hinges on a better understanding of the impact of public sector employment and compensation practices on the overall labor market.

The public sector employs a higher proportion of women than the private sector and pays them a fairer wage, although gender equality remains a challenge. In most countries, the share of women working in the public sector is higher than the share of women working in the private sector. Women's average wages are 88 percent of male wages in the public sector, as compared to 81 percent of male wages in the private sector, and the gender pay gap is also lower in the public sector in 42 of the 60 countries for which we have data. This greater wage equality for women likely reflects the more limited scope for wage discrimination in the public sector, given the highly regulated nature of the public sector labor market. Nevertheless, there is significant occupation segregation by gender, with women underrepresented in higher-paying managerial occupations, and overrepresented in lower-paying clerical ones. This occupation segregation persists across country income levels.

Public sector wages are helping recruit good quality staff, and recruitment is generally perceived as meritocratic by bureaucrats. In Indonesia, staff in higher-paid ministries were more likely to state that their ministry could recruit high-quality candidates than staff in lower-paid ministries. A significant majority of civil servants in Ghana, Indonesia, and Pakistan believed that meritocratic processes were followed in recruitment and the best candidates were selected. Merit, however, was perceived to be less of a factor in allocating jobs to bureaucrats after they were selected, reflecting the greater managerial discretion in matching individuals to jobs.

The relatively high public sector compensation, however, is not resulting in more motivated bureaucrats. There are two aspects to this weak association between wages and motivation. First, surveys of civil servants reveal that only 40 percent of respondents across seven countries surveyed were satisfied with their pay levels, despite a significant wage premium in each of these countries. A possible explanation could be the considerable pay dispersion and pay inequity in the public sector, and the possibility that bureaucrats benchmark their pay against their peers rather than private sector workers. Second, even bureaucrats who are satisfied with their wages do not have higher levels of self-reported motivation. Bureaucrats' motivation levels also decline over time. This finding suggests that the high public expenditures on wages are not yielding a motivated and productive workforce.

Management practices are more important than compensation in influencing the attitudes and behaviors of bureaucrats, and the quality of management varies considerably across organizations within countries. Some reasons for declining motivation levels are structural, such as limited opportunities for promotion and limited movement across

organizations. A typical civil servant spends 10 and 16 years in the same organization in Ethiopia and Nigeria, respectively. In the Sindh Revenue Board in Pakistan, despite receiving higher wages than civil servants in the rest of the government, 21 percent of bureaucrats would like to change their jobs in the next two years due to limited promotion opportunities. Day-to-day management on setting organizational goals and communicating these to staff, regular monitoring, task distribution, and the quality of performance assessments is likely to affect staff attitudes and behaviors more than relatively infrequent events like promotions and movement. Across our surveyed countries, managers are failing to regularly involve staff in setting and monitoring goals and in problem solving. These country averages, however, mask the considerable variation in the quality of management across organizations in Ethiopia, Ghana, and Nigeria, as well as across units within organizations. This dispersion implies that the experience of being a bureaucrat, despite a common regulatory framework, is highly dependent on local context.

Governments have invested heavily in digital technologies, but bureaucracies are lagging in digital innovation. There are many examples of digital technologies improving frontline agencies: digital identification programs have reduced leakages in government welfare programs; electronic filing of taxes has reduced the cost of tax compliance for businesses; and digitally enabled one-stop shops have reduced the time it takes for citizens to receive services and lowered corruption. The impact on bureaucrats' daily work, however, is more limited, in part because of lack of sufficient information technology skills and poor infrastructure. In Ethiopia, in 40 percent of the organizations surveyed, fewer than half of the staff in the unit could use a computer for writing a memo. Local administrators in Nigeria had Internet access on only 3 percent of days. More

fundamentally, many bureaucracies lack the necessary "analog complements" of sound management, incentives, and flexible work practices to make effective use of digital technologies.

Measuring the productivity of bureaucracy is difficult given the dearth of quantifiable outputs, but the speed and quality of task completion can provide a useful proxy measure. In Ghana, there is considerable variation across organizations in the rates of completion of tasks that organizations committed to in their performance agreements. The speed and quality of responsiveness of ministries to requests from the center of government can be another measure of productivity, and there is also substantial variation in these across Ghanaian organizations.

These findings also open several additional avenues for future research. A better understanding of the effects of the public sector labor market on the overall labor market requires more accurate comparisons between public and private sector workers, controlling for unobservable characteristics like worker motivation. One promising approach is to use panel data to focus on individuals who transition between the two sectors to more accurately estimate wage differentials and other pecuniary and nonpecuniary aspects of compensation that influence workers' employment decisions. The reasons for occupational segregation by gender in the public sector are also not well understood. Better understanding the determinants of bureaucrats' motivation, and the role of different compensation policies and management practices, can be key to improving government capability. Finally, the personnel and management linkages between the upstream bureaucracy and the downstream citizen-facing agencies, and a more precise determination of which activities of administrators most affect service providers, should be a priority for the future.

INTRODUCTION

Improving government capability is one of the main challenges of economic development. There is consensus around the core policies needed for developing countries to achieve equitable growth and reduce extreme poverty. But government capability—its ability to effectively implement these policies and efficiently achieve the desired outputs in regulation, infrastructure provision, and service delivery—varies considerably across countries and across policy domains within countries.¹

The ability, motivation, and productivity of the personnel who populate government bureaucracies are key determinants of government capability. Capable organizations are those that can select high-ability personnel, provide them with the necessary resources, and motivate them to work toward the organization's objectives and to serve the public. In Russia, 60 percent of the price variation in standard procurement contracts is due to the ability of individual bureaucrats and the quality of the organizations in which they work (Best, Hjort, and Szakonyi 2017). If the worst-performing 20 percent of bureaucrats can be made as effective as the median bureaucrat, the Russian government would save 10 percent of its procurement costs. In Nigeria, there is substantial variation in the quality of organizational management across the federal government, and a one standard deviation increase in the quality of management would lead to a 32 percent increase in project completion rates (Rasul and Rogger 2017).

Public sector compensation and employment practices also have significant implications for the competitiveness of the overall labor market, and on fiscal sustainability. Governments face important

¹ This definition of capability is based on Andrews, Pritchett, and Woolcock (2017).

choices relating to the size of the public sector and the compensation of its workers. Low public sector wages can result in difficulties in recruiting and retaining qualified workers; but large wage premiums for public sector workers can discourage private sector jobs and lead to search unemployment. A rising wage bill is also often associated with problems of fiscal sustainability.

Despite its importance, there is little rigorous empirically based knowledge on the personnel aspects of bureaucracies that can be the basis for evidence-based policy making. There is an enormous body of empirical research that shows that the skills, incentives, and accountabilities of “street-level” bureaucrats like doctors, police officers, and teachers are the main determinants of service delivery outcomes. The role of administrators and managers—the bureaucrats that are the focus of this report—who are responsible for policy-making, regulating, financing, and monitoring the work of the frontline service providers, however, remains a “black box.” A major reason for this is lack of good data, with most existing cross-national sources of information on bureaucrats limited to expert perception-based approaches, such as the Bertelsmann Transformation Index or the Worldwide Governance Indicators. The title of this report is a deliberate play on words to underline the innovation of an empirical approach to understanding public bureaucracies, and of filling this knowledge gap.

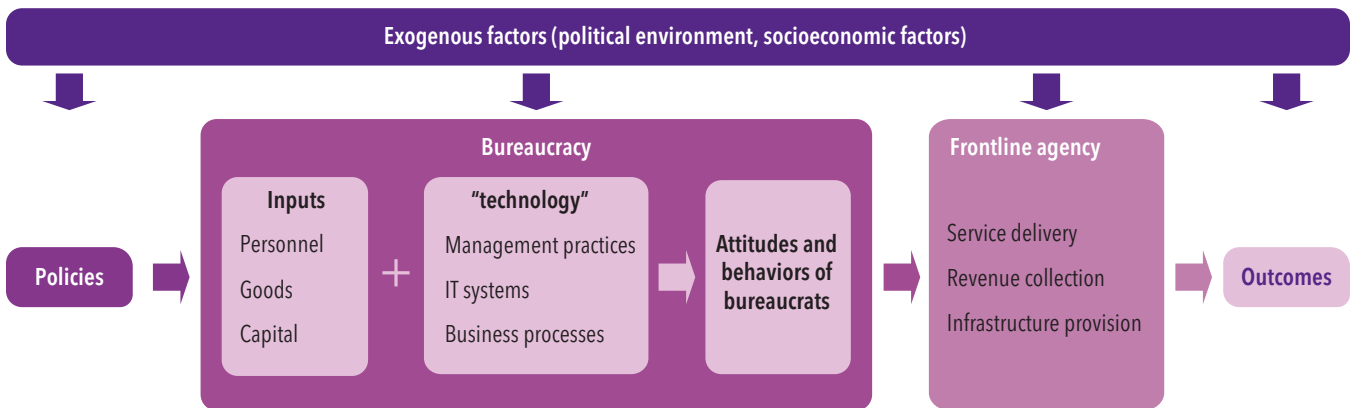
The report draws on new datasets compiled by the World Bank and on analyses of existing data sources. The main new cross-country dataset on public employment and wages is the Worldwide Bureaucracy Indicators (WWBI), which covers 114 countries from 2000 to 2016.² The country-

level indicators are derived primarily from over 13 million household-level observations from the International Income Distribution Database (I2D2), the World Bank’s repository of harmonized household (labor force and welfare) surveys. Information on human resource management practices and the attitudes and experiences of bureaucrats draw on surveys of approximately 20,000 civil servants in seven countries: Ethiopia, Ghana, Indonesia, Liberia, Nigeria, Pakistan, and the Philippines. These surveys cover either central and local governments (Ethiopia, Ghana, and Nigeria); only central governments (Indonesia, Liberia, and the Philippines); or select agencies (the federal and subnational tax authorities in Pakistan). Some of these surveys have been conducted exclusively by the World Bank, and others have been done in partnership with academics. The report also references public employment and wage bill analysis in Bosnia and Herzegovina and some subnational jurisdictions in Brazil based on microlevel human resource and payroll data that the respective governments shared with the World Bank. More details on these datasets are given in the appendix.

Our conceptual framework for government capability is a production function in which inputs, the “technology” of combining these inputs, and a variety of exogenous factors determine bureaucrats’ attitudes and behaviors, outputs, and eventually outcomes (figure 1.1). Government capability is the conversion of policies, assumed to be generated by politicians, to outputs, which in turn involves two interrelated drivers: the quality of (i) bureaucracy and (ii) frontline activities in service delivery, infrastructure provision, and revenue collection. The frontline is the point of contact between the government worker (the teacher, doctor, police officer, or tax official) and the client (the business, student,

² The details on the variable definitions and methodology used are given in “The Worldwide Bureaucracy Indicators: Explanatory Note on the Dataset” (WWBI).

■ ■ **Figure 1.1** A conceptual framework for government capability



Source: Based on Fiszbein, Ringold, and Rogers 2011.

patient, or crime victim). Bureaucracy is the set of ministries and agencies that are upstream from service delivery. While there is overlap between bureaucracy and frontline agencies in tasks performed, the distinction is important conceptually because the outputs of frontline agencies are more measurable than those of bureaucracies, and bureaucrats are also more likely to have multiple principals and multi-dimensional tasks than service providers.

The attitudes and behaviors of bureaucrats are an indirect measure of the productivity of the bureaucracy. An extensive academic literature has shown that job satisfaction, work motivation, public service motivation, professional norms, and integrity have an important bearing on the productivity of bureaucrats. These attitudes and behaviors are influenced by both the quality of inputs, such as skills and type of personnel selected, and the technology to combine these inputs, which in turn is determined by work practices, business processes, and the use of information technology for managing staff, receiving customer feedback, and automating tasks. The main findings of the report cover the personnel subset of these elements of the government

production function, and center around four questions:

1. First, who are the government personnel? What are the main features of public sector labor market in terms of public employment and the level and structure of compensation, a key factor for the selection and incentives of bureaucrats? The report provides some basic facts.
2. Second, what are the core practices that shape the work of bureaucrats? These include management practices around recruitment, promotion, and performance orientation, and the extent to which bureaucracies effectively use digital technologies to become more efficient and to innovate.
3. Third, what do we know about the attitudes and behaviors of bureaucrats, in terms of their motivation, professional norms, and commitment to serve the public? How do the inputs of the production function—public sector compensation policies and work practices—affect the selection of high ability staff and correlate with bureaucrats’ levels of motivation? Given the difficulties in measuring the actual effort and outputs of individual bureaucrats, these

attitudes are a proxy indicator of the productivity of personnel.

4. And finally, how do we measure the productivity of the bureaucracy, given that many of its outputs are intermediate and difficult to quantify?

We examine the de facto situation in each of these areas rather than the de jure structures specified in regulations. One reason for this choice is pragmatic, as a discussion of the legal framework across numerous countries would be tedious. But substantively, and as is well known, the gap between law and actual practice is large across many policy domains in developing countries. And this divide is especially apparent in personnel management given the complexity of the regulatory regime that governs the different categories of public sector employees; the considerable discretion that organizations can have in setting pay and employment for their staff; and the coordination and collective action among thousands of bureaucrats and service providers necessary to convert policy actions to outputs. As evidenced in the following material, the attitudes and experiences of bureaucrats vary considerably

across organizations within countries despite a common de jure human resource management regime, underlining the need to have an empirically granular approach that can capture this within-country heterogeneity and measure the core components of bureaucratic capability from a representative sample of public officials.

The report focuses primarily on the supply side of governance and does not delve into the political economy of public administration, for both conceptual and methodological reasons. The domain of citizen engagement is largely at the point of service delivery or revenue collection, and not at the upstream administrative tier. It is unlikely that bureaucrats have regular contact with citizens, and any citizen voice would need to be transmitted via “the long route of accountability”—from citizen to politician and then from politician to bureaucrat (World Bank 2003). Asking bureaucrats about their interactions with politicians through surveys, however, is a difficult and sensitive topic, and one that has been broached only cautiously in our work to date. Methodologically, it requires more experimental approaches, which adds complexity to the surveys, and is an ambition for future work.

WHO ARE THE BUREAUCRATS?

