CHAPTER 1

Introduction to *The Government Analytics Handbook*

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THE TRANSFORMATIVE POWER OF GOVERNMENT ANALYTICS

In 2016, Kim Wells, a senior member of the US federal government's Federal Employee Viewpoint Survey (FEVS) team—perhaps the world's most famous survey of public servants—had an appointment with an imposing ex-marine who had entered the public service as a manager. The marine still had a soldier's physicality about him as he entered the conference room with Kim, and you could see that he brought his military management style with him to his duties. For so many members of the US military, the idea of excellence is fundamental to how they see themselves and their work. His identity was rooted in the idea that he was an outstanding manager. And if you had asked him, he would have woven a narrative of success against all odds in the work that he and his team were doing.

Yet he was failing: failing to create a work environment for his staff in which they felt engaged, mentored, and safe. Kim had surveyed his entire team, giving each of them a chance to provide feedback and for that feedback to be compared with the experiences of other officials working under different managers. And the truth was that this burly ex-marine was failing his team, himself, and his country. He broke down in tears in front of Kim. His view of himself had been confronted by the survey data that gave his staff a voice they could not have had otherwise. He knew he needed to change and improve how he managed his team—and the survey data told him exactly how to go about doing it.

At roughly the same time, but more than four thousand miles to the south, Brazil's federal government was heading for financial catastrophe. Under the existing pay and pensions regime that compensated federal employees, wage costs were about to skyrocket. Seeing the impending danger through the dense wording of public contracting law was daunting. Mirian, a member of the Ministry of Economy, suspected something was wrong, but couldn't put a finger on what lay ahead. So, Mirian had a team calculate what the future of payroll and pensions looked like for every individual in the federal government under the existing regime. The danger suddenly seemed very real. As wages skyrocketed, funding for other inputs to government services would become unaffordable. Services would have to be stopped. Fortunately, Mirian had also asked the team to model other feasible scenarios. These cases gave the government the means to negotiate with politicians and other stakeholders and pass legislation to change compensation rules in time to avert catastrophe.

Four thousand miles east, the government of Nigeria had received debt relief from the Paris Club group of creditors in 2005 worth US$18 billion. Many Nigerians wanted to know what would happen to those funds, including Amina Mohammed, a northern Nigerian who was almost invariably clothed in traditional dress and had a background in both engineering and civil society advocacy. The president asked Amina to join his team, and over the next few years she built one of the world's most innovative public sector tracking systems to follow the financial gains of debt relief through government.

From her office in the Presidency, Amina tracked every naira of those funds, combining budget, program, and audit data systems and sending teams to visit every project site. It was truly frontier analytics, showing where and how badly the government was failing. Some organizations fulfilled their commitments completely. Others did not. In 2006, for instance, the Ministry of Water Resources received US$475 million to develop water infrastructure across the country. In return, it produced nothing. The ministry's officials seemed busy and budgetary releases were made. But when Amina's teams visited the sites that had been allocated funds all across the country, they could not find a single project that had been completed. Amina took this evidence to the president and won the political and bureaucratic space she needed to create new ways of spending government resources, such as a grants scheme to state governments that only paid out if water infrastructure was actually produced.

This book, *The Government Analytics Handbook,* is about enabling individuals like Kim, Mirian, and Amina to change their governments for the better. It draws on a moment in history when the world is capitalizing on innovations in measurement, data collection, and data analysis at an unprecedented scale. Never before has the world been able to build a richer picture of the realities of the public sector. The question for each and every public sector official, manager, and leader is what they are going to do with this revolution. How governments collect, analyze, and use microdata to improve the administration of government—or undertake what this *Handbook* calls government analytics—will determine how effective they are in this new world.

Government analytics can help solve big issues in public administration—governmentwide administrative challenges, as in the case of future fiscal liabilities from Brazil's payroll. But as important it can also help government organizations improve in small ways, addressing specific management challenges in specific teams in specific government organizations, as with the example of the former US marine. When small improvements happen across thousands of teams inside government—as enabled by regular governmentwide employee surveys, for instance—even small changes can transform government.

