

The Government Analytics Handbook: Leveraging Data to Strengthen Public Administration

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The Government Analytics Handbook, by Rogger and Shushter (2023) is targeted to students in public administration and data science and practitioners looking to develop an analytical culture in their government organizations. In this review, we offer the perspective of a traditional academic researcher and graduate-level methods instructor, Adam Eckerd, and that of Ron Carelee, a pracademic who has experience in multiple leadership roles with local governments in the United States.

Adam Eckerd's Review

Rugger and Schuster present a comprehensive primer on data analytics, tailored for the public sector and available for free download via the World Bank. The book is a practical guide, rich with a wide range of examples and techniques. It is structured into sections, with the first part, beyond the introduction, delving into fundamental themes like practical considerations for data collection and ethical concerns for measurement. The second major section provides real-world examples of data used in specific settings, such as human resources or expenditures, and using certain types of methods, such as machine learning or process analysis. The third and fourth sections are heavily focused on survey methods and collecting information from internal agency sources and citizen surveys, making it a valuable resource for practitioners in government organizations.

While some sections of the book may seem overly optimistic about the potential of data analytics in solving the challenges of public administration, the editors do a commendable job of acknowledging the practical limitations of public sector data analytics. The book is clearly instrumentalist in nature, as one would expect a data analytics text to be, but the authors and

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editors provide crucial cautions about overreliance on problematic or limited data. Bridges and Woolcock rightly identify the risk of symbolization—if what gets measured gets done, then it is imperative to measure the right things and ensure that data are not over-relied upon. Wittels provides a useful framework for collecting data ethically, in a manner that protects privacy while still enabling the collection of data to support decision-making, while Moynihan discusses the challenges of using performance information in decision-making. This cautionary advice, which is essential for anyone working with data in the public sector, helps them to navigate potential pitfalls and make informed decisions, making them feel prepared and aware of the challenges ahead.

This framing is useful. One might have expected a book on data analytics published by the World Bank to gloss over these crucial considerations about the realities of using data for public purposes. The editors do well to put these concerns ahead of the more expected content, methods, and data collection primers and nicely frame their instrumental “public administration production function” with important caveats.

Most of the chapters acknowledge the challenges of data analysis, including concerns about data completeness and validity, as well as the challenges of combining data from different sources in ways that they can be used together. One of the key arguments the editors make is their rationale for a heavy emphasis on survey data, particularly on internal staff survey data. They argue that survey data are the most practical means to address the data limitations inherent in administrative data; in essence, they argue that the unmeasurable can be assessed via perceptual input by public sector employees.

Whether one accepts that premise or not, the sections devoted to survey data collection provide a comprehensive primer for practitioners to use when making the decision to collect perceptual data. However, that premise is key to the usefulness of the book. The editors and authors do not ignore the concerns of using perceptual data, but the tools sections of the book are more of a how-to for gathering survey data about perceptions of government performance rather than a primer on data analytics in the public sector writ large. They should promote it as such; regardless of one’s view of the relationship between employee perceptions and administrative effectiveness, the comprehensive review of internal survey data collection is useful.

Being a publication of the World Bank, the book also attempts to cast a wide net. Although their focus is on central governments, they attempt to offer advice that is as applicable to the national government of a large state as it is to a regional government in a developing nation. As is often the case with such efforts, the advice can either be so generic that it is not functionally useful or so tailored to specific cases that it is not relevant to most potential readers. This happens most obviously when looking at the book in total and recognizing that much of the advice is only useful for governments that have the extensive resources available to manage large-scale data management infrastructures. The editors acknowledge that few government entities would be able to handle data analytics on a large scale without significant investments in infrastructure, but they fail to note the implications. If the best route to improving public administration and government performance is large-scale data analytics, will improvement be another advantage that well-resourced societies have over poor ones?

I acknowledge this may not be the point of the book—which is clearly more focused on providing insights and tools to facilitate a data analytics infrastructure—but it is hard to ignore that elephant in the room. If I were a public administrator in a large central government with ample resources, I think I would find this book quite helpful for both the management challenges of data infrastructure and the actual collection and use of data. If I were a public administrator in

a poor country or subnational government, I might find the book frustrating, as much of the advice would be well beyond the capacity of my government.

But I am neither of those things, and as a university researcher and educator, I find the chapters in Part 2 (Foundational Themes in Government Analytics) most useful. I could see assigning these chapters as an important and necessary counterbalance to the data analytics cheerleaders who rarely caveat their calls for more data-driven administration with the practical reality of the challenges of unmeasurable outcomes, biased data, and problematic organizational incentives.

Ron Carlee's Review

In some respects, a comprehensive 785-page handbook seems like an anachronism, like the massive dictionary, thesaurus, or an encyclopedia that sat on our shelves. We no longer go to books when we need knowledge. We go to search engines or AI.

The Government Analytics Handbook, however, combines the comprehensiveness of a traditional reference book with the convenience of digital content. Published by the World Bank Group, it is available as a free digital download or for purchase as a paperback. The handbook is organized into five sections and 30 chapters. Each section on the website includes a video introduction. Readers can download the entire volume, individual sections, or individual chapters. Unfortunately, there is not a web version of the content that could be easily searched, revised, and updated (for an example, see the Zalta & Nodelman, 2024).

Editors Daniel Rogger and Christian Schuster are unapologetic promoters of public administration. They believe in the value of the administrative state, managed with professionalism and ethical conduct in the neutral pursuit of improving government performance through data analysis and sound judgement.