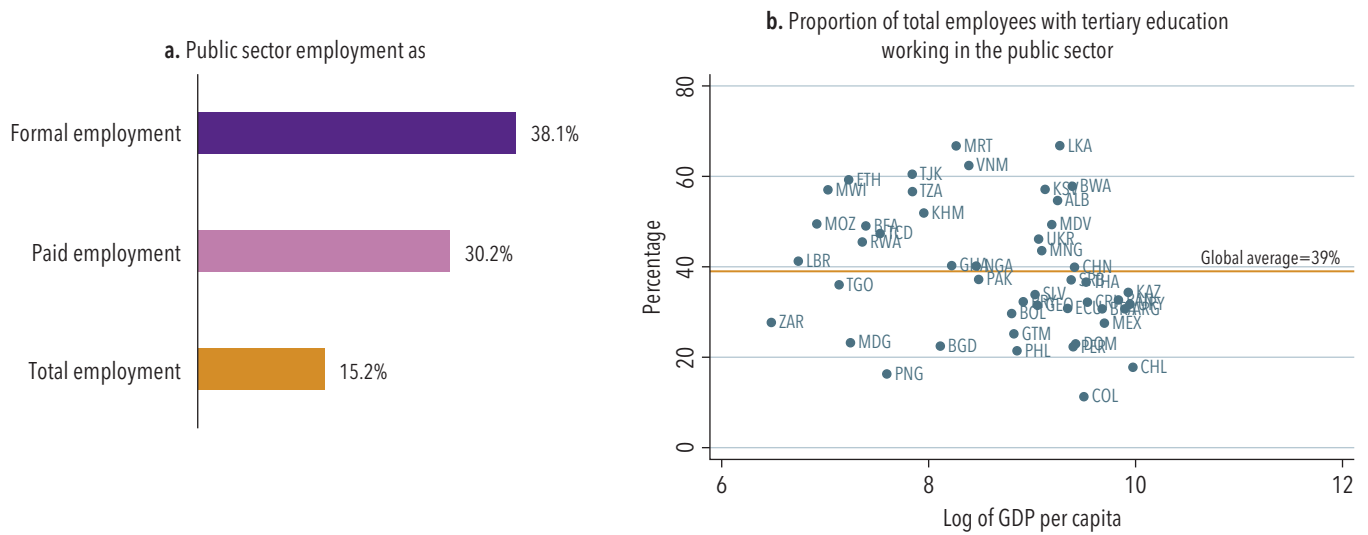
Public employment

The public sector is a very large employer globally, particularly of formal sector and skilled workers. Overall, the public sector is responsible for 16 percent of total employment, 30 percent of wage employment, and 38 percent of formal sector wage employment (figure 2.1, panel *a*).³ Globally, on average 39 percent of all employees with tertiary education work in the public sector, with in many countries this number as high as 60 to 70 percent (figure 2.1, panel *b*). The public sector accounts for the bulk of formal sector employment and the share of employed workers with tertiary education in the Middle East and North Africa, East Asia, and Sub-Saharan Africa, and has a significant, albeit much smaller formal sector footprint in Latin America (figure 2.2). Apart from underlining the influence of public sector compensation policies on the broader labor market, the large size of the public sector also has important implications for the selection and motivation of public employees. We can reasonably assume that where the public sector is the largest formal sector employer, it is attracting individuals with a variety of motivations, both intrinsic and extrinsic, with implications for public sector productivity.

Cross-nationally, the size of the public sector as a share of total employment increases with a country's level of economic development. The share rises from below 10 percent in low-income countries to above

³ Total employed individuals are defined as those workers, age 15 and older, who in the household surveys responded that they had a job in the prior week. Wage employees are those whose basic remuneration is not directly dependent on the revenue of the unit they work for and are instead paid in wages and salaries, piece work, or in-kind compensation, and therefore exclude self-employed workers. Formal sector wage employees are those who also have an employment contract, have health insurance, belong to a union, or are enrolled in a pension program.

Figure 2.1 The public sector is a large employer globally, particularly of skilled workers

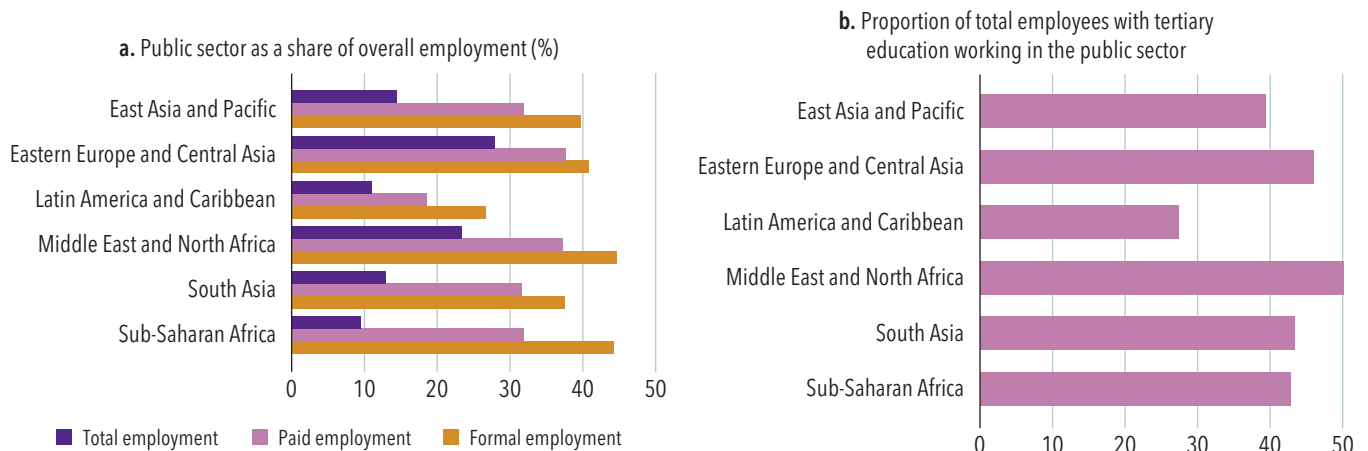


Source: WWBI.
 Note: Panel a is based on data from 114 countries; panel b has 65 countries.

20 percent in high-income countries (figure 2.3, panel a). This positive relationship, called Wagner’s Law, reflects the increasing role of the state in providing social services as incomes rise (Diamond 1977). There is however, no discernible relationship between country income levels and public sector employment as a share of salaried employment, which suggests that the public

sector grows along with private formal sector wage employment (figure 2.3, panel b). There is considerable heterogeneity within these regional and income categories, revealing that countries also make choices in the numbers of their government personnel. Public sector shares of total employment range from less than 2 percent to over 40 percent, and of paid

Figure 2.2 The public sector is the dominant employer in some regions



Source: WWBI.

Figure 2.3 Public sector employment varies considerably cross-nationally



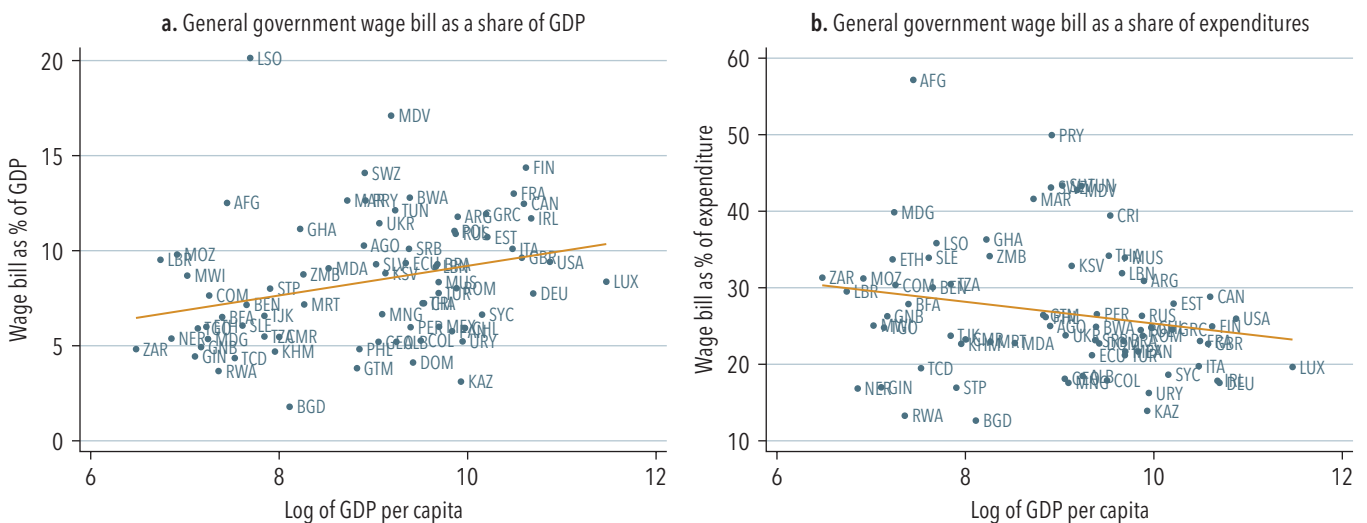
Source: WWBI.

employment from 10 percent to 70 percent, with four- to fivefold variations in these shares at any given income level.

Public employment also has a large fiscal footprint. Cross-nationally, the general government wage bill averages approximately 9 to 10 percent of gross domestic product (GDP), and represents

roughly a quarter of general government expenditures, albeit with considerable variation across countries (figure 2.4). While the wage bill as a share of GDP rises with country income, as per Wagner’s Law, it tends to fall as a share of expenditures due to the higher revenue mobilization of richer countries. These wage bill numbers underestimate, often dramatically, the full fiscal costs

Figure 2.4 The wage bill has a large fiscal footprint, but with considerable cross-country variation



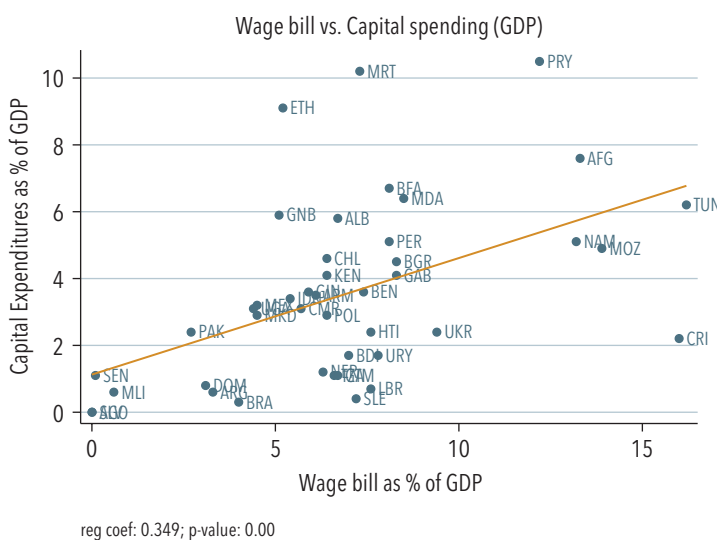
Source: World Bank staff calculations based on IMF data.
 Note: PPP = purchasing power parity;

of public sector workers, given the generous pensions benefits that they enjoy. In Brazil, for example, the wage bill is 13 percent of GDP, and public sector pension expenditures are another 4 percent of GDP (World Bank 2017).

Higher wage expenditures are associated with greater fiscal imbalances, but not with crowding out of other expenditures. While there is no cross-national relationship between the level of the wage bill and fiscal deficits, increases in wage expenditures over time are correlated with increasing fiscal deficits (IMF 2016). However, surprisingly, there is a positive relationship between wage expenditures and capital expenditures, suggesting that concerns that higher spending on wages automatically reduces spending on growth-enhancing infrastructure are exaggerated (figure 2.5). This finding does not detract from the importance of ensuring that the considerable resources spent on personnel yield commensurate results in government outputs.

Wage expenditures have a built-in momentum resulting from automatic pay increases linked to seniority, limiting governments' flexibility in responding to fiscal constraints. The magnitude of this "natural rate of wage growth" is conditional on the size of the pay increments in the public sector salary scales. The example of Brazil is indicative, where microlevel data allows for modeling scenarios that can decompose the effects of wage bill increases due to additional hiring from those due to staff moving up the pay scale with increasing years of service. In Rio de Janeiro municipality, for example, the wage bill increases by 2.1 percent in real terms annually, even when staffing levels are fixed and there is a one-to-one replacement of relatively higher paid retirees with relatively lower paid new hires, and annual nominal increases to the salary scale are limited to inflation. Brazil is an extreme case of high seniority-based pay increases, but it is representative of a general phenomenon, as almost all public sector salary scales have seniority-based pay increments that result in a natural rate of wage bill growth.

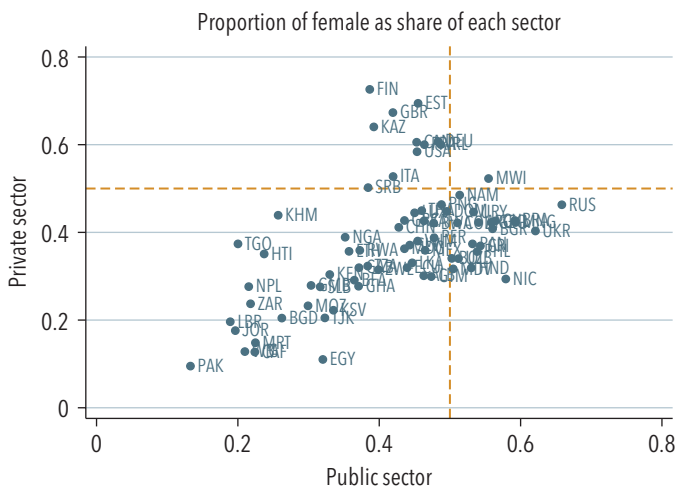
■ ■ **Figure 2.5** The wage bill does not crowd out capital spending



Source: World Bank staff calculations based on BOOST data. BOOST is a WB tool that collects and compiles detailed data on public expenditures from national treasury systems and presents it in a simple user-friendly format.

Women are disproportionately represented in the public sector, although they are still outnumbered by men. Figure 2.6 shows the share of women in the public sector and in private sector wage employment for the countries in the Worldwide Bureaucracy Indicators (WWBI), with the vertical and horizontal lines marking gender equality in employment in the two sectors, respectively. In several countries (those in the right half), the majority of public sector workers are women, while there are fewer countries, mostly high income, in which women are a majority of private sector workers (in the top half). Most countries, however, are in the bottom left quadrant, which shows that women have a lower share of employment than men in both the public and private sectors. Women's share of public sector employment

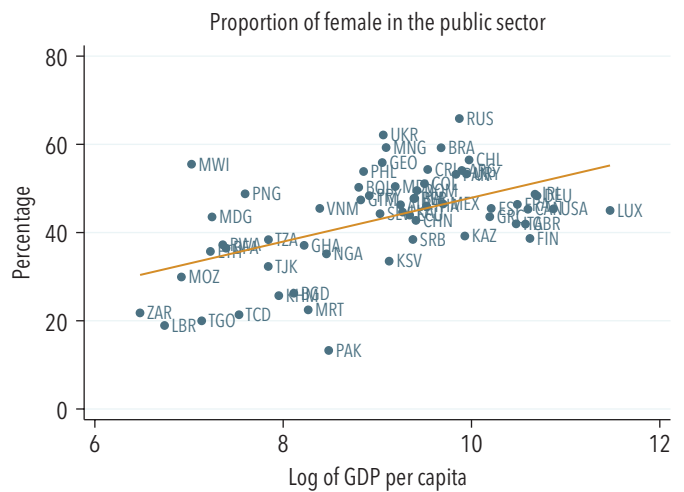
Figure 2.6 The public sector is a more gender equal employer



Source: WB staff calculations based on WWBI.
 Note: The vertical and horizontal dashed lines in figure 2.6 depict gender equality in employment shares in the public and private sectors, respectively.

increases with country incomes, although there is significant variation in these shares at any given income level, and women remain underrepresented even in high-income countries (figure 2.7). One reason for this increase in the share of women could be linked to Wagner’s Law; as countries develop, a greater proportion of the public sector workers are in the service sectors, and women

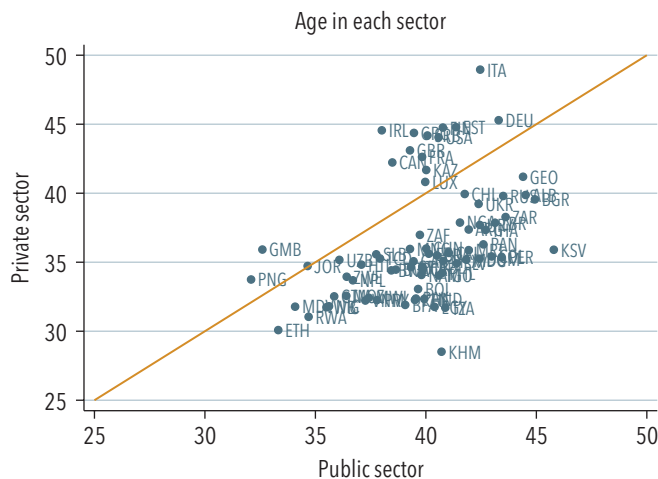
Figure 2.7 The share of women in the public sector increases with country income levels



are disproportionately represented in these occupations. This issue of gender segregation by occupation is discussed in more detail later.

