

Making National Statistical Offices Work Better

Evidence from a Survey of 13,300 National Statistical Office (NSO) Employees in 14 Latin American and Caribbean Countries



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The project's website, <https://www.iadb.org/NSOsurvey>, contains a wealth of resources for NSOs wishing to implement the survey, including the survey questionnaire in English and Spanish, sample country diagnostics from the survey application, and materials to encourage NSO employees to respond to the survey. A part of the instrument used in this survey—namely those questions not focused specifically on NSOs—is taken from the [Global Survey of Public Servants](#), an international initiative to help governments manage public servants better through better survey diagnostics. The Global Survey of Public Servants was co-founded by three of the authors of this report, as well as colleagues at the Stanford University Governance Project and the World Bank. We gratefully acknowledge permission to draw on part of the survey. For further information about the Global Survey questionnaire, please see <https://www.globalsurveyofpublicservants.org/howtorunthesurvey>.

The views and opinions expressed in this report are those of the authors, and do not necessarily reflect the views or opinions of the Inter-American Development Bank, University College London, Nottingham University, or Roskilde University.



Foreword

National statistical offices (NSOs) are a fundamental part of the institutional apparatus of the state and play an essential role in the production of data that are employed for a myriad of uses in the public, private, and academic spheres. In addition to the essential work of conducting the population census, NSOs provide us with vital data for tracking consumer prices, negotiating salaries, estimating building costs, and closing gender gaps, among countless other applications. Given the profound transformations facing the region—from declining fertility and surging immigration to food inflation and the rise in chronic diseases—accurate and up-to-date statistics are more vital than ever.

During my tenure as the head of Brazil's Instituto Brasileiro de Geografia e Estatística (IBGE), I was often inspired by the powerful sense of mission that was evident among its professional staff. The culture of the organization combined deep knowledge of statistical principles and methodologies with a genuine passion for dissemination and service to society. One could feel that culture vibrate through every layer of this 12,000-person organization with 600 offices spread across Brazil.

Over the course of my time at IBGE I was also struck by the primacy of technical over managerial considerations. As one would expect for a technical organization, senior staff were continually discussing questions such as how to improve survey methods, what technology could improve data collection, or which indicators could better adhere to international best practice. But there was hardly any discussion of the essential management strategies and practices that would ensure that these technical issues were addressed in ways that enhanced the institution's long-term capability and success.

I think this incongruity is typical in NSOs throughout Latin American and the Caribbean, and it is one reason why this report is so timely and relevant for the modernization agenda of NSOs across the region. The report presents the results of a survey of more than 13,000 people with different roles in 14 NSOs in Latin America and the Caribbean, and it offers new insights into the persistent gap between technical and management capabilities at NSOs.

The survey findings are rich and thought provoking. I would like to highlight three findings that resonate with my experience in the public sector in Latin America and that could also form the basis for a reform agenda for NSOs in the coming years. I also believe these three findings can provide a conceptual framework for discussing some of the other lessons in the study.

First, I was struck by the finding that despite the uniformity of tasks performed at NSOs, management practices vary. Statistical offices have a clear and tangible mission to produce quality data and information for society. The mission is one and the same across the entire organization and, as I mentioned earlier, it is well understood and internalized by professionals. Yet, despite this clarity, there is enormous variance in the way things are done. Indeed, practices vary not only across different NSOs but also within NSOs, and even within different departments.

This presents a promising opportunity to study which practices are working and why. Practical insights into these questions could then be systematized and shared as best practices across the region's NSOs. A more fluid exchange of knowledge about management could lead to better outcomes, more openness to experimentation, and more collaboration in different areas.

Second, the survey shows that merit-based policies and incentives are not as widespread as one would expect given the highly technical and institutional nature of NSOs. This pattern is prevalent across all human resource cycles, from recruitment strategies and career progression to transitions and evaluations. For instance, nearly a third of respondents indicate that they obtained their first NSO job at least partly thanks to support from friends, family, or politicians.

The survey indicates that while officials think that they have good career development opportunities, they also recognize that career progression is not always based on merit. Job stability is also affected during transitions between government administrations, with nearly 40 percent of respondents indicating that transitions can affect their job stability. Similarly, only 40 percent of participating officials believe that evaluations matter in determining their compensation, and just 48 percent believe evaluations affect their career advancement.

Ultimately, while some merit-based practices exist, they are not seen to have “teeth” when it comes to the actual progression of professionals within NSOs. Why do we see this difference between the de jure and de facto practices? What strategies could lead to a convergence in expectations and prompt NSOs to embrace merit-based incentives more fully?

Third, I was surprised by the finding that many statistics officials struggle with basic statistical competencies. Indeed, half of the surveyed NSO officials who routinely perform statistical tasks answered at least half of the statistics questions incorrectly. This indicates that ensuring basic levels of capability remains a challenge for the region's NSOs, as it does for the public sector in general.

The survey also shows that NSO employees feel that they receive insufficient training to complete their work tasks effectively. This finding prompts multiple questions. Are officials receiving the right training for professionals working in statistical offices? Is training adequately differentiated for specific functions across offices? Should training be better customized to the needs of different age and experience cohorts? And finally, would some professionals benefit from training in management capabilities?

This survey and its results offer a groundbreaking opportunity to define a long-term agenda for modernizing the region's NSOs. Better training, merit-based incentives, and evidence-based management practices are certainly not the only areas that require work, but they could be the pillars for comprehensive programs that will enable NSOs to meet the evolving needs of their societies. Despite the critical services that they provide, we are just starting to understand how NSOs function and how they can be improved. The Inter-American Development Bank is committed to strengthening the statistical capacities of the countries of the region, and this study makes an essential contribution in this regard.

Susana Cordeiro Guerra

MANAGER

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Executive Summary

Up-to-date and quality official statistics are essential, yet little is known about the statistics officials who produce this statistical data.

The international community has spent decades perfecting statistical instruments for national statistical offices (NSOs) to measure households, firms, and other actors. However, this measurement rigor has not been applied to measuring NSOs themselves—and, in particular, the statistics officials who make up an NSO. This is an important area of opportunity: the integrity, competence, and motivation of statistics officials is central to the effective functioning of NSOs.

This report addresses this gap, drawing on an original survey of 13,300 NSO employees—also referred to here as statistics officials—in 14 countries in Latin America and the Caribbean (LAC).

The survey is based on a questionnaire that includes measures developed specifically to assess core characteristics of statistics officials, such as statistical integrity and statistical competence. It combines these with more general, globally validated measures of staff attitudes and management practices from the Global Survey of Public Servants.

First, the survey captures core characteristics of NSO employees themselves such as demographics, competence, integrity, and commitment.

To name just a few key questions: Are women equally represented in leadership positions? How competent are statistics officials in statistics? How do statistics officials react to conflicts of interest in the collection and analysis of statistical data? How motivated are they to do their job?

Second, the survey assesses management practices that are statistically associated with greater competence, integrity, motivation, engagement, and/or commitment.

For instance, is statistical competence assessed in recruitment of officials? Is the performance of statistics officials effectively evaluated? Do statistics officials receive sufficient training? Do managers in NSOs lead statistics officials effectively?

Based on the survey data, this report presents stylized findings about (i) NSO officials (who and how they are) and (ii) personnel management practices that are associated with greater competence, integrity, and motivation yet often not applied consistently by NSOs.



Characterizing LAC's Statistics Officials: Demographics, Attitudes, and Competencies

Evidence from 13,300 employees in 14 NSOs

#1

WOMEN ARE OVERREPRESENTED AMONG NSO EMPLOYEES BUT UNDERREPRESENTED IN LEADERSHIP POSITIONS.

Most surveyed NSO employees are women (54 percent), but most NSO managers are men (54 percent).

#2

SOME NSO'S HAVE AGING WORKFORCES.

LAC's NSO employees are, on average, 43 years old—similar to the age profile of public sector employees in the global south generally. However, in some NSOs, the average employee age exceeds 50 years.

#3

NSO'S VARY IN CONTRACTING THEIR EMPLOYEES TEMPORARILY OR PERMANENTLY.

In LAC, 47 percent of NSO employees are on temporary contracts, though this share varies between 2 percent and 95 percent across NSOs.

#4

ALTHOUGH MOST NSO EMPLOYEES SPEND THEIR ENTIRE PUBLIC SECTOR CAREERS IN THE NSO, MOST EMPLOYEES DO NOT SEEK LIFELONG CAREERS IN NSO'S.

LAC's NSO employees have spent, on average, 11.4 years in their NSO and 13.7 years in the public sector; 75 percent of NSO employees have spent their public sector careers exclusively in the NSO. In spite of that, only a minority of NSO employees (46 percent) wants to spend their whole career in the NSO.

#5

MOST NSO EMPLOYEES ARE, LIKE THEIR PEERS IN CENTRAL GOVERNMENTS, SATISFIED, ENGAGED, MOTIVATED, AND COMMITTED IN THEIR JOBS.

In LAC, 84 percent of NSO employees are satisfied and engaged with their jobs, 78 percent are motivated to work hard, and 72 percent are motivated to serve the public. Finally, 68 percent recommend their NSO as a good place to work. These values approximate those observed in surveys of central government employees generally.

#6

MOST NSO EMPLOYEES INTEND TO BEHAVE ETHICALLY, THOUGH FEWER ARE WILLING TO REPORT UNETHICAL CONDUCT OF COLLEAGUES.

Across two conflict-of-interest scenarios, 89 percent and 88 percent of NSO employees intend to behave ethically. Fewer—68 percent and 69 percent—would be willing to report to management a colleague engaging in unethical behavior.

#7

ALTHOUGH MOST NSO EMPLOYEES ARE EDUCATED AT THE BACHELOR'S LEVEL, MANY STATISTICS OFFICIALS STRUGGLE WITH BASIC STATISTICAL COMPETENCIES.

Across NSOs, 62 percent hold a Bachelor's-level degree and 15 percent hold a Master's or PhD degree, while 24 percent have vocational or secondary school education. Yet, in a short exam embedded in the survey to measure basic statistical competencies (such as descriptive statistics and probability), only 50 percent of NSO officials with statistical tasks in their jobs answered at least half of the statistics questions correctly. This matters not least because statistical competence in the survey correlates with an NSO's score in the World Bank's Statistical Performance Indicators.

#8

ACROSS NSO'S AND WITHIN EACH ONE, MOTIVATION, COMMITMENT, AND COMPETENCE OF EMPLOYEES VARY SHARPLY.

For instance, the share of employees recommending their organization as a great place to work varies from 43 percent to 85 percent across NSOs, while statistical competence varies from 36 percent to 60 percent. Some NSOs thus manage their employees better, attaining greater motivation, commitment, and competence. Similarly, inside NSOs, different departments achieve different levels of motivation, commitment, and competence. For instance, inside one NSO, 19 percent of employees in one department are motivated to serve society, while in another department, 70 percent of employees are motivated to serve society.



How to Manage Statistics Officials Effectively?

Twelve management practices statistically associated with a more motivated, committed, ethical, and/or competent NSO workforce

#1

PAY ENOUGH TO RETAIN MOTIVATED STAFF.

Salary perceptions received the lowest rankings of any management index in the survey. Among NSO employees, 21 percent are satisfied with their salary, while 24 percent deem it sufficient to maintain their households. And 25 percent indicate that it would be easy for them to find a job in the private sector that pays better than their NSO job. Salaries appear to be significantly worse evaluated in NSOs than in central governments generally. In the Global Survey of Public Servants, about twice as many respondents find their salaries satisfactory and sufficient.

#2

ADVERTISE NSO JOBS PUBLICLY, SEEK CANDIDATES MOTIVATED TO SERVE SOCIETY, EVALUATE THEIR STATISTICAL COMPETENCE, AND SELECT THEM ON MERIT.

Recruitment and selection practices currently preclude many NSOs from selecting the most competent and motivated staff. For example, only 47 percent of employees found out about their first position in the NSO through a public advertisement—instead of, for example, word of mouth (51 percent). Only 34 percent of statistics officials report that their methodological and/or programming skills in statistics were assessed in their selection process. Moreover, nearly one-third—27 percent—indicate that they obtained their first NSO job at least in part thanks to support from friends, family, or politicians.

#3

EXPAND MERIT-BASED CAREER OPPORTUNITIES.

Almost half (47 percent) of NSO officials indicate that they have good career development opportunities in their NSO. At the same time, career progression is not always based on merit: 36 percent indicate that support from political or personal connections matter for their promotion prospects, a similar figure to that in surveys of public servants in the global south generally.

#4

SAFEGUARD JOB STABILITY DURING GOVERNMENT TRANSITIONS.

Few (26 percent) NSO officials think it would be difficult to dismiss them, and 37 percent indicate that government transitions affect their job stability.

#5

IMPLEMENT GOOD-PRACTICE PERFORMANCE EVALUATIONS FOR ALL STAFF.

Most NSO officials (82 percent) are regularly evaluated and roughly two-thirds of evaluations follow good practice. For instance, 64 percent had the opportunity to discuss the results of their last evaluation with their superior. At the same time, less than half of NSO officials perceive evaluation results to matter for their pay (40 percent) or career advancement (48 percent).

#6

ONBOARD NEW EMPLOYEES CONSISTENTLY INTO ORGANIZATIONAL CULTURES AND PUBLIC SERVICE, NOT JUST TEAMS, TASKS, AND RULES.

Approximately three out of four new employees report onboarding practices to socialize them into their team, work tasks, organizational rules, systems, and objectives. Fewer report learning about the history and culture of the NSO (60 percent) or the values of public service and the importance of those values (67 percent).

#7

PROMOTE GOOD LEADERSHIP PRACTICES BY MANAGERS.

Roughly 6 out of 10 line managers are perceived by their employees to lead ethically, transformationally, caringly, and by example—values which are comparable to those found in samples of central government employees. At the same time, 68 percent of NSO employees trust their manager, yet only 51 percent trust senior management in their organizations.

#8

EXPAND STAFF TRAINING, INCLUDING ON INTEGRITY.

Roughly half (52 percent) of NSO officials indicate that they receive sufficient training to complete their work tasks effectively, while 59 percent indicate that they have participated in ethics training.

#9

OFFER AND SUPPORT REMOTE (HYBRID) WORK.

Almost half (47 percent) of NSO employees worked remotely (part- or full-time) at the time of the survey (November 2021 to July 2022), and 78 percent of NSO officials would like to do so after the pandemic. Most of those who work remotely believe they can do so as productively (65 percent) and without greater anxiety (68 percent) than in the office. Some, however, report obstacles—such as the lack of the right equipment (e.g., computers) (18 percent)—that NSOs could address.

#10

RETAIN YOUNG PROFESSIONALS.

Young professionals score more highly in statistical competence than their older peers. At the same time, they are less satisfied with their jobs, less engaged, less motivated, and less intent on remaining in the NSO. Efforts to retain them are thus important, putting a premium on practices that are statistically predictive of retention intentions such as better pay and merit-based career opportunities.

#11

PROMOTE MORE WOMEN INTO LEADERSHIP POSITIONS.

The underrepresentation of women in NSO leadership is an equality rights concern. Evaluation of their superiors' leadership is similar among employees in units with more female managers and those in units with more male managers. This suggests that women and men are as effective in leadership positions, but women are underrepresented in such positions.

#12

IDENTIFY MANAGEMENT IMPROVEMENTS THROUGH REGULAR EMPLOYEE SURVEYS.

Management practices differ sharply between NSOs and inside NSOs between different departments. For instance, the Leadership Practice Index varies between NSOs from 43 to 85 (0–100 scale). Inside a single NSO in LAC, the same index varies from 43 to 87. Different NSOs thus require different management improvements, as do different units/departments inside NSOs. The employee survey developed as part of this study helps NSOs identify needed improvements for the organization and each unit. It is available free of charge for use by other NSOs at <https://www.iadb.org/NSOsurvey>.



Introduction



Motivation

Up-to-date and quality official statistics are an essential input for the design, implementation, and evaluation of public policies in a country.

The international community has spent decades perfecting statistical instruments for national statistical offices (NSOs) to measure households, firms, and other actors. NSOs around the world thus have deep knowledge about statistical instruments and data.

Yet, little is known about the statistics officials who produce this statistical data.

The same measurement rigor that NSOs have applied to measuring others has not been applied to measuring NSOs themselves. Although there are instruments to assess statistical capacity—such as the Tool for Assessing Statistical Capacity (TASC),¹ Snapshot,² and the Data Quality Assessment Framework (DQAF)³—these tools focus on products, processes, and alignment with international standards. By contrast, no instrument exists that takes an internal perspective and focuses on the experiences and perspective of the very statistics officials who make up an NSO and who are responsible for the processes that generate statistical products that are aligned to international standards.

This is a clear opportunity to improve national statistics. The integrity, competence, and motivation of those who collect, construct, and publish statistical data is arguably a central determinant of the effective functioning of NSOs. For instance, research has found that politicization of statistics officials is associated with more biased statistical data (Boräng et al., 2018). With data science and big data advancing on an unprecedented scale in the world, having competent statistics officials who are motivated to continuously learn and creatively deploy new technologies and methodologies to improve statistics becomes arguably ever more important for the effectiveness of NSOs.

¹ The Tool for Assessing Statistical Capacity (TASC) was designed by the U.S. Census Bureau and tailored to Latin America and the Caribbean by the Inter-American Development Bank; see <https://www.census.gov/data/software/tasc.html>.

² Snapshot was developed by Eurostat; see <https://ec.europa.eu/eurostat/web/international-statistical-cooperation-tools/capacity-building-tools/the-snapshot>.

³ The Data Quality Assessment Framework (DQAF) was designed by the International Monetary Fund; see <https://www.imf.org/external/np/sta/dsbb/2003/eng/dqaf.htm>.

This report addresses this gap, based on a survey of 13,300 statistics officials in 14 NSOs in Latin America and the Caribbean (LAC). The survey was conducted between November 2021 and July 2022. The survey is based on a questionnaire that includes measures developed specifically to assess core characteristics of statistics officials such as statistical integrity and statistical competence. It combines these with more general globally validated measures of staff attitudes and management practices from the Global Survey of Public Servants (Fukuyama et al., 2022).

First, the survey captures eight core attitudes and characteristics of statistics officials: statistical competence, statistical integrity, job satisfaction, work motivation, engagement, organizational commitment, intention to remain in the NSO, and motivation to serve society. The data can thus assess questions such as: How competent are statistics officials in statistics? How do statistics officials react to ethical conflicts of interest in the collection and analysis of statistical data? How motivated are statistics officials to do their job? Do they want to spend lifelong careers in NSOs?

Second, the survey assesses 11 management practices in NSOs. These include the quality of recruitment and selection, onboarding, training, performance evaluation, promotions and career development, pay, job stability, leadership, job design and workloads, teamwork, and remote work. The data can thus assess core questions in the management of statistics officials such as: Is statistical competence assessed in recruitment of officials? Is the performance of statistics officials effectively evaluated? Do statistics officials receive sufficient training? Do managers in NSOs lead statistics officials effectively?

Last, the survey captures demographics of statistics officials and the units they work in, to help understand differences between groups of statistics officials. For instance, do female managers in NSOs lead more or less effectively than men? Are statistics officials who joined recently more or less competent than those who have worked for NSOs for decades? Does the experience of statistics officials differ across different departments inside NSOs—for instance, in terms of the management practices they experience?



Methodology

Officials from 14 NSOs in LAC participated in the survey. Participation was voluntary. All NSOs in LAC were invited to participate at no cost in the survey led by the Inter-American Development Bank (IDB).

The survey was conducted online, and all employees of participating NSOs were invited to participate in the survey, including survey enumerators in the field. The survey was conducted using the Qualtrics platform. The survey was implemented in Spanish (13 countries) and English (Trinidad and Tobago).⁴ Employees of NSOs were invited to participate via email through the Qualtrics platform, with the survey open for 3–4 weeks in each country.

As a result, the survey population comprises (i) employees in NSOs with statistical tasks in the office (statistics officials), (ii) employees undertaking data collection in the field (survey enumerators), and (iii) employees with other administrative functions (e.g., human resources, IT) in an NSO. The survey contained filters to ensure only those with tasks relevant for a specific survey module were shown the respective module (e.g., only officials undertaking statistics tasks were directed to respond to the statistical competence module).

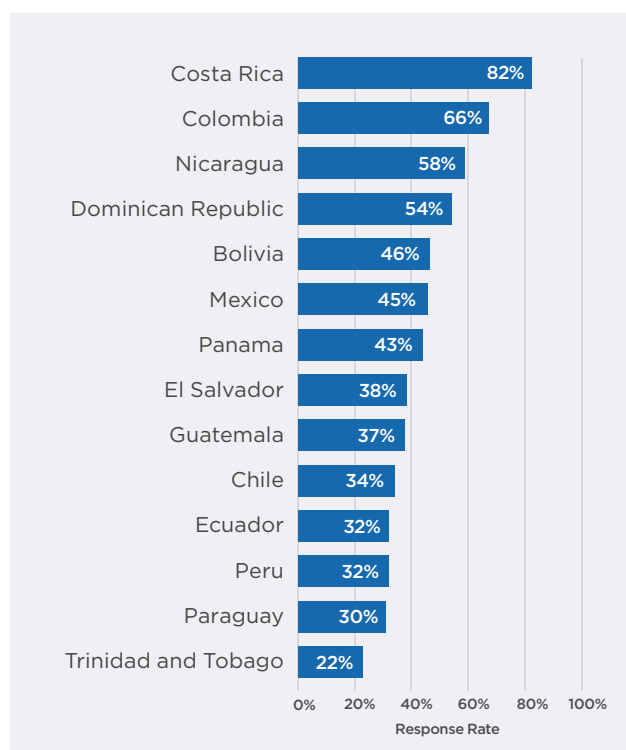
The survey attained an average 45 percent response rate in participating NSOs, with response rates in countries ranging from 22 percent to 82 percent (**Figure 1**). This response rate compares favorably to that achieved in some other large public employee survey exercises. For instance, the U.S. government’s official Federal Viewpoint Survey—which surveys public employees across the U.S. federal government—has achieved response rates between 34 percent and 46 percent in the last five years (U.S. Office of Personal Management, 2022), while the last National Survey of Public Servants in Chile attained a response rate of 44 percent (Schuster et al., 2020). The response rate of the NSO survey is particularly noteworthy given that survey enumerators—who frequently account for a significant share of NSO employees—are harder to reach with an online survey due to restricted email access during survey enumeration in some countries.

⁴ The surveyed NSOs are from Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, and Trinidad and Tobago.



FIGURE 1

Survey Response Rates by
Country (average: 45 percent)



Survey respondents approximate employees at the surveyed NSOs in gender and, to a lesser extent, age. As detailed in **Table 1**, in the 11 NSOs for which demographic data is available, 56 percent of survey respondents are female (compared to 54 percent total) and 44 percent of survey respondents are male (compared to 46 percent total). Moreover, the same proportion of survey respondents and NSO employees (27 percent) is middle-aged (40–49 years). At the same time, there are fewer older (60+) survey respondents (5 percent) as compared to all employees (10 percent) at the surveyed NSOs and more younger (<30) survey respondents (14 percent) as compared to all employees (10 percent). This is typical for online surveys, and survey weights (using ranking) were added for gender and age to account for the relatively younger respondents in the NSO survey and to enhance representativeness of survey results.

**TABLE 1**

Survey
Representativeness

	NSO Employees (11 NSOs in LAC)	Survey Respondents
Gender		
Female	54%	56%
Male	46%	44%
Age		
<30	10%	14%
30–39	29%	31%
40–49	27%	27%
50–59	24%	23%
60 or above	10%	5%

The design of the questionnaire includes measures developed and validated specifically for the NSO context. These include not only—but in particular—two ethics scenarios that were developed to measure statistical integrity and a statistics quiz with four questions to measure foundational statistical competencies. These tailor-made measures for surveying statistics officials were validated in a pilot with 124 public servants in Peru’s NSO, the National Institute for Statistics and Informatics (Instituto Nacional de Estadística e Informática, or INEI), in August 2021.