What do we mean by government analytics? It is the repurposing of administrative and survey data from within government to improve the way government functions. It uses microdata to diagnose the inputs, management practices, processes, outputs, or outcomes in public sector organizations, units inside such organizations, and/or public administration as a whole. These diagnoses can pinpoint how well government is functioning—or not. Microdata provide information about the characteristics of individual people or entities such as individual officials or departmental units in the case of government, or households, business enterprises, or farms in the case of the private sector. Such data can measure and study relationships among phenomena at a very granular scale, such as how the management practices of individual public service managers affect the productivity of their teams. Microdata can come from a range of sources: unit-level data obtained from sample surveys, wider censuses, and general administrative systems.

Government analytics is not restricted to governments with more advanced information technology (IT) platforms and employee records, like Brazil and the United States. Instead, it has been of use to governments around the world and at all stages of administrative development, as illustrated by Amina's efforts in Nigeria. We have had the good fortune of being collaborators and witnesses to many such improvements. Government analytics has, for instance, led to more rigorous merit recruitment procedures in Kosovo's government, better employee onboarding in Chile's government, staff mentoring in Ethiopia's government, higher-quality public service training in Ghana and Nepal, improved quality of management in Croatia's government, and better public procurement practices in Romania and Uruguay. The list goes on. Many more examples are contained across the 30 chapters of this *Handbook*.

Although many instances of government analytics are being carried out at an individual level, there is a lack of systematic practice in governments as a whole. This means that governments are missing out on the potential insights available to them for improving their public administrations at scale. This, in turn, means that money is being left on the table. Public revenues that could be spent more efficiently, with greater impact on the welfare of citizens, are simply not being spent as well as they could. It is time to pick up those funds and use them for a better society.

How can this *Handbook* help? By showcasing how effective and low cost analytics can be, the hope is that more governments will undertake analytics of their own administrations, and in a more systematic way. To make meaningful progress, we need to change the way we approach government, and this shift should reflect a broader change in what we expect to know about state institutions. Analytics have come to dominate discussions of many other spheres of life, and they should play a more significant role in efforts to strengthen the state.

Beyond any single government, there is a lack of systematic evidence on how to do analytics in a rigorous manner, and there are few carefully constructed global comparisons available. As a result, different governments tend to follow diverging practices even when undertaking similar analytics, limiting their ability to use objective benchmarks from other settings. For instance, as shown in chapter 18, different governments ask different questions in their employee surveys to measure the same concepts.

This *Handbook* aims to fill this gap. It presents frontier evidence and practitioner insights on how to leverage data to strengthen public administration. Across 30 chapters, it shows ways to transform the ability of governments to take a data-informed approach to diagnose and improve how public organizations work. An accompanying website contains tools for analytics, which enable readers to immediately apply insights from the *Handbook* in their own work (www.worldbank.org/governmentanalytics). The *Handbook* covers many sources of microdata, ranging from administrative data, such as payroll, procurement, case, text, and human resources management information system (HRMIS) data; to public servant survey data; to data coming from external assessments, such as citizen and household surveys, or anthropological diagnostics of public administration. Methodologically, it covers both traditional qualitative and quantitative methods, as well as newer approaches, such as machine-learning diagnostics of unstructured text records from governments. To our knowledge, this is the first and most comprehensive volume of this kind.

THE HIGH STAKES OF GOOD GOVERNMENT ANALYTICS

In their magisterial review of the formation of the state, Acemoglu and Robinson (2019, 341) note that "bureaucracy is vital to state capacity." Whether a country's laws and policies will indeed be implemented is determined by the quality of its public administration. Extensive research confirms that the quality of government administration affects institutional quality, safety guarantees, education opportunities, health care provision, and ultimately, the welfare of society and the economy (see, among others, Besley et al. 2022; Dahlström and Lapuente 2022; Finan, Olken, and Pande 2015; Pepinsky, Pierskalla, and Sacks 2017; Wilson 1989).

Significant opportunities exist for improving these outcomes through better administration, a variety of studies around the world show. For example, in the Russian Federation, researchers found that the quality of bureaucrats and their organizations accounted for two-thirds of the variation in the cost of public procurement contracts (Best, Hjort, and Szakonyi 2017). By reducing the prices paid by the worst-performing 25 percent of procurement agents to no more than that paid by the other 75 percent of agents, the Russian government could save approximately US$10 billion each year—a sum equivalent to about 15 percent of Russia's total public health care spending. Similarly, improving the quality of management in government organizations in Nigeria by a standardized unit could raise by 32 percent the likelihood

that a physical infrastructure project is completed (Rasul and Rogger 2018). In Italy, reassigning managers to place the best managers in the largest offices would boost productivity in social security claim processing by at least 7 percent (Fenizia 2022). In Pakistan, offering the best-performing tax collectors their top choice of job posting would increase tax revenue by 40 percent (Khan, Khwaja, and Olken 2019). Conversely, poor management of the administration leads to worse outcomes. In Brazil, politicized turnover of public personnel, including at schools, significantly lowers student learning (Akhtari, Moreira, and Trucco 2022). Corruption in education funds is associated with a 65 percent increase in dropout rates from schools (Ferraz, Finan, and Moreira 2012).