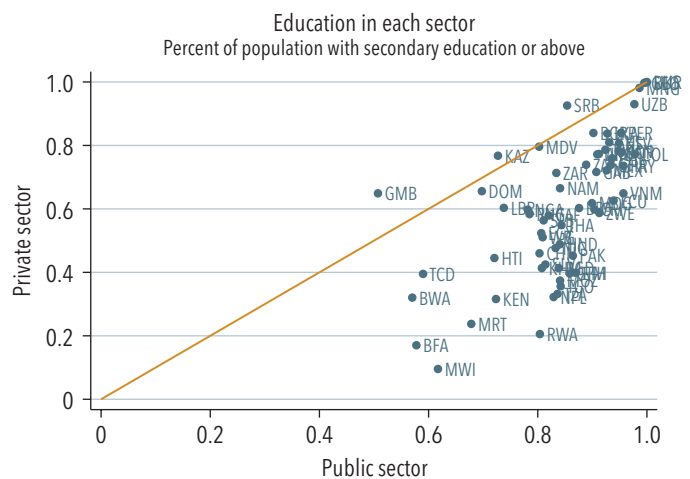
Public sector workers are also older and more educated than private sector wage workers. In figure 2.8 and figure 2.9, the 45-degree line indicates equal values for countries for the categories

Figure 2.8 Public sector workers are older



Source: WWBI.
 Note: The 45 degree line depicts equal values on the two axes in both figure 2.8 and figure 2.9.

Figure 2.9 And have higher academic qualifications

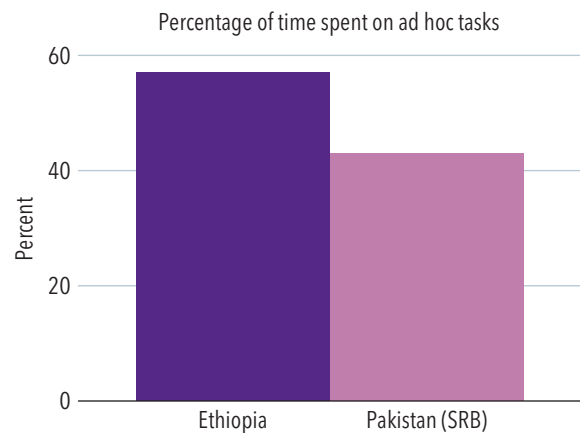


depicted in the two axes. In both figures, countries largely cluster below the 45-degree line, indicating higher shares for public sector workers for the category. The data reveal that the public sector has older workers (figure 2.8) and a higher proportion of workers with secondary or higher education (figure 2.9). These systematic differences between public and private sector workers have implications for any comparative analysis between the two labor markets, especially public-private wage differentials.

These high academic qualifications do not necessarily imply high skills matched to functions. Academic credentials may not be matched to the competencies needed in jobs, nor do they necessarily imply sufficient learning and technical knowledge for the job. An emphasis on academic credentials in public sector employment can also trigger the proliferation of low quality tertiary education establishments with little impact on outcomes, as has been documented in Indonesia for teachers (Ree et al. 2017). In Ethiopia, discussions with key informants suggest that quality of new hires has declined because of the very rapid expansion in public employment (World Bank survey). A significant share of staff whose qualifications have been tested through competency assessments failed to exhibit sufficient basic knowledge.

Many bureaucrats lack basic IT skills and spend much of their time working on ad hoc tasks that are not related to their main job. In Ethiopia, in 64 percent of the organizations surveyed, fewer than half of the staff in the unit could create an Excel spreadsheet or a Power Point presentation, and in 40 percent of organizations, fewer than half of all staff were able to use a computer for writing a memo. In Ethiopia and Pakistan, staff can spend as much as 60 percent of their daily time at work on noncore tasks, which points to weaknesses in management practices (figure 2.10). These

Figure 2.10 Bureaucrats spend much of their time on ad hoc tasks that are not related to their core competencies



deficiencies underline the urgency of regular technical and management training of bureaucrats. But even in organizations that make training a priority, as in the Sindh Revenue Board (SRB) in Pakistan, there is a tendency for the training to inadequately reflect the needs of different staff groups. Seventy-four percent of SRB staff underwent training in the past year, but only 15 percent of them found the training useful for their job, primarily because the training was too generic and did not meet the specific needs of their jobs.

Public sector compensation

Public sector wages are an important determinant of personnel quality and motivation and, given the large size of the public sector, have an important influence on the broader labor market. The cross-country heterogeneity in the size of the wage bill reflects the policy choices that countries make on employment and compensation. If public sector workers are paid significantly less than similar workers in the private sector, the resulting difficulty in recruiting and retaining qualified workers will adversely affect the quality of publicly

provided goods and services. On the other hand, large wage premiums for public sector workers may indicate that public sector workers are a privileged group who are protected from competition with other workers. Large premiums could also encourage youth to queue for public sector jobs, leading to high rates of youth unemployment.

In general, the public sector pays a wage premium for “similar” workers compared to the private sector. The standard approach in the labor economics literature is to estimate an earnings regression where wages are a function of observable worker characteristics, such as education, age (a proxy for work experience), gender, location, and the sector of employment (public sector or private sector). We estimate these regressions using the VVBI.⁴ Figure 2.11 shows the premium when the public sector is compared to all private sector salaried employees, irrespective of the type of job and controlling only for worker characteristics. The average public sector wage premium is 16 percent across the 72 countries in the data, with 55 of the 72 countries having a premium. There is considerable heterogeneity in the size of that premium across countries, varying from a penalty of 20 percent to a premium of 60 percent. The size of the premium does not vary with country incomes, a surprising finding, as academic studies based on a smaller sample of countries have reported higher premiums for developing countries.

The public sector premium is lower when public workers are compared to private workers doing similar jobs. The analysis just noted implicitly

assumes that workers with the same personal characteristics should be paid the same wage irrespective of the sector of employment, and therefore a public sector wage premium represents an economic rent (Moulton 1990). However, wages are also dependent on the type of occupation, as some jobs entail more responsibilities and therefore pay more for observably similar workers. It is possible that the public sector has a different distribution of jobs—larger proportions of workers in managerial, professional, and clerical occupations, and fewer in sales and laborer occupations—and that these jobs require additional responsibilities that are not accounted for in premium estimates that control only for workers’ observable characteristics. Figure 2.12 shows the premium when public sector workers are compared to formal private sector workers who are likely to work in jobs that have equivalent levels of responsibility. The public sector premium reduces to 9 percent globally, with 29 of the 44 countries in the sample having a statistically significant public sector earnings premium.

The public sector wage premium is lower for more skilled occupations. We estimated the wage premium for the main occupational categories as an alternative approach to account for both job and worker characteristics and the possibility that the public sector wage premium compensates for the additional requirements necessary for these occupations.⁵ Using the International Standard Classification of Occupations (ISCO) of the International Labor Organization, the data reveal that the public sector has wage penalties for senior officials, professionals, and technicians and pays premiums for clerks and workers in elementary occupations (figure 2.13).

⁴ The data includes all wage and salaried employees, so that the estimates are the public sector earnings premium relative to private wage and salaried employees. The analysis excludes self-employed workers, as many do not report any wages. The wage data in the I2D2 does not include bonuses and other payments to employees, which is likely to underestimate the public sector premiums given the generally higher proportion of pay given in the form of allowances in the public sector. It also does not include in-kind payments, which will likely also underestimate the public sector premium when total compensation is taken into account.

⁵ Our dataset has information only on these main occupational categories, and we cannot further disaggregate into the three-digit occupations within these categories.

Figure 2.11 Public sector workers receive a wage premium when compared to similar private sector workers

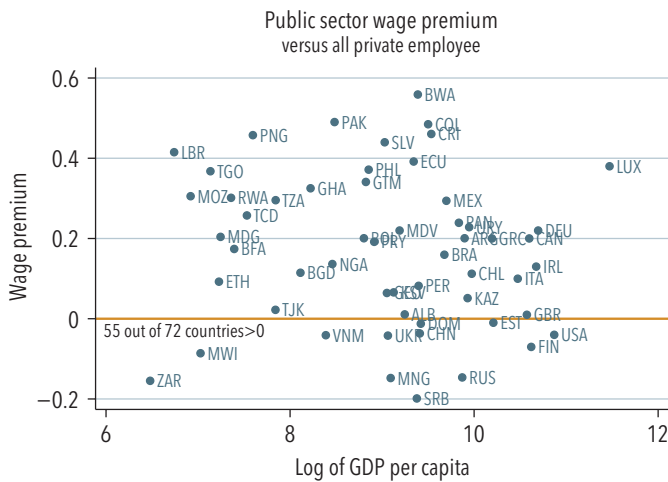
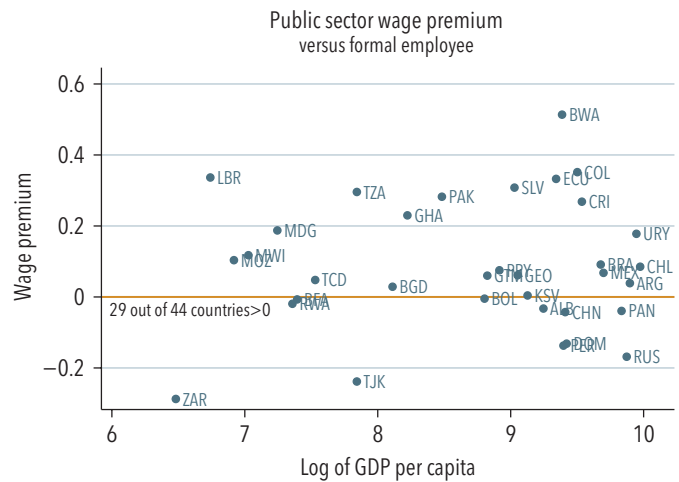


Figure 2.12 The premium is much lower when the public sector is compared to the formal private sector



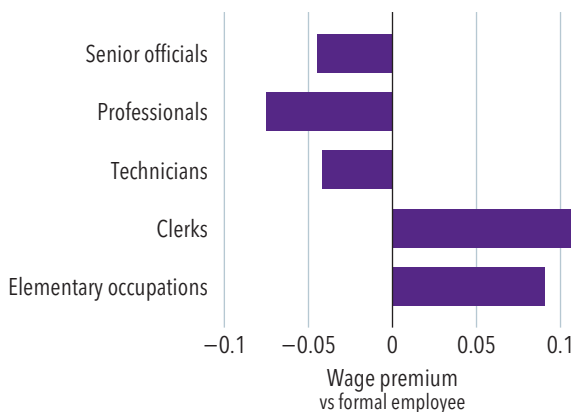
Source: WWBI.

Note: The premium controls for observable worker characteristics (education, age, and gender) in figure 2.11 is based on data from 72 countries. Figure 2.12 is based on data from 44 countries.

The public sector premium is higher when considering total compensation and not just wages. The premium estimates just noted are for basic wages only and exclude monetary allowances and benefits. As figure 2.14 shows, the public sector provides disproportionately more benefits than the private sector. A higher proportion of public sector

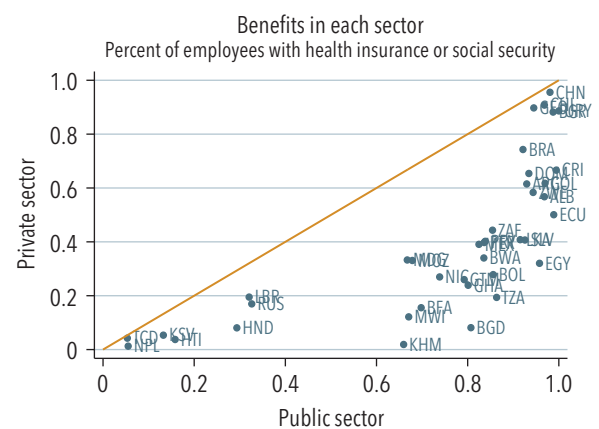
workers have either health insurance or social security, the two most important and widely provided benefits, than private sector workers in all countries in the sample. Combined with the public sector wage premiums, the data suggest significantly higher average total compensation in the public sector compared to the private sector. These higher

Figure 2.13 Premiums are lower for more skilled occupations



Source: WWBI.

Figure 2.14 Public sector workers receive more benefits



Source: WWBI.

public sector benefits persist when controlling for worker demographics. The premiums are likely to be even higher when in-kind benefits, such as housing, and nonpecuniary benefits, such as job security, are factored into total compensation.

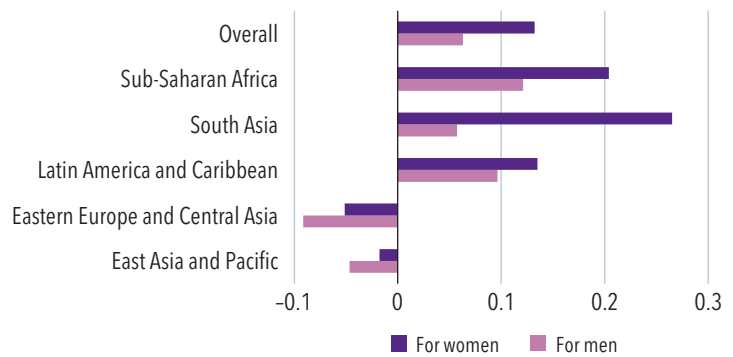
The public sector also pays a higher wage premium to women. Across all countries, women receive a wage premium of 27 percent, as compared to 14 percent for men, and the premium is higher in all regions of the world (figure 2.15). The reasons for these gender differences could be due to both employment and wage factors. Women could be disproportionately represented in public sector occupations, such as teaching and nursing, which have a higher wage premium. Wage discrimination against women may also be lower in the public sector given that salary scales are determined by regulations and may leave less discretion for managers to differentiate pay based on gender for similar occupations and workers. We explore these issue in the following sections.

The gender pay gap

It is well known that women globally earn significantly less in the private sector than men for doing the same work. In the United States, women famously earn “79 cents to the dollar a man earns” for the same hours worked, and similar disparities hold across developed and developing countries for wage labor.⁶ In the developing world, the biggest source of income gaps are lower rates of labor force participation of women. As a result in urban Ghana women only earn about two-thirds of what men earn, in Colombia they earn half, and in Sri Lanka they earn less than a third of their male counterparts (Sandefur 2018).

⁶ See Blau and Kahn (2000) for a review of US studies, and the *World Development Report 2012: Gender Equality and Development* (World Bank 2012) for a comprehensive discussion of the global evidence.

■ ■ **Figure 2.15** Women earn a higher wage premium in the public sector

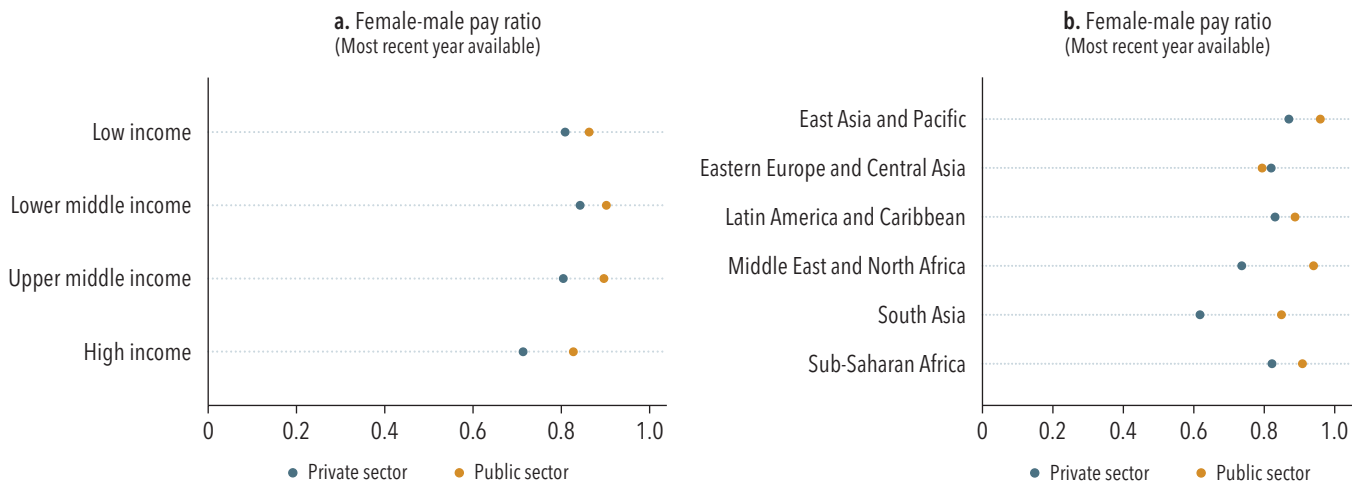


Source: WWBI.