The handbook is a product of commitment and optimism. And it is massive. In the introductory video, Rogger says, "I don't think the idea is that anyone is going to read cover to cover. The idea is that you sort of read the overview, you get an understanding of how the book works, and then you dip into the chapter that matters for you" (see Rogger, 2024).

The editors provide this definition for the term data 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" (p. 4).

For professionals in governmental financial management, decision-making informed by data has long been the holy grail since modern computing power's inception. The ambitious effort in the Planning, Programming, Budgeting System (PPBS) in the federal Department of Defense in the 1960s was pioneering. As discussed in the handbook, data analytics go beyond optimizing investment in weaponry to improving decision-making across all areas of government service and the management thereof. The editors do not propose a single massive systems approach, such as PPBS, Management by Objectives (MBO), or Key Performance Indicators (KPI). Instead, they recommend repurposing existing data targeted to specific areas of improvement using whatever systems are available.

While the editors are quantitative analysts, they understand the importance of balancing quantitative analysis with qualitative judgment. Their goal in improving data analytics is to give

government managers the information they need to make sound decisions about service delivery and, in their words, “strengthen the quality of conversations about how to improve public administration” (p. 11).

The editors identify three barriers to better analytics, two of which the handbook seeks to address: evidence on how to do analytics and recommendations for how digital records can be repurposed for analytics. The third barrier, skill shortages, requires more than the handbook; however, the handbook can help with the development of staff. To fully understand and implement recommendations in the book, a government needs a team of technically competent data analysts who can take their digital information beyond its day-to-day operational uses. The effort requires professionals with curiosity and imagination to work alongside managers and policymakers.

The handbook is oriented at the national level, reflecting the natural focus of the World Bank. It is replete with global examples, as one would expect. Examining the handbook through the lens of a former local government practitioner in the U.S., it would be a valuable guide to any large local government that has modern information technology systems in human resource management, budgeting and financial management, and the various services of local government from utilities to public safety to human services. Any local government with a broadscale Enterprise Resource Planning (ERP) system is well situated to find value in the Handbook.

Three specific groups of professionals should review the handbook. The first group are professionals in governments that already have or are considering the creation of an office of performance measurement, strategy, innovation, or similar entity. Such offices have cross-cutting responsibilities to improve performance. Included in this group would be cities that are engaged with Bloomberg’s “What Works Cities” (see Bloomberg Philanthropies, 2024). These are cities and counties that are already committed to doing more with their data and likely have the skill sets to use the handbook to compare and refine their data policies and practices.

Lacking a cross-cutting change office, the managers of enterprise systems (HR, Finance, IT) could benefit from collectively reviewing the book to explore how to better use their individual systems and opportunities for combining data. The third group are managers of large discreet services that use information technology systems in areas such as public safety, inspections, tax and revenue, health and human services, and others. Within large public agencies, professionals can explore ideas from the handbook on how to get more out of their operating systems.

The handbook could be particularly beneficial to local governments with open data portals. The “open government” data portal, Data.gov, lists 70 U.S. cities and counties with open data portals, as well as 48 states and 12 state agencies. Too often, open data portals contain downloadable datasets without context or meaning. Better sites provide data stories and enable online user analysis. Recommendations from the handbook could improve the utility of open data portals, further enhancing government transparency.

Finally, any entity engaged in employee surveys should review the handbook’s extensive coverage of this topic. In my experience, organizations do not manage employee surveys well. Not only do they fail to get the full value from the investment, but sometimes surveys negatively impact the organization when managers get poor results without preparation or support for responding.

The handbook devotes one of its five sections and nine chapters to employee surveys. This material should be required reading before designing or launching an employee survey. Survey topics covered in the Handbook include survey mode, response rates, designing

questionnaires, questions that do not elicit a response, whether to frame questions from an individual or organization perspective, interpreting results, and comparing across organizations. The most cogent recommendation is to have a clear purpose and plan:

Survey questions should aim at action from the beginning by asking about topics that staff and senior leaders find most challenging to the achievement of their mission. Designing questions with the chain of policy influence and action in mind prevents the survey process from being weakened at inception by a poor focus on what is important to public sector stakeholders. (p. 574).

Many years ago, Terrence McNally and I presented to a group of public library directors about how to effectively advocate for resources. In his presentation, McNally said, as I best remember, “Data without stories are just numbers. Stories without data are just anecdotes.” I have never forgotten how powerful this truism is. Rogger and Shuster understand this, too. In fact, they begin the handbook with three powerful stories about how data analytics improved public administration in three different contexts around the globe.

Data really are only numbers. Data analytics, done well, develop and tell a story. Data analytics are complex, with many pitfalls. Done well, however, data analytics can help governments deliver on the promise of providing an efficient, effective, and equitable government. Rogger, Shuster, and their team of authors advance this work in their well-documented, easily accessible book.

Conclusion

The reviewers see the Handbook as a useful reference for both students and practitioners, applaud the World Bank for making such a useful reference freely available, and appreciate the recognition of the editors and authors that data analytics is a tool that must be used in context. While there are some concerns about the practicality of the ambitious data analytics infrastructure that Rogger and Shuster recommend, there is value in putting forth the effort to move in that direction.

Disclosure Statement

The author declares that there are no conflicts of interest that relate to the research, authorship, or publication of this article.

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