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# 1. Towards a new age of research methods in public administration, public management and public policy

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## ELEVATING THE POWER OF RESEARCH METHODS IN OUR DISCIPLINE: A CALL FOR DUTY

Advancing the quality of public administration and public policy studies and assuring their impact on the social environment as well as their relevance for other social sciences is a mission for scholars and practitioners who care about the nature and sustainable development of modern nations. Those who develop theories, and those who use them are all a mission-group, in an ongoing journey of building advanced societies and a resilient public sphere. To be able to meet this destiny it is important to extend knowledge and methods to enable the solving of grand policy problems.

Alongside the process of public problem solving another mission is education. Training the next generations of students, scholars, and practitioners who are looking for solutions for the problems of today and for the problems of the future. These intellectuals should be armed with state-of-the-art research tools to help them address questions relating to the more daily issues of effectively serving the public, to designing and implementing policies, as well as tackling the wicked problems of tomorrow.

Our book is being finalized during the hectic days of the global coronavirus crisis. Much of the world's economy, transportation, commerce, and development progress has been frozen, or minimized to a level we could not have imagined only a few months ago. The hazards of the health threat that COVID-19 has imposed on all nations cannot be fully understood from the current point of view in time. Yet it is clear to many of us who deal with public policy, governance, and public administration concerns that the world will come out of the crisis as a different planet. In the post-COVID-19 world we will face unfamiliar new problems resulting from one of the greatest natural social experiments of the twenty-first century. Social distancing, remote learning, rapid economic change, global financial breakdown of unprecedented size, mass global unemployment, and emerging welfare difficulties that our nations have not experienced in ages, are only a few of the issues and problems we will need to add to our disciplinary vocabulary. To deal with them we will need to employ new and innovative research methods that will help us find remedies, not just to the current coronavirus related problems, but even more intensively to the aftermath of the virus and to the shock waves that will follow. To handle unusual research problems and their resultant practical challenges one must become familiar with the arsenal of modern science. This includes incorporating good old traditions and techniques, with advanced new ones that suit a modern digitized society and that is constantly learning to struggle with man-made and nature-made emergencies.

## OUR AMBITION AND THE SCOPE OF THE BOOK

We have come into this project with tremendous enthusiasm to make a difference in the methodological understanding of our discipline. The recent shocking global events of the COVID-19 pandemic only encouraged us to complete this project in time and to present the readers with a complete look at the most recent scientific tools in our field.

It is our belief that significant disciplinary progress in public administration, public policy, and public management research can be made through two main tracks. One track is epistemological and theoretical – introducing scientific breakthroughs with fresh and unconventional models and explanations unraveled from the cloud of vast knowledge about government and administrative processes. The other track is methodological and operational – progress by using new tools, procedures, and techniques that can explore understanding from unconventional angles of investigation.

This book project is focused on the second track. It seeks to enrich the toolkit of a variety of audiences in dealing with public administration, public management, and public policy problems. After laying out some traditional cornerstone approaches, it introduces unique research methods, specific research designs, and explicit research techniques that are useful for public administration and for public policy scholars and intellectuals, as well as for public administrators and practitioners.

## OUR GOAL

The goal of this book is to add significant knowledge and experience to research methods in public administration, management, and policy by exploring, in both a detailed and progressive manner, a variety of research methods that can take our field and discipline into the next generation of evolution. To do so we need to build on good old traditions, but also on new ideas, perspectives, and methods that fit the changing world around us. The shocking global impact of the coronavirus crisis on future public policy and management will call for an update and renewal of our conceptual and practical thinking on how to address those problems. Hence, we hope to provide readers (students, academics, field experts, policy designers, policy makers, etc.) with the most advanced toolbox for understanding the science of public administration, management, and policy for the third decade of the twenty-first century. We will cover traditional tools, as they are the roots of proper scientific thinking, and modern tools that pave the way forward to knowledge accumulation. We will try to focus mostly on innovative research architectures, useful research techniques and best practices for the study of modern bureaucracy and the behavior of its agents and stakeholders. Providing specific examples of how these methods are used will enable a down-to-earth understanding of a variety of intellectual paths and sophisticated techniques.