What is less well known is that the gender pay gap is lower in the public sector. Figure 2.16 shows that across all regions in the world, and across all country income categories, the ratio of female-to-male average wages is higher in the public sector than in the private sector. Globally, in our sample of countries, women’s average wages are 88 percent of male wages in the public sector, as compared to 81 percent of male wages in the private sector. The public sector wage gap is substantially less than the private sector wage gap in the Middle East and North Africa as well as in South Asia, and is roughly equivalent in Europe and Central Asia. Surprisingly, the difference between the public and private sector pay gaps increases with country income levels. Across countries, the pay gap is lower in the public sector in 42 out of the 60 countries in our sample (See figure 2.17. The countries to the left of the 45 degree line are those in which the female-to-male mean wage ratio is higher in the public sector). This lower pay gap could be a reason, in addition to the higher public sector wage premium for women, why females generally have a higher share of employment in the public sector than in the private sector.

The public sector gender pay gap has also declined over time. The female-to-male ratio of

Figure 2.16 The gender pay gap is lower in the public sector than in the private sector



Source: WB staff calculations based on WWBI.

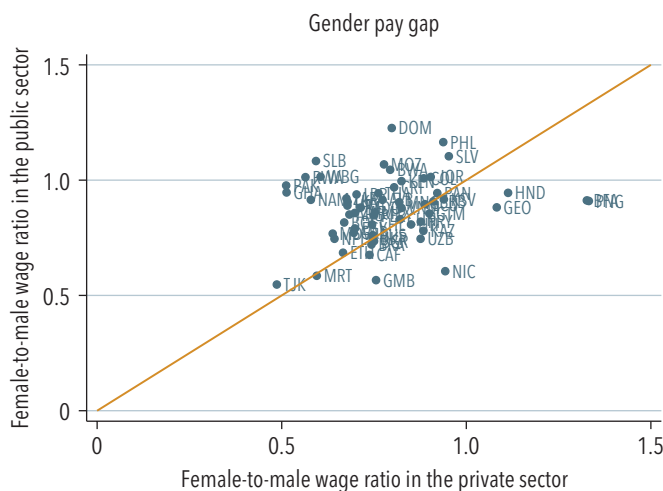
Note: The female-to-male ratio is the mean female wages divided by the mean male wages for all employees in the public and private sector respectively

average wages increased from 0.85 in 2000–7 to 0.9 in 2008–2016, rising in 27 of the 35 countries for which we have data in each time period (See figure 2.18. The countries to right of the 45 degree line are those for which the female-to-male wage ratio was higher in 2008–16 compared to 2000–7). This decline in the gender pay gap in the public

sector mirrors the decline that has been observed in the academic literature for the private sector.

There are many possible explanations for the gender pay gap. In theory, the it could be due to the systematic differences in worker characteristics (for example, age, education, and

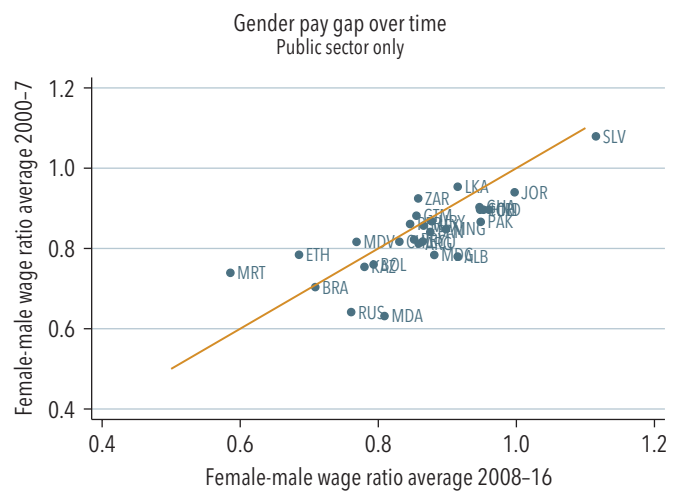
Figure 2.17 The gender pay gap is lower in the public sector than in the private sector



Source: WB staff calculations based on WWBI.

Note: The female-male ratio is the mean female wages divided by the mean male wages for all employees in the public and private sector respectively.

Figure 2.18 the public sector gender pay gap has declined over time



experience) between men and women; to wage discrimination; or to employment segregation by gender, which means differences in the types of jobs that women and men do. There are few significant differences in education qualifications by gender in the public sector, although women may have less work experience because of interruptions in their career due to childcare. There is also less scope for wage discrimination—paying less to women working in the same job and with the same education and experience as men—in the public sector given that wage levels are set in legislation and managers have limited discretion in setting pay. This legal equality between men and women is a major nonpecuniary benefit of the public sector.

The pay gap in the public sector is driven largely by occupation segregation by gender. Women are underrepresented in higher-paying managerial occupations and overrepresented in lower-paying clerical ones. Figure 2.19 shows the proportion of women globally in some of the

major occupational groups. Women make up roughly 30 percent of “senior officials” (managers and executives) in both the public and private sectors and are approximately 50 percent and 45 percent of the “professionals” and “technicians,” respectively, in the public sector, much higher than in the private sector. This relatively high female representation in these two categories is not surprising as these two occupational groups include teachers and nurses, jobs that traditionally viewed as being female ones. Women also make up 55 percent of clerical occupations.

Occupation segregation persists across country income levels. The proportion of women who are senior officials is below 20 percent in low-income countries and increases with country incomes, but is below parity with men even in the upper-middle-income countries. By contrast, the proportion of women in clerical occupations increases with country income; women make up a surprising 80 percent of clerical public sector occupations in high income countries (figure 2.20).

Figure 2.19 Women are underrepresented in senior positions and overrepresented in clerical occupations

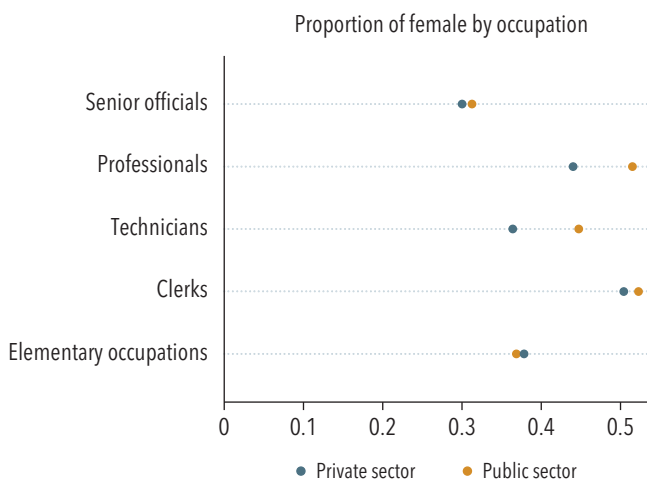
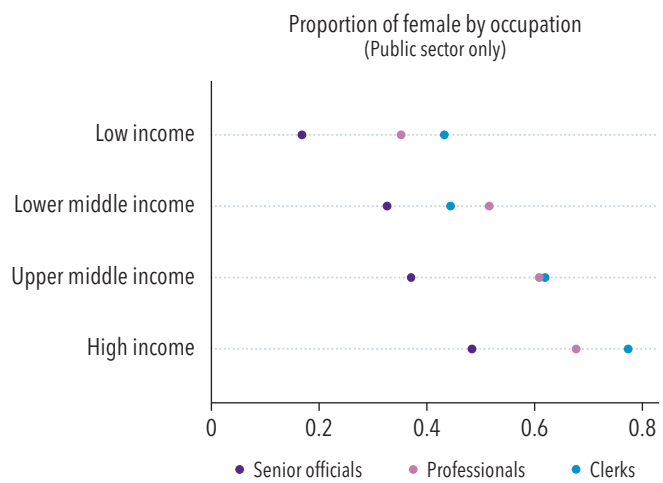
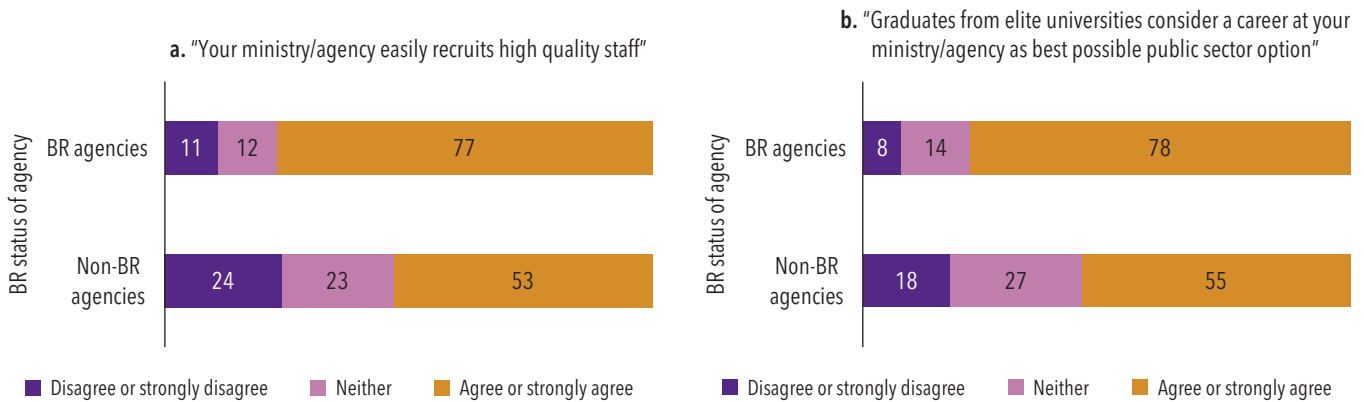


Figure 2.20 Public sector occupational segregation is persistent across country income levels



Source: WB staff calculations based on WWBI.
 Note: These are the major ISCO occupational groups where an occupation is defined as “a set of jobs whose main tasks and duties are characterized by a high degree of similarity.”

Figure 2.21 Perceptions of the quality of recruits between BR and non-BR agencies in Indonesia



Note: BR = strategically important Bureaucracy Reform agencies.

The reasons for employment segregation in the public sector are not well understood. Presumably, some of the findings from studies of the private sector are relevant and include gender differences in time use, particularly household work and childcare, that constrain women’s occupational choices, and informational market failures that result in low female participation in certain occupations, perpetuating women’s lack of access to the social networks of other females necessary to gain access to these jobs (World Bank 2012).

Wages and selection

Do the high public sector wages encourage high-ability candidates to seek government employment? While common sense would assume the answer is “yes,” there has been surprisingly little empirical exploration of this question. One recent experimental study, in which researchers could exogenously vary the wage offers for the same advertised position, showed that higher wages indeed attracted higher quality candidates (Dal Bo, Finan, and Rossie 2013). While such randomized allotment of wage offers is not feasible at scale, our surveys

were able to probe whether higher-paying organizations within a country were perceived to be attracting a better pool of candidates than lower-paying organizations in that country.

In Indonesia, staff in the higher paid ministries were more likely to state that their ministry could recruit high-quality candidates than staff in the lower-paid ministries. At the time of the survey in 2014, there were two- to fourfold variations in staff pay levels between the few central ministries and agencies that were deemed to be strategically important and undergoing internal reforms, termed Bureaucracy Reform (BR) agencies, and others. Our survey asked respondents in the BR and non-BR agencies their views on agency prestige and quality of new recruits. Seventy-seven percent of survey respondents in the BR agencies, as compared to 53 percent of respondents in the non-BR agencies, either agreed or strongly agreed with the statement that their agency could recruit high-quality staff (figure 2.21). There was a similar difference in responses between the BR and non-BR agencies to the question on whether graduates from elite universities considered a career in their agency as the best possible public sector option.

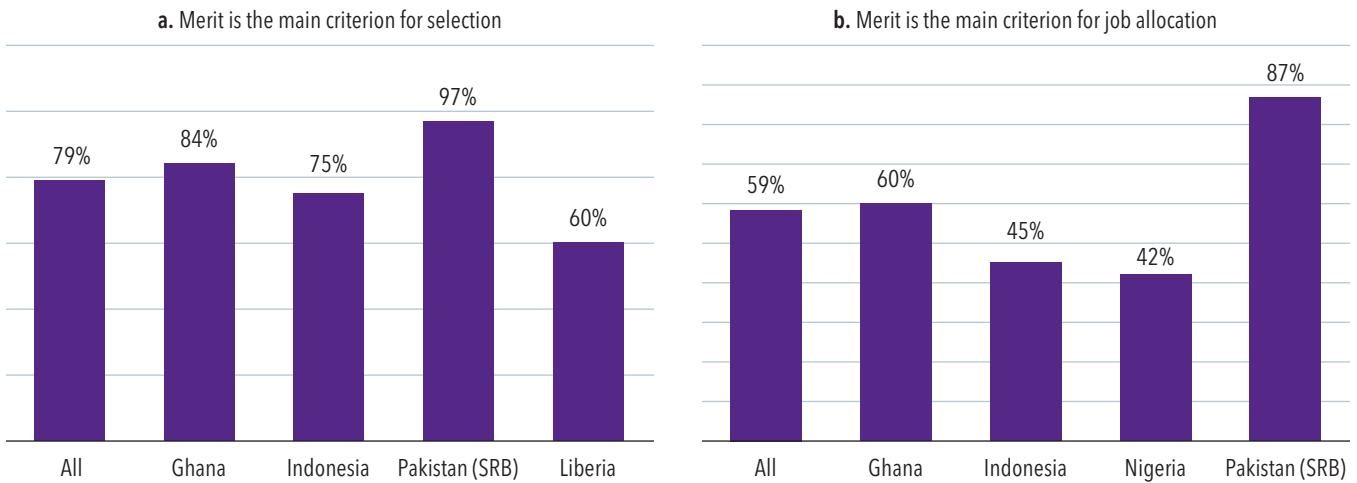
WHAT PRACTICES SHAPE THE WORK OF BUREAUCRATS?

Management practices, information technology (IT), and business processes are the main elements of the government production function that shape the work of bureaucrats and influence on the attitudes and behaviors of bureaucrats. Both the public administration and the labor and organizational economics literatures stress the importance of management, although emphasizing different aspects of it. 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. Principal-agent approaches underline the centrality of monitoring and incentives to motivate staff to perform. The World Management Survey (WMS), a rigorous method of quantifying managerial and organizational practices, has revealed that the quality of management is the main driver of innovation and productivity in firms across the world (Bloom and Van Reenen 2007; Cirera and Maloney 2017). Our surveys of civil servants used an adapted instrument to measure the quality of management of public sector organizations.