To illustrate the project’s validation approach: the four statistical competence questions were validated through a more extensive statistics exam with the 124 pilot participants. The four questions included in the survey explain 72 percent of the variation of a public servant in a statistics exam with 14 questions that cover distinct statistical competencies (arithmetic, probability, descriptive statistics, correlations, survey design, statistical inferences, and confidence intervals). Pilot results also showed that for most participants (83 percent) each statistical competency included in the survey was perceived as very important for their job tasks. This underscores the importance of the basic statistical competencies included in this survey for the statistical tasks undertaken by NSO employees. Further, the two ethics scenarios explain 95 percent of the responses to four ethics scenarios in the pilot, suggesting they have predictive value for a broader range of infringements of statistical integrity.

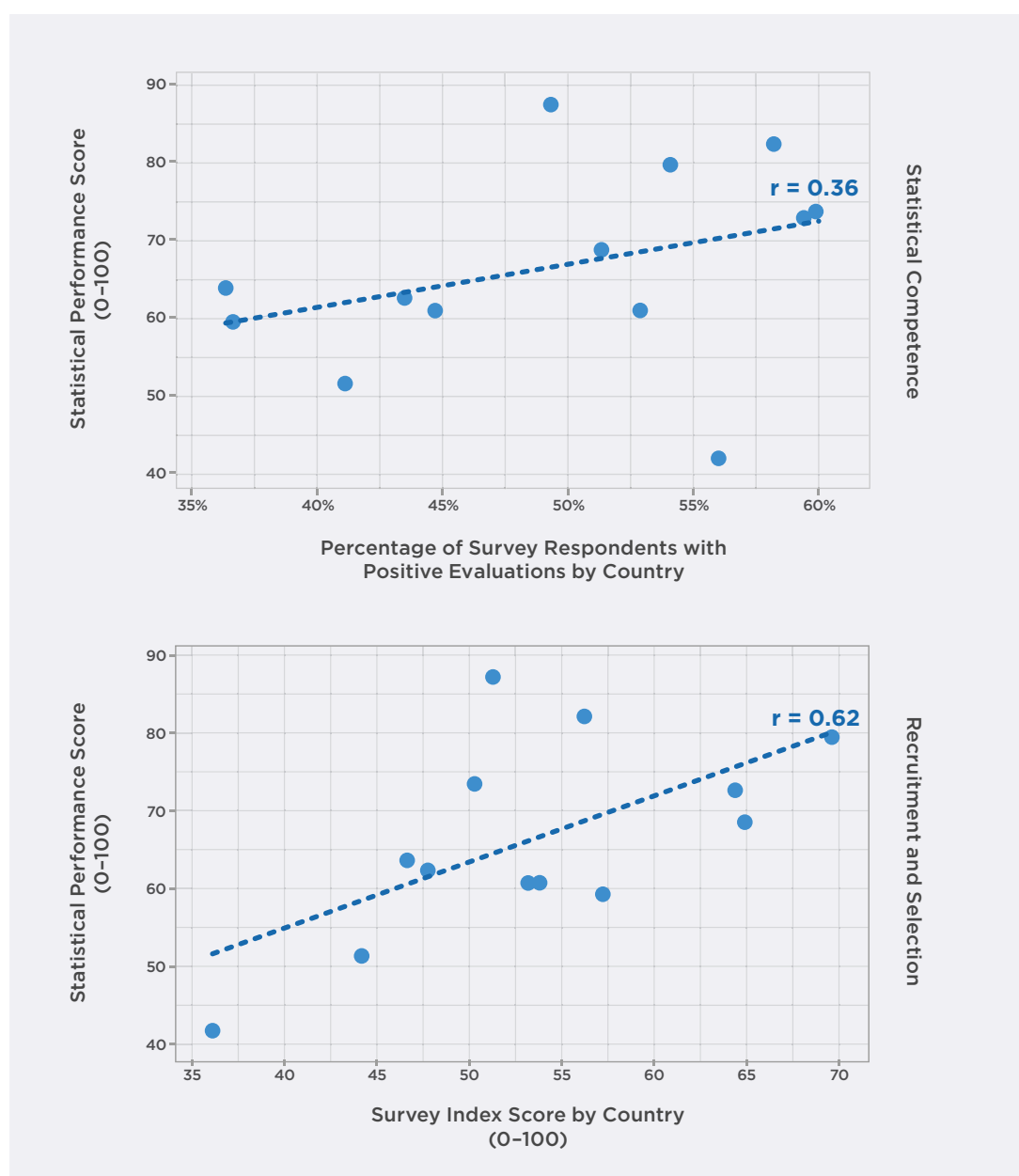
The NSO survey measures correlate at the level of NSOs with the World Bank’s Statistical Performance Indicators, providing suggestive evidence for their predictive validity for NSO performance. By way of example, **Figure 2** shows correlations between aggregate statistical competence and recruitment quality

scores for NSOs (per the NSO survey) and the World Bank's Statistical Performance Indicators for those NSOs (World Bank, 2023). The World Bank indicators assess the performance of a country's statistical systems. While the small n (14 NSOs) presents an important caveat to this finding, the correlations are sizable ($r = 0.36$ and $r = 0.62$).



FIGURE 2

Scatterplots: Statistical Competence and Recruitment Quality (according to NSO employee survey) and the World Bank's Statistical Performance Score



The NSO employee survey complements tailor-made measures for the NSO context in the questionnaire with more general, globally validated measures of staff attitudes and management practices from the Global Survey of Public Servants (Fukuyama et al., 2022). These allow the survey to measure key employee attitudes (e.g., job satisfaction) and management practices (e.g., leadership) for which, arguably, no measurement adaptation to an NSO context is required.

The survey questionnaire was pretested through cognitive interviews with at least five statistics officials in each participating NSO. Cognitive interviews ensure that question phrasing in each country is adapted to local context (e.g., terms for referring to a superior vary across countries) and that measures are well understood by respondents in each country.

To maximize opportunities for NSOs to undertake management improvements based on the survey, each NSO received a management report based on the survey results, as well as reports for each unit inside the NSO with a sufficient number of responses to protect confidentiality (where NSOs provided the authors with unit-level identifiers). Large NSOs—such as Mexico’s INEGI—thus benefited from several hundred results reports to inform management improvements across all units and levels of hierarchy.

The NSO survey questionnaire, sample country reports based on the survey, and survey dissemination materials are available online at <https://www.iadb.org/NSOsurvey> in English and Spanish for use by other NSOs. The project thus also seeks to encourage other NSOs to apply the questionnaire (in whole or part) and increase the possibilities for greater cross-country benchmarking between NSOs as a result.



Structure of the Report

What can be learned from the largest cross-country survey of statistics officials undertaken to date? This report presents results in three parts.

Section 1 of this report assesses who LAC's statistics officials are: their attitudes, competencies, and demographics. The section is structured around 10 stylized facts about statistics officials showcasing, for instance, the underrepresentation of women in leadership positions in NSOs, the relatively high levels of motivation and engagement of most NSO officials, and challenges with basic statistical competencies for many NSO officials, among others.

Section 2 assesses how LAC's statistics officials are, in their own experience, managed and how this affects their attitudes (e.g., motivation) and competence. The section is structured around 12 lessons for effective management of statistics officials that emerge from the data and are associated with more motivated, competent, and committed staff. These range from merit recruitment practices to leadership practices to remuneration of statistics officials, to name a few.

The final section concludes. It points to significant opportunities to improve the management of statistics officials in LAC's NSOs and underscores the importance of measurement over time of statistics officials, both in LAC's NSOs and beyond, to ensure evidence-based improvements to staff management in NSOs.



CHARACTERIZING LAC'S STATISTICS OFFICIALS

Introduction

Who Are LAC's Statistics Officials?

Core Attitudes and Competence
of Statistics Officials in LAC



Introduction

A great deal is known about official statistics, but little is known about statistics officials. This section seeks to address this gap by profiling LAC's statistics officials based on their survey responses in terms of demographics, attitudes, and competence. First, it describes the demographics of NSO employees in LAC. In other words, “who” are LAC's statistics officials? For instance, what is the gender composition, educational profile, and age distribution of LAC's statistics officials? How long have they worked for their NSO, in what roles, and on what type of contracts? Subsequently, this section assesses key attitudes and competence of LAC's statistics—“how” statistics officials are: how motivated to work hard, how engaged with their job, how committed to their NSO, how ethical in the collection and analysis of statistical data, and how competent at statistics, for instance.



Who Are LAC's Statistics Officials?⁵

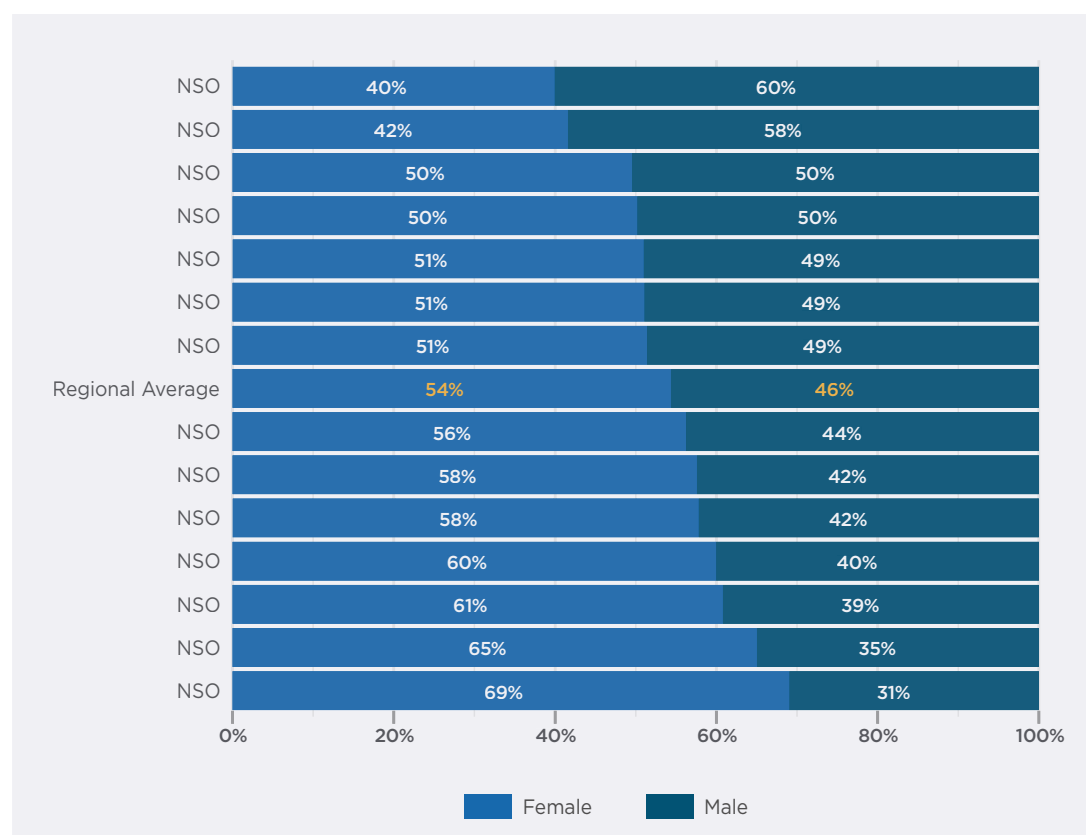
#1 THE MAJORITY OF LAC'S NSO EMPLOYEES ARE WOMEN—BUT NOT IN MANAGERIAL RANKS.

According to the survey data (as well as demographic data from 11 NSOs), the majority of NSO employees are women (54 percent). This varies across NSOs, however. In some NSOs, women are a minority (40 percent), while in others they are a large majority (69 percent) (**Figure 3**).



FIGURE 3

Percentage of Men and Women among NSO Employees, by Country



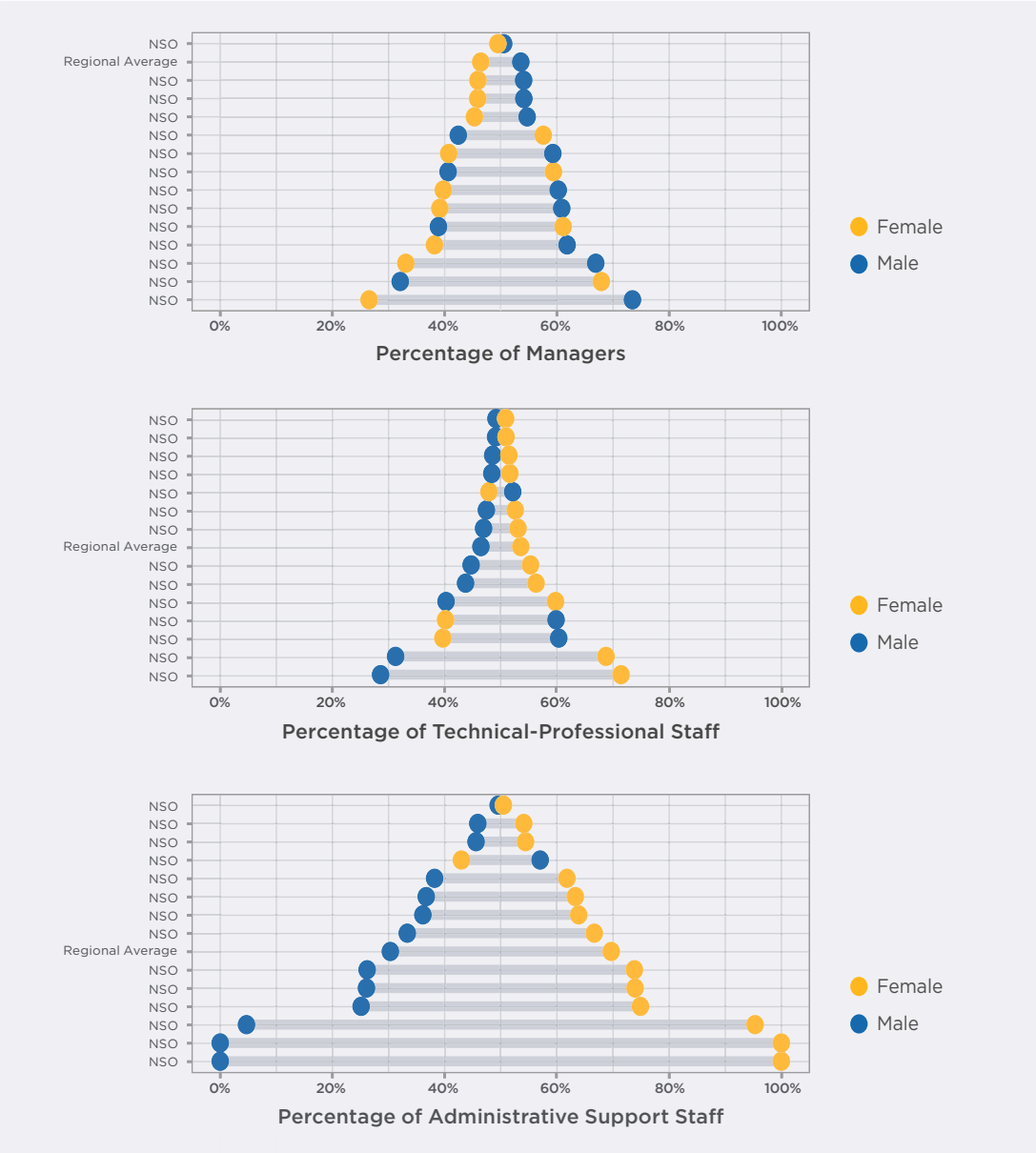
Notes: Each horizontal bar represents one NSO in the LAC sample. The names and locations of NSOs are not identified in this report to safeguard anonymity.

⁵ As NSO survey respondents appear to closely resemble the demographics of NSO employees (but we lack a full set of demographic characteristics for the survey population), in this section we focus on comparing the demographics of NSO survey respondents.

Women are dominant in administrative support and, to a lesser extent, technical-professional ranks, but underrepresented in managerial ranks. In 13 out of 14 countries, most administrative support staff is female. In three NSOs, almost all administrative support are women. By contrast, in 10 out of 14 countries, a majority of managerial staff is male (Figure 4). Women are thus overrepresented in lower ranks and underrepresented in higher ranks.

• • •

FIGURE 4
Percentage of Men and Women in Different Ranks, by Country

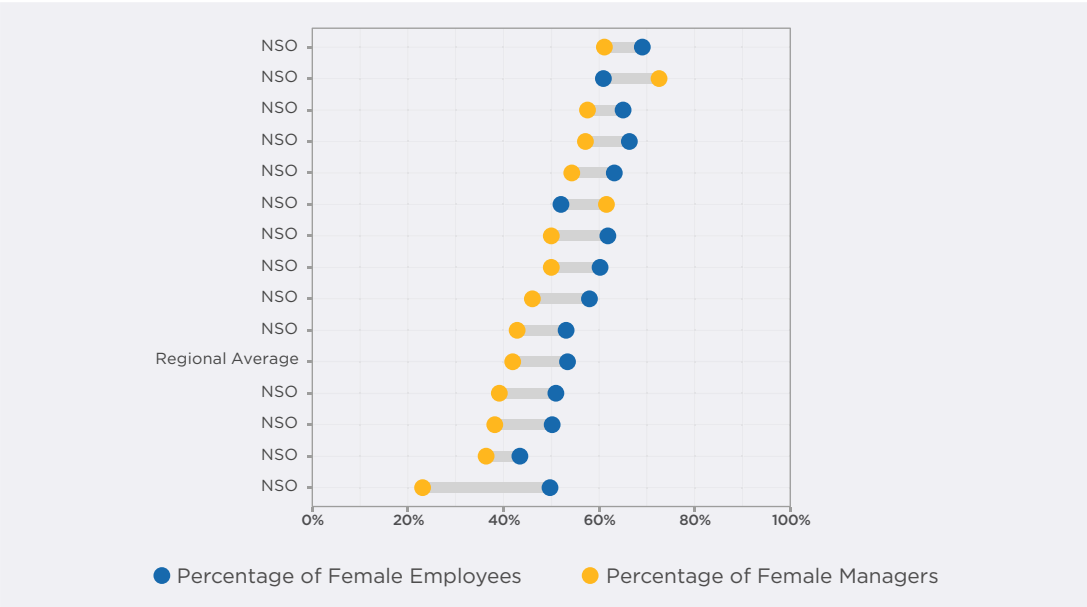


That the majority of managers are men in most NSOs is remarkable, not least because the majority of employees in NSOs are, on average, women. In fact, in the region, there are only two countries in which the share of female managers is larger than the share of female employees in the organization (**Figure 5**).

This underrepresentation of women in managerial ranks in NSOs is, of course, not a *sui generis* characteristic of NSOs, but instead reflects challenges with gender equality in the management of public sectors in LAC generally. For example, a cross-agency study of 15 countries in LAC found that 46 percent of NSO managers are women, compared to 42 percent in leadership positions across all government agencies (Naranjo Bautista et al., 2022).



FIGURE 5
Gender Representation in Managerial Ranks, by Overall Percentage of Women
in Organization, by Country



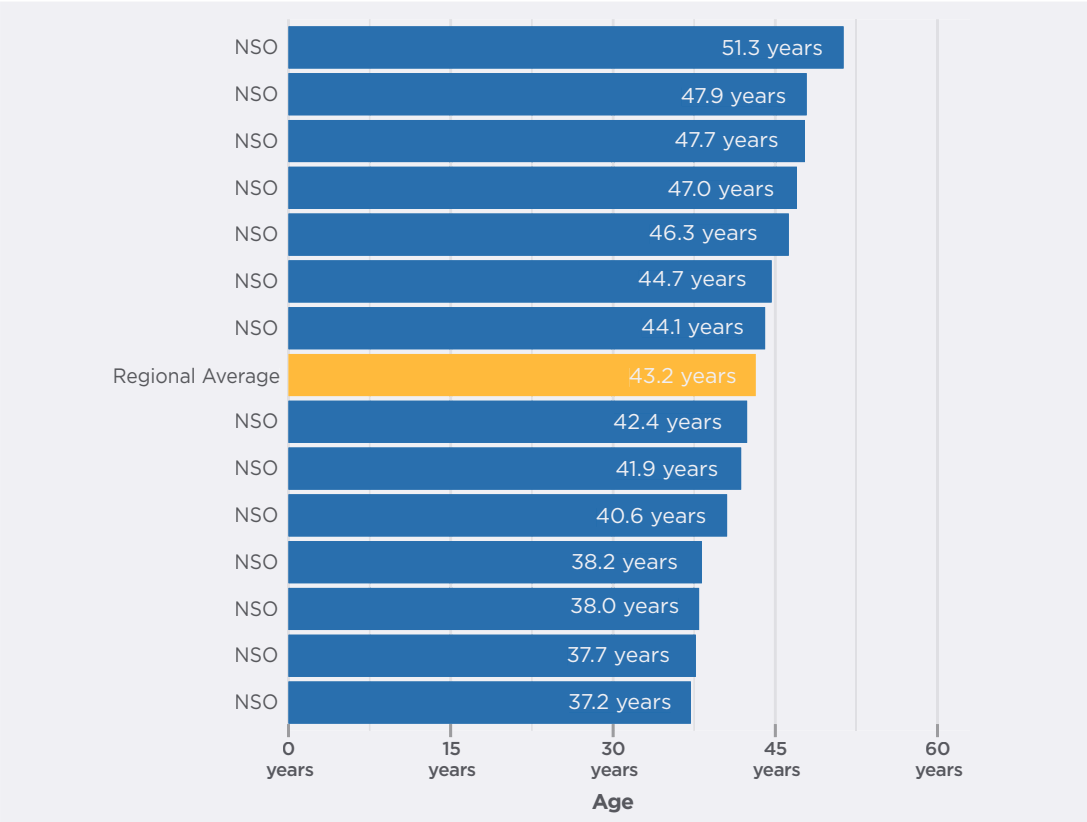
#2 LAC'S NSO EMPLOYEES ARE 43 YEARS OLD ON AVERAGE, THOUGH SOME NSO'S HAVE MUCH OLDER WORKFORCES.

According to the survey sample, LAC's NSO employees are 43 years old on average. This is close to the age profile of public sectors in the global south generally. For instance, the average age in a recent 10-country survey of public servants in central governments in Latin America, Africa, Asia, and Eastern Europe stood, equally, at 43 years (Meyer-Sahling, Schuster, and Mikkelsen, 2018).

However, this regional average masks significant variation across NSOs. Some have relatively young workforces, with an average of 37 years, while others have older workforces, where the average age is over 50 (51.3 years) (**Figure 6**). This affects the functioning of NSOs. As discussed further below, younger and older generations tend to differ in their attitudes and statistical competencies, for instance.



FIGURE 6
Average Age of LAC’s NSO Employees, by Country



#3 LAC’S NSO EMPLOYEES ARE MOSTLY UNIVERSITY EDUCATED, THOUGH PRIMARILY AT THE BACHELOR’S LEVEL.