## OUR VISION

The vision behind this book is to strengthen the independence of the discipline by highlighting the most notable methods in conducting public administration research. This vision draws substance from our strong belief in the contribution of public administration and policy to the

robustness of social science research and to the practical strategies of better running modern nations. In our view, proper research methods are essential for building resilient and sustainable public service, globally, nationally, and locally. We believe that public sector improvement and renewal begins with excellent research that promotes the most precise avenues for explanations of complex realities. To advance an understanding of science and reality one must bring together appropriate research tools and designs that will speak to the modern era of digitization, multi-level and multi-source analysis, big-data advantages, and post-traumatic events such as the coronavirus global pandemic.

Throughout the book we present the most appropriate and suitable research methods for a variety of research questions in our discipline. These methods should and can be useful in policy studies, public management research, public human resources studies, local government studies, public budgeting and economics, environmental policy and designs, and many other sub-fields. We argue that the current discourse about public sector modernization and its invigoration largely overlooks questions of methodological coherence and sophistication. Public administration databases offer a rich source of overt and covert facts and details that scientists of the future must learn to use. Methodological biases in our discipline are threatening the capacity of decision makers to use public assets properly in the cause of good governance. Global and comparative observations add to the knowledge we already hold and may direct explanatory models and the resulting decisions taken in the service of the public good. Thus, we believe that breaking new frontiers of research and learning in public administration, public policy, good governance, and management of civil services must build on the most up-to-date methodologies and research designs. Consequently, this book aims to enrich the professional and academic literature with innovative ideas of methodology (qualitative, quantitative, comparative, and integrative techniques) and to do so from a variety of perspectives, means, and levels of analysis.

## THE TEAM BEHIND THE CHAPTERS AND THE TWO-PART FRAMEWORK

The mission-group called for duty comprised a mixture of scientists with heterogeneous background and experience. An impressive list of 35 authors was carefully chosen to present their theoretical perspectives and views of a specific technique or topic that altogether answer a large number of methodological problems and challenges we are facing in relevant studies of modern government and bureaucracies. These scholars come from around the world and thus represent a variety of cultural and regional perspectives that have significant meaning for theoretical and practical reasons. The source countries spread over all continents and include Israel, Italy, UK, Taiwan, Denmark, the USA, Germany, the Netherlands, Portugal, Brazil, and Russia.

We strived to build each chapter on a two-part framework comprising a theoretical review and practical examples. The first part of most chapters introduces the specific research method, its purpose, advantages, disadvantages, assumptions, general use, and a detailed description of the method. Then, the second part of the chapters is typically an example of real research which used this specific method, including examples of data, tables and graphs. This systematic ordering of the chapters can help readers use this book both as a guiding volume in advanced methodological courses as well as a useful tool for graduate students and

experienced scholars who wish to familiarize themselves with new and up-to-date methods and approaches.

## THE STRUCTURE OF THE BOOK AND A BRIEF GLANCE AT THE CHAPTERS

The book is organized into six parts: Part I covers quantitative and mixed methods; Part II looks at qualitative and comparative methods; Part III deals with experimental methods; Part IV dives into program evaluation, policy and network analysis; Part V looks at big data and advanced methods; and Part VI deals with supplementary issues such as ethics, outliers, and effective reporting. Hence, we strongly feel that the book provides a comprehensive platform for multi-level knowledge (descriptive, context-related, explanatory, and evaluative) about research methods in and around the public sector.