Merit-based selection, allocation, and promotion

Merit is generally used as the main criterion for selection and promotion of staff. Except for Liberia, a significant majority of respondents in the surveyed countries believed that “the selection process identifies the best people for the job,” or selection was based on interviews and written examinations (figure 3.1, left panel). A similar pattern of responses was found for questions

Figure 3.1 Merit is generally the main criterion for selection but less so for job allocation



on merit in promotion, which suggests that patronage and politicization is less prevalent than commonly believed in developing-country bureaucracies. Most civil servant jobs are advertised, and examinations are a usual procedure to screen applicants, particularly at the entry level, and our data suggest that these formal mechanisms work well.

Merit, however, is less of a factor for determining job allocation. Once an officer has been selected

for the civil service, he or she must be allocated a job, and potentially a series of jobs as the person moves through the service. Merit is viewed as less of a factor in job allocation, with the differences between selection and allocation substantial in Ghana and Indonesia (figure 3.1, panel b). This divergence is not surprising, as matching individuals to jobs requires much more managerial discretion and cannot be easily specified in procedures. Allocation is clearly just as important as recruitment, as getting the right people into the right job requires that they are actually posted there, and not just that they are in service. Understanding these dynamics of internal labor markets within the public service is an area that requires further research.

These national averages mask considerable within-country variation across organizations in the use of merit. Figure 3.2 charts organizational averages of stated beliefs in meritocratic recruitment for each of the organizations in Ghana, Indonesia, and Pakistan. Each marker on the graph represents the proportion of staff in an organization that believe merit is the main method for recruitment. Overall, these data are consistent with other findings in the literature

Figure 3.2 Merit as the main criterion for selection varies considerably across organizations



Note: Binary variable constructed with "Agree" or "Strongly Agree" coded as 1 and "Strongly disagree," "Disagree," and "Neither agree nor disagree" coded as 0.

that most bureaucracies are “neither islands of excellences nor basket cases.” (Meyer-Sahling, Schuster, and Mikkelsen 2018).

Merit matters for staff motivation; organizations where selection and promotion are more meritocratic are likely to have more motivated staff. In Pakistan, organizations that were self-assessed by civil servants as being more meritocratic in promotions also had staff that were more satisfied with their experience in the service. Our findings are consistent with those of Meyer-Sahling, Schuster, and Mikkelsen (2018), who conducted the only other comparable cross-national survey of bureaucrats. They find that civil servants who reported that they were hired through political connections were less motivated to work hard and serve the public or were less satisfied with their jobs. Other cross-national studies also find that merit-based recruitment is associated with lower levels of corruption (Rauch and Evans 2000).

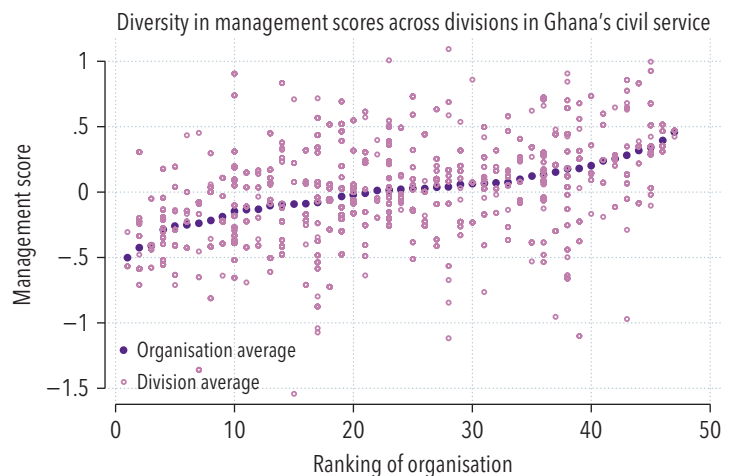
The quality of management

The quality of management varies considerably across public sector organizations within countries, underlining the need for a granular understanding of public administration. The WMS conceptualizes good management as regular monitoring and communication of organization goals and activities, efficient personnel and policy management, and the judicious use of incentives. In our surveys, the WMS is modified for relevance to public sector bureaucracies and asks respondents questions on goal setting and how these are communicated to staff; the extent of monitoring of the achievement of these goals; how managers distribute tasks across employees, involve staff in problem solving, and give staff the autonomy

to carry out their tasks; and the regularity and robustness of performance evaluations. In our surveyed countries, and following the practice of the WMS, these questions on management practices were aggregated into an overall “management quality” index. In Ethiopia, Ghana, and Nigeria, for example, the index varied considerably across departments, ministries, and local administrations. In Ghana, management quality not only varies across organizations but also the units within organizations (figure 3.3). This dispersion in management quality implies that the experience of being a civil servant, despite a common regulatory framework, is highly dependent on the organization that the individual is employed in and underlines the importance of local context on government capability.

Goal setting and monitoring are the strongest aspects of management across the countries surveyed. Setting goals and targets, and disaggregating them for units and individual staff members, can provide a sense of direction and purpose to employees. In terms of targeting,

Figure 3.3 The quality of management varies considerably across government organizations within countries



Source: Rasul, Rogger, and Williams 2017.

overall performance is “middling” on average, with cross-country scores of around 3 out of a maximum of 5. This score indicates that ministries and departments in bureaucracies assign targets to their organizations, which are then broken down to managerial and employee-level targets. These are generally well understood by mid-level staff, although they are not necessarily communicated in a clear and concise manner to lower level staff, which suggests it is not always clear how the targets contribute to their organization’s goals. Importantly, the tasks assigned to staff on a day-to-day basis are not always related to those targets. The average score for monitoring is similar to that of targeting in most countries surveyed, which indicates that organizations generally track a limited number of performance indicators somewhat regularly, which are seen and reviewed by senior management only. Although some of this data may be shared with relevant staff members, there is limited communication about performance and how it is monitored and reviewed. This suggests that although some monitoring is taking place at the directorate level, it is done inconsistently.

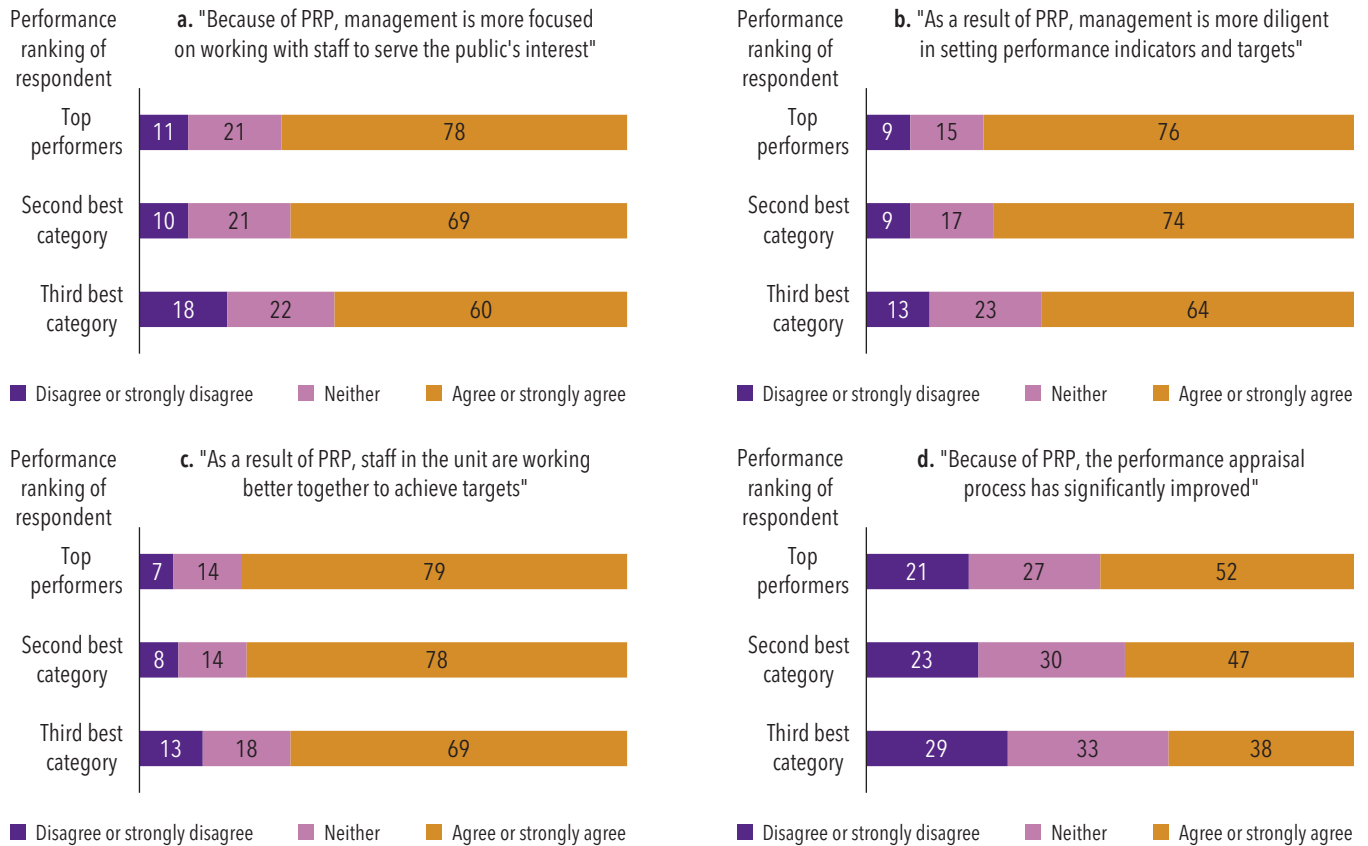
By contrast, performance evaluations, incentives, staff involvement, and flexibility are the weakest aspects of management. Perhaps unsurprisingly, given our findings on perceptions of meritocracy in the bureaucracy, average scores for performance monitoring and incentive systems are low, indicating that overall poor performance is addressed inconsistently and on an ad hoc basis. Performance may be evaluated through a formal system and rewarded (financially or nonfinancially), but there is no system or clear criteria for doing so. The average scores for staff involvement (the ability of staff to become involved in operations and

contribute toward decisions) and flexibility (the ability of staff to adjust to new demands and ways of working) are low across our sample of countries, which indicates that because there is no system for identifying and solving problems, staff are not involved in providing solutions or adjusting their tasks to meet these new requirements. Suggestions may be taken from staff, but these occur on a rare and ad hoc basis, and nonmanagerial staff do not actively contribute in staff meetings and rarely provide any kind of feedback. New ideas or practices are adopted, but in an informal or isolated manner. Generally, organizations are slow to integrate new practices into their operations.

How can managers be incentivized to take management seriously? Management requires effort and motivation on the part of managers. While performance pay schemes have significant limitations when applied to bureaucrats, as opposed to frontline staff, due to the problems of multitasking and measurement, they may have a role in incentivizing managers. Performance pay can potentially act as an indirect lever by providing incentives for improved management, resulting in improvements in the performance dialogue with staff: organizational goal setting, teamwork toward achieving organizational goals, and linking individual performance appraisals to those organizational goals (Marsden 2009).

Evidence from the survey in the Philippines suggests that performance incentives can improve management. Staff perceptions are depicted in figure 3.4 and reveal positive responses to questions that cut across individual performance rankings. Interviewees noted that the performance bonus scheme had motivated management to be more focused on target setting and monitoring

Figure 3.4 Philippines: perceptions of the effect of performance-related pay (PRP) on goal setting, monitoring of targets, teamwork, and performance appraisals (percent)



and in engaging staff in the process. Staff across the performance spectrum strongly believed that management was more focused on working with staff to serve the public's interest (between 60 percent and 78 percent agreeing or strongly agreeing) and more diligent in goal setting and in monitoring accomplishment against goals (between 64 percent and 76 percent agreeing or strongly agreeing). They were similarly clear in their views that teamwork in achieving departmental performance targets had improved due to performance-related pay (between 69 percent and 79 percent agreeing or strongly agreeing). Staff were also of the view, although less clearly, that performance pay had triggered improvements in the performance appraisal process (between 38 percent and 52 percent agreeing

or strongly agreeing). Taken together, the evidence suggests that performance pay had inculcated improvements in management that can over time help create a performance culture in the bureaucracy.

The politician-bureaucrat nexus is central to the functioning of the public sector labor market, particularly the selection and motivation of public employees. Senior bureaucrats need to be accountable to elected officials, but this responsiveness needs to be balanced with appropriate rules and protections for civil servants that regulate the pressure on bureaucrats from political actors. Informal interactions between politicians and civil servants may be a means for politicians to circumvent these protections. Our

surveys explored these informal engagements in various ways, such as the extent to which politicians had influenced the selection of projects or procurement decisions (Philippines); whether politicians had tried to influence hiring decisions or promotions (Ghana); or the proportion of projects in which there had been political interference (Nigeria). The relatively low levels of self-reported interactions of bureaucrats with politicians in Ghana and the Philippines are in stark contrast to the highly politicized bureaucracy of Nigeria, where 77 percent of staff reported that the recent projects they had worked on were subject to some degree of political interference (figure 3.5).

Digital technology and bureaucracy

Governments have invested heavily in digital technologies to automate core administrative tasks, improve the delivery of public services, and promote transparency and accountability. The Digital Adoption Index (DAI), developed by the World Bank for the *World Development*

Report 2016, is a measure of the strength of these information systems. The DAI has three components: digital identification systems as core platforms for interoperability; core administrative systems to automate and streamline government activities; and on-line services for businesses and citizens. The Index rises in value with country incomes, but there are numerous developing countries, such as India and Rwanda, that score much higher than their predicted values, pointing to the considerable investments made in digital technologies (figure 3.6).

There is increasing empirical evidence that digital technologies are improving the functioning of “street-level” bureaucrats. Digital identification programs, such as India’s Aadhaar, enable poor countries to leapfrog the decades-long processes that developed countries went through to build their traditional, paper-based civil registration systems. These programs are a platform for a variety of services, and have

Figure 3.5 Percentage of staff reporting that politicians had improperly tried to influence projects or personnel decisions

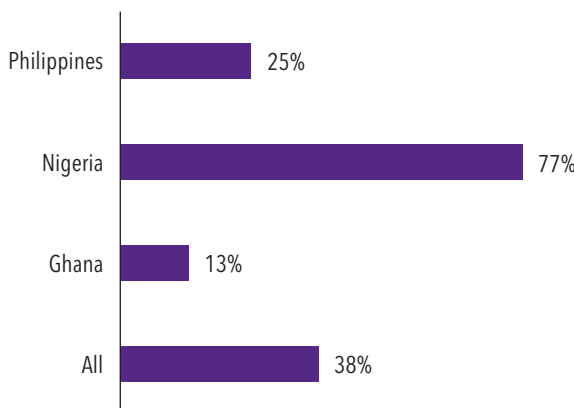
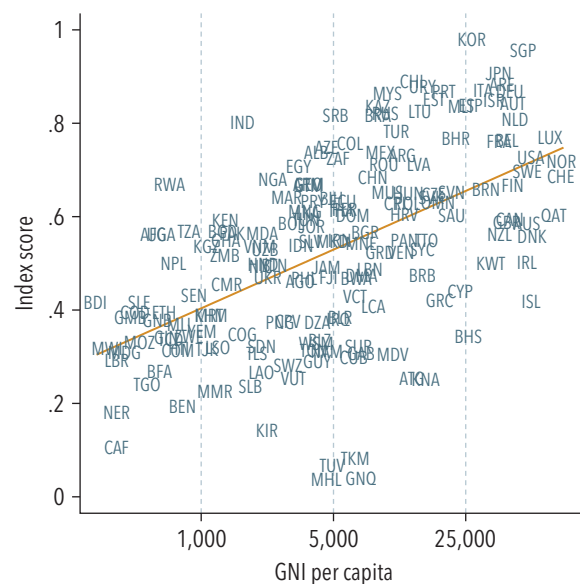


Figure 3.6 Developing countries have invested heavily in digital technologies



Source: DAI.

been shown, for example, to reduce leakages in government welfare programs (Muralidharan, Niehaus, and Sukhtankar 2014). Electronic filing of taxes has reduced the administrative burden to businesses and citizens by minimizing interactions with tax officials, reducing opportunities for rent seeking, and lowering the time it takes businesses to file tax returns, make payments, and receive refunds (Kochanova, Hasnain, and Larsen 2017). Citizen service centers and one-stop shops that provide citizen and business services—such as registration, licensing, records, and bill payments—in a single physical space or web portal are increasingly common in developing countries and have greatly reduced the time and hassle for citizens to receive services. And digitally enabled monitoring of service providers has reduced teacher and doctor absenteeism in India, Niger, Pakistan, and Uganda.⁷

The impact of information systems on core administration, however, is less clear. The empirical evidence is very limited, with one study showing that e-procurement systems improve the competitiveness of public procurement (Lewis-Faupel et al. 2016). However, many large digital technology projects fail, as evidenced by the low self-evaluated success ratings of the World Bank-funded digital technology projects. Only 35 percent of the 530 information technology projects funded by the Bank from 1995 to 2005 were rated as satisfactory or above, compared to 56 percent of all projects (World Bank 2016).