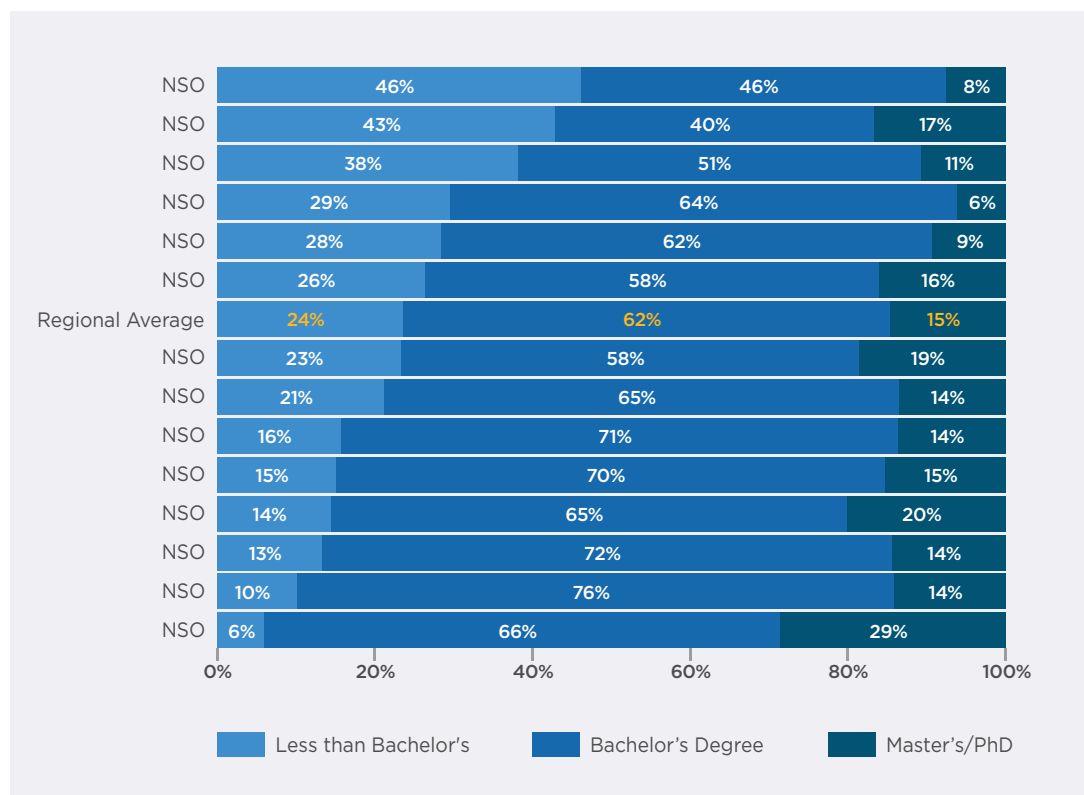
According to survey data, 62 percent of employees in LAC NSOs hold a Bachelor’s-level university degree; 15 percent hold a Master’s or PhD degree (**Figure 7**). Roughly three out of four employees of LAC NSOs are thus university educated, while 24 percent hold less than a Bachelor’s degree (e.g., a vocational degree or secondary school diploma). The educational attainment of staff varies significantly across NSOs, however. In the

two countries at the bottom end of educational attainment of NSOs, almost half—46 percent and 43 percent—of employees hold less than a Bachelor’s degree, while, at the top end, up to 29 percent hold a Master’s or PhD degree.



FIGURE 7

Educational Attainment of LAC NSO Employees, by Country



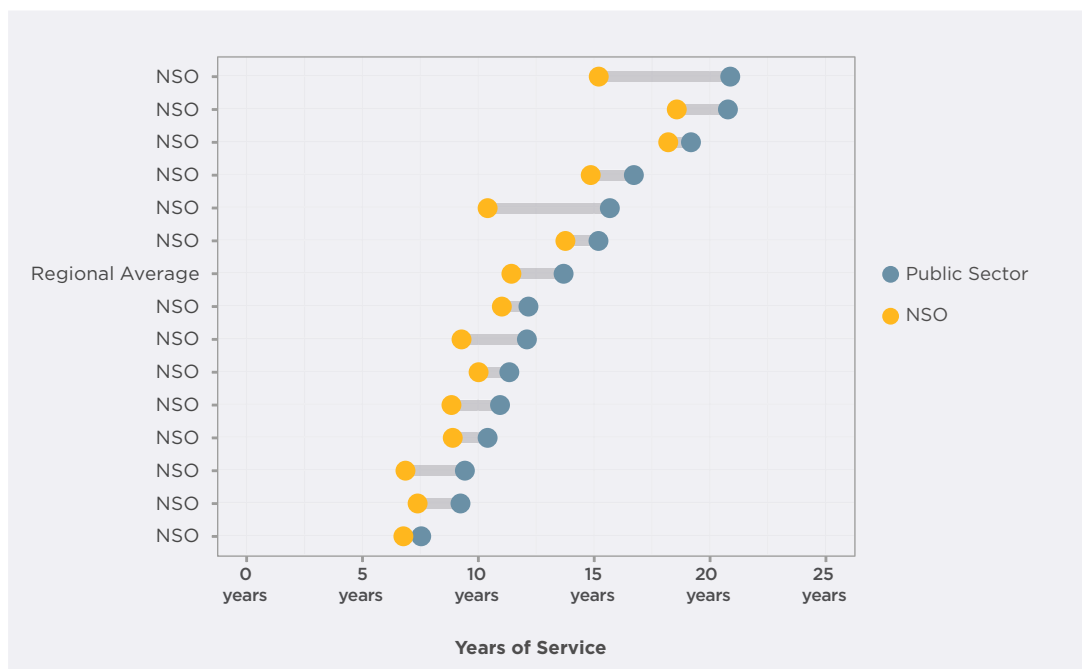
#4 LAC’S NSO EMPLOYEES SPEND MOST OF THEIR PUBLIC SECTOR CAREERS IN THE NSO.

LAC’s NSO employees have spent an average of 11.4 years in their NSO and 13.7 years in the public sector (**Figure 8**). These figures are again comparable to other public sectors; for instance, in the aforementioned 10-country survey of public servants in central governments, the average years of experience is 13 (Meyer-Sahling, Schuster, and Mikkelsen, 2018). That NSO employees have spent 83 percent of their total years in the public sector in NSOs (11.4 years out of 13.7 years) also underscores that most NSO employees (75 percent of the total) spend their public sector careers exclusively in the NSO.



FIGURE 8

Years of Experience of LAC's NSO Employees in NSOs and Public Sector, by Country



#5 ROUGHLY HALF (47 PERCENT) OF LAC'S NSO EMPLOYEES ARE ON TEMPORARY CONTRACTS, THOUGH THIS SHARE VARIES BETWEEN 2 PERCENT AND 95 PERCENT ACROSS NSO'S.

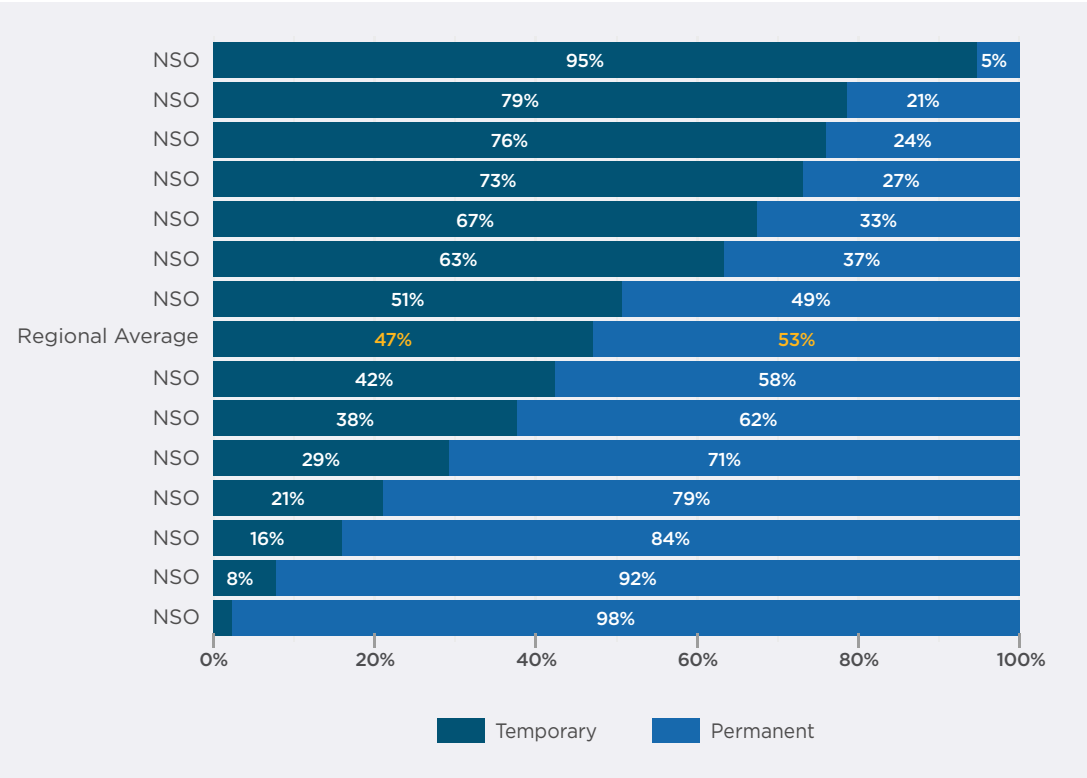
How NSO employees are contracted varies sharply across NSOs. In some NSOs, almost all employees (up to 98 percent)—including those with statistical, administrative, and survey enumerator jobs—are contracted permanently. In others, almost all (up to 95 percent) are hired on temporary contracts (**Figure 9**). As noted below, part of this variation stems from the different numbers of survey enumerators contracted by NSOs; these workers are disproportionately (though not always) hired on temporary contracts.

The data does not provide unambiguous evidence in favor of one or the other contract type. In fact, across countries, controlling for other factors, regression analyses show that NSO employees on temporary contracts are more motivated to work hard and engaged, but they score lower on statistical competence on average than those permanently in the NSO (**Appendix E**). NSOs thus appear to face trade-offs between different management objectives (motivation versus competence) when determining

under which type of contract to hire employees. The management recommendations in Section 2 of this report thus do not return to contract types.



FIGURE 9
Contract Types of NSO Employees, by Country



#6 IN SOME NSO’S, SURVEY ENUMERATORS CONSTITUTE A PLURALITY OF EMPLOYEES, WHILE OTHER NSO’S EMPLOY FEW ENUMERATORS.

NSOs vary sharply in the extent to which they employ survey enumerators—that is, officials who collect responses to surveys in the field or by phone. On average, 23 percent of NSO employees are enumerators (**Figure 10**). In some NSOs this share drops to as low as 9 percent, while in others it rises to 43 percent, with enumerators constituting a plurality of employees (relative to employees in administrative positions and/or with statistical tasks).

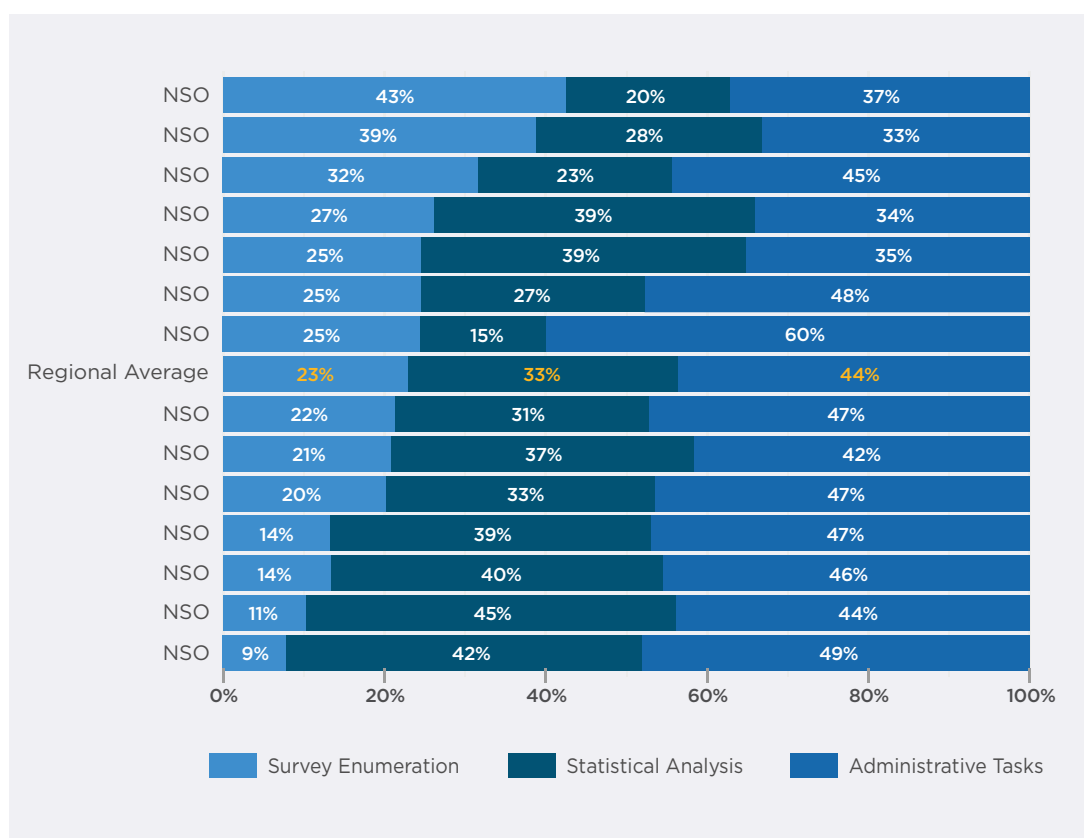
These varying shares reflect in part whether particular data collection exercises (e.g., censuses) were taking place at the time of this survey, but they also represent differing practices in regard to whether survey enumerators are employees of the NSO or only hired to perform particular data collection exercises (e.g., censuses).⁶

Across NSOs on average, most survey enumerators (58 percent) are recruited on temporary rather than permanent contracts. By contrast, most NSO employees in administrative or statistical roles (68 percent) are recruited on permanent contracts.



FIGURE 10

Roles of NSO Employees, by Country



⁶ According to the data—and controlling for the NSO of the respondent as well as their gender, age, education, years of service, contract type, rank, and salary level—NSO employees undertaking survey enumeration tasks are less satisfied with their jobs, engaged with their work, and committed to the organization (though slightly more motivated to serve society) (**Appendix D**). As survey enumerators are often hired as part of particular exercises (e.g., censuses), their management in particular (relative to other statistics officials) is not addressed in the recommendations in Section 2.



Core Attitudes and Competence of Statistics Officials in LAC

#1 MOST NSO EMPLOYEES ARE SATISFIED (84 PERCENT) AND ENGAGED (84 PERCENT) WITH THEIR JOBS AND MOTIVATED TO WORK HARD (78 PERCENT).

According to the survey, 84 percent of NSO employees are satisfied or very satisfied with their jobs. Similarly, 84 percent are engaged or very engaged with their jobs, a concept measured through items such as whether employees are happy working intensely (76 percent) or proud of the work they do (92 percent). Most employees (78 percent) are also motivated or very motivated to work hard, a concept measured through items such as whether employees undertake extra tasks at work even if they are not strictly required to complete them (78 percent) (Figure 11).

These NSO employee results mirror those obtained in central government-wide employee surveys. In the Global Survey of Public Servants—which, as a caveat, covers different countries from the NSO survey, so similarities or differences might stem from that—77 percent of central government employees across countries are satisfied with their jobs and 80 percent are motivated to work hard (Fukuyama et al., 2022).



FIGURE 11
Job Satisfaction,
Work Motivation,
and Work Engagement
of NSO Employees
(Aggregate Indices)



#2 MOST NSO EMPLOYEES ARE MOTIVATED TO SERVE THE PUBLIC (72 PERCENT) AND RECOMMEND THEIR ORGANIZATION AS A GOOD PLACE TO WORK (68 PERCENT), BUT MANY DO NOT INTEND TO REMAIN WORKING THERE IN THE LONG RUN (46 PERCENT).

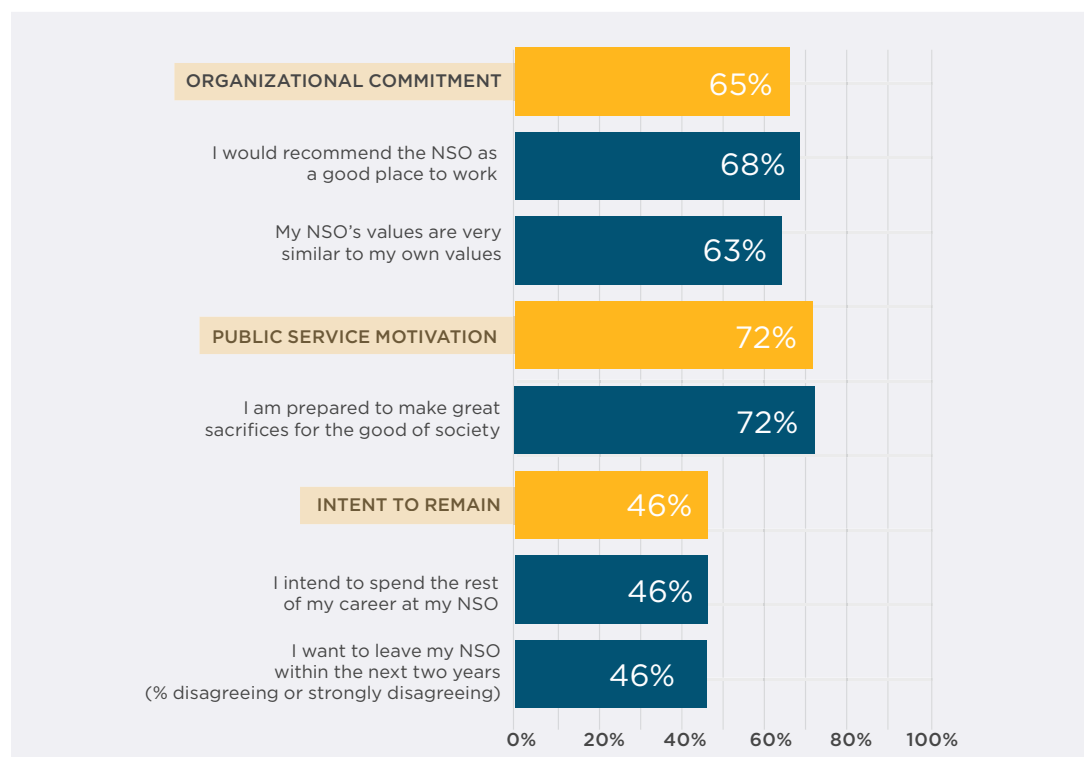
Across the NSOs surveyed, 72 percent of employees are motivated to serve the public and willing to make sacrifices for the good of society. Many (65 percent) feel organizationally committed, a concept measured by items such as whether employees recommend their NSO as a good place to work (68 percent) or feel that the values of the NSO are similar to their own values (63 percent) (**Figure 12**).

These values, again, suggest that NSO employees are similar to employees of central governments at large. In the Global Survey of Public Servants, 70 percent of employees are motivated to serve society and 68 percent recommend their organization as a great place to work (Fukuyama et al., 2022).



FIGURE 12

Organizational Commitment, Public Service Motivation, and Intent to Remain in the Organization of NSO Employees (Aggregate Indices)



At the same time, less than half of NSO employees intend to remain working for their NSO in the long run: 46 percent indicate that they want to spend the rest of their career working for the NSO, and the same percentage disagrees that they want to leave the organization in the next two years. Retention of NSO staff is thus a challenge.

#3 MOST NSO EMPLOYEES INTEND TO BEHAVE ETHICALLY WHEN FACED WITH A CONFLICT OF INTEREST AT WORK, THOUGH FEWER ARE INCLINED TO REPORT COLLEAGUES ENGAGING IN ETHICAL MISCONDUCT.

Statistical integrity in the survey estimates the extent to which public servants involved in the collection, processing, analysis, interpretation, or publication of statistical data are willing to prioritize statistical integrity over and above career incentives, family pressures, and political pressures.

Statistical integrity is measured through direct questions (about political pressures) and two ethics scenarios that encapsulate conflicts between statistical integrity and family pressures and career incentives (see **Appendix B** for the scenarios).⁷

In the two ethics scenarios—in which a fictitious statistics official acts unethically—most NSO employees detect the underlying conflicts of interest (88 percent in each scenario) and indicate that they would not behave as the official did (89 percent and 88 percent). A smaller majority would also be willing to report to management if they observed a colleague engaging in this (unethical) behavior (68 percent and 69 percent) (**Figure 13**).

This matters because colleagues are often the most important source of information for managers to detect ethical infractions. From that perspective, the fact that more than one out of three NSO employees would not be willing to report an ethical infraction of a colleague in one of the scenarios leaves margin for improvement.

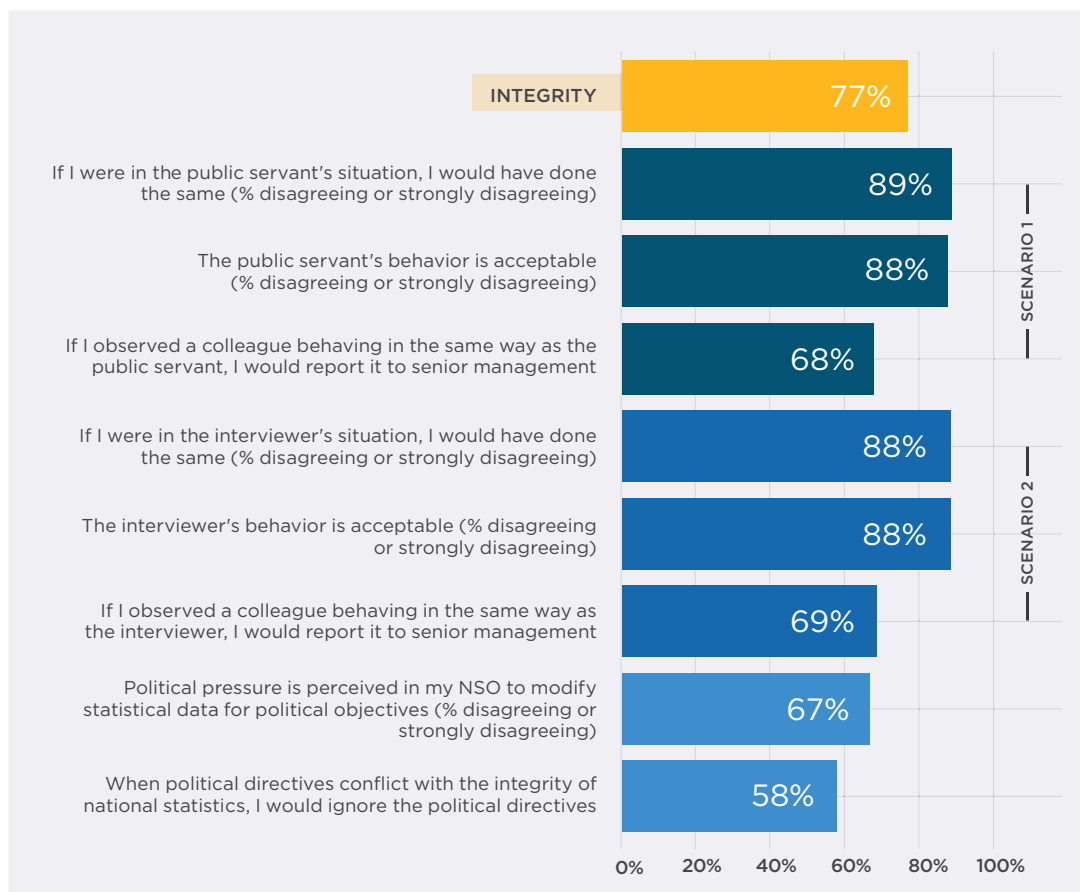
Last, the survey measured political pressures conflicting with statistical integrity. About two-thirds (67 percent) of NSO employees disagree that political pressure is perceived in the NSO to modify statistical data for political objectives. A minority of respondents thus appears to experience political pressure to modify statistical data.

⁷ The two ethics scenarios included in the survey were validated in a pilot with 124 public servants in Peru's NSO in August 2021. The two scenarios explain 95 percent of the responses to four ethics scenarios in the pilot, suggesting they have predictive value for a broader range of infringements of statistical integrity.