### **Part I: Quantitative and Mixed Methods**

Part I deals with a variety of quantitative methods and comprises seven chapters. The first one by Dana Vashdi and Eran Vigoda-Gadot lays down the essential principles of multiple regression analysis as a method to examine the relationships between multiple variables. The chapter introduces the basic assumptions needed for conducting such analyses, the manner in which hypotheses should be dealt with when using such analyses, and a variety of implementation issues that researchers often face when using multiple regression analysis. The second part of the chapter presents an example of a study using such methodology to examine the relationship between status inconsistency and public employee satisfaction. This section shows how a results section using multiple regression should be presented, including the tables and additional information that should be provided. Using this example, the authors highlight the advantages and disadvantages of this traditional methodology.

The second chapter by Paolo Belardinelli and Valentina Mele begins with framing mixed methods (MMs) as a research approach that serves the purpose of a pragmatic discipline such as Public Administration. It then offers a classification of MM designs based on the methods that are mixed and on their sequencing. First, it introduces both *between-methods* (quanti-quali) and *within-methods* (quali-quali or quanti-quanti) combinations. Second, based on the logical and chronological combination of methods in a design, it distinguishes between *parallel designs* (the combination of different methods to triangulate results that serve the same research question) and *sequential designs* (the combinations of methods in two or more consecutive phases). The chapter proceeds by highlighting some challenges of MMs, such as the resources and time needed to conduct parallel or sequential projects and the fact that the richness of data as well as the need to combine them properly are not easily condensed in a single study. Despite these challenges, the chapter encourages the use of MMs, as they perform three distinctive functions, exemplified here through illustrative studies. These functions include *exploring the underlying mechanisms* of specific correlations (the ‘how’ and ‘why’), helping scholars to deal with *unexpected results*, and *operationalizing theoretical constructs* that can then be tested.

The third chapter by Fabian Homberg, Davide Secchi, and Dinuka Herath introduces the use and usefulness of agent-based modeling (ABM) simulation techniques for the study of

public administration, management, and policy. It explains the nature of agent-based models, summarizes their advantages and disadvantages, and illustrates their use in an application. The explanations allow the reader to develop basic understanding of the agent-based modeling process. Based on the exploration it suggests that a number of different software platforms have been developed to help in applying ABM, pointing to NetLogo as the most frequently used software. In the second part of the chapter the authors exemplify how an agent-based simulation is used to study how problem solving affects the levels of public service motivation (PSM) of volunteers operating in the south of the UK, and belonging to different types of activities, related to (1) religious, (2) youth, (3) culture, (4) health, and (5) civic organizations.

The fourth chapter by Lisa Gajary deals with the complexity associated with wicked problems in public administration. The chapter shows how modern policy and governance arrangements require research methodologies that possess the capacity to apprehend complexity. This chapter highlights computational models that hybridize agent-based modeling and exemplifies how system dynamics approaches facilitate theory-building with complex problems. It argues that, though there are texts on how to construct agent-based models and system dynamics models individually, there is a dearth of methodological guidance on how to combine and subsequently optimize these simulation types for public policy and management applications such as theorizing. In Part I, background information for agent-based and system dynamics models is presented along with examples of theory-building from recent peer-reviewed literature. Next, drawing on established guidance for both types of computational modeling methods, a three-principle framework is presented for hybridizing agent-based with system dynamics modeling methods in theory-building. In Part II, these principles are applied to an example of theorizing how cooptation in strategic planning may work to influence public organization performance following a crisis.

The fifth chapter by Jonathan Baron argues that many administrative decisions made by governments, courts, and other institutions could benefit from estimates of utility, roughly the overall effect of decisions on people's achievement of their goals. Baron suggests that utility is not the same as monetary outcomes or other objectively measurable quantities. After putting this approach in the context of other ways of evaluating programs, he reviews some of the problems of utility measurement and suggests possible solutions. Baron suggests that contingent valuation, a widely used method for obtaining money equivalents, is usually insensitive to the quantity of the good being evaluated, but this problem might be avoided by using per-unit pricing and/or by requiring responses on both attributes (money and the good in question). Thus, valuation of consequences can also be distorted by provision of information about how the consequences are achieved. In the second part, Baron reports a study showing how valuation can also be improved by stripping away information other than the consequences of interest; most subjects did not think that removal of the extra information was unfair. Therefore he suggests that conjoint analysis, another method in which respondents rate or choose objects that vary in attributes such as cost and various dimensions of benefit, seems promising because it is often sensitive to quantity, but it can suffer from the problem that people limit their attention to a few attributes, possibly even one.