Digital technologies require “analog complements” to have impact. This was the main message of the *World Development Report 2016*, and it encapsulates the findings of numerous

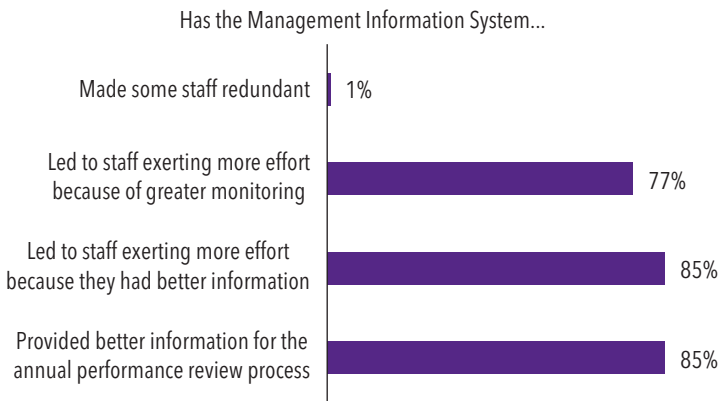
studies that complementary organizational and institutional changes are necessary to reap the benefits of IT, both by firms and governments (Brynjolfsson and Hitt 2000; Cirera and Maloney 2017; Garicano and Heaton 2010). Bureaucracies can have a disincentive to reorganize their work to take full advantage of digital technologies, as the concomitant efficiency improvements can lead to a reduction in the agency’s budget and staff. The opportunities offered by digital technologies for better collaboration and integration across government also bump into bureaucratic structures and budget and legislative processes that reinforce vertical stovepipes. There is little evidence, even in high-income countries, that digital technologies have fundamentally changed the way bureaucracies are managed (Fountain 2001).

Our surveys are also suggestive of this imbalance between heavy investments in IT, on the one hand, and the effective usage of these systems, on the other. In some countries there is a more basic constraint of lack of IT skills (as discussed earlier), irregular electricity, and inadequate funding for maintenance of IT systems. Local government officials in Ethiopia and Nigeria stated that they had Internet access on only 21 percent and 3 percent of days, respectively, and several local governments had no access at all. In Ethiopia, 79 percent of respondents mentioned that all professional staff have access to computers, but 47 percent of respondents disagree that maintenance and management of IT equipment was sufficient. At 5 of the 18 local governments surveyed in Nigeria, managers stated that they never had access to electricity, and half the organizations only had power for half the day on average.

Conditional on sound management and adequate skills, digital technologies are making a

⁷ See WDR 2016 for further examples.

Figure 3.7 Staff believe that IT has improved management and productivity in Pakistan SRB



difference in bureaucracies. A case in point is the Pakistan SRB, a meritocratic and well-managed organization, where the staff strongly agreed that the management information system has led to staff working harder, both because they have more access to information and because they are being more closely monitored. It has provided more information on staff performance that is used in the annual performance appraisal process. And it has not led to any staff redundancies (figure 3.7). These findings exemplify the complementarity between technology and management for productivity improvements.

WHAT ARE THE ATTITUDE AND BEHAVIORS OF BUREAUCRATS?

The attitudes and behaviors of bureaucrats—concerning job satisfaction, work motivation, public service motivation, and trust—are key for government capability and performance. These attitudes are especially important given that monitoring and incentives, the standard toolkit for motivating workers in the principal-agent framework, are less applicable in bureaucracies due to the nature of administrative jobs. Measurability of inputs, outputs, or outcomes is the necessary condition for performance incentives to be effective in the public sector, but these schemes are by nature largely confined to jobs in service delivery or revenue collection. For example, experimental studies have shown that financial incentives can improve the effort of tax collectors, school teachers, and health facility staff (Khan, Khwaja, and Olken 2014; Muralidharan and Sundararaman 2011; Basinga et al. 2010; Gertler and Vermeersch 2012). Most jobs in bureaucracies lack the measurable performance indicators necessary to condition such incentives, underlining the importance of selecting the right workers with high public service motivation and of norms and values based on professionalization (Dixit 2002; Perry and Wise 1990; Grant 2008; Wilson 1989).

Intrinsic motivation and prosocial motivation are particularly important determinants of bureaucrats' productivity. Intrinsic motivation is the desire to work hard for the enjoyment of the task itself rather than for the rewards, such as higher pay, promotion, or recognition. Public service, or prosocial, motivation is the desire to work and exert effort for the benefit of others and not for oneself. A large psychology and public administration literature shows that it is the combination of intrinsic and prosocial motivation that drives effort and work of public sector workers (Grant 2008; Perry and Hondeghem 2008), a finding

that is corroborated by more recent experimental studies that show that more prosocial doctors and nurses perform better in their jobs (Callen et al. 2015; Deserranno 2017).

Our surveys explore job satisfaction, work motivation, and public service motivation in a variety of ways and analyze how compensation and management practices are associated with motivation. These include general questions about job satisfaction, questions about overall motivation levels and how they have changed over time, and questions about why bureaucrats joined the public sector and the reasons why they continue to work there. We also explore the extent to which bureaucrats are satisfied with their wages, whether managers are effectively screening for candidates with prosocial motivation, and whether sound management is associated with higher motivation.

Job satisfaction

General satisfaction with jobs varies considerably across countries and across government organizations within countries. Fifty-three percent of Ghanaian civil servants are neutral or satisfied with their jobs, as compared to 85 percent of

Indonesian civil servants. Nigeria has the highest overall level of satisfaction in our surveys, with 89 percent of civil servants neutral or satisfied with their job overall. We do not see major differences in terms of gender or on a range of other demographics. However, there is substantial variation across government organizations. Figure 4.1 plots, for each organization in our samples, the proportion of civil servants in that organization that are neutral or satisfied with their job. These proportions are plotted against the percentile of average satisfaction at an organization within the country. Ghana is a relative outlier in the extent of variation its organizations exhibit in average satisfaction. The other surveys fluctuate between 60 percent and 100 percent of staff satisfied with their jobs overall.

Despite their relatively high overall compensation, bureaucrats are generally unsatisfied with their pay. On average, only 40 percent of the survey respondents in the seven countries were satisfied with their pay levels, despite a high public sector wage premium in each of these countries (figure 4.2). These wage satisfaction numbers range

Figure 4.1 Work satisfaction varies considerably across government organizations within countries



Figure 4.2 Bureaucrats are generally unsatisfied with their pay levels

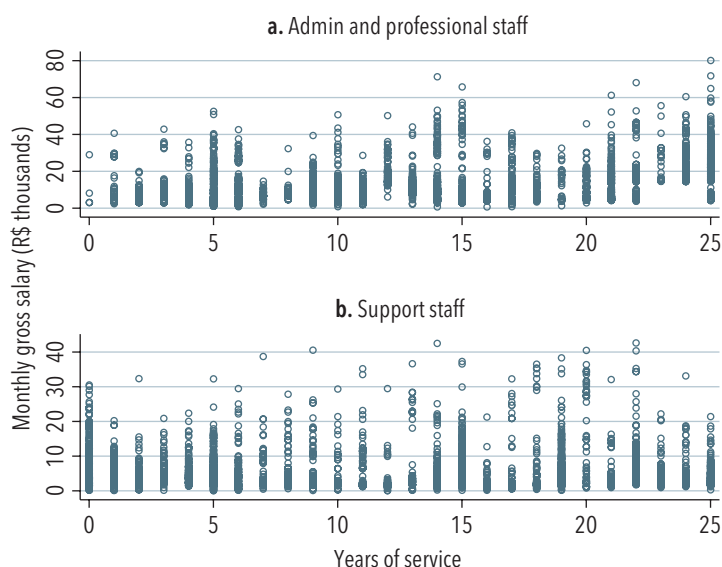


Note: Percentage of respondents reporting that they are satisfied with their pay.

from a low of 18 percent in Ghana to a high of 57 percent in the Philippines. Other surveys confirm these findings; a cross-national survey of 23,000 civil servants in 10 countries also found that only 37 percent of civil servants were satisfied with their salary (Meyer-Sahling, Schuster, and This incongruity between actual wages and perceptions of wages is puzzling and a concern, as it suggests that the high fiscal outlays on wages, a significant cost to taxpayers, may not be yielding a motivated public workforce. One reason for this dissatisfaction could be a result of bias, with bureaucrats benchmarking their pay against that offered by a small segment of high-paying private sector companies, often multinationals. Unfortunately, this bias is reinforced by standard “pay benchmarking” studies conducted by human resource consulting firms that usually restrict their sample to large, formal sector firms and often find a public sector wage penalty. These studies also usually do not consider total compensation, in-kind as well as monetary, or the considerable nonpecuniary benefits of public sector jobs.

Another reason for dissatisfaction with wages could be the considerable dispersion and inequity in pay in the public sector compared to similar workers in similar occupations. Studies have shown that relative wages can have a significant impact of job satisfaction and worker productivity (Card et al. 2012; Breza et al. 2018). Figure 4.3 presents data from Rio de Janeiro municipality of monthly gross wages of employees in two of the major occupational groups by years of service. Each point in the graphs represents the data of an individual employee and reveals that wages vary five- to tenfold for staff with similar experience in similar occupational groups. There is significant pay dispersion even within specific occupations, and even for the same occupation within organizations. A similar pattern is observed in several

Figure 4.3 There is considerable pay dispersion for similar workers in Rio de Janeiro municipality

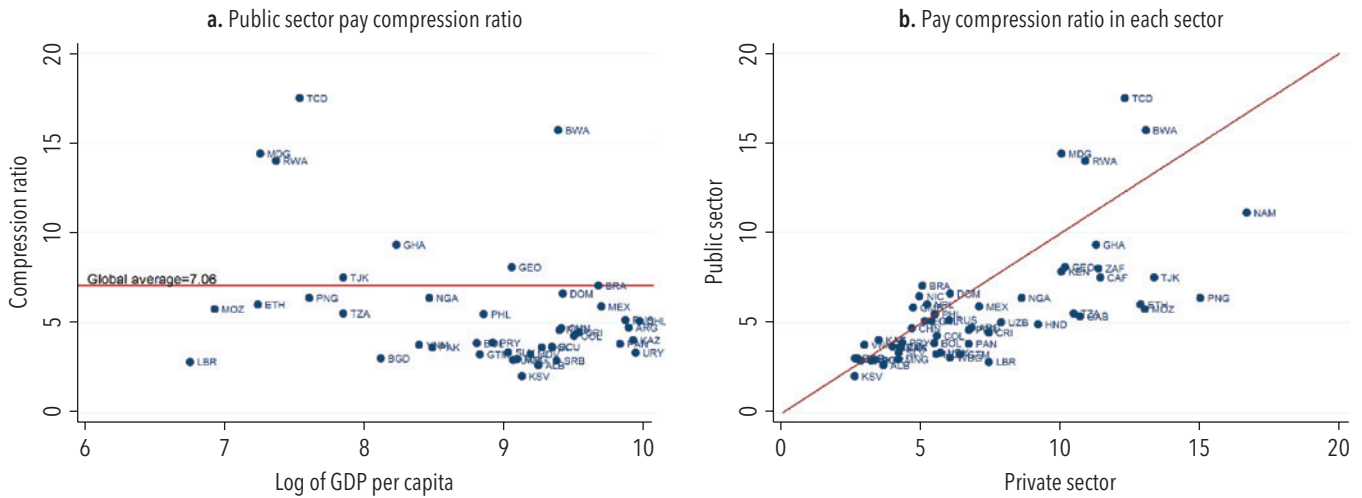


Source: Calculations based on micro payroll data.
Note: Each dot is data for an individual employee.

Brazilian states, and in Bosnia and Herzegovina, and is likely reflective of the complex regulatory regimes that govern individual compensation, which results in nontransparent and highly varied wages, depending on the unique employment history of an individual.

Yet another reason for pay dissatisfaction could be pay compression or relatively flat pay levels over the course of an employee’s career. While the I2D2 surveys are cross-sectional and cannot track individuals over time, examining the distribution of wages provides a rough measure of pay progression. A standard measure is the pay compression ratio, defined as the ratio of the 90th percentile wage to the 10th percentile wage. The public sector compression ratio averages approximately 7 across the 63 countries in the sample, with no correlation with country income levels (figure 4.4, panel a). This number, however, is driven by a few outliers, and in most countries the ratio is approximately 4. Pay

Figure 4.4 The public sector wage distribution is narrower than that in the private sector

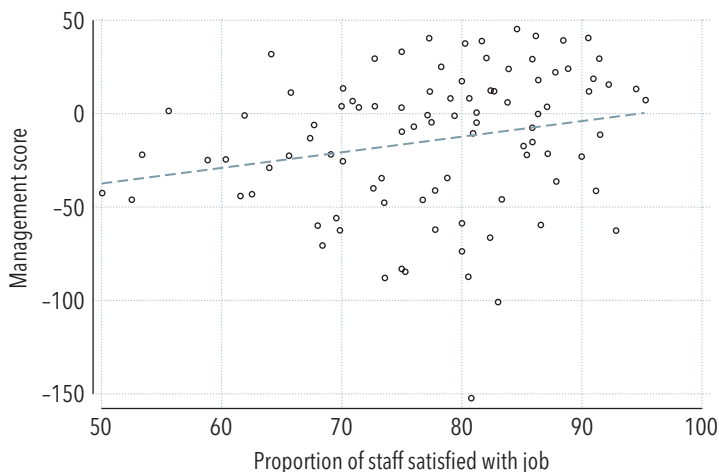


Source: Calculations based on the WWBI.
 Note: Pay compression ratio is the ratio of the 90th percentile wage to the 10th percentile wage. Data is for 63 countries.

compression in the public sector is lower than in the private sector in 45 of the 63 countries (figure 4.4, panel *b*). This suggests that even though the public sector pays a wage premium, public sector workers will be dissatisfied with their pay if they only compare their wages to the top of the distribution of private sector wages. Anecdotally, it does seem that bureaucrats are selective in their benchmarking.

Management practices matter for job satisfaction. In Nigeria, a standard deviation improvement in management related to staffing and flexibility is correlated with a 7 percent increase in the likelihood that bureaucrats state they are satisfied with their job. Figure 4.5 displays this relationship, with each point in the scatter graph an organization. It shows a positive sloping upward trend in the relationship between the quality of management (increasing on the y axis) and the proportion of public officials who state they are satisfied with their job. Interestingly, no such relationship exists between a management index related to monitoring and incentives and motivation. In Ethiopia, we find that better management practices improve satisfaction by a very similar magnitude to in Nigeria, and that giving staff substantive roles in the policy-making process is the dominant positive driver of this.