FIGURE 13

Integrity Scores, by Indicator



#4 HALF OF STATISTICS OFFICIALS ANSWER AT LEAST HALF OF A STATISTICAL COMPETENCE QUIZ CORRECTLY.

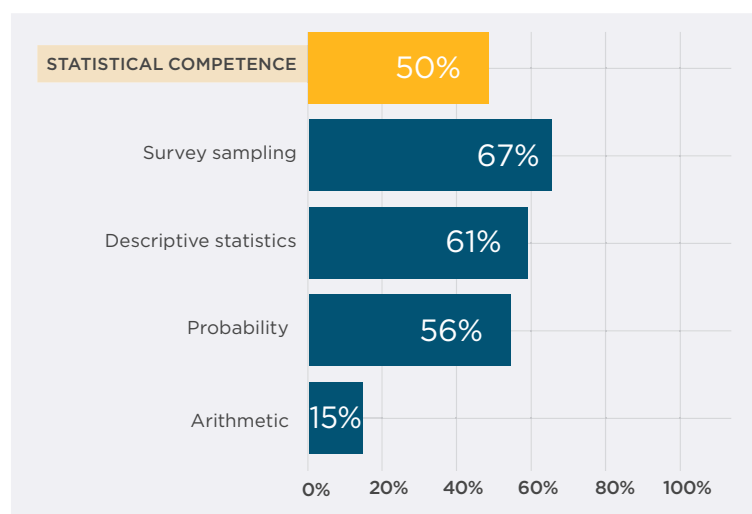
In the survey, statistical competence is measured as the percent of employees with statistical tasks who respond correctly to at least two of four questions that evaluate different statistical competencies (probability, descriptive statistics, survey sampling, and arithmetic—see **Appendix C** for the quiz questions). This measurement scale was only administered for respondents with statistical tasks, excluding survey enumerators and administrative staff.

The four statistical competence questions were validated in a more extensive statistics exam with 124 public servants in Peru's NSO in August 2021. The four questions included in the survey explain 72 percent of the variation of a public servant in a statistics exam with 14 questions that cover distinct statistical competencies (arithmetic, probability, descriptive statistics, correlations, survey design, statistical inferences, and confidence intervals). Pilot results also showed that for most participants (83 percent), each statistical competency included in the survey was perceived as very important for their job tasks. This underscores the importance of the basic statistical competencies included in this survey for the statistical tasks undertaken by NSO employees.

Even though—as mentioned earlier—most of LAC's NSO employees are university educated and higher levels of education are statistically associated with higher scores on the statistical competence questions (see **Appendix H**), only 50 percent of statistics officials responded to at least half of the statistical competence questions correctly (**Figure 14**). Questions on survey sampling (67 percent), descriptive statistics (61 percent), and probability (56 percent) were responded to correctly relatively more frequently, while the question on arithmetic was rarely responded to correctly (15 percent).



FIGURE 14
Statistical Competence:
Correct Answers by
Competency and Overall
Index Score



#5 NSO'S DIFFER SHARPLY IN HOW MOTIVATED, COMMITTED, ETHICAL, AND COMPETENT THEIR EMPLOYEES ARE.

As an important caveat to the conclusions about NSOs in LAC above, survey results also underscore that NSOs differ sharply in how motivated, committed, ethical, and competent their employees are. Figures 15 to 18 provide four examples. The share of employees recommending their organization as a great place to work varies from 43 percent to 85 percent (**Figure 15**); the share of employees willing to undertake extra tasks that are not

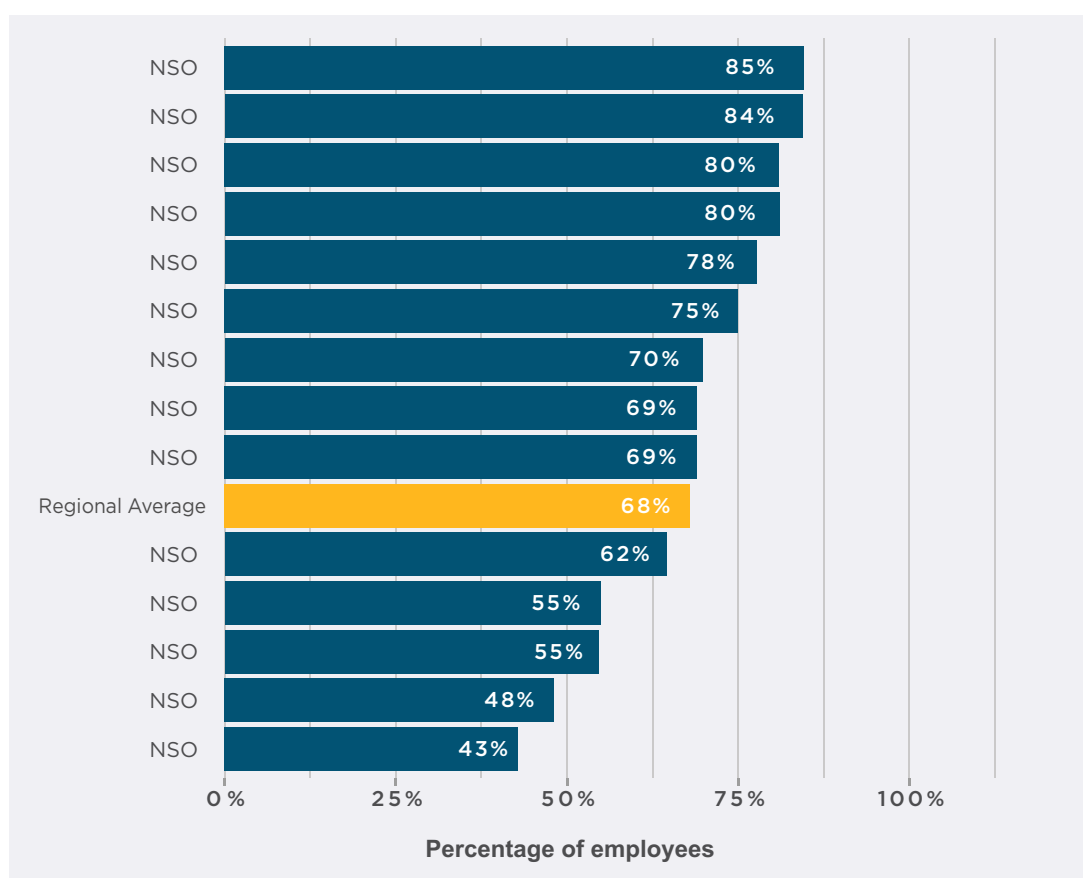
strictly required varies from 67 percent to 85 percent (**Figure 16**); the share of employees willing to report unethical conduct by colleagues in the NSO to senior management varies from 57 percent to 77 percent (**Figure 17**); and the share of statistics officials responding correctly to at least half of statistical competence questions varies from 36 percent to 60 percent across NSOs (**Figure 18**).

Different NSOs thus achieve very differential levels of motivation, commitment, integrity, and competence of their staff. As Section 2 of this report underscores statistically, this is in part because NSOs manage their employees differently. Some NSOs apply more effective management practices to further employee motivation, commitment, and competence.⁸



FIGURE 15

Percentage of Employees Recommending Their Organization as a Great Place to Work, by Country



⁸ The same holds for central governments across countries generally. For instance, the share of central government employees recommending their organization as a great place to work ranges from an average of 54 percent to an average of 93 percent in the Global Survey of Public Servants (Fukuyama et al., 2022).



FIGURE 16

Percentage of Employees Willing to Undertake Extra Tasks Even If Not Strictly Required, by Country

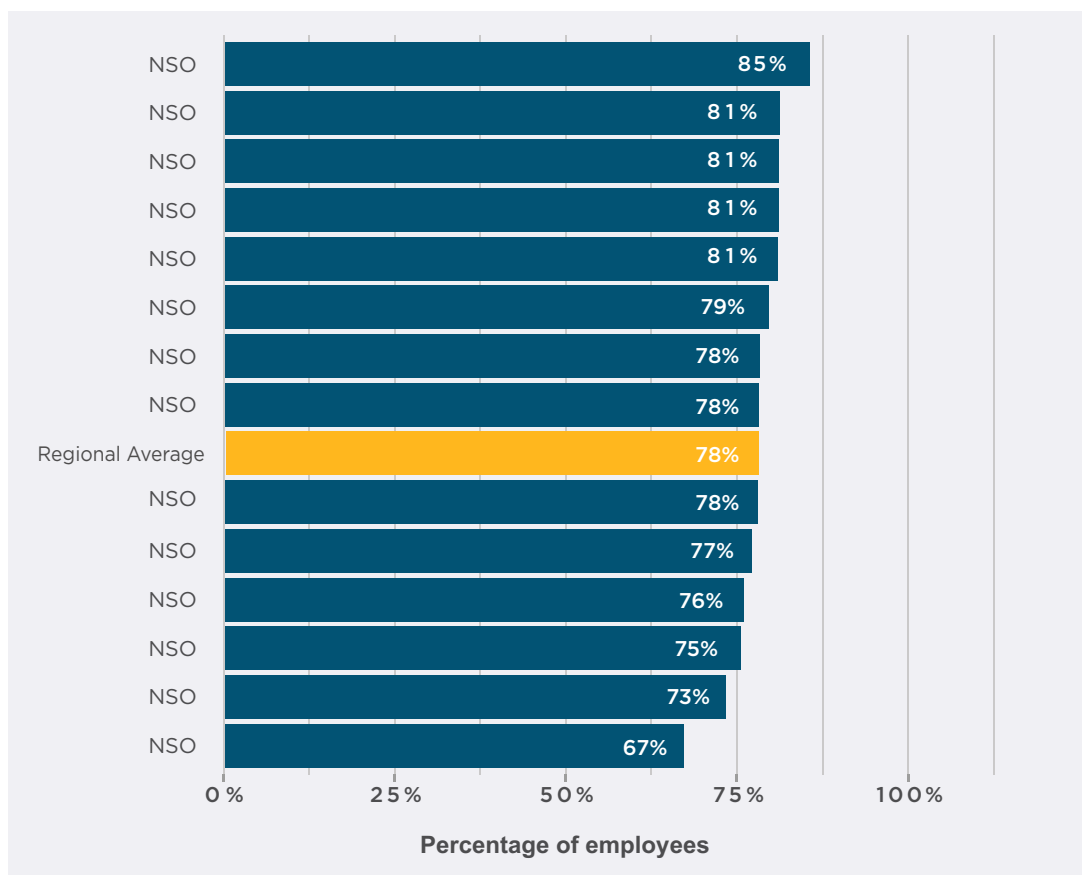




FIGURE 17

Percentage of Employees Willing to Report Unethical Conduct by a Colleague to Senior Management (Scenario 2), by Country

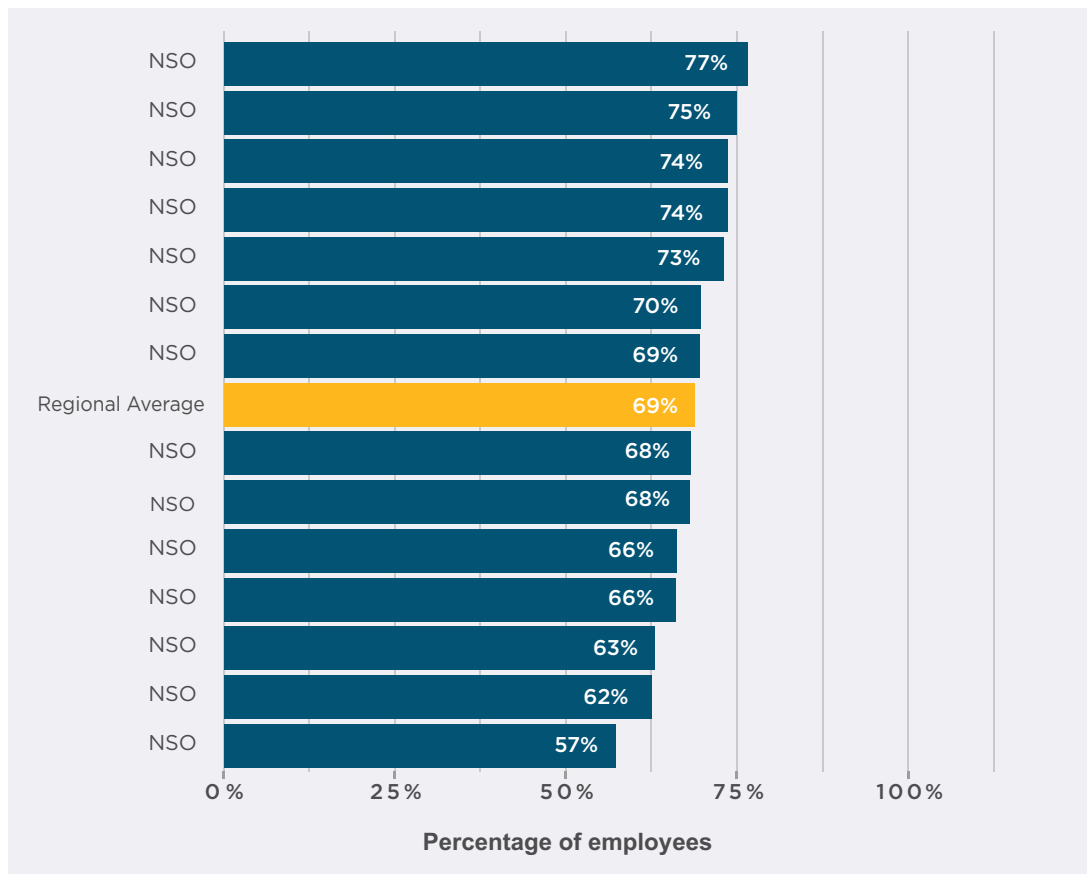
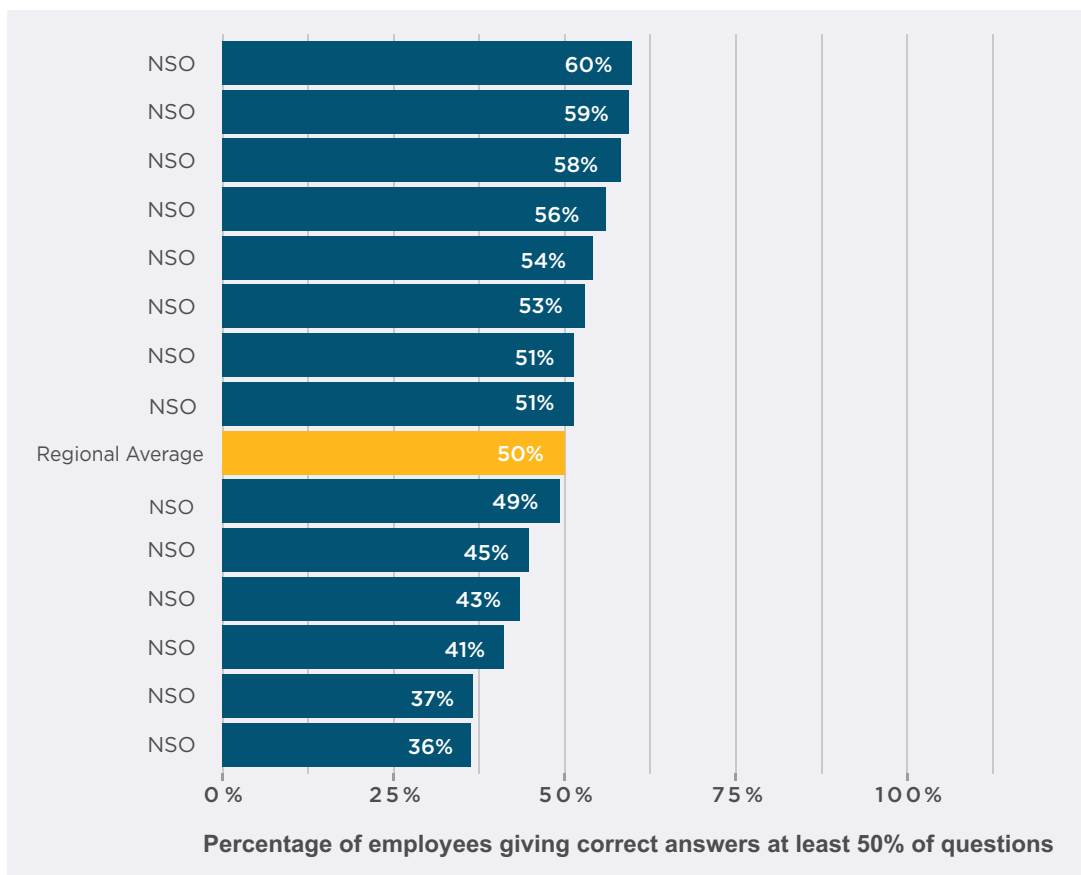




FIGURE 18

Statistical Competence (Aggregate Index), by Country



#6 INSIDE EACH NSO, DIFFERENT DEPARTMENTS DIFFER SHARPLY IN HOW MOTIVATED, COMMITTED, AND COMPETENT THEIR EMPLOYEES ARE.

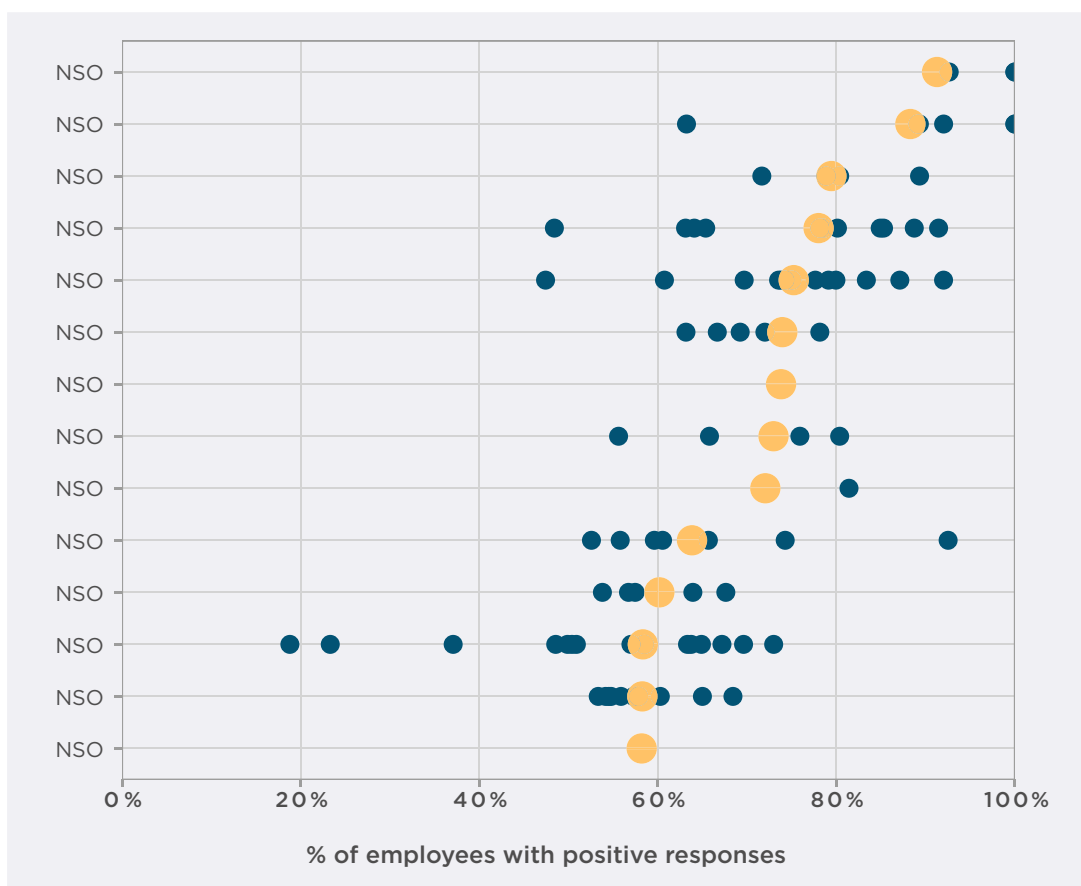
Disaggregating the data inside each NSO by unit/department underscores substantial variation in employee attitudes and competence across units. To illustrate, **Figure 19** plots the share of employees motivated to serve the public in each NSO (orange dots), as well as the share of employees motivated to serve the public inside each unit/department at the first level of hierarchy (blue dots) inside each NSO. The figure underscores that there is often more variation in employee attitudes inside an NSO across units/departments than variation across NSOs. For instance, in one NSO, public service motivation across

units/departments varies from 19 percent of staff in one unit to 73 percent of staff in another (by comparison, total variation across country averages is from 58 percent to 90 percent).



FIGURE 19

Public Service Motivation, by Unit inside Each NSO



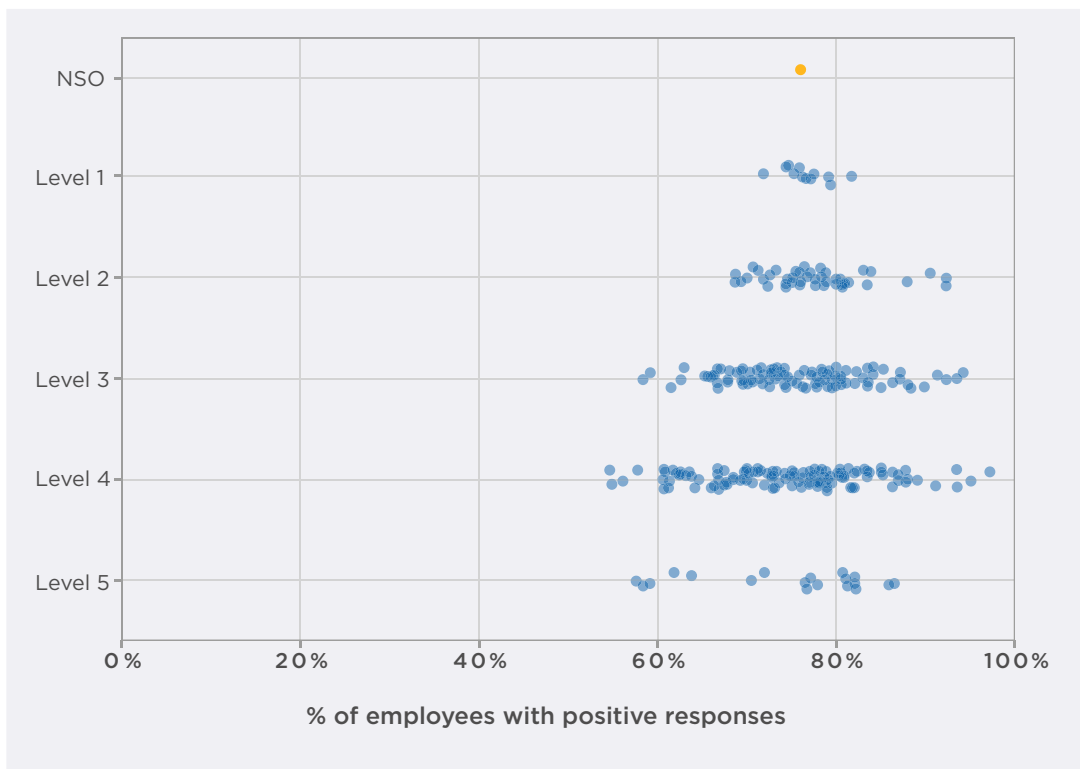
Note: Orange dots represent the share of employees motivated to serve the public in each NSO; blue dots represent the share of employees motivated to serve the public in each unit/department at the first level of hierarchy in the NSO.

This diversity in experiences of staff inside NSOs across units extends down levels of hierarchy. **Figure 20** plots work motivation by unit inside one NSO, split by levels of hierarchy in the organization. Across all five levels of hierarchy, there is significant variation in the motivation of staff across units. For instance, in levels 3 and 4 of the hierarchy, in some units, fewer than 60 percent of employees are motivated to work hard, while in other units at the same level of hierarchy, over 90 percent are motivated to work hard.