The essence of these studies is that good management in government can lead to significant and rapid improvements in government performance. Conversely, when public administration is weak or inefficient, programs and policies are far more likely to fail. The size of the findings of recent evaluations of public administration reforms indicates that there is perhaps no more effective means of improving public policy than by strengthening the quality of public administration.

The sheer scale of most countries' public administrations makes their quality important. The cost of wages for public sector employees is approximately 10 percent of gross domestic product (GDP) across the world, not even counting public sector pensions (World Bank 2020; World Bank Group 2019). That is a significant portion of the economy to ensure is managed effectively. Similarly, the assets the public administration manages directly are large. Across the world, public procurement of goods and services accounts for roughly 12 percent of GDP (Bosio and Djankov 2020). As the study of Russian procurement suggests, ensuring that governments are paying appropriate prices for these purchases would yield much more money to spend on health care or other welfare improvements.

A direct consequence of the size of government is its influence over the rest of the economy. Globally, the public sector makes up 38 percent of formal employment (World Bank 2020). As such a large employer, it plays an influential role in the wider labor market, particularly for tertiary educated workers (Somani 2021). The same can be said for the prices it pays for the goods it procures, and the stimulus it induces when it builds infrastructure or regulates business. So even if interest is solely in improving the private sector, government analytics matters.

Yet with so much at stake, and such large margins for improvement to exploit, governments everywhere are not exploiting modern analytics (World Bank 2016; World Bank 2021). Although governments worldwide have invested heavily in digitizing their administrative work—dedicated digital government institutions have been established in 154 economies—few have systematized the use of the resulting records into data to strengthen the way they work, the World Bank's GovTech Maturity Index reveals (World Bank 2022). As noted, analytics is not necessarily dependent on such digitization, but it is illustrative of wider commitments to analytics.

THE ANALYTICS REVOLUTION

To understand the potential for government analytics, look no further than the private sector. Tech firms have generated trillions of dollars of value in part or in full by creating, managing, and providing access to diagnostic data. More broadly, the collection and analysis of microdata at previously unforeseen scale has been one of the main drivers of economic and social advancement—from machine-learning algorithms automating customer interactions to utility firms using service data to identify critical weaknesses in physical infrastructure.

Data have enabled firms to improve their own internal operations and management. Productivity is significantly higher among plants that use predictive analytics, an assessment of 30,000 US manufacturer establishments finds (Brynjolfsson, Gorodnichenko, and Kuehn 2021). Units within a business whose workers are engaged have 23 percent higher profit compared to business units with disengaged employees; they also see

significantly lower absenteeism, turnover, and accidents, and higher customer loyalty, the Gallup analytics and advisory organization found, using its database of employee surveys to identify the impact of an organization tracking and nurturing employee engagement (Gallup 2023). In other words, management without measurement—the historically dominant approach to management in firms—puts firms at a competitive disadvantage and undermines productivity. Consequently, an increasing share of private sector companies base their entire business model on analytics (Carrera and Dunleavy 2013).

Sophisticated data collection efforts have uncovered how differences within firms—for instance, across business units—account for the largest share in productivity differences between countries (Cusolito and Maloney 2018). Microdata on firm productivity showcases that variation in firm performance is often due to differences within the firm, such as leadership and management practice (Bloom, Sadun, and Van Reenen 2010; Bloom and Van Reenen 2010). The difference between productive and unproductive firms, it seems, is that unproductive firms allow unproductive units to persist. Or conversely, they do not learn the lessons they could from the most successful units. The most productive firms identify laggards through the use of administrative records or primary data, and target them for improvements or let them go—allowing the firm as a whole to flourish. The private sector, particularly in competitive markets, is disinclined to leave money on the table.