Figure 4.5 Work Satisfaction Is Corelated with the Quality of Management in Organizations in Nigeria



As an aside, we find little evidence in any of these countries that time in service substantially impacts on satisfaction and public service motivation, indicating that the incentive

environments are critical determinants of public sector motivation and satisfaction.

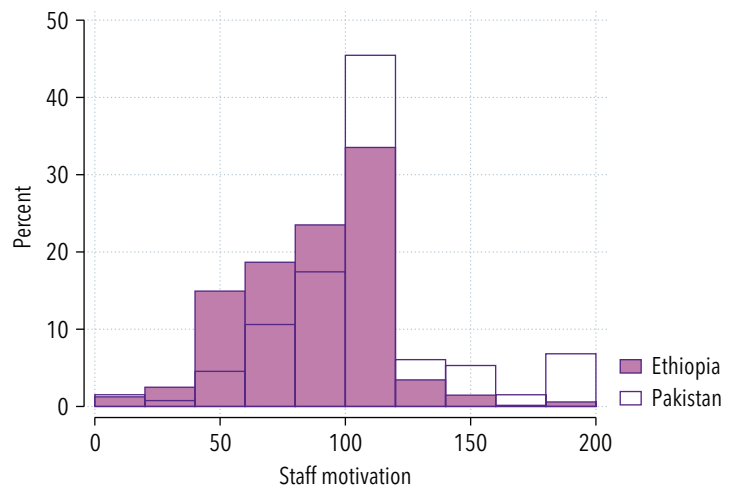
Work motivation

The extent of motivation among bureaucrats varies both cross-nationally also across organizations within countries. Our surveys measure employee motivation in several ways, ranging from general questions of respondents' satisfaction with their jobs, reasons for joining the public sector, and assessment of their current motivation levels compared to when they joined the public sector. The Ghana, Indonesia, and Pakistan, surveys ask about the experience of working in the public sector relative to the private sector and find substantial cross-national differences, with 53 percent of Ghanaian civil servants neutral or satisfied with their jobs relative to the private sector, as compared to 85 percent of Indonesian civil servants who are satisfied. Within Ghana, satisfaction levels vary considerably across organizations, with between 60 percent and 100 percent of staff satisfied with their jobs overall.

Civil servants' motivation levels also decrease over time. One of the questions in our surveys asks respondents to imagine that when they entered the service their motivation was 100 percent; they are then asked what their motivation is now relative to then. In Ethiopia, 61 percent of bureaucrats feel less motivated now than when they first entered the service, 31 percent feel just as motivated, and 8 percent feel more motivated (figure 4.6). In Pakistan (SRB) the decline in motivation is smaller.

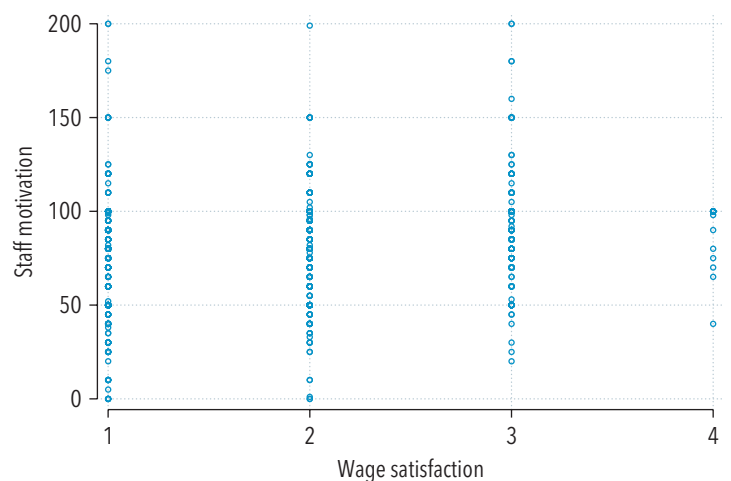
Compensation is weakly associated with motivation. Across the countries, the correlation between the level of self-reported wage satisfaction and

■ **Figure 4.6** Motivation decreases over time



self-reported satisfaction with their public sector career is surprisingly low. Figure 4.7 shows the data from Ethiopia, where bureaucrats who report higher levels of wage satisfaction are no more likely to report higher levels of motivation. These correlations are also low in Ghana (0.20), Indonesia (0.18), Nigeria (0.24), and Pakistan (0.05). These data suggest that while pay may be a component of the motivation of public officials, other factors are likely

■ **Figure 4.7** Satisfaction with wages has no association with staff motivation



Note: Each data point represents a survey respondent score on wage satisfaction (from 1 to 4, with 4 the most satisfied) and motivation (from 0 to 200).

more important. This finding is consistent with the literature and supports the view that bureaucrats are largely motivated by the non-monetary rewards of working within the service (Perry and Hondegheim 2008).

Part of the reason for low motivation may be the low career mobility across government organizations. A typical civil servant spends 16 years in the same organization in Nigeria, and 10 years in Ethiopia. In Indonesia, the average bureaucrat spends 95 percent of his or her time in the service at the organization at which they are surveyed. In Nigeria, only a quarter of officials surveyed were satisfied with the number of transfers they have had, and almost half wished to be transferred more. The reasons why there is such little horizontal mobility in bureaucracies needs to be better understood, but such long tenures within an organization underline the importance of management to keep staff motivated. They also point to the need to institutionalize whole-of-government management cadres, such as the Senior Executive Service in Chile, Korea, and some other countries of the Organization for Economic Co-operation and Development, which are open to all staff through a competitive process and can be an aspiration for all bureaucrats.

The lack of career mobility is a particularly motivation-dampening factor in specialized, “islands of excellence” organizations. The Pakistan SRB is a case in point. It is a small, semi-autonomous revenue authority that pays higher wages than the rest of the civil service and has strong meritocratic and competitive processes in place for recruitment and promotion, as evident from the survey responses. Ninety-five percent of SRB staff were satisfied with their wages, and 64 percent were satisfied with their benefits. Eighty-four percent of

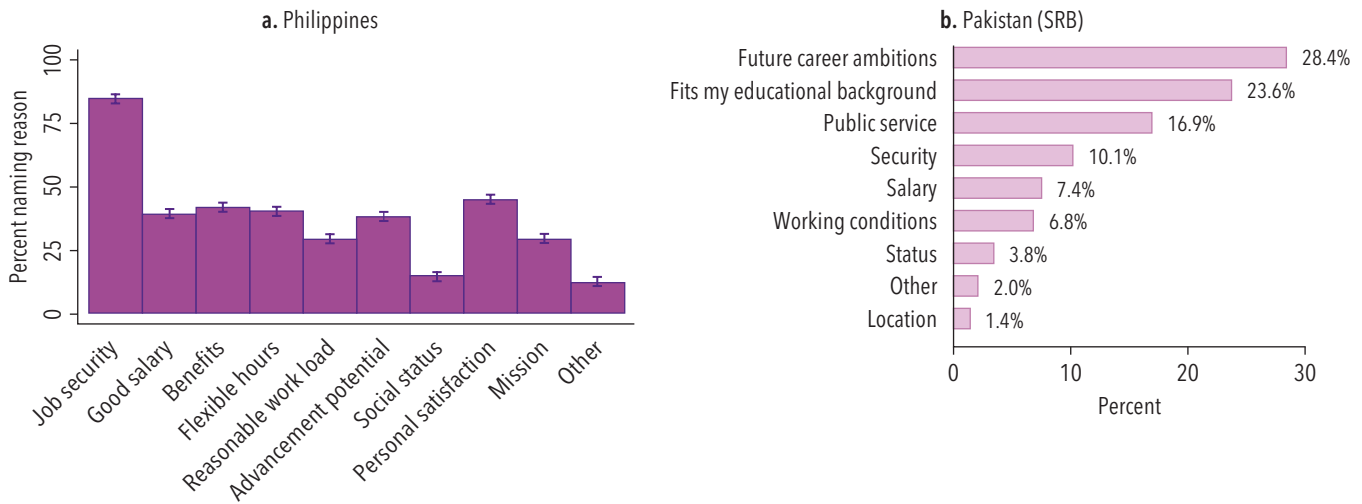
respondents consider merit to be the single most important criteria for promotion, and 81 percent are confident they will receive a promotion if they perform well. However, 21 percent of respondents would like to change jobs in the next two years, the top reason being limited promotion opportunities where they currently work. This view reflects the structural constraints of the SRB, as there is no clear career trajectory for staff to transition into the broader civil service once they reach the upper levels of the organization.

There is no clear relationship between aggregate management quality and work motivation. Intuitively, we would expect to find a positive relationship between the two. However, our survey results are unclear. One reason for this weak association is that the quality of management is assessed using only managers’ responses, and the level of motivation is measured for non-managerial staff only. Therefore there could be significant differences in experience not captured by these two variables. Another reason is that there may be other factors, such as a lack of resources or general dissatisfaction with wages, that could be affecting motivation regardless of the quality of management in their organizations. And finally, and perhaps most important, aggregating management practices into a single index underestimates the complementarities between the different dimensions of management and the need to have all of them in place to impact motivation.

Public service motivation

Public service motivation can be defined as the desire to serve the public interest and is empirically measured using the Perry scale. The norms of serving the public and of practicing

Figure 4.8 Career ambitions and job security are prominent self-reported reasons for joining the public sector



self-sacrifice are integral to the ethic of bureaucracy, a conception that goes back to the work of the classical scholars of bureaucracy.⁸ Survey-based measures of public service motivation generally follow the approach of Perry (1996), with questions along four dimensions: (i) attraction to public policy making, (ii) commitment to civic duty and the public interest, (iii) compassion, and (iv) self-sacrifice. Our surveys simplify the Perry measure and focus on bureaucrats' reasons for joining the public sector and their desire to serve the public relative to concerns for personal career growth.

Civil servants join the public sector for both material and intrinsic reasons. The ideal of the Weberian bureaucrat who joins the public service to serve his or her country is only partially met in our surveyed countries. Bureaucrats in the Philippines and Pakistan (SRB) listed job security (79 percent) and future career ambitions (28 percent) as the two main reasons for joining the government, respectively, ahead

of public service and mission (figure 4.8). In Nigeria, "The chance to serve Nigeria" was the most popular choice (37 percent), followed by "I was interested in the type of work" (29 percent). These responses contrast with some studies that find that more intrinsically motivated citizens enter the public sector, but they are not surprising given that the high total compensation and considerable nonpecuniary rewards of public sector employment are likely to incentivize more materially oriented individuals to seek public employment (Banuri and Keefer 2016). This finding also underlines the importance of recruitment strategies to influence the type of individuals who apply for government posts.⁹

Better management is associated with greater public service motivation. In Ghana, the management practices related to greater staff involvement in decision making increases bureaucrats' score on the Perry public service motivation

⁸ See Perry (1996) for a discussion.

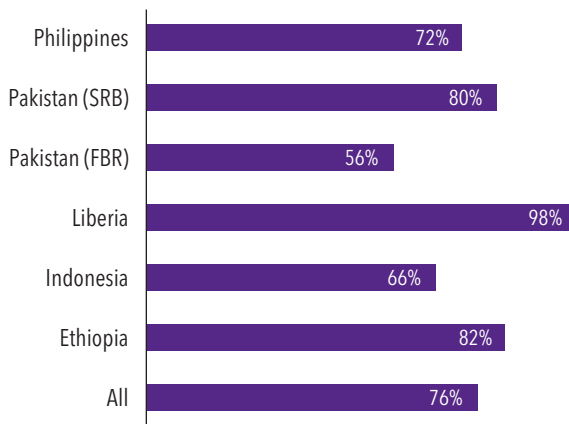
⁹ See Dal Bo, Finan, and Rossie (2013) and Ashraf et al. (2014) for the importance of emphasizing public service in job advertisements to encourage more intrinsically motivated individuals to apply

scale, in particular the score on the compassion and public interest subindices.

Trust

Bureaucrats are generally trusting of their immediate colleagues but less so of those in other organizations in the government. Given the importance of teamwork, the extent of regular interactions and trust among bureaucrats is likely to be important for motivation and capability. Overall, the data suggest high levels of trust, with on average 76 percent of staff across the five countries agreeing or strongly agreeing with the question, “How much would you say people can be trusted?” (figure 4.9). In Indonesia, even the organization with the lowest levels of trust had 40 percent of officials stating that they trust their colleagues. These trust levels are strikingly high when compared to levels of trust reported in the country in the World Values Survey (2010-2014 round). For example,

Figure 4.9 Percentage of staff reporting that they trust their colleagues



Note: Pakistan (FBR) is the Federal Bureau of Revenue

in that survey in Pakistan and the Philippines, only 22 percent and a mere 3 percent of respondents, respectively, agreed that most people who they knew personally, or who were in their neighborhood, could be trusted. Bureaucrats report higher levels of trust for employees in their own teams or units than employees in other organizations in government. In Pakistan SRB, for example, staff trust the general citizenry more than bureaucrats from other ministries, which is surprising and suggestive of limited cross-agency interaction.

The determinants of trust within organizations are not clear. In Ghana we find a negative impact of management quality on levels of trust. Increasing the quality of management under which an official works significantly reduces the likelihood that they will state that their ministers trust them. We find similar results in Nigeria, where we asked, “To what extent would you say employees of your organization trust each other?” The likelihood that respondents stated that “All employees trust each other to undertake the commitments they make” is negatively correlated with management practices that improve productivity and satisfaction. A standard deviation improvement in management related to staffing and flexibility is correlated with a 37 percent decrease in the likelihood that officials state they trust one another. Giving civil servants autonomy to work in the way that best suits them may damage the cohesion of the organization. This is in contrast to the fact that in many settings officials state that they trust each other more than their family or the general public. The tight rules of the public service may bind officials together but distort other aspects of their work.

HOW PRODUCTIVE ARE BUREAUCRATS?

The need for a better understanding of bureaucracy is fundamentally about the need to increase the productivity of government, but measuring productivity is difficult. The preceding pages have explored the various elements of the government production function that we expect to impact productivity, but ultimately, we would like to measure productivity directly and explore more explicitly the links between these elements and productivity. Productivity is defined in economics as the ratio of outputs to inputs, with total factor productivity, or the ratio of output to all factors of production, being a key determinant of long-run economic growth. Measuring the outputs of the public administration, however, is complicated. Beyond the problem of defining these outputs, no market prices exist for many of its products (such as regulations); these products frequently have broad externalities (such as the public health benefits of immunization); or they have contingency value (such as planning for disasters); and they rely on a system of government units for their creation, making attribution of benefits or production complicated. There has been little effort to confront these challenges, although recently a series of studies has argued for proxying public sector outputs by a function of their administrative costs.¹⁰ This provides an improvement over existing approaches, but it does not confront the concerns just mentioned nor decompose productivity into its constituent parts.

Budget execution or audit data can provide a proxy measure for the quantity and quality of outputs. While expenditures do not imply social benefit, the short-run rate of financial disbursement can be an indicator of the long-run health of a project. In Bangladesh, we found

¹⁰ For work in this direction, see, among others, Atkinson (2005), Dunleavy and Carrera (2014), and Gemmill et al (2017).

that disbursements halfway through implementation were significantly higher for projects that would eventually be completed to a satisfactory quality compared with those that would never be completed. In Nigeria, audits of infrastructure projects by independent (non-government) engineers in teams with civil society organizations showed that many organizations never produce anything at all, while other public agencies complete all their projects to a satisfactory quality (figure 5.1).