FIGURE 20

Work Motivation Index, by Unit across Five Levels of Hierarchy inside One NSO



Note: Each blue dot represents a unit/department inside the NSO; units are staggered by levels of hierarchy. The orange dot is the average work motivation in the NSO.

Employees are thus not only differentially motivated, committed, and competent across NSOs in LAC, but also inside NSOs across departments and units. In other words, different units achieve differential levels of motivation, commitment, and competence from their staff. As the next section shows statistically, this is in part due to differences in how effectively staff is managed in different NSOs and units/departments inside NSOs. How NSO employees are managed thus matters, and the next section turns to that.





MANAGING STATISTICS OFFICIALS EFFECTIVELY

Introduction

How to Manage Statistics Officials More Effectively



Introduction

Why are some statistics officials more motivated, engaged, committed, competent, and ethical than others? Why do these attitudes vary both across NSOs and inside NSOs across units/departments? As this section shall show, the answer is in part because different statistics officials are managed differently, and some management practices are systematically associated with greater work motivation, engagement, commitment, competence, and integrity.

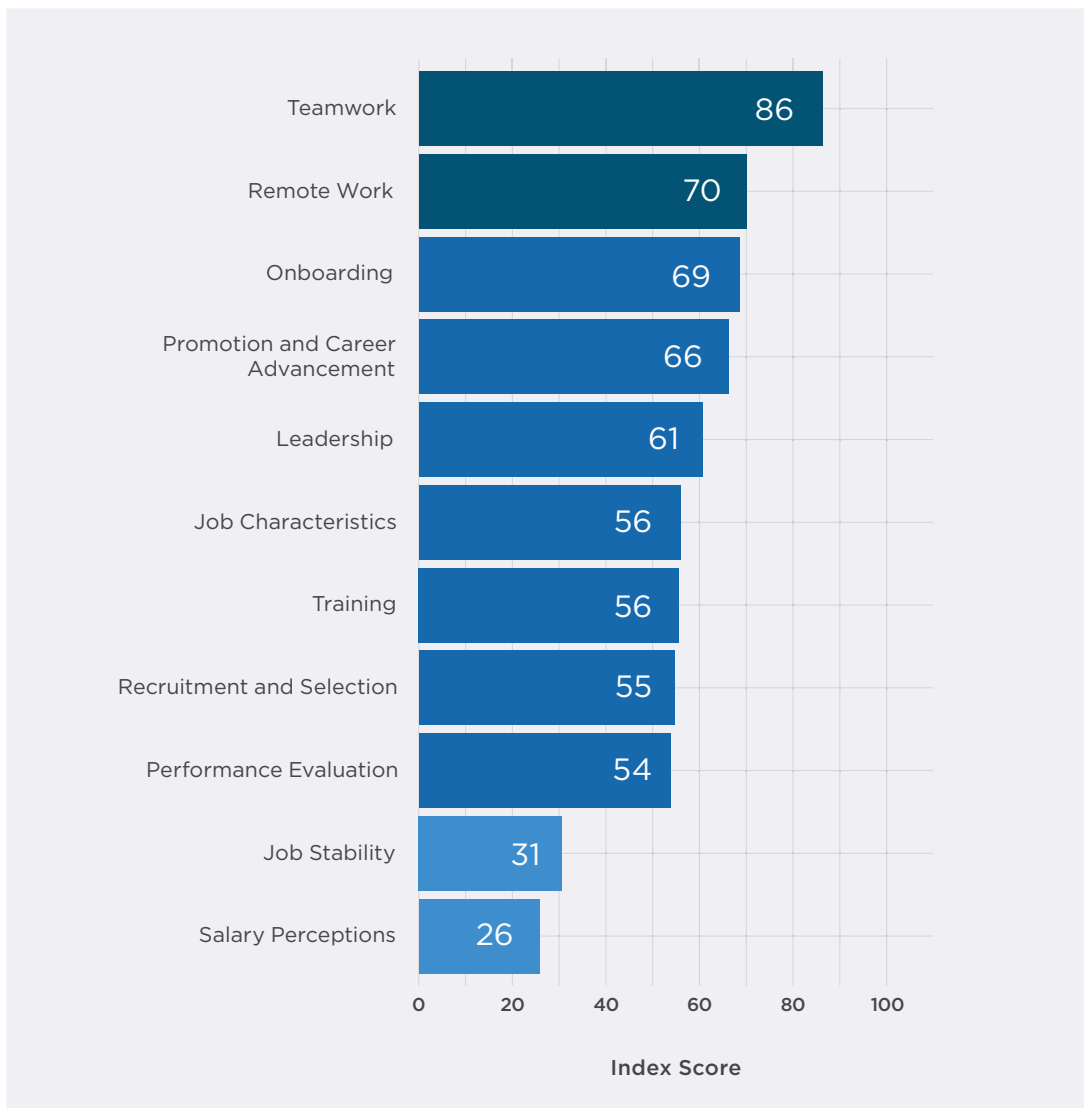
This section identifies such management practices statistically and provides an evidence basis for effective management of statistics officials. It also underscores that NSOs—and units or departments inside each NSO—sharply differ in the application of these management practices. The section thus showcases the significant margin for management improvements across LAC’s NSOs to attain a more motivated, committed, engaged, competent, and ethical NSO workforce.

Across the region, the management indices measured in the survey suggest that some practices are evaluated relatively favorably across NSOs—in particular teamwork (**Figure 21**). The report thus does not return to them in the section How to Manage Statistics Officials More Effectively below. Others—such as pay and job stability (during government transitions)—are evaluated poorly by employees across NSOs in Latin America. They thus constitute region-wide challenges, and this report provides a more detailed diagnostic and recommendations below. The remaining management practices sit in between; they constitute challenges in many NSOs in the region, but not all. The recommendations in this section should be considered with this caveat in mind.



FIGURE 21

Management Indices⁹



⁹ Small differences in aggregate management indices should be interpreted with care. They may stem from measurement (how indices are constructed) rather than substantive differences in the quality of management across different management practices.



How to Manage Statistics Officials More Effectively

#1 PAY ENOUGH TO RETAIN MOTIVATED STAFF.

Why Pay Matters

NSO officials who perceive their pay to be satisfactory, sufficient to maintain their households, related to their performance, and competitive with the private sector are, on average, significantly more intent on remaining in the NSO and committed to their organization (see **Appendix A**).

The Salary Perceptions Index measures the degree to which salaries are perceived by public servants as satisfactory, sufficient to maintain their households, competitive in relation to the private sector, and linked to work performance. As noted above, salary perceptions matter, in particular for organizational commitment and retention of staff.

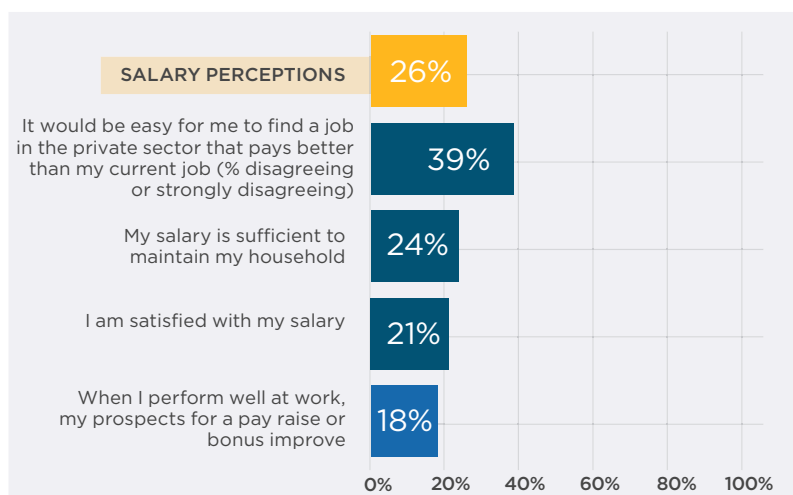
Across the management indices evaluated in the survey, salary perceptions are the worst-evaluated management practice (Figure 22):

- **Few NSO officials deem their salary satisfactory or sufficient.** Just 21 percent are satisfied with their salary, while 24 percent deem it sufficient to maintain their households.
- **Few NSO officials perceive a link between their work performance and salary.** Only 18 percent agree that, when they perform well at work, their prospects for a pay rise or bonus improve.
- **A minority of NSO officials perceive their salary to be competitive with the private sector.** Only 39 percent disagree that it would be easy for them to find a job in the private sector that pays better than their current job (though only 25 percent agree or strongly agree, with the remainder neither agreeing nor disagreeing).



FIGURE 22

**Salary Perceptions
Index, by Indicator**



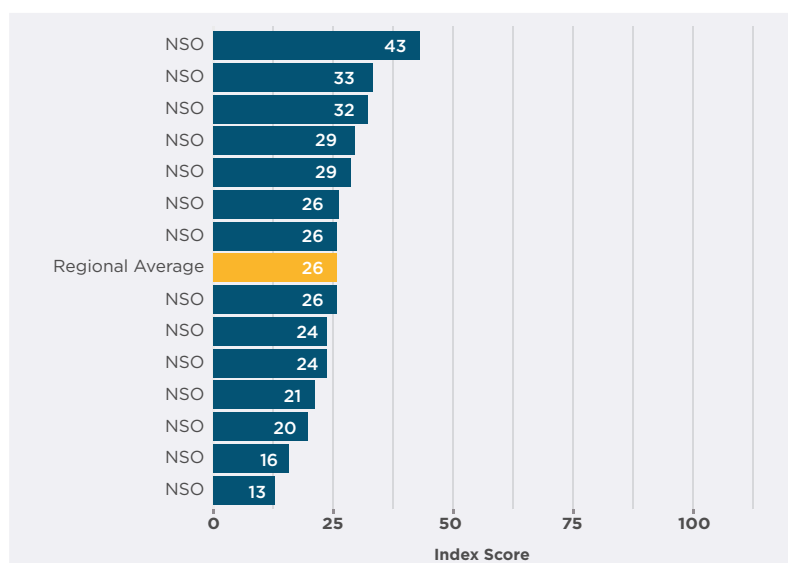
Salary perceptions in NSOs appear to be significantly worse than those in central governments generally. In a sample of central governments covered by the Global Survey of Public Servants, about twice as many respondents were satisfied with their salaries (42 percent) and found it sufficient to maintain their households (45 percent) (Fukuyama et al., 2022).

Salary perceptions are a challenge across all NSOs. The Salary Perceptions Index varies between 13 and 43 across NSOs, reflecting that in all NSOs, only a minority of NSO officials are satisfied with their pay (between 5 percent and 36 percent) or find it sufficient to maintain their households (between 10 percent and 40 percent across NSOs) (**Figure 23**). In all but a single NSO, only a minority of NSO officials believes that their pay is competitive with the private sector (between 18 percent and 60 percent) or linked to their work performance (between 7 percent and 53 percent). This underscores that poor pay perceptions are a cross-cutting management challenge in the region.



FIGURE 23

**Salary Perceptions
Index, by Country**



#2 STRENGTHEN MERIT RECRUITMENT AND SELECTION: ADVERTISE NSO JOBS PUBLICLY, SEEK CANDIDATES MOTIVATED TO SERVE SOCIETY, EVALUATE THEIR STATISTICAL COMPETENCE RIGOROUSLY, AND SELECT THEM BASED ON MERIT.

Why Merit Recruitment and Selection Matter

Merit recruitment and selection practices matter because they are, on average across the 13,300 NSO officials in the data, one of three management practices that predict greater statistical competence, as well as being associated with greater integrity, motivation to serve society, and motivation to work hard (see **Appendix A**).

The data underscores that the first step toward a more competent, ethical, committed, and motivated NSO workforce is to attract and select competent, ethical, committed, and motivated candidates for NSO jobs. The survey also shows that several recruitment and selection practices are central in this process.

The survey, in particular, asks NSO employees about their own experience with (i) recruitment—for instance whether they found out about their NSO job through a public advertisement (rather than word of mouth), and whether they were attracted to work for the NSO for the opportunity to serve society (rather than more self-interested concerns); and (ii) selection—for instance whether they were assessed through multiple methods (such as interviews and exams), whether their statistical competence was evaluated, and whether non-merit criteria (such as personal connections) helped them obtain their jobs.

As noted above, the Recruitment and Selection Index, which aggregates these practices, is statistically associated with greater statistical competence, integrity, motivation, and commitment of statistics officials. NSOs have potential for improvement across all of the practices captured in the index (**Figure 24**):

- **Jobs are often not publicly advertised.** Only 47 percent of NSO officials indicate they found out about their first position in the NSO through a public advertisement (instead of, for example, informal channels such as an acquaintance in the NSO).
- **NSOs often fail to attract candidates with a strong vocation for public service.** Only 39 percent of NSO officials indicate that the opportunity to serve society was one of the three most important factors for joining the NSO.

- **NSOs typically evaluate candidates through a single evaluation method.**

Only 40 percent of NSO officials indicate that they were evaluated in their selection for their first NSO job through at least two forms of evaluation (e.g., written exam, interview, psychometric evaluation). Different evaluation methods are predictive of different job aspects. Relying on multiple forms of evaluation when assessing candidates is thus important to select better candidates, yet it is underutilized in LAC's NSOs.

- **NSOs typically do not assess statistical methodological or programming skills in hiring statistics officials.**

Only 34 percent of those NSO officials who have statistical tasks in their jobs indicate that their statistical methodological skills and/or skills in programs for statistical analysis (e.g., R or STATA) were assessed in their selection process.

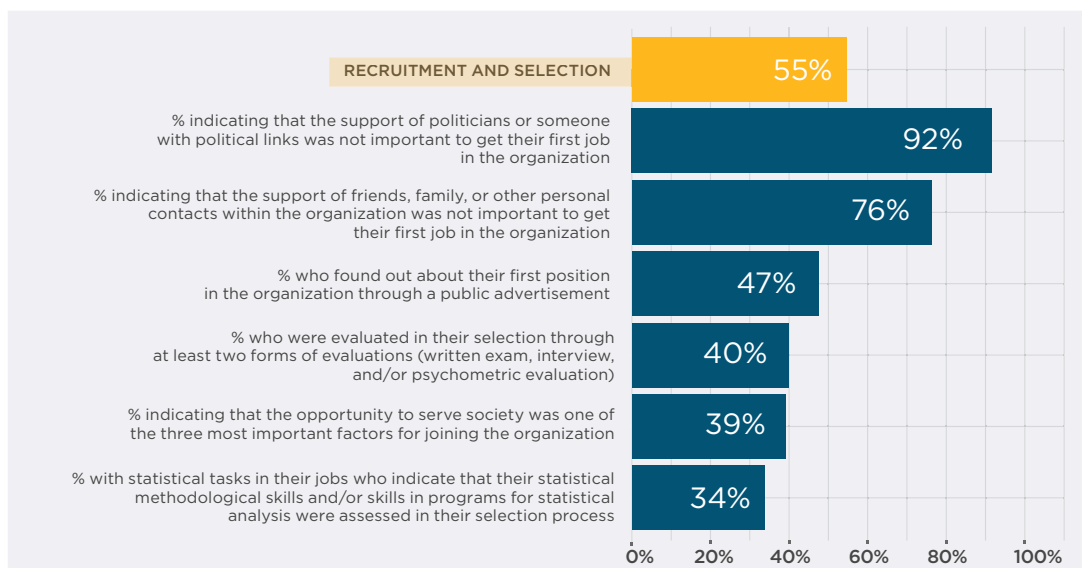
- **NSOs hire a subset of staff based on political or personal connections rather than merit.**

Notably, 24 percent of NSO officials indicate that the support of friends, family, or other personal contacts within the NSO had at least some importance for them to get their first job in the NSO, while 8 percent say the same about support from politicians or someone with political links. These percentages appear to be lower than in central governments in the global south generally. In a recent 10-country survey of public servants, 41 percent of respondents indicated that support from personal connections helped them get their first job, for instance (Meyer-Sahling, Schuster, and Mikkelsen, 2018). Yet, the NSO results remain significant relative to a fully meritocratic recruitment practice that does not rely on connections.



FIGURE 24

Recruitment and Selection Index, by Indicator

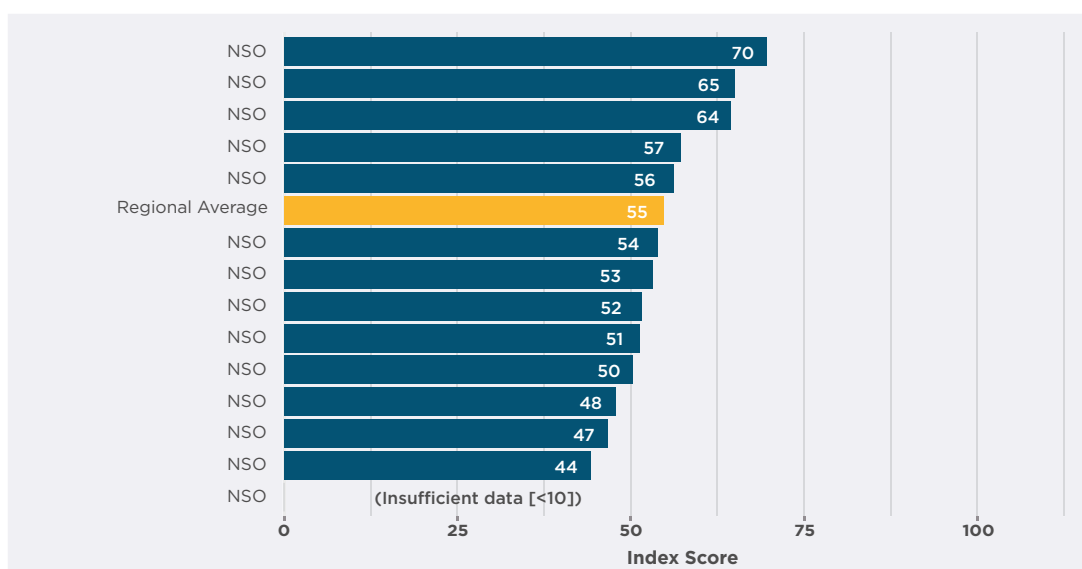


There are margins to improve the quality of recruitment and selection across NSOs. At the same time, NSOs exhibit significant variation in their recruitment and selection quality, with the index ranging from 44 to 70 across countries, with an average of 55 (on a scale from 0 to 100) (**Figure 25**).



FIGURE 25

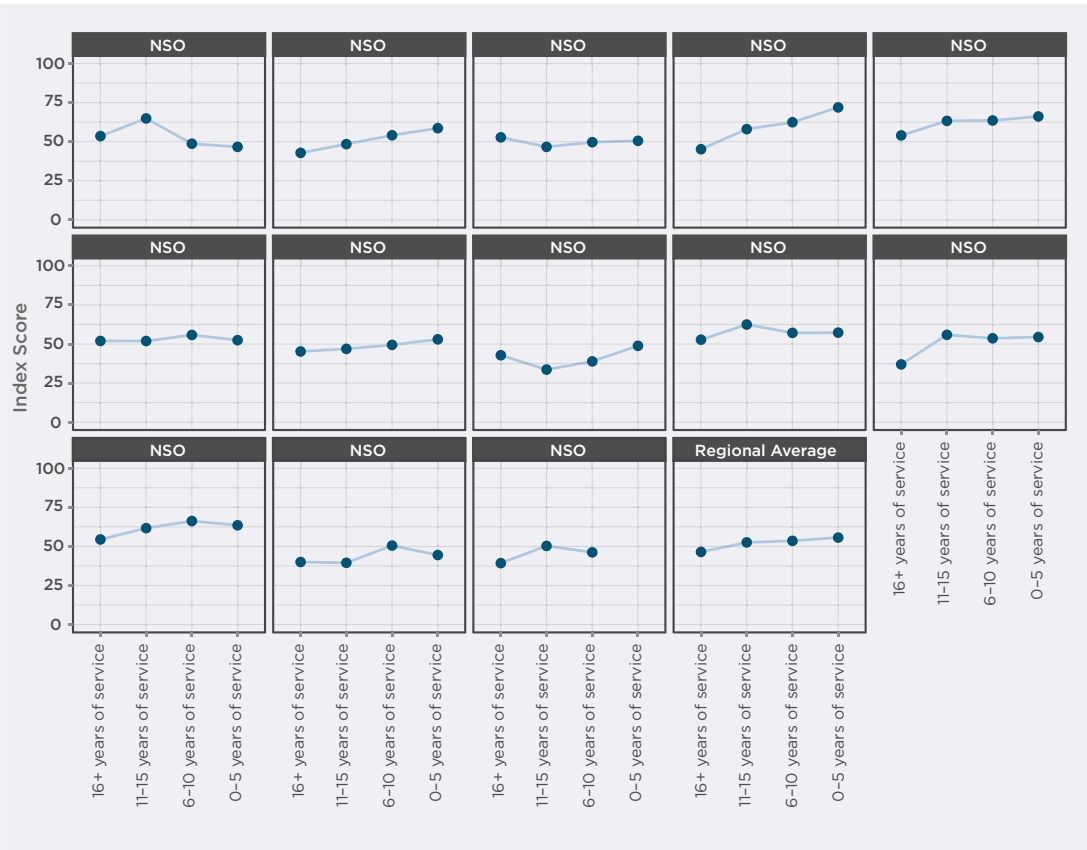
Recruitment and Selection Index, by Country



Recruitment and selection processes have improved significantly in the last two decades on average across LAC’s NSOs. Comparing the recruitment and selection experience of public servants recruited more than 15 years ago with those recruited in the last five years, the index rises by 10 points, from 46 to 56 (Figure 26). Some NSOs have dramatically improved the quality of their recruitment, with one increasing its score from 45 to 72, for instance. While 11 NSOs have strengthened recruitment and selection, three NSOs are the exception, with one maintaining its score and two deteriorating in the quality of their recruitment and selection processes in the last two decades.



FIGURE 26
Recruitment and Selection Index, by Years in the NSO



#3 EXPAND MERIT-BASED CAREER OPPORTUNITIES.

Why Merit-Based Career Opportunities Matter

Merit-based career opportunities—the availability of career opportunities and promotions based on performance (rather than connection)—matter because they are, on average across the NSO officials in the data, statistically associated with greater job satisfaction, work motivation, organizational commitment, and intent to remain in the organization, among others (see **Appendix A**).

The Merit-Based Career Opportunities Index measures the perceptions of meritocracy in promotion processes and opportunities for career development in the organization. As noted above, the index is statistically associated with greater job satisfaction, motivation, and commitment, among others.

The underlying indicators of the index suggest that, across LAC, NSO officials perceive career development opportunities to be mostly based on performance, but few in number (**Figure 27**).

- **Career development opportunities are limited for many NSO officials.**

Almost half—47 percent—of NSO officials indicate that they have good career development opportunities in their NSO. That career development opportunities are not available for all officials may, of course, reflect in part the nature of hierarchical, pyramidal structures in public sector organizations. Consistent with this assertion, surveys of central government employees find, like the NSO survey did, that only a minority of public servants—for instance, 41 percent in Chile—perceives having good career development opportunities in their institution (Schuster et al., 2020).