This data revolution in firms *could* be paralleled by one inside government, for at least two reasons. First, government already does analytics on the rest of society. Governments have made significant investments to strengthen the quality of data systems toward better policy making and service delivery, by heavily expanding their measurement of their citizens, firms, and the environment they govern. In most countries, household and firm surveys have become central policy tools to avoid making policy decisions in a data vacuum (Deaton 2003; Kraay 2006). The centrality of such data for state efficacy was striking during the COVID-19 pandemic, for instance, when governments' ability to create effective track-and-trace systems to isolate COVID cases varied widely (Fetzer 2021). In other words, governments have been developing the capabilities for doing analytics on everyone else, but have not turned that lens on their own administrations.

Second, governments also sit on substantial volumes of data that could be used for government analytics. Public administration is frequently symbolized by stacks of government files packed with information on individuals, projects, or tasks. As the use of information and communication technology (ICT) for government operations increases, these records are ever more digitized (Ugale, Zhao, and Fazekas 2019). The digitization of these government records in turn creates a "big data trail," as a by-product of people's digital behavior. For instance, a microdata point is created every time a firm submits a public procurement bid, a judge makes a court ruling, or a human resource department makes a monthly pay transfer to a public employee. This makes creating the raw material for government analytics far easier than before.

In short, now more than ever, governments are equipped to undertake the government analytics necessary to understand and improve the machinery of public administration. Yet, despite having developed analytic capacity for service delivery by measuring *others* (such as firms and households), many governments are yet to harness the full power of data to measure *themselves* and their own operations. In other words, though government is increasingly developing an evidence base for its services, much further behind is the practice and evidence base for measuring the public administration that actually generates those services.

Existing country-level governance indicators—such as the Worldwide Governance Indicators (Kaufmann, Kraay, and Mastruzzi 2022), the Transparency International (2021) Corruption Perceptions Index, and the Freedom House (2021) Freedom in the World Index—have provided a window into the global distribution of government functioning. However, they are insufficiently granular to inform specific government improvements. Understanding, in broad terms, how effective a government is perceived to be by citizens and firms is helpful, but does not provide guidance on what specific actions governments could undertake to improve effectiveness. Government analytics does just that. Utilizing microdata, it zeroes in on specific inputs, management practices, outputs, and outcomes in specific government organizations, units

within them, and/or public administration as a whole. As such, it puts a more refined sense of reality into each official, manager, and leader's hands. Much as better data to understand what society looks like has transformed public policy for the better, a better sense of what government administration looks like will eventually transform the public administration for the better.

HOW GOVERNMENT ANALYTICS CAN PROVIDE A STRONGER EVIDENCE BASE FOR IMPROVING GOVERNMENT

Governments across the world make hundreds of thousands of personnel management decisions, undertake millions of procurements, and execute billions of processes each day. The public servants responsible for these activities possess extensive experience and innate knowledge of their respective administrations, which measurement and analytics—no matter how advanced—cannot replace. As one observer noted, "You will never be able to measure away the public sector manager."

Yet government analytics can provide a stronger evidence base to improve how public officials understand government administration. Rather than substituting for the knowledge of and conversations about the public service, analytics are a strong complement to them. For example, in an experiment with the rollout of a monitoring technology to support agricultural extension workers in Paraguay, researchers found that managers were able to predict which of their staff would benefit most from the program, strengthening its impacts (Dal Bó et al. 2021). As in the private sector and the rest of the economy, analytics and technology are great complements to those who capitalize on them. And without analytics, valuable data trails are being left unexplored, which could lead to missed opportunities for improved decision-making and service delivery.

For example, by utilizing the data sets discussed in the *Handbook*, government officials can recognize the strengths of staff in similar organizations, gain valuable insights to help identify excellent staff in their own organizations, and better allocate their own staff across offices or tasks. This does not mean that managers must abandon their own style; rather, they can learn from the best practices of others. Furthermore, the use of survey data can help governments meet increasing employee expectations for evidence-based staff management, as already practiced by private firms. As in the example that opened this chapter, surveys give employees a voice they would not otherwise have, enriching conversations and providing valuable insights to managers across the service.

Analytics makes internal accountability more effective. When numbers refer to the productivity of an entire sector or a large network of organizations, it can be difficult to hold relevant parties accountable for their performance. However, the microdata embedded in government analytics can enable heads of state to hold the relevant heads of organizations accountable, and heads of organizations in turn can hold the relevant managers of units within the organization accountable. For example, the head of a social security agency can hold directors of regional offices accountable when the speed and quality of social security claims processing at their office falls well below that of other offices. Ultimately, the use of government analytics can enrich conversations in government so that it is more targeted, more engaged with best practices from within the public service, and more grounded in reality.