The next chapter by Kalu Kalu highlights a persistent problem for research in public administration and policy: how to develop measurable constructs that capture the substance and impact of many of the abstract and non-empirical phenomena that characterize the discipline both in theory and in practice? By subjecting a grouping of 19 Likert-scale survey questions conducted in Finland to the factor analysis procedure, the factor loadings confirm the existence

of two constructs that were hypothesized as representing the common underlying dimensions of *institutionalization/social capital* and *culture* based on identifiable responses from the survey respondents. The factor loadings were converted into regression scores that could be used for consequent analysis in either OLS regression or logit models. Kalu suggests that while the finding shows that analytical constructs can be developed from abstract non-empirical phenomena that can be useful in theory development and analysis, it also illustrates the procedure for converting a scaled qualitative index (the survey responses) into a regression-based estimation method that makes it possible to be used in quantitative analysis for the purpose of improving causal inference, prediction, and explanation.

Finally, Yaniv Reingewertz's chapter provides an overview of the 'difference-in-differences' method and discusses its applications in comparative public administration. He examines its strengths and weaknesses and when it is appropriate to use it. The chapter first takes a theoretical approach and presents the gist of the method. It then moves to an applied perspective where it reviews several papers which apply this method. Discussing these papers helps in uncovering some of the challenges faced by researchers when applying difference-in-differences and how these challenges can be dealt with.

## **Part II: Qualitative and Comparative Methods**

Part II of the volume deals with qualitative and comparative methods. It includes four chapters. The first one by Ruth Plume, Alan Page, and Hemda Garelick explores the overarching theoretical approaches to qualitative research highlighting the importance of epistemology, ontology, and methodological choices within this field. The second part of the chapter uses a specific example to explore this theory in a practical context using an example that explores the experiences of participants undergoing change programs resultant from reducing resources in local government environment health services in England. The change programs involved privatization, mutualization, shared services, and regional delivery. The research was undertaken during the change program or proposed change program and thus needed to adopt a dynamic and iterative approach to the research cycle so as to construct a clear picture of the lessons to learn from such change approaches. Important elements within the research cycle are highlighted including the role of "valuing the participants' voice" through a relativist lens; the role and potential issues involved in being an insider researcher coupled with an exploration of the research approach, methods, analysis, and construction of a resultant framework to promulgate the lessons learnt through the change process. As the research was predicated by the need to explore change programs, a number of parallel approaches were adopted including a literature review of both professional, grey and peer-reviewed literature, engagement with the professional body representing those undergoing change programs, and snowballing approaches with initial participants who were aware of others initiating change. The chapter explores the forms of interview adopted including: longitudinal, time series, refinement interviews, and clarification/evaluation approaches, along with how these various data sets were evaluated and integrated.

As the comparative method is highly relevant to public administration, public policy, and management we decided to cover it widely by several chapters. The second chapter in Part II by Evan Berman and Chen Don-Yun is the first among four subsequent chapters that discuss methods in comparative public administration (CPA) from different points of view. This chapter argues that public administration and governance practices vary across countries