- **Work performance matters for promotions for most officials, while connections with friends or politicians matters for promotion prospects for 35 percent of NSO officials.**

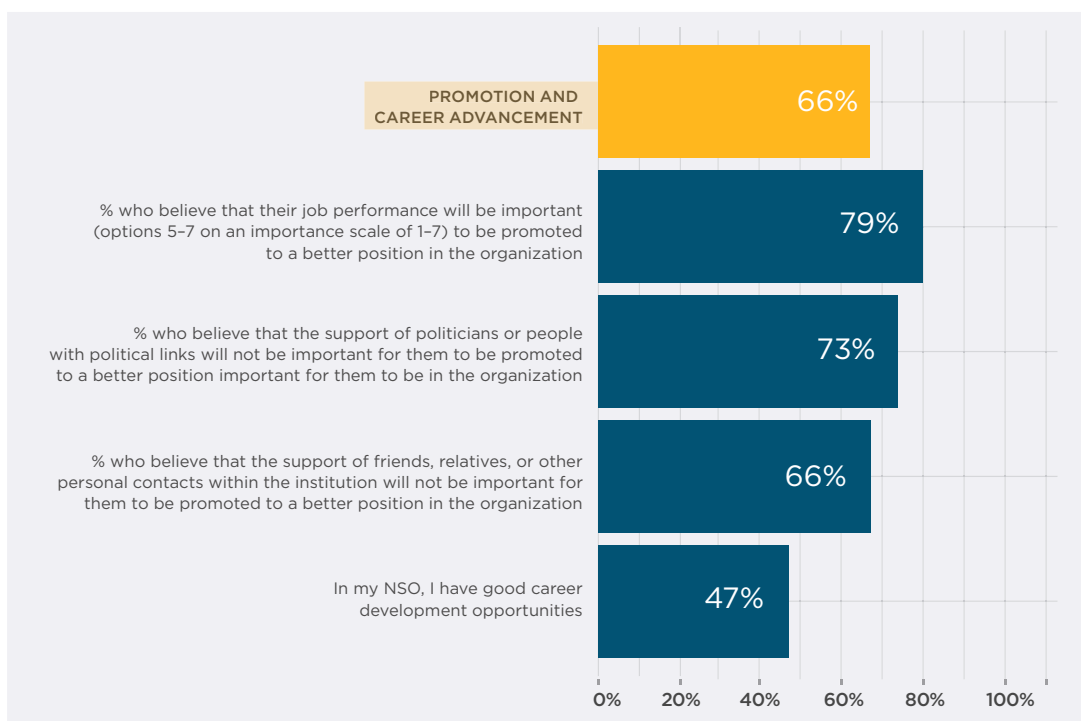
To get promoted to a better position in the NSO, 79 percent of officials believe that their job performance is very important (options 5–7 on an importance scale of 1–7). At the same time, 34 percent believe that support from friends, relatives, or other personal contacts within the NSO is at least somewhat important to get promoted to a better position in the NSO (at least 2 on a 1–7 importance scale), while 27 percent believe that support from politicians or people with political links will be at least somewhat important for them. These values are similar to those of central governments in the global south—and thus plausibly reflect more general government-wide challenges with merit-based career advancement. In

a recent 10-country survey of public servants, 34 percent of respondents indicated that support from personal connections helps them advance to better positions, for instance (Meyer-Sahling, Schuster, and Mikkelsen, 2018).



FIGURE 27

Merit-Based Career Opportunities Index, by Indicator

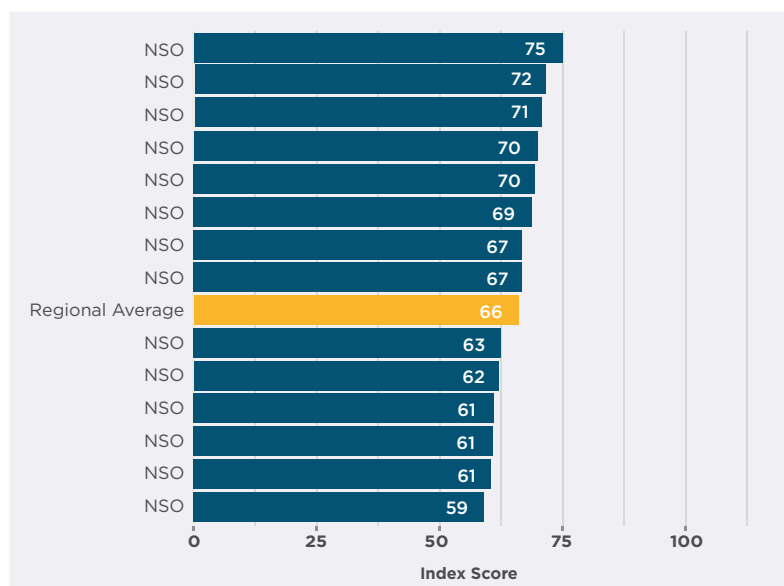


As with recruitment and onboarding, merit-based career opportunities significantly vary across NSOs. While the index averages 66, it ranges from 75 at the top to 59 at the bottom end across NSOs (on a scale from 0 to 100) (Figure 28). This variation across NSOs reflects in part the absence of career development opportunities. In some NSOs, only 30 percent of NSO officials indicate that they have good career opportunities (in others, this percentage reaches 68 percent). In part, the variation in the index also reflects the importance of connections (rather than merit and work performance) in determining promotions in some NSOs. At the bottom end of NSOs, 49 percent of officials indicate that personal connections matter at least somewhat for their promotion prospects, for instance (while, in the top-performing NSOs, this share falls to 21 percent).



FIGURE 28

Merit-Based Career Opportunities Index, by Country



#4 SAFEGUARD JOB STABILITY DURING GOVERNMENT TRANSITIONS.

Why Job Stability during Government Transitions Matters

NSO officials who perceive that they have job stability, including during government transitions, score higher on average on the Integrity and Competence Index in particular (see **Appendix A**).

The Job Stability Perceptions Index assesses the extent to which public servants perceive to have job stability, and the extent to which they perceive their job stability to be affected by government turnover. The index is statistically associated with greater integrity and competence, among other positive outcomes.

Across the management indices evaluated in the survey, perceptions of job stability score the second lowest (31 in LAC on a scale from 0 to 100), largely because:

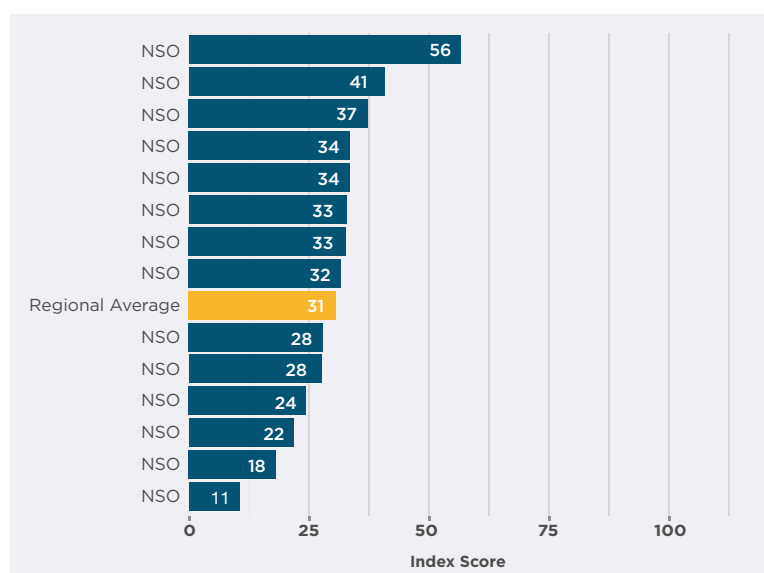
- **Most NSO officials do not think it would be difficult to dismiss them.** Only 26 percent agree or strongly agree that their dismissal would be difficult.
- **Many NSO officials believe that government turnover affects their job stability.** Only 35 percent disagree that government transitions (the election of a new government) affect their job stability (37 percent agree, with the remainder neither

agreeing nor disagreeing). While this is a perception—in some NSOs, actual turnover is low during government transitions—it can, as noted above, undermine integrity and motivation of NSO officials.

Low job stability perceptions are a challenge in most NSOs in LAC. The index ranges from 11 to 56 across NSOs (**Figure 29**). In some NSOs, up to 58 percent of employees agree or strongly agree that government transitions affect their job stability.



FIGURE 29
Job Stability Perceptions
Index, by Country



#5 IMPLEMENT GOOD-PRACTICE PERFORMANCE EVALUATIONS FOR ALL STAFF.

Why Good-Practice Performance Evaluations Matter

Good-practice performance evaluations—those that evaluate staff regularly, are relevant for personnel decisions, and follow good practice (e.g., comprise conversations with managers about objectives and results)—matter because they are, on average across the NSO officials in the data, statistically associated with greater work motivation, job satisfaction, and organizational commitment, among other positive outcomes (see **Appendix A**).

Good-practice performance evaluations are, as noted above, an important management practice to foster motivation and commitment, among other positive outcomes. The Performance Evaluation Index in the survey measures the extent to which (i) officials are regularly evaluated, (ii) good practices are implemented in performance evaluation processes, and (iii) the results of performance evaluations are relevant for personnel decisions (for example, in promotion decisions).

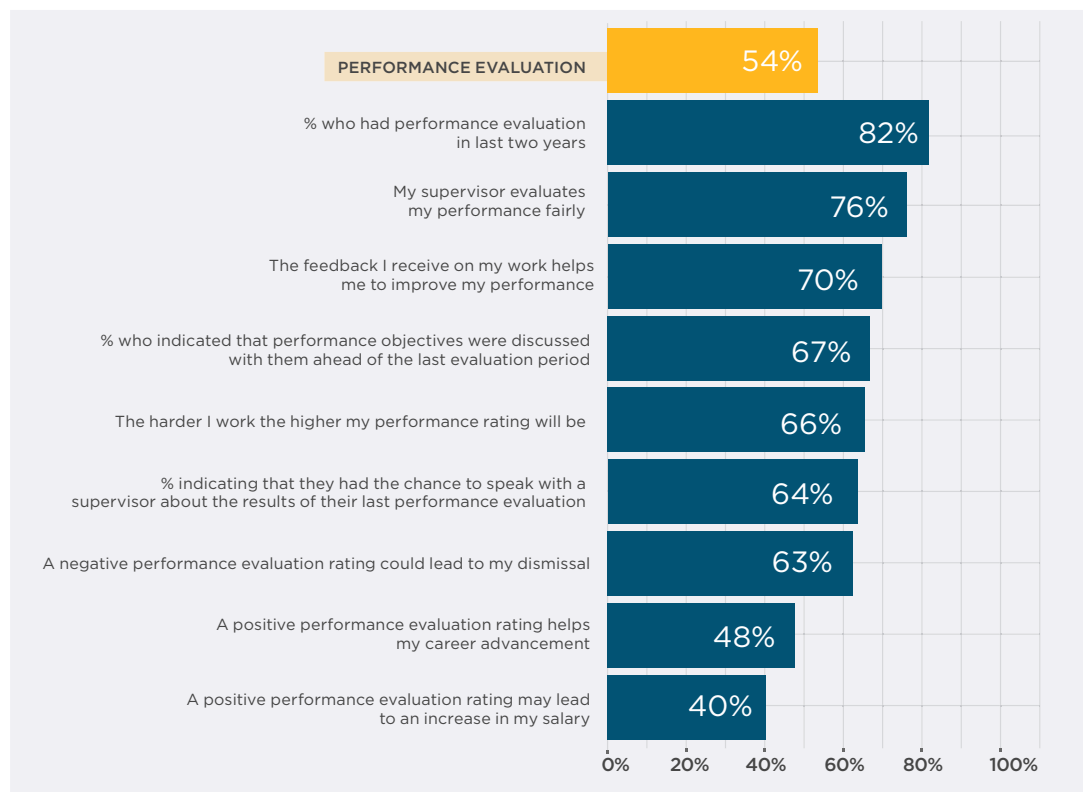
The underlying indicators of the index suggest that, across LAC, most NSO officials are regularly evaluated, and good practice is followed in roughly two-thirds of evaluations, but evaluation results matter in fewer cases (**Figure 30**).

- **Most NSO officials are regularly evaluated.** Of those surveyed, 82 percent indicate that their performance was evaluated in the last two years.
- **Roughly two-thirds of evaluations follow good basic evaluation practices.** For instance, 67 percent indicate that before their last evaluation period, performance objectives were established and discussed with them, and 64 percent indicate that they had the opportunity to discuss the results of their last performance evaluation with their superior. Further, 70 percent indicate that the feedback they receive on their work helps them to improve their performance; 66 percent perceive a link between their work effort and performance evaluation results, indicating that the harder they work, the higher their performance rating will be. Finally, 76 percent indicate that their superior evaluates their performance fairly.
- **Except for their job stability, most NSO officials do not perceive evaluation results to matter for personnel decisions.** Less than half believe that a positive performance evaluation rating may lead to a rise in their salary (40 percent) or help their career advancement (48 percent). At the same time, a majority (63 percent) believes that a negative performance evaluation rating could lead to their dismissal.



FIGURE 30

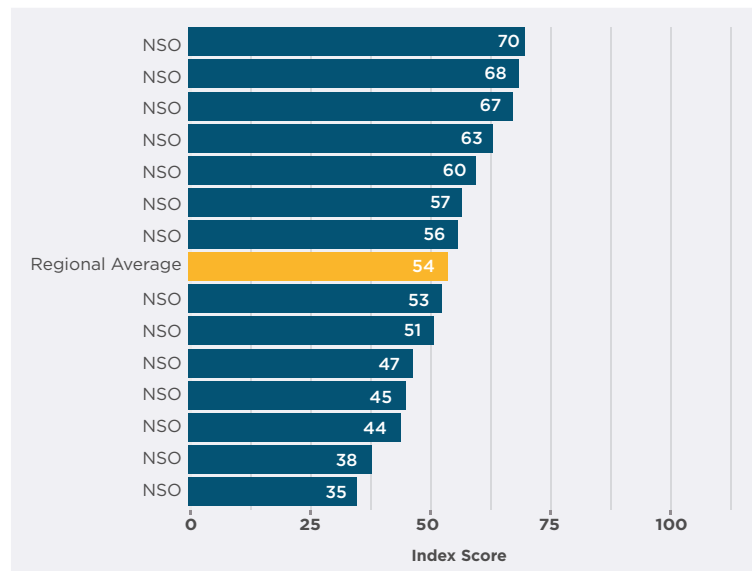
Performance Evaluation Index, by Indicator



As with the other management practices, **this regional average masks significant differences between NSOs**. As illustrated in **Figure 31**, the Performance Evaluation Index varies between 35 and 70 across NSOs in LAC. This reflects, first, significant differences across NSOs in the frequency of evaluations, with the share of NSO officials receiving evaluations in the last two years varying between 53 percent and 99 percent across NSOs. Differences in the index also reflect differences in good practice in evaluation. For instance, the share of NSO officials indicating they had a conversation about their last evaluation results varies between 43 percent and 93 percent across NSOs. Last, differences in the index stem from differences in the extent to which evaluation results matter. For example, the share of NSO officials indicating that performance evaluation results matter for pay increases varies between 16 percent and 74 percent across NSOs. A number of NSOs thus have margins to improve the frequency, quality, and relevance of performance evaluations of staff.



FIGURE 31
Performance Evaluation
Index, by Country



#6 ONBOARD NEW EMPLOYEES CONSISTENTLY INTO ORGANIZATIONAL CULTURES AND PUBLIC SERVICE, NOT JUST TEAMS, TASKS, AND RULES.

Why Onboarding Practices Matter

Onboarding practices matter because they are, on average across the NSO officials in the data, statistically associated with greater job satisfaction, work motivation, organizational commitment, and intent to remain in the organization, among other positive outcomes (see **Appendix A**).

After the recruitment and selection process, effective onboarding of new recruits matters. The survey assesses the presence of good onboarding practices of new recruits, in particular practices to familiarize new recruits with (i) their work tasks, (ii) their team, (iii) the organization (its culture and rules), and (iv) public service, in addition to (v) conversations about the particular qualities of new recruits and how they can contribute to the organization. Onboarding questions were only administered to respondents with three or fewer years of experience with the organization to foster accurate recall of the respondent's onboarding experience.

As noted above, the Onboarding Index, which aggregates these practices, is statistically associated with greater job satisfaction, motivation, and commitment of statistics officials, among other positive outcomes.

NSOs typically implement onboarding practices, though with greater emphasis on socialization into teams and work tasks than socialization into organizational culture and public service (Figure 32):

- **Most employees are onboarded into their team and work tasks.** Among newer NSO employees, 74 percent indicate that they had regular opportunities to interact socially (virtually or in person) with colleagues, while 76 percent indicate that they were given a clear sense of their job, tasks, and expectations.
- **Most new employees receive training in rules and systems, and it is explained to them how their job relates to organizational objectives.** Of those surveyed, 73 percent indicate that they received training to understand the rules, procedures, and work systems necessary to do their job; 76 percent indicate that it was explained to them how their job tasks contribute to NSO goals.
- **Fewer employees—though still a majority—are onboarded into the organizational culture of their NSO and public service.** The history and culture of the NSO was explained to 60 percent of NSO officials, while 67 percent indicate that the values of public service and their importance were explained to them.
- **Just over half of employees had the opportunity to discuss their unique individual qualities.** Only 54 percent indicate that they had an opportunity to discuss what is unique about them and what this allows them to contribute to the organization. Almost half of employees thus signal improvement potential in this onboarding dimension.



FIGURE 32

Onboarding Index, by Indicator

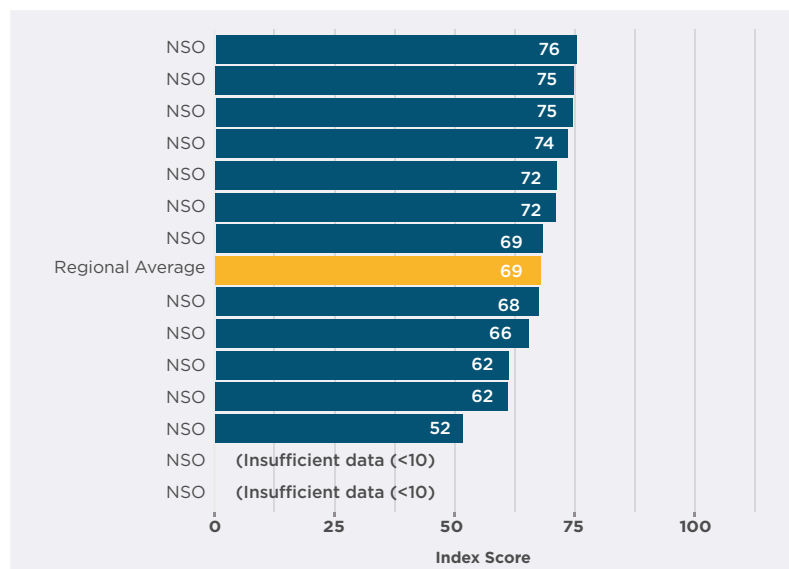


Attaining improvements to onboarding practices is a particular priority in a subset of NSOs. While the Onboarding Index averages 69 (on a scale from 0 to 100), it ranges from 76 to 52 at the bottom end (**Figure 33**).



FIGURE 33

**Onboarding Index,
by Country**



#7 PROMOTE GOOD LEADERSHIP PRACTICES BY MANAGERS.

Why Leadership Practices of Managers Matter

Leadership practices and trust in management are the strongest predictors of organizational commitment of NSO officials across all management practices in the survey, as well as one of the strongest predictors of job satisfaction and intent to remain in the organization, among other positive outcomes (see **Appendix A**).

The Leadership Index measures the extent to which the immediate superior applies good leadership practices—for example, the extent to which the superior generates and communicates enthusiasm for the mission and vision of the NSO—as well as the trust of public servants in senior management of the NSO.

On average, roughly 6 out of 10 NSO officials (61 percent) report good leadership practices, according to the aggregate index. The different leadership practices measured in the survey receive relatively consistent average scores in the region, with the exception of trust in senior management, which is evaluated substantially worse than ratings of the direct superior (**Figure 34**):

- **Most NSO managers are perceived to lead ethically, transformationally, caringly, and by example.** Of NSO officials, 64 percent indicate that their direct superior leads by example and communicates clear ethical standards; 61 percent indicate that their superior generates and communicates enthusiasm for the mission and vision of the NSO. A slightly lower proportion (57 percent) believes that their superior personally cares about their wellbeing. Most NSO employees thus evaluate the leadership of their direct superior favorably, though almost 4 out of 10 employees disagree. These values are similar to those found in central governments more generally. In a sample of central governments covered by the Global Survey of Public Servants, for instance, roughly 6 out of 10 (58 percent) agree that their superior generates and communicates enthusiasm for the mission and vision of their organization (Fukuyama et al., 2022).
- **NSO employees trust their superior more than senior management.** A good percentage of NSO officials—68 percent—indicate that their direct superior is trustworthy, while only roughly half (51 percent) trust senior management. This underscores significant margins for improving trust inside NSOs across levels of hierarchy.



FIGURE 34

Leadership Index, by Indicator

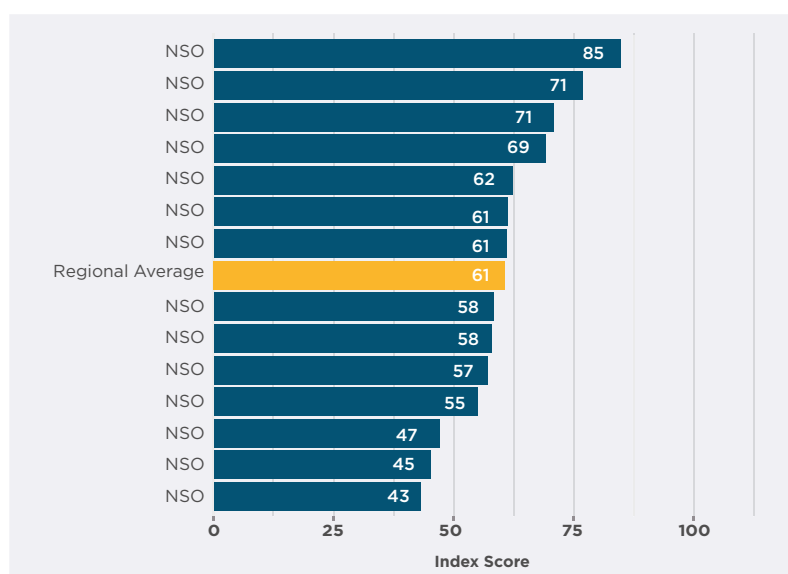


While NSO officials evaluate leadership practices favorably on average in the region, some NSOs are the exception. As illustrated in **Figure 35**, the Leadership Index varies from 43 to 85 (on a scale from 0 to 100) across countries. In some NSOs, most officials thus do not evaluate leadership practices favorably. For instance, at the bottom end of

the NSO distribution, as few as 32 percent and 46 percent trust senior management and their superior, respectively; 38 percent believe their superior cares about their wellbeing and 44 percent indicate that their superior leads by example. This underscores the importance of strengthening—in those NSOs in particular—leadership practices of superiors and trust in management.



FIGURE 35
Leadership Index,
by Country



#8 EXPAND STAFF TRAINING, INCLUDING ON INTEGRITY.

Why Training Practices Matter

NSO officials who indicate that they receive sufficient training to complete their work tasks effectively, and who have received training in ethics and integrity, are more committed to their organization, and engaged with their jobs, and, to a lesser extent, more ethical, among other positive outcomes (see **Appendix A**).

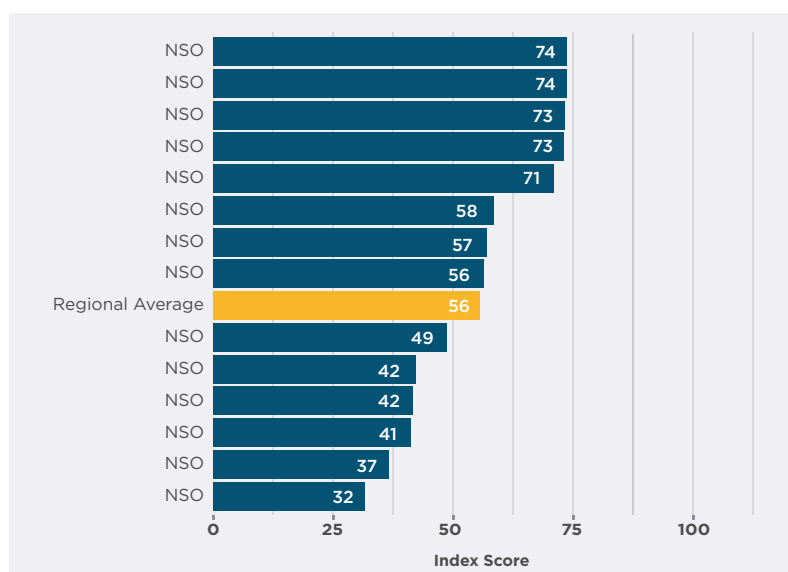
The Training Index measures whether public servants receive sufficient training to do their job effectively and whether they have participated in an ethics training in their organization.