Government analytics can also enhance the accountability of the government to the public, and improve public conversations about the machinery of government more broadly. By making analytics public, citizens, civil society, and the media can hold the government accountable for how it manages public administration. This can be particularly important when analytics reveal that the machinery of government is not being administered in the public interest. For example, citizens may be interested in knowing how procurement contracts are awarded and whether public sector jobs are based on merit or political grounds. As is the case internally, analytics ensures that public accountability is targeted to organizations where improvements are needed most. That can help avoid unfairly spreading blame across the entire government and reducing the likelihood that any single organization will change (Dunleavy 2017).

THE OBSTACLES TO ADOPTING GOVERNMENT ANALYTICS

Government analytics thus promises a transformative shift toward evidence-based and continuous improvement of government administration. Why then have many governments not adopted analytics of their administration as proactively as their private sector counterparts?

One reason lies in the lack of systematic evidence on how to do government analytics, and the lack of a systematic compilation of the methods and data available to governments to this end. This *Handbook* is motivated by the need to fill this gap, and hopes to provide a first step toward addressing it.

A second reason is skill shortages for government analytics inside many public sector organizations—both to undertake analytics and to use analytics to improve management. Chapter 3 provides a road map toward addressing these skill shortages, for instance by creating government analytics units inside public sector organizations.

Third, digital records are often primarily designed to enable government operations—such as the award of a contract tender—rather than the analytics of such operations. Governments need to make investments to repurpose government records for analytics—for instance, by connecting, storing, and analyzing data in a cost-effective and secure manner (de Mello and Ter-Minassian 2020). Similarly, online employee surveys are another data source for government analytics. Digitization has made it much cheaper, quicker, and easier for governments to obtain in-depth feedback from employees at scale and to do so more frequently. Again, however, investments in analytics are needed to design, implement, interpret, and make use of employee survey results to improve public administration.

Beyond these obstacles are, however, at least four thornier limits inherent to the analytics of public administration: (1) measurability of outputs and outcomes; (2) institutional complexity; (3) political disincentives to measure; and (4) ethical constraints on measurement. Government analytics requires careful navigation of each of them.

First, not all outputs or outcomes of public administration can be measured. Unlike a private sector firm with a bottom line, public administration organizations have multidimensional missions and tasks whose outcomes and associated processes are often challenging to measure accurately. For instance, how can the quality of policy advice by civil servants to ministers or the quality of a budget a ministry of finance prepares for submission to parliament be measured at scale? Not everything that matters in public administration can be measured. This has made constituencies wary of investing heavily in measurement innovations in the public administration. This is also why analytics templates from private sector firms cannot be indiscriminately copied and applied in public sector organizations.

The response of the *Handbook* to these limits of observability in public administration is to improve, extend, and expand measurement while respecting its limits. This allows public managers to have the best possible knowledge available for administrative improvement. As there are inherent limits to what can be measured in public administration, even with better measurement, public managers need to keep in mind the limits of measurement and triangulate data with other forms of knowledge when devising administrative improvements. Otherwise, as a large literature on performance management in public sectors has found (see, for example, Hood 2006), imperfect measurement can generate a series of unintended and adverse consequences for public management—from gaming performance to effort substitution (expending more effort on measurable metrics of performance at the expense of important but unmeasured outputs and outcomes).

A second challenge is institutional. Public sector reforms struggle with path dependencies (the tendency to become committed to develop in certain ways as a result of structural properties or embedded beliefs and values) (Gains and Stokes 2005). Overhauling data infrastructures and monitoring structures is difficult when organizations fall under different mandates and jurisdictions. Implementation times might extend far into or even span several legislative periods, impairing political incentives for change.

Third, government analytics generates numbers and data that were previously not available. The creation of such data—much like greater transparency in government generally—will sometimes generate political winners and losers (Dargent et al. 2018). To illustrate, creating data on the scale of recruitment

into government based on personal connections rather than merit can generate an avalanche of media reports (Schuster et al. 2020). Government analytics is thus not apolitical. Analysts need to understand what different government actors want to know and what they want to *not* know about the machinery of public administration. Individual analysts and officials will have to negotiate the politics of their setting. Within those constraints, we believe that producing and publishing a broader and more accurate set of government analytics will eventually lead to better conversations within government, and a better government, for society at large.