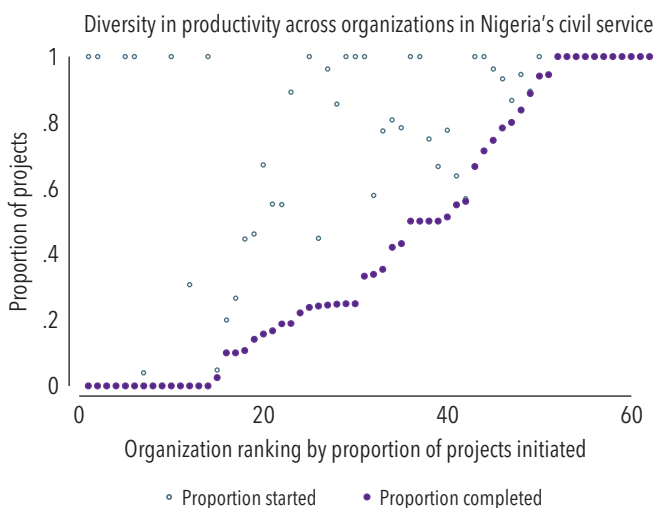
Moving beyond infrastructure, activity audits examining the completion rates of tasks that organizations committed to in their performance agreements with the central government are another potentially valuable approach to measuring productivity. In Ghana, independent auditors assessed the completion rates and quality of these tasks and found considerable variation across organizations, with some agencies completing almost everything they commit to and

others completing literally nothing (figure 5.2). These organizational averages mask substantial division-level variation. Walking across the corridor in a Ghanaian ministry may mean passage through a transformation in productivity.

The speed and quality of responsiveness to intra-governmental requests can be another measure of productivity. In Ghana, we measured how long it took line agencies to respond to requests from the center of government, with the quality of these responses assessed by civil servants, retired or still active, in terms of their adherence to both government guidelines as well as broader benchmarks of quality. We find that roughly a quarter of agencies never respond, and a third do so late, some many weeks after deadlines. This approach enables us to identify those organizations that are a bottleneck to the wider productivity of the public service.

Measuring productivity and its organizational determinants is an agenda for future work on

Figure 5.1 The quality of infrastructure delivery varies considerably across government organizations in Nigeria



Source: Rasul and Rogger 2017; Rasul, Rogger and Williams 2017.

Figure 5.2 The quality of task completion varies considerably across government organizations in Ghana



bureaucracy. Combining detailed measures of the characteristics of public organizations with productivity data can provide quantitative estimates of the benefits of civil service reforms. And the potential impact of these reforms is enormous, given, as studies have shown, that small improvements in quality can lead to substantial

improvements in public service (Best, Hjort, and Szakonyi 2017; Rasul, Rogger, and Williams, 2017). Analysis of the Ghanaian management and productivity data, for example, implies that a single standard deviation increase in the quality of public management would increase GDP by 8 percentage points.

CONCLUSION

This report is centered around a set of core questions on bureaucracy and its effects on government capability. What are the main features of the public sector labor market in terms of employment and compensation? What are bureaucrats' attitudes toward their jobs and their behaviors with each other and the public? How well are they managed? Are they using digital technologies to innovate? And finally, how can we measure whether they are productive? The report used original, microlevel data in attempting to answer these questions, with often surprising findings, which open up potentially fruitful avenues for future research.

We find that the public sector labor market is distinctive in both the characteristics of public employees and in the levels and structure of compensation. Bureaucrats are older, have higher academic qualifications, and are more likely to be women than private sector wage employees. These are the observable and measurable differences between workers in the two sectors. Public sector workers are also likely to be different on unobservable dimensions, particularly in their motivation for employment, in part because of the different compensation package offered by the public sector. The public sector pays a wage premium, particularly for lower skilled occupations, provides a higher proportion of compensation in the form of pecuniary and nonpecuniary benefits, and is fairer to women. These distinctive features of public sector compensation likely impact the types of individuals who seek public employment, and their motivation and commitment to serve the public. Our survey findings suggest that public sector workers are both intrinsically and extrinsically motivated, but it is still likely that the distribution of workers on this motivation dimension is different from that in the private sector.

Our finding that the public sector pays a wage premium is tentative, because it does not effectively account for these differences in types of individuals who select to enter the public sector. As shown, the scale of the premium depends on the choice of the private sector comparator, but this is an incomplete finding. The cross-sectional wage regressions that are used to calculate the premiums control for only the observable worker and job characteristics and, therefore, cannot account for the differentially motivated workers between the two sectors (Disney 2017). One method to control for these selection effects is to use panel data and focus on the individuals who move between the public and private sector and estimate the differences in their compensation levels. Since we would see the same individual in both sectors, we can control for both the observable and unobservable characteristics in estimating the wage differentials. This analysis is planned for Brazil.

The public sector can have significant distortionary effects on the broader labor market, given its large size and generous compensation. These include skewing individual employment preferences toward the public sector and away from the formal private sector; raising reservation wages for private sector jobs and contributing to voluntary unemployment; and possibly even impacting individuals' education choices away from science, technology, engineering, and mathematics fields, given that many public sector jobs seek more generalist skills. This effect of the public sector on the broader labor market and competitiveness of the economy is an area of future research, one is planned for Bosnia and Herzegovina through an innovative labor force survey.

There is gender inequality in pay and employment, although the gender wage gap is lower in the public sector. Women's average wages

are 85 percent of male wages in the public sector, as compared to 79 percent of male wages in the private sector, and this pay gap has declined over time. Women are underrepresented in higher-paying managerial occupations, and overrepresented in lower-paying clerical ones, and this occupation segregation is the main driver of wage inequality and persists across country income levels. The reasons for employment segregation in the public sector are not well understood and are an area requiring further research.

The relatively high and more gender-equal public sector wages are helping select qualified candidates but are not sufficiently motivating bureaucrats after they have joined the service. There are two aspects to this weak association between wages and motivation, which suggests relatively low public sector productivity. First, bureaucrats are dissatisfied with their pay even though they generally receive a compensation premium. The reasons for this low wage satisfaction could be the considerable wage dispersion and pay inequity in public sector, and the fact that bureaucrats may be benchmarking their pay against their peers rather than with workers in the private sector. It may also reflect the relatively flat pay progression given limited promotion opportunities in the public sector. Second, even bureaucrats who are satisfied with their wages do not have higher levels of motivation. This finding contributes to the debate in the academic literature on whether pay can incentivize performance and suggests that the existing civil service compensation schemes—pay that is largely determined by seniority and only weakly tied to performance—are not motivating staff. Whether alternative wage policies can motivate bureaucrats is a potentially rich avenue for further research.

Management practices influence the attitudes and behaviors of bureaucrats and their productivity. While some reasons for bureaucrats' declining motivation levels are structural, such as the limited opportunities for upward mobility in government careers, others are likely due to poor management. While merit is, surprisingly, the main criteria for recruitment across our sample of countries, it is less of a factor in job allocation. Day-to-day management is more likely to impact staff attitudes than infrequent life-cycle events like recruitment, job allocation, and promotion, and the quality of these management practices, as measured by the World Management Survey, vary considerably across organizations. Managers are failing to regularly involve their staffs in setting and monitoring goals for their organization and in problem solving. Narrowing down which management practices particularly impact bureaucrats' attitudes and behaviors, and how to incentivize managers to take management more seriously, are also areas requiring more research.

The intersection between management practices and digital technologies has only been lightly addressed in this report and in our datasets. While lack of information technology (IT) skills and infrastructure constraints are limiting the effective usage of digital technologies in low-income countries, we have not explored in detail how management and staff are using IT,

how it is changing organizational practices, and what impact it is having on bureaucrats' attitudes and behaviors. One obvious area where digital technologies can have big impact is on public employment and pay practices, given that many developing countries have invested in integrated human resource and payroll systems. These systems provide a rich source of data, yet they are underutilized as an analytical tool, even in relatively advanced countries like Brazil. A potentially valuable area for future World Bank technical assistance is helping countries use these systems to prepare regular reports that help improve wage bill management and public employment policy.

Finally, this report has suggested some new approaches to measuring the productivity of bureaucracy, but much more work is needed in specifying the mechanisms through which bureaucrats interact with frontline agencies to deliver outputs to citizens. Task completion is a useful proxy for productivity in administration, but is not very meaningful for citizens. The personnel and management linkages between the upstream bureaucracy and the downstream citizen-facing agencies—how the daily work of bureaucrats impacts the attitudes, behaviors, and productivity of teachers, doctors, and engineers—is an area that is underexplored and should be a priority for future research.

THE DATASETS USED IN THE REPORT

Worldwide Bureaucracy Indicators

A better understanding of public bureaucracies requires, at a minimum, country-level, comparable, cross-national data on the personnel dimension of the state. Existing measures are almost exclusively based on expert perceptions, which have several limitations, such as measurement inconsistencies across countries and over time. To fill this gap, the Governance GP in collaboration with the Poverty GP and the DEC Data Group created a new dataset—the Worldwide Bureaucracy Indicators (WWBI)—on public sector employment and wages, and public-private wage and employment comparisons. This dataset draws on the following primary sources:

- The International Income Distribution Database (I2D2), a module of the Global Monitoring Database: The I2D2 harmonizes nationally representative household surveys—both welfare and labor force surveys—from around the world, presenting data using the same variables and coding in each country and survey.
- The Luxembourg Income Study: This source similarly harmonizes household surveys from several, mostly high-income countries.
- The International Comparisons Program (ICP) wage survey: The ICP is a global statistical partnership that calculates purchasing-power-parity prices based on detailed comparative price data, including government wages for a standard set of occupations.

The WWBI also capture some data from secondary sources, namely the International Labor Organization's (ILO's) employment database (ILOSTAT), and a new dataset on the wage bill produced by the International Monetary Fund.

The country coverage and time series in the dataset varies by indicator. The bulk of the dataset is based on the I2D2 and covers 90 countries and the period 2000 to 2016. The variables in the WWBI include the public sector wage bill; public and private sector shares in total, wage, and formal sector employment; demographic characteristics of public and private sector workers; relative wages within government across a standardized set of occupations; the benefits given to public and private sector workers; public-private wage differentials (controlling for various worker characteristics); gender wage differentials in the public and private sectors; and wage distributions of public sector workers.

Surveys of bureaucrats

Information on human resource management practices, the attitudes and experiences of bureaucrats, and the key restraints to bureaucrats performing their duties to the best of

their abilities draw on surveys of approximately 20,000 civil servants in seven countries: Ethiopia, Ghana, Indonesia, Liberia, Nigeria, Pakistan, and the Philippines. The surveys aim to contribute to the development of diagnostic tools that will allow us to better understand the incentive environments that lead to different types of behavior and the determinants of service delivery in the civil service. What distinguishes civil servant surveys from other types of surveys is not only their scale and scope but the clear shift from form to function. Much of the previous work in civil service reform defaulted to optimal “forms” for the civil service motivated by theory. Through the creation of improved survey modules, the survey builds a foundation for the systematic collection of data directly from individuals with first-hand experience. Some basic meta data on these surveys is provided in table A.1. All the surveys entailed face-to-face interviews with a representative sample of civil servants, with very high response rates. ***

■ ■ **Table A.1** The list of World Bank surveys of bureaucrats

Country	Survey name	Year fielded	Unit of analysis	Unit of observation	Selected sample	Response rate	Sampling method
Ethiopia	Ethiopia Civil Servants Survey	2016	Organizations and officials	Individual officials and organizations	2197	99.4%	Random sampling across 3 tiers of government
Indonesia	Public Employee Survey of Bureaucracy Reform	2012	Organizations and officials	Individual officials	4000	95.0%	Random sampling
Liberia	Liberia Civil Servants Survey	2016	Central government ministries	Individual officials and organizations			Census of Monrovia-based officials
Pakistan (SRB)	Pakistan Survey of Tax Officials	2017/18	Departments of SRB	Individual officials and organizations	148	100.0%	Census of SRB officials based in Karachi
Philippines	Philippines Public Sector Survey	2013	Government departments	Individual officials	2573	100.0%	Stratified sampling
Nigeria	Nigeria Civil Servants Survey	2010	Federal, state and local civil service organisations and officials	Individual officials and organizations	5432	99.8%	Stratified sampling
Ghana	Ghana Civil Servants Survey	2015	Central civil service organizations and officials	Individual officials and organizations	3111	96.0%	Census

To obtain reliable information on public sector organizations, it is important to recognize that protocol and language use in civil services are country specific. The questionnaires are therefore created in consultation with members of partner government organizations. Pilot interviews are conducted to ensure question viability, as well as to ensure that question wording and phrasing has remained relevant and suitable to the context of each country surveyed.

To ensure that the questions remain relevant to each broad level of staff within the civil services

surveyed, questionnaires are split into three tracks: an employee-level track, a director-level track, and a head-of-organization (political appointee) track. While some modules are covered in all three tracks, others were designed to be administered to specific tracks only, and not to all sampled individuals. Some questions and sections are also split into sector-specific tracks.

Table A.2 presents a comprehensive list of all modules used in the survey questionnaires in Ghana, Indonesia, Ethiopia, Liberia, Nigeria, Pakistan, and the Philippines.

■ ■ **Table A.2** Modules used in the surveys

Module	Description
Demographics and work history	Includes the basic characteristics of the official to allow us to separate the experience of the service by different groups as well as investigate the career trajectory of the individual civil servant, and thus determine what the context of their experience of the service has been to date
Management practices	Investigates the nature of basic management practices in performance management, targeting, talent management, monitoring, autonomy, and incentives
Turnover	Investigates the structure and nature of turnover in the organization from a management perspective
Recruitment and selection	Aims to identify the criteria on which recruitment into the service/ organization is based
Attitude and motivation	Explores officers' attitude to different aspects of their job and their organization to get a sense of officers' motivation and the sources from which they derive it—includes questions aimed at identifying perceptions on career expectations, culture, and mission alignment
Time use	Explores how the official uses his/her time during a typical work day or week by incorporating experimental methods for the measurement of time use in order to help build the knowledge base of how best to measure this aspect of civil servant life
Bottlenecks	Investigates the challenges encountered by officials in undertaking daily tasks, as well as the barriers to policy implementation and obstacles in the delivery of service delivery
Stakeholder engagement	Explores who officials interact with in their day-to-day work with the aim of understanding their current relationships in the service, and how this affects their experience
Information	Aims to explicitly assess the level of information that officials have about the demographic conditions of their jurisdiction and the state of services in their respective sectors
Information technology	Investigates information systems in the organization, the type of information available, and how accessible it is
Reforms	Aims to give us a sense of how individual officials feel about government reforms, and how these have impacted operations on the ground in each of the organizations
Corruption/Ethics	Explores civil servants' attitudes toward, and perceptions of, different forms of corruption in their organization through two methods: direct elicitation and vignettes
Benchmarking	Assesses the extent to which woreda (district) operations benchmark against indicators measuring institutional quality (Ethiopia)

(continues on page 44)

■ ■ **Table A.2** Modules used in the surveys (*Continued*)

Module	Description
Public service motivation and locus of control	Uses the Perry (1996) public service motivation scale and Levenson's Internality, Powerful Others, and Chance (IPC) scale (1981) to measure motivation and behavioral characteristics of civil servants through two self-administered questionnaires
Capacity	Experimental module testing the basic skills of civil servants in fields relevant to their work
Service delivery	Explores civil servants' attitudes to different approaches to service delivery, and attempts to gauge their perceptions on prioritization, ethics, and engaging with the public
Ease of doing business	Investigates processes that take place at the divisional and organizational levels with a focus on time frame, monitoring, and barriers to implementation
Internal labor market of the public sector	Assesses the staffing needs and labor gaps of the organization, with a focus on planning, prioritization of resources, and labor matching. The module is broken down into three subsections: (i) labor demands by managers, (ii) labor supply by employees, and (iii) labor-matching.
Skills and knowledge assessment	Assesses officials' knowledge of basic technical skills and basic laws and regulations relevant to their sector

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