On average across the region, **over half of NSO officials provide favorable responses to the index**. Of those surveyed, 52 percent of NSO officials indicate that they receive sufficient training to be able to complete their work tasks effectively, while 59 percent indicate that they have participated in ethics training.

In some NSOs, however, these shares are much lower. As illustrated in **Figure 36**, the Training Index varies between 32 and 74 across countries. At the bottom end of NSOs, only 15 percent of NSO officials have received ethics training, and 28 percent of officials indicate that they receive sufficient training to complete their work tasks effectively. In some NSOs, there are thus significant concerns about lack of sufficient training for staff.



FIGURE 36
Training Index,
by Country



#9 OFFER AND SUPPORT REMOTE (HYBRID) WORK.

The Remote Work Index measures the extent to which public servants who work remotely feel productive and not anxious working from home, perceive no obstacles (such as inadequate equipment) to working from home, and would like to work remotely after the pandemic. The index only considers responses from public servants who worked remotely (full- or part-time) during the two months preceding the survey.

At the time of the survey, less than half of NSO officials worked remotely (from their home) part- or full-time. Among respondents, 53 percent indicate that they did not work remotely in the two months prior to the survey; 25 percent worked remotely full-time, while 22 percent worked remotely part-time.

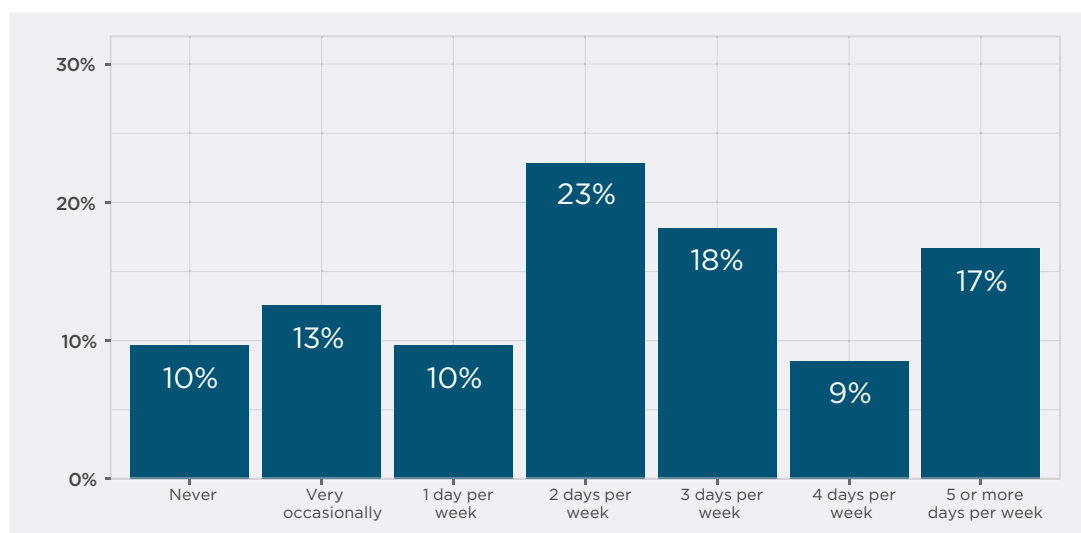
Effective remote work practices are not statistically associated with most employee attitudes such as job satisfaction, engagement, or organizational commitment (Appendix A).

However, **continuing to work remotely is in strong demand by NSO officials currently working remotely** and is thus arguably an important practice to attract and retain staff in the longer run. On average across LAC, 77 percent of NSO officials working remotely would like to work between one and five days per week from home (after the pandemic) and 17 percent would like to work full-time (five days a week or more) from home. A majority of NSO officials working remotely would thus like to work hybrid (some days from home, some days from the office) for the NSO (**Figure 37**). This is similar to central governments generally, where surveys of public servants during the COVID-19 pandemic suggest that most public employees want a hybrid work arrangement after the pandemic (Schuster et al., 2022).



FIGURE 37

Preferences for Working Remotely after the Pandemic



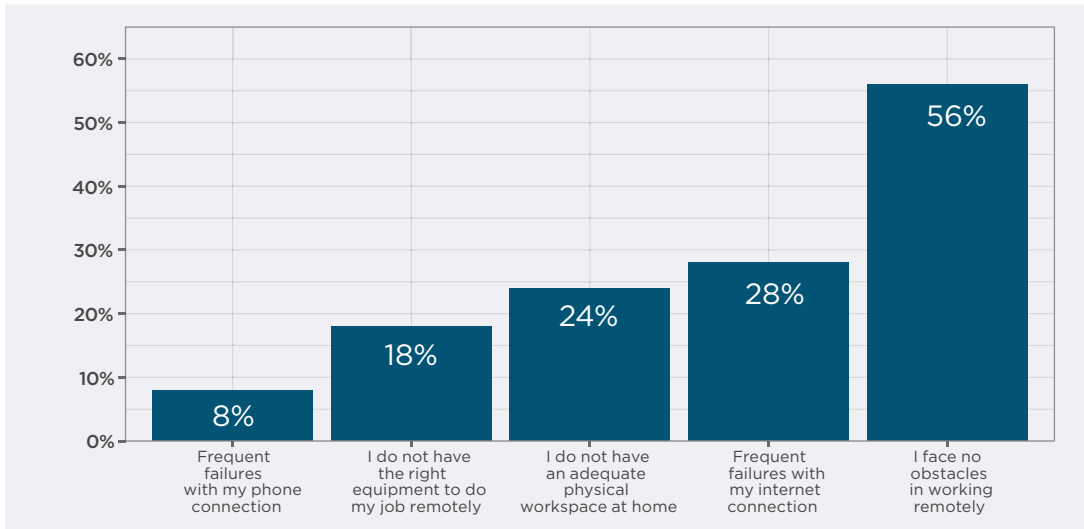
Most NSO officials working remotely believe their productivity and wellbeing is not adversely affected by doing so. Just 32 percent feel more anxious working remotely than working from the office; 35 percent feel less productive (22 percent feel more productive working from home, and 43 percent feel equally productive).

However, almost half of NSO officials working remotely indicate that they face obstacles when doing so. On a positive note, 56 percent indicate that they do not face obstacles working remotely. Others, however, point to lacking the right equipment to work remotely (e.g., computers) (18 percent) or an adequate physical workspace (24 percent), or experiencing failures with their internet connection (28 percent) (**Figure 38**). NSOs could thus do more to enable effective remote working, for instance by providing better equipment.



FIGURE 38

Difficulties Perceived during Remote Work (multiple responses possible)



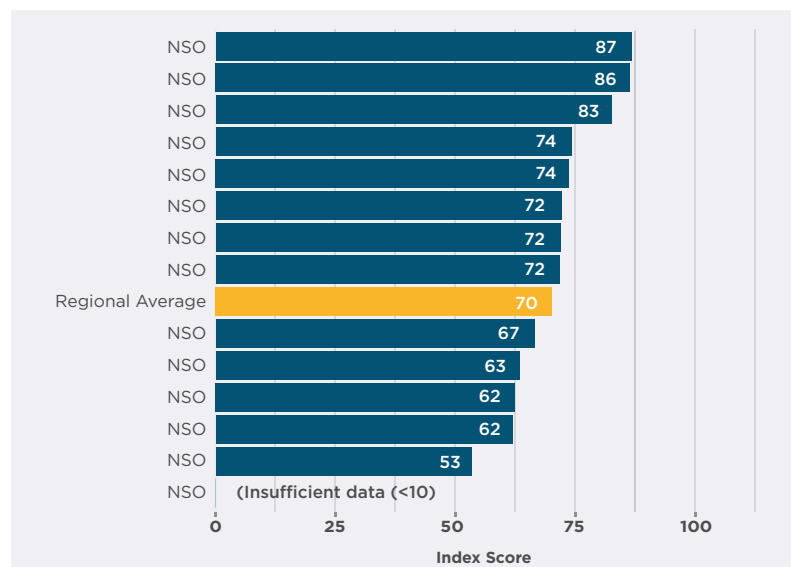
The remote work experience of NSO officials varies sharply across NSOs.

The Remote Work Index ranges from 53 to 87 on a scale from 0 to 100 (**Figure 39**). This reflects that, in some NSOs—due to NSO practices (e.g., inadequate equipment provided to staff to work remotely) or extraneous factors (e.g., poor internet connectivity in homes)—remote work is evaluated more poorly. At the bottom end of the NSO distribution, 57 percent of NSO officials feel more productive in the office, 67 percent feel more anxious working remotely, and only 43 percent report no obstacles when working remotely.



FIGURE 39

Remote Work Index, by Country



#10 RETAIN YOUNG PROFESSIONALS.

Why Retaining Young Professionals Matters

Young professionals score more highly on statistical competence than older NSO employees, but they are less satisfied with their jobs, less motivated, and less intent on remaining in the organization (**Appendix F**).

As noted in Section 1 of this report, ensuring adequate statistical competence of statistics officials is a challenge for many NSOs. At the same time, a subset of NSOs struggles with aging workforces, with the average age of staff exceeding 50 years.

For both reasons, retaining young professionals is important. Controlling for a series of other factors—such as the job task they have, the type of contract they are on, their education levels, their gender, and the NSO they work for—regression analyses show that **younger NSO officials score higher in statistical competence** (**Appendix F**).

At the same time, younger professionals are harder to retain. Greater age is significantly statistically associated with a greater intent to remain in the NSO. This is, plausibly, in part because greater age is also associated with greater satisfaction and engagement with one's NSO job. In short, younger professionals are less satisfied, less engaged, and less intent on remaining in the NSO. Retention is thus a challenge. Practices introduced earlier in this section that are predictive of retention—such as career development opportunities and higher pay—are thus particularly important in the case of young professionals.

Greater age is also statistically associated with higher levels of motivation and integrity. The cross-sectional data cannot discern whether this is (i) because NSO officials socialize on the job over time into service to society and integrity, (ii) due to generational differences between old and young NSO officials, or (iii) because NSO officials with lower motivation or integrity select out of NSOs over time. In any case, it underscores the importance of management practices that are predictive of integrity and public service motivation in young professionals, such as onboarding practices that socialize new recruits into public service and integrity, as alluded to earlier in this section.

#11 PROMOTE MORE WOMEN INTO LEADERSHIP POSITIONS.

Why Gender Equity in Leadership Positions Matters

Women are underrepresented in managerial ranks in LAC's NSOs despite evidence suggesting that leadership of managers in units/departments with more female managers is evaluated similarly by employees than leadership in units/departments with more male managers. Promoting gender equity in leadership positions would thus aid equity without undermining the functioning of NSOs.

As detailed in Section 1 of this report, **women are underrepresented in managerial ranks in LAC's NSOs** even though most NSO employees are women. As noted, 54 percent of NSO employees—but only 46 percent of NSO managers—are women. In the region, there are only 2 out of 14 surveyed countries in which the share of female managers is larger than the share of female employees in the organization.

Underrepresentation of women is a concern in its own right, with a potential lack of equal access to managerial positions.

The data suggests that women are as effective in managerial positions as men when it comes to personnel leadership. **Appendix G** showcases how employees evaluate leadership practices in units/departments with more female managers, relative to units/departments with more male managers (controlling for a range of other factors, such as the contract type of the respondent, years of service, gender, age, rank, salary level, unit, and NSO, among others). None of the differences are statistically significant. The data thus does not suggest that female leadership is perceived by NSO employees to be generically more or less effective.

#12 IDENTIFY MANAGEMENT IMPROVEMENTS THROUGH REGULAR EMPLOYEE SURVEYS.

Why Employee Surveys Matter

Management practices can often only be measured accurately through surveys that allow NSO employees to feed back on their lived experiences with management inside the organization. At the same time, these lived experiences with management practices

vary sharply inside each NSO, between departments or units. Diagnosing management challenges and identifying improvements thus requires data from each department/unit to develop tailored improvements. Employee surveys can provide such diagnoses.

The preceding items in this section identified common management practices for a more motivated, committed, ethical, and competent NSO workforce. They also underscored descriptively that management practices—and challenges—vary significantly across NSOs. Each NSO thus faces its own priorities and starting points for management improvements. In other words, which of the evidence-based management practices the prior sections identified are most important for management improvements inside an NSO will vary across NSOs.

An employee survey helps NSOs identify the practices that need improvement. The project thus encourages the replication of the instrument by other NSOs, or repetition of the survey by NSOs that have applied the instrument and obtained a country diagnostic based on it.

The survey goes further in the granularity it offers to identify in which units or departments which management improvements are most important for an organization. As detailed in Section 1 of this report, inside each NSO, different departments differ sharply in how motivated, committed, and competent their employees are.

Correspondingly, the survey also shows that, **inside each NSO, different departments differ sharply in how officials are managed.** Frequently, the variation in management practices from one department or unit inside an NSO to another is similar or larger than the differences between the NSO and other NSOs in the region.

To illustrate, **Figures 40 and 41** plot the Leadership Index and Performance Evaluation Index for each unit (first level of hierarchy) (blue dots) in each NSO (orange dots). While across all countries the Leadership Index varies by 44 points—between 43 and 85 on the 0–100 scale—inside a single NSO, the index varies by 44 points—between 43 and 87. In other words, **leadership practices across departments inside a single NSO vary more than average leadership practices across all NSOs.**



FIGURE 40

Leadership Index, by Unit/Department inside Each NSO



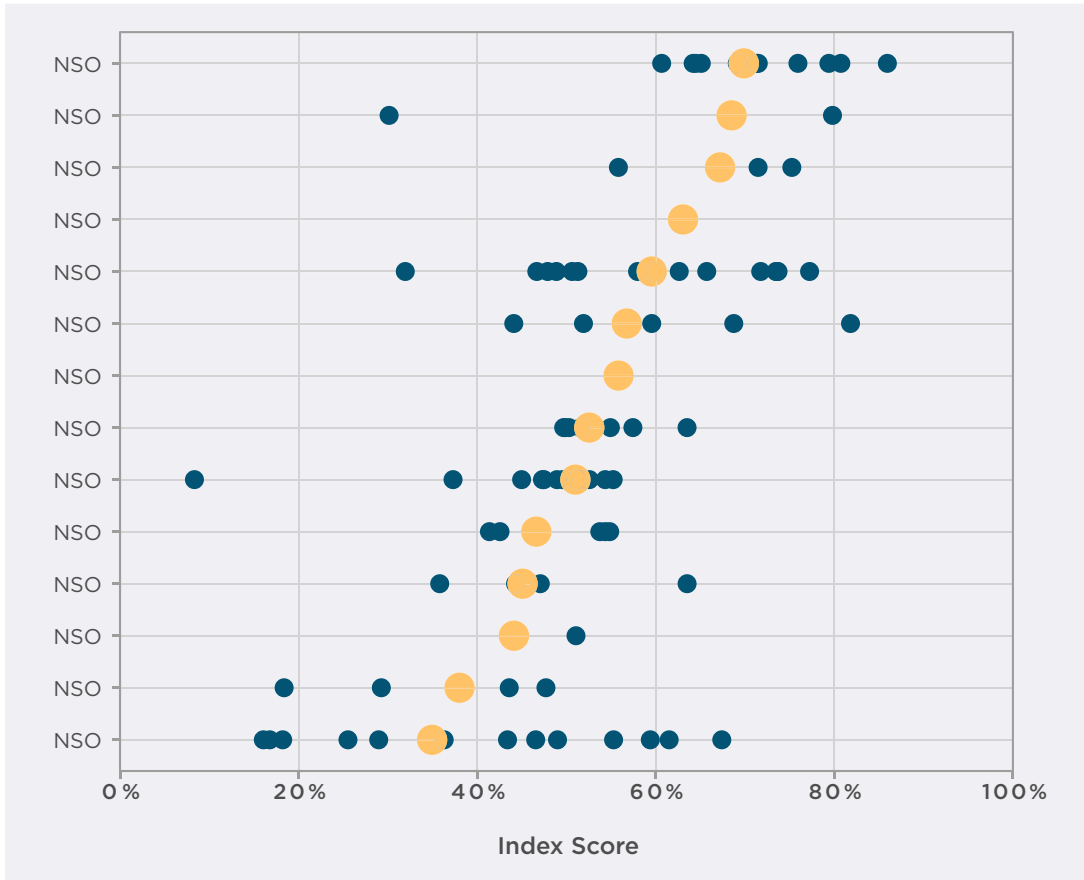
Note: Orange dots represent the Leadership Index for each NSO; blue dots represent the Leadership Index for each unit/department at the first level of hierarchy in the NSO.

Similarly, while the Performance Evaluation Index varies by 35 points—between 35 and 70—across countries, it varies to an even greater extent inside some NSOs. In the bottom-ranked NSO, for instance, the Performance Evaluation Index ranges 51 points, from 16 to 67, across departments (**Figure 41**). **The experience with performance evaluations thus varies more for officials from one office door to the next inside the NSO than it does from one country to the next.**



FIGURE 41

Performance Evaluation Index, by Unit/Department inside Each NSO



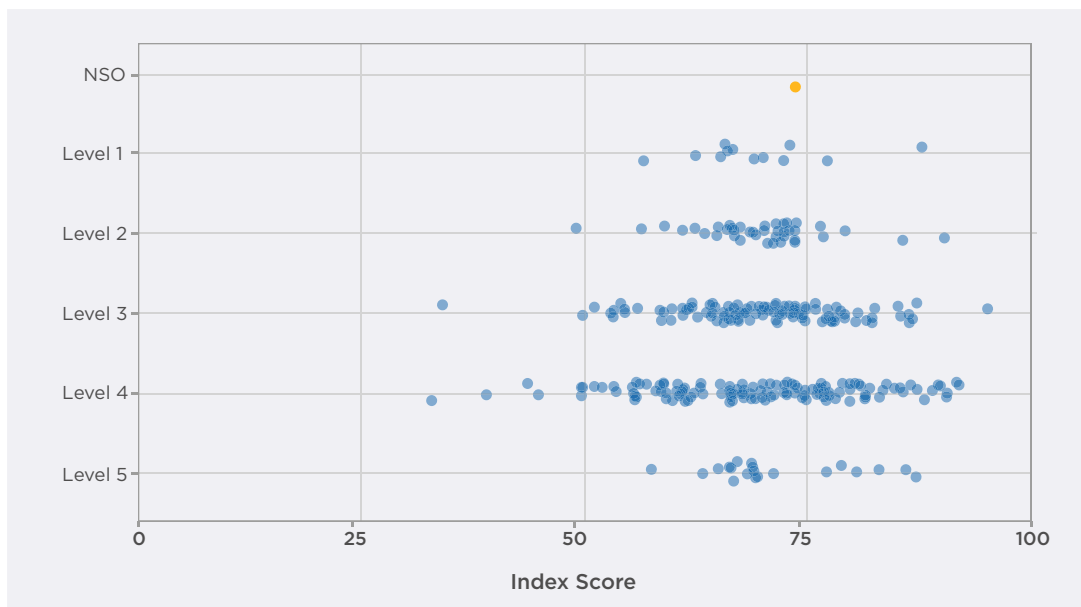
Note: Orange dots represent the Performance Evaluation Index for each NSO; blue dots represent the Performance Evaluation Index for each unit/department at the first level of hierarchy in the NSO.

This diversity in management experiences of staff inside NSOs extends down levels of hierarchy. To illustrate, **Figure 42** plots the Training Index for units/departments inside one NSO, split by levels of hierarchy in the organization. Across all five levels of hierarchy, there is significant variation in training perceptions among staff. For instance, at levels 3 and 4 of the hierarchy, in some units, the Training Index is below 35, while in other units at the same level of hierarchy it exceeds 85. Management practices thus vary sharply inside NSOs across departments even at the same level of hierarchy.



FIGURE 42

Training Index, by Units/Departments across Five Levels of Hierarchy inside One NSO



Note: Each blue dot represents a unit/department inside the NSO; units are staggered by levels of hierarchy.

Different units/departments inside each NSO thus require different management improvements. Understanding which management improvement is needed in which department/unit in turn requires diagnoses of management practices in each unit/department.

Employee surveys are ideally suited to provide unit/department-level management diagnostics. To illustrate, this report from the NSO LAC survey is complemented not only by 14 country reports but also almost 500 unit-level reports to enable managers of units/departments in each NSO to identify management challenges and improvements for their particular unit/department.

Employee surveys also enable NSOs to track progress and management improvements over time, when applied regularly and combined with workshops to identify improvements based on survey results. Many OECD governments implement employee surveys annually for that reason, together with systematic follow-up action (Khurshid and Schuster, 2023; Schuster et al., 2023). NSOs would do well to follow this trend; the survey questionnaire and sample diagnostic reports are freely available on the project's website to encourage replication to this end.¹⁰

¹⁰ See <https://www.iadb.org/NSOsurvey>.

Up-to-date and quality official statistics are an essential input for the design, implementation, and evaluation of public policies in a country. The international community has spent decades perfecting statistical instruments to collect statistical data. Yet, little is known about the statistics officials who produce this statistical data. The same measurement rigor that national statistical offices (NSOs) have applied to measuring others has not been applied to measuring NSOs themselves.

This report addressed this gap, based on a survey of 13,300 statistics officials in 14 NSOs in Latin America and the Caribbean (LAC). The survey uncovered important strengths in NSO workforces: most are motivated, engaged, and committed to their NSOs. Most also recognize conflicts of interest at work. These results for NSOs are relatively similar to those seen in surveys of public servants in governments generally. At the same time, the survey also underscored challenges: women are underrepresented in leadership positions, many statistics officials struggle with foundational statistical competencies, and some NSOs have aging workforces, to name just a few. As NSO officials are, relative to employees of other government agencies, responsible for carrying out highly technical tasks, results about many staff lacking foundational statistical-technical competencies are of particular concern.

The survey data also points to solutions. For example, strengthening merit-based recruitment and selection to recruit and select more competent candidates—including by evaluating statistical competence of candidates more rigorously—is central to strengthening statistical competence in NSOs, as is the retention of young statistics professionals, who score higher on statistical competence on average. On an upside, in line with the technical nature of NSO work, there appears to be less incidence of personal or political connection-based hiring (rather than merit-based recruitment) in NSOs relative to central governments generally. Yet, merit-based hiring does not translate into rigorous assessment of statistical methodological or coding skills in the hiring of most statistics officials.

Further, more women should be promoted to leadership positions to address their underrepresentation in senior ranks. NSOs are no different from central governments in this regard. The supply is there: most NSO employees are women. And NSOs should—like other central government organizations—make greater use of easy-to-implement steps to improve staff motivation and commitment. For instance, NSOs could provide training to managers to use checklists with effective onboarding and performance evaluation practices that should be followed every time a new employee joins the organization or an existing employee is evaluated. Currently, good practice is followed by some managers, but not others.

Significant scope for improving how NSO officials are managed—and enhancing how motivated, competent, and ethical they are—thus remains. Some of these management improvements may benefit from government-wide reforms in personnel management, spearheaded by Civil Service Agencies or Ministries of Public Administration, such as better standardized onboarding and performance evaluation practices. Others will require tailor-made solutions for NSOs, such as effective assessments of statistical skills at the point of recruitment.