Last, collecting data on public servants raises ethical concerns, which may limit the scope of analytics. In public administration, ethical considerations are further complicated by trade-offs between individual employee demands for privacy and public demands for values such as productivity, innovation, and accountability of public administrations. Balancing these considerations appropriately is thus central to an ethical pursuit of government analytics, but also implies limits: from an ethics perspective, not everything that can be measured should be measured (see chapter 6).

For understandable reasons, then, the public sector is slower to capitalize on the data revolution than private firms. Much of what it must focus on is harder to measure and requires balancing a greater number of considerations than most private sector activity, whether those considerations are institutional, political, or ethical. Governments have thus fallen behind in their use of modern analytic methods to design and manage public administration. But as the opening stories of how data were successfully used for management improvement in the United States, Brazil, and Nigeria show, this need not be the case. Government analytics can be a powerful tool to improve government if leveraged in the right way.

GOVERNMENT ANALYTICS AS AN ALTERNATIVE APPROACH TO PUBLIC ADMINISTRATION REFORM

How should governments go about the business of improving government administration? And how should others—such as international development organizations—support these improvement processes? The answer in many countries has been better laws that align governments with "best practices" for the administration of government. However, implementing best-practice public financial management legislation alone has had limited impact in many contexts (Andrews 2013). Similarly, while the number of countries with best-practice merit-based civil service legislation on the books has multiplied, little improvement in merit-based civil service practices has resulted (Schuster 2017). Global best practice may not be an appropriate fit for many country contexts (Grindle 2004, 2007).

Legislation requires a catalyst to make it the reality of government practice. Some observers have urged practitioners to focus on identifying local administrative problems facing particular organizations and attempt solutions in an iterative manner (Andrews 2013; Pritchett, Andrews, and Woolcock 2017). While focusing on addressing specific organizational problems is central to management improvement in public administration, this approach begs immediate questions: What helps officials and governments know which administrative problems are faced by which teams? How can officials know how isolated (or not) those problems are in public sector organizations? And how can we know whether solutions—developed locally or borrowed from other countries or global best practice—have effectively resolved the targeted problems?

This information gap can be addressed at scale through government analytics that leverage governmentwide microdata to diagnose every team in every public organization—for instance, through the data sources outlined in this *Handbook*. This approach can help the government as a whole, specific organizations within it, and individual teams better understand the specific management problems they are facing. Through benchmarking with other teams, organizations, or governments, data analytics can also shed light on opportunities for improvement and who might already be practicing useful approaches. And after governments have undertaken actions to bring about improvements, analytics can help practitioners understand

whether those actions were effective—for instance, in terms of lower procurement costs, lower staff turnover, or better ratings of the quality of managerial leadership according to employee surveys.

Managerial action should, of course, not be taken in isolation based solely on analytics data. As noted, governments will always face measurement challenges and boundaries. Analytical findings must be supplemented with practical and tacit knowledge. Public sector decision-makers thus need to triangulate analytics findings with practical and tacit knowledge. This puts public managers at the heart of interpreting and making use of government analytics findings.

What government analytics can do is strengthen the quality of conversations about how to improve public administration, rather than dictating managerial responses to specific analytics findings. Those conversations about improvement may be in a department of local government, a ministry, or may even span countries and the international community. They may involve government employees, service users, and others, extending beyond managers who are making solitary interpretations of analytics findings. In short, government analytics generates evidence for better conversations—and thus decisions—about how to improve the public administration.

This cycle is, of course, not necessarily linear; it is iterative. At times, government analytics can shed light on management problems that managers were unaware of—as with the opening example of the former marine managing a team in the US federal government. At times, managers may sense a potential problem—as with Brazil's wage bill—that motivates analytics to better estimate the scale and nature of the problem.

The intention of this *Handbook* is not to dictate a unitary approach to measurement. Instead, the chapters that follow describe many of the most common approaches to government analytics, and present some evidence from across the world for them. This information is offered to provide a framework that government officials and analysts can draw on to select particular analytical approaches of particular use to them. Greater use of government analytics in turn will further the evidence base on how to best undertake government analytics.

This matters because effectively measuring the state allows us to manage it better. The best version of government arises from basing its design and management on the best data achievable as to how government is functioning. Having good policies on the books matters, but much less so without an effective machine to implement them. In other realms, data have revolutionized productivity. It is time to turn the lens on public administration.

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