Of course, each NSO in the region faces its own particular management challenges. Employee surveys are central to understanding those challenges and identifying evidence-based improvements. They are particularly important in NSOs given the inconsistency of lived experiences of public servants with management practices across different departments inside NSOs. Even for management practices for which formal organizational policies tend to exist—such as performance evaluations—the experiences of officials vary widely across different parts of the same NSO. Employee surveys can help identify those parts of NSOs that require strengthening in management practices in particular. Other NSOs in LAC, and in other parts of the world, may thus benefit from replicating the survey.

The survey questionnaire—together with sample country diagnostics and material to disseminate the survey to employees—is available free of charge for replication by other NSOs at <https://www.iadb.org/NSOsurvey>. The sample diagnostics online also contain action plan templates that NSO leadership and managers of each NSO department can follow to develop management improvements based on the survey diagnostics, ideally in workshops with their employees.

In short, the survey enables NSOs to apply the same measurement rigor to measuring themselves that NSOs apply to measuring others, such as households or firms. NSOs interested in implementing the survey are encouraged to get in touch with the authors of this report for further advice on implementation. Statistics officials deserve to have the same methodological rigor that is expected from them when collecting statistics be applied to improving staff management in the organization. It is time to take the statistical analysis—and evidence-based management—of statistics officials seriously.



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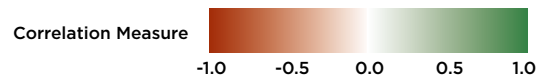
Appendixes



Appendix A Regression Analyses*

	Job Satisfaction	Work Motivation	Work Engagement	Organizational Commitment	Intent to Remain	Public Service Motivation	Integrity	Statistical Competence
Recruitment and Selection	0.03	0.07	0.05	0.04	0.04	0.06	0.09	0.04
Onboarding	0.21	0.14	0.18	0.29	0.15	0.08	0.08	N.S.
Promotion and Career Advancement	0.21	0.16	0.19	0.29	0.22	0.11	0.11	N.S.
Performance Evaluation	0.14	0.13	0.14	0.22	0.13	0.12	0.16	N.S.
Salary Perceptions	0.14	0.09	0.11	0.17	0.19	0.09	0.06	N.S.
Job Stability	0.05	0.06	0.04	0.06	0.07	N.S.	0.07	0.06
Job Design	0.29	0.26	0.30	0.32	0.24	0.17	0.15	N.S.
Leadership	0.21	0.23	0.22	0.23	0.25	0.16	0.12	N.S.
Training	0.17	0.19	0.19	0.27	0.15	0.11	0.11	N.S.
Teamwork	0.19	0.50	0.21	0.21	0.10	0.15	0.09	-0.02
Remote Work	N.S.	N.S.	N.S.	N.S.	N.S.	-0.02	0.09	0.07

Note: N.S. = Not Significant.



* The regression analyses that support these statistical associations in the report control for a series of factors to try to identify the effect of people management practices on the attitudes and competence of respondents including the country of the respondent as well as their gender, age, education, years of service, contract type, rank, task, and salary level. To make the tables easier to read, these control variables are not displayed. These analyses should be interpreted as suggestive rather than definitive, as they are based on regressions with cross-sectional data measuring perceptions.

The results underscore that all management practices included in this survey are statistically predictive of more favorable employee attitudes—such as greater work motivation or intent to remain in the organization—and that some management practices are more significant drivers of some employee attitudes than others.



Appendix B Statistical Integrity Scenarios*

Career pressures vs. statistical integrity

Hypothetically, imagine a public servant in a national statistical office (NSO) in the region is in charge of compiling crime statistics. The latest NSO crime survey contains, exceptionally on a one-off basis, a set of new questions of interest to the government about crime. The public servant calculates the new crime statistics, which are published in a government publication. The publication is politically important and the minister frequently mentions the new statistics in speeches.

A month later, the public servant who calculated the statistics realizes he made a mistake in the calculation. The numbers look significantly worse than what was published. The public servant knows his superior will be furious with him if entire government speeches were based on wrong numbers. The public servant is afraid he might lose his job if he discloses his mistake to the superior. As the crime questions were asked on a one-off basis, it is unlikely anyone will ever find out about the mistake. The public servant decides to remain silent about the mistake to keep his job.

Family pressures vs. statistical integrity

Hypothetically, imagine a survey interviewer is collecting household survey data for a national statistical office. She has a set quota of household surveys to complete each week. The survey interviewer is struggling to meet her quota next to her childcare obligations as a mother. At the end of a long week, one respondent is particularly slow to respond to survey questions.

The survey interviewer realizes she cannot finish the interview in time to pick up her kids from childcare, but she needs to finish the interview to meet her quota. To save time and be able to pick up her kids before the nursery is closed, the interviewer goes through all of the questions with the respondent, but she skips some of the response options that she is sure the respondent would not have answered anyway.

* The two ethics scenarios included in the survey were validated in a pilot with 124 public servants at Peru's NSO in August 2021. The two scenarios explain 95 percent of the responses to four ethics scenarios in the pilot, suggesting that they have predictive value over a broader range of ethical misconduct in relation to statistical integrity.



Appendix C Statistical Competence Measurement*

Cognitive Arithmetic

A bat and a ball cost \$110 in total. The bat costs \$100 more than the ball. How much does the ball cost?

- \$0
- \$1
- \$2
- \$3
- \$4
- \$5
- \$10
- \$20
- \$50
- \$100
- \$110
- \$210
- Don't know

Probabilities

A school has 50 teachers. The table below shows how long they have worked for the school, classified by their gender:

	Less than 3 years	Between 3 and 8 years	More than 8 years
Women	6	10	8
Men	9	15	2

What is the probability (in %) that a randomly selected teacher in the school is a woman?

- 0%
- 2%
- 6%
- 8%
- 10%
- 12%
- 20%
- 24%
- 25%
- 48%
- 50%
- 60%
- 80%
- 100%
- Don't know

Descriptive Statistics

The standard deviation of exam scores for a sample of 200 students is 10 points. An interpretation of this standard deviation is that:

- The exam scores tend to center at 10 points
- The range of exam scores is 10
- The typical distance of the exam scores from their mean is roughly 10 points
- The lowest score is 10
- Don't know

Survey Sampling

You are conducting a survey of firms in your country. You randomly choose firms to call and make 1,000 phone calls to firms scattered across the country. In this study, what is the statistics term for the firms in the country, and what is the statistics term for the firms you called?

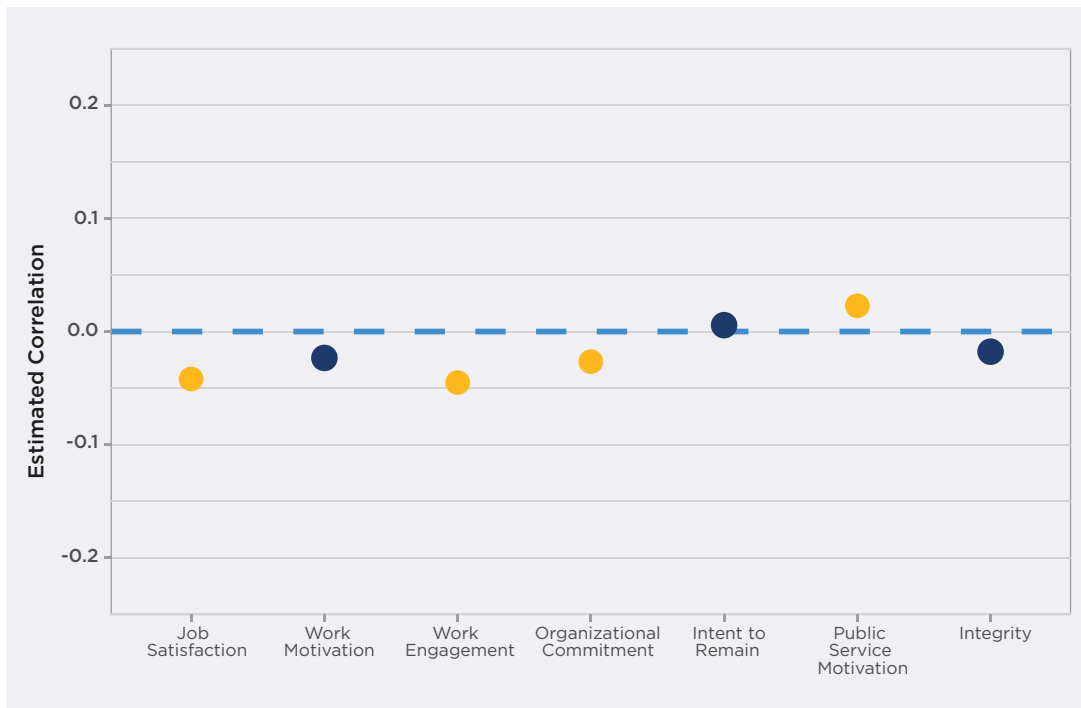
- Both the firms in the country and the firms you call are named POPULATIONS
 - The firms you call are the POPULATION, and the firms in the country are the SAMPLE
 - The firms you call are the SAMPLE, and the firms in the country are the POPULATION
 - Both the firms you call and the firms in the country are SAMPLES
 - Don't know
-

* These four questions were validated in a longer statistical exam with 124 public servants at Peru's NSO in August 2021. The four questions included in the survey explain 72 percent of the variation in the performance of a public servant in a statistical exam with 14 questions, which covers different statistical skills (basic and cognitive arithmetic, probabilities, descriptive statistics, correlations, sample design, inferences, and confidence intervals). The pilot also showed that for the vast majority of participants (83 percent), each of the statistical competencies included in the survey was perceived as very important for their work tasks. This underscores their relevance as basic competencies for the statistical tasks of public servants in NSOs.



Appendix D Regression Analyses:

Do Survey Enumerators Have Different Attitudes?*



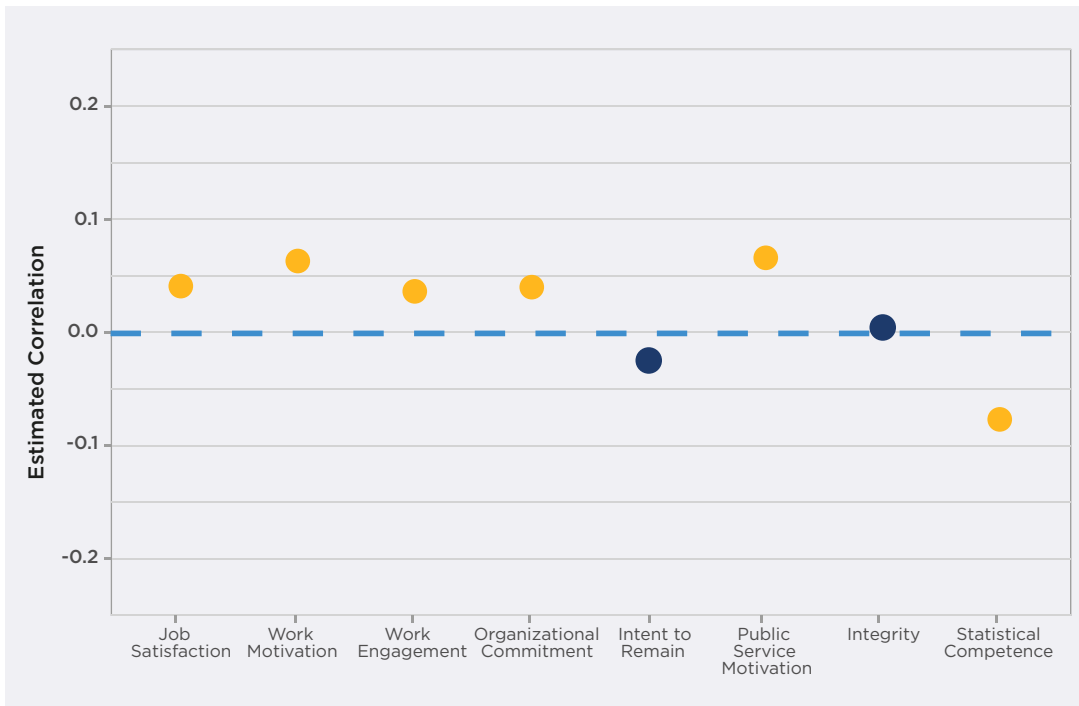
* The baseline category is staff not involved in survey enumeration tasks (but instead undertaking, for instance, administrative or statistical analysis tasks). The regression analyses that support these statistical associations control for a series of factors, including the country of the respondent as well as their gender, age, education, years of service, contract type, rank, and salary level. To make the figure easier to read, these control variables are not displayed, and statistically significant effects are in orange. These analyses should be interpreted as suggestive rather than definitive, as they are based on regressions with cross-sectional data measuring perceptions.

The results underscore that, controlling for the aforementioned range of other factors, survey enumerators are slightly less satisfied with their jobs, engaged with their work, and committed to the organization (though slightly more motivated to serve society).



Appendix E Regression Analyses:

Do Temporary Employees Have Different Attitudes and Competence Levels?*



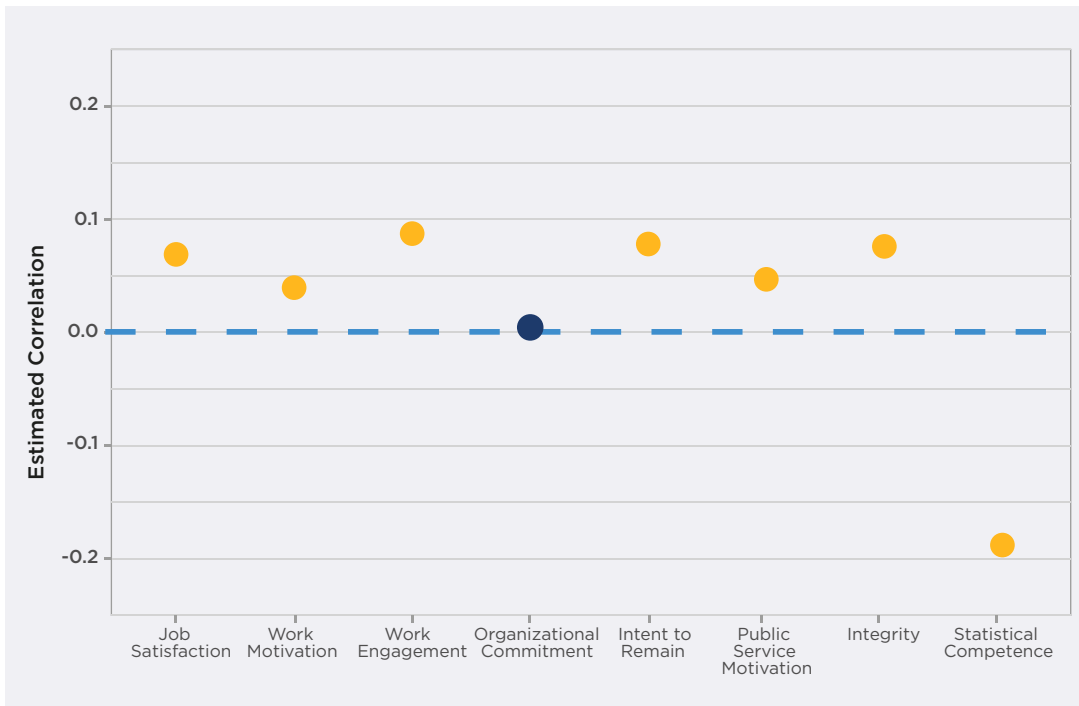
* The baseline category is employees with a permanent contract. The figure displays the effect of temporary contracts, controlling for a series of factors including the country of the respondent as well as their gender, age, education, years of service, rank, task, and salary level. To make the figure easier to read, these control variables are not displayed, and statistically significant effects are in orange. These analyses should be interpreted as suggestive rather than definitive, as they are based on regressions with cross-sectional data measuring perceptions.

The results suggest that, controlling for other factors that contract types can, of course, shape (such as years of service in the NSO), this report finds that NSO employees on temporary contracts are more motivated, satisfied, engaged, and committed, but less statistically competent on average than those on permanent contracts in the NSO.



Appendix F Regression Analyses:

Do Older NSO Employees Have Different Attitudes and Competence Levels?*



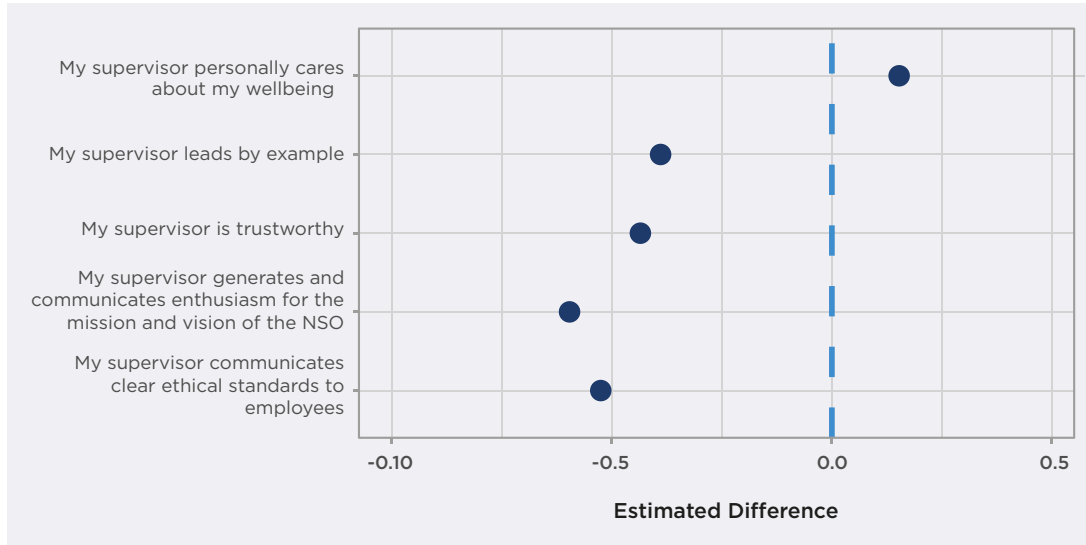
* The regression analyses that support these statistical associations control for a series of factors, including the country of the respondent as well as their gender, age, education, years of service, contract type, rank, task, and salary level. For readability of the figure, these control variables are not displayed, and statistically significant effects are in orange.

The results underscore that, controlling for the aforementioned range of other factors, older NSO employees are more satisfied, engaged, and motivated with their jobs, are more intent on remaining in the NSO, and display greater levels of integrity, yet also score lower in statistical competence.



Appendix G Regression Analyses:

Are Perceptions of Leadership Practices in Units/Departments with More Female Superiors Different from Departments/Units with More Male Superiors?*

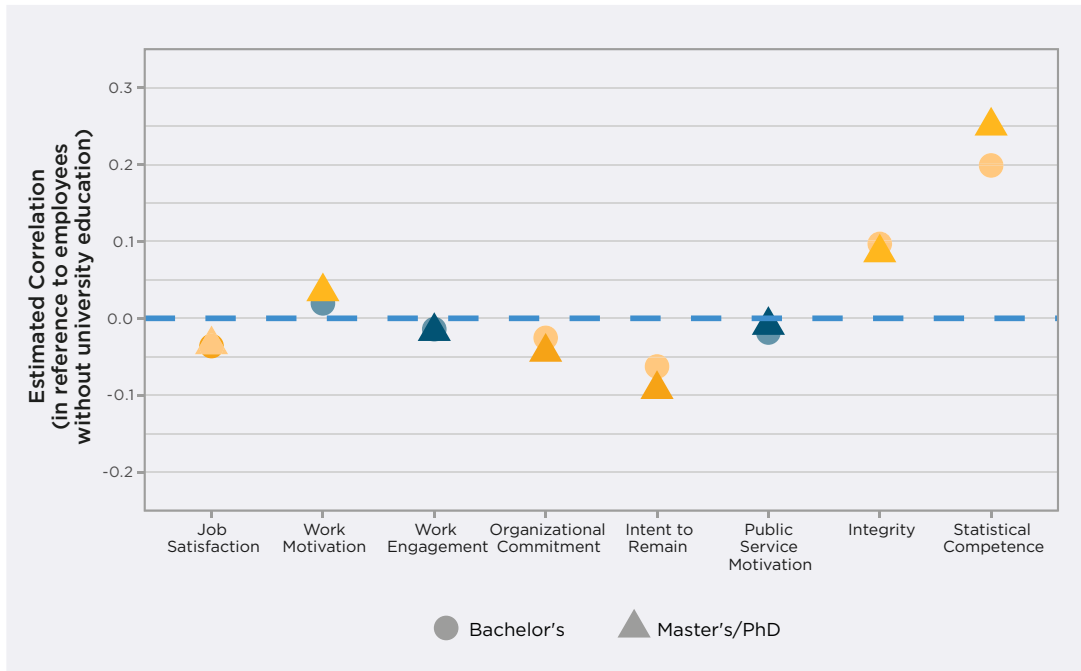


* The baseline category is units/departments with more male superiors. The regression analyses that support these statistical associations control for a series of factors, including the country of the respondent as well as their gender, age, education, years of service, contract type, rank, and salary level. To make the figure easier to read, these control variables are not displayed. None of the estimates in this figure are statistically significant.



Appendix H Regression Analyses:

Are Higher Education Levels of NSO Employees Associated with Greater Statistical Competence, Motivation, and Integrity?*



* The baseline category is NSO employees without a university degree. The regression analyses that support these statistical associations control for a series of factors, including the country of the respondent as well as their gender, age, years of service, contract type, rank, and salary level. To make the figure easier to read, these control variables are not displayed. Statistically significant effects are in orange.

The results underscore that, controlling for the aforementioned range of other factors, NSO employees with undergraduate and Master's education are—relative to NSO employees without university degrees—less satisfied with their jobs, less intent on remaining in the NSO, and less committed to the NSO, but they are more motivated to work hard and score higher in integrity and statistical competence.



This publication offers a detailed and in-depth analysis of the skills, ethical standards, and analytical capacity of the staff of national statistical offices (NSOs). A deeper understanding is essential to increase the competence and rigor of these offices, and also positions them as pioneers in the changing and demanding world of official statistics. The evidence presented is an invaluable resource for NSOs in Latin America and the Caribbean and beyond, guiding them into a new era of improvement in statistical accuracy and operational effectiveness.

GRACIELA MÁRQUEZ

President National Institute of Statistics and Geography (INEGI), Mexico



Even with the tremendous potential offered by new data sources, I am convinced that official statistics—the fundamental building blocks of development data—will remain essential for efforts around improving people's lives and safeguarding the planet. However, the vital work of producing these foundational data often goes unnoticed. This report highlights these efforts while revealing more about and from people working in NSOs in Latin America and the Caribbean, offering crucial insights into successful statistical operations in the region and paving the way for improving them the world over.

HAISHAN FU

Chief Statistician and Director of the Development Data Group World Bank



The most precious asset of any NSO is a dedicated professional staff. While we tend to measure everything around us, it is surprising that we are not as keen to measure ourselves. The evidence presented herein clearly changes this, focusing not on measuring the quality of statistics but rather on measuring the quality of statisticians and institutional and management arrangements. The results show that management matters! The text offers specific proposals on how to improve and modernize management practices, based on evidence. I look forward to discussing the content and conclusions with my own staff as well as seeing how my peers—the chief statisticians in Latin America and the Caribbean—will use the insights to improve their own NSOs. This publication offers a valuable starting point for conversations and the exchange of best practices among chief statisticians across the globe.

STEFAN SCHWEINFEST

Director United Nations Statistics Division



The production of official statistics requires solid instruments and methodologies as well as trained and committed teams to process and analyze the data. This study provides a novel look at the personnel of the national statistical offices in Latin America and the Caribbean and offers useful recommendations for more effective human resource management. Without a doubt, it will be an essential reference in improving and modernizing statistics in the region.

ROLANDO OCAMPO

Director Statistics Division, Economic Commission for Latin America and the Caribbean