and jurisdictions and there is much to learn from comparing these. Key foci of CPA involve processes of administration, civil servants, and systems and institutions of government. Comparative public administration involves not only comparisons of at least two jurisdictions, but also in-depth studies of single jurisdictions compared against practices or standards. This chapter discusses methods in CPA studies that involve (a) context-rich, exploratory analyses, (b) targeted CPA studies that seek to explain (e.g., hypotheses-testing), and (c) philosophical orientations that inquire deeply into the meaning of phenomena. While all CPA studies must meet general research standards of the day, this chapter draws attention to four CPA-specific methods issues: (i) the driving importance of the study framework, (ii) case selection affecting study conclusions, (iii) the equivalence of concepts and study meanings across study settings, and, for quantitative works, (iv) measurement invariance. This chapter shows CPA methods for contributing to knowledge through theory-generalization, the discovery of innovative and effective strategies, broad understanding of trajectories of public administration in the world, and critical inquiry.

Next is a chapter by Sabine Kuhlmann and Markus Seyfried that outlines the relevance and value of comparative approaches and methods in studying Public Administration (PA). It discusses the roots and current developments of comparative research in PA and discusses various methodological venues for cross-country comparisons, such as most similar/dissimilar systems designs, the method of concomitant variation, and the difference-in-differences method. Besides the description of these approaches, the authors highlight their conceptual value for theory-driven empirical comparative research. Drawing on selected pieces of comparative research, the chapter furthermore provides examples for the application of comparative methods in practice presenting empirical findings and highlighting strengths and weaknesses. The chapter finally emphasizes that the methodological development in comparative PA research has by far not yet reached its end, and that some future challenges need to be addressed, such as the issues of causality, generalizability, and mixed-methods approaches.

Finally, the chapter by Mary E. Guy and Seung-Bum Yang deals with multi-nation studies that illuminate both the influence of national context and the enduring characteristics that prevail across national borders. This chapter describes how to design a multi-national empirical study and provides as example a 12-nation comparison of how public servants experience emotional labor in their daily jobs. A range of issues are discussed, including building the research team, survey development, translation, dealing with problems of measurement invariance, and interpreting findings. The example demonstrates how structural equation modeling can be used to compare findings across countries when only partial measurement invariance is achieved. Findings enhance understanding of how context shapes and sculpts the citizen-state encounter around the world. With the increase in international exchanges, transnational administration, and international civil servants, multi-nation studies advance the public administration canon and respond to the need for information on a global scale.

### **Part III: Experimental Methods**

Part III of our project covers a field that is highly relevant and highly ambitious in our discipline – experimental methods. In an intriguing chapter, B. Guy Peters and João V. Guedes-Neto provide a detailed account of the use of survey experiments in the study of public administration. It begins by reviewing the most common applications of this method, that is, framing, vignette, conjoint, and list designs. Here, the reader is offered the theoretical frame-

work of each of these experimental methods, as well as tips for their use. The chapter suggests illustrating with the demonstration of a list and a vignette experiment conducted with bureaucrats from two Brazilian municipalities. This application includes step-by-step explanations, going from obtaining pre-study approval from institutional bodies to analyzing the collected data. The authors proceed by discussing the state of the literature in regard to experimentation. They also propose which streams of research could benefit the most and the implications for the study of public administration. In the conclusion, the chapter highlights some caveats: Survey experiments are certainly not a panacea but help us better understand the behavior of civil servants and the public they serve.

The second chapter in this part is by Robin Bouwman and deals with laboratory experiments, which are argued to be the main mode of scientific endeavor in many disciplines. Bouwman interestingly suggests that only recently has experimenting in the laboratory gained the attention of public administration and public management scholars. Laboratory experiments offer a number of specific advantages for public administration and public management scholars such as the ability to observe the behavior of participants in a highly controlled environment, which offers the advantage of drawing causal inferences. As with other chapters, this one is divided in two parts. The first part of this chapter focuses on the characteristics of laboratory experiments, on how experiments in the lab in public administration and management compare to existing traditions of laboratory research in behavioral economics and psychology, and on the advantages and disadvantages of the lab. It also gives some practical pointers on how to deal with subject recruitment and how to randomize. The second part of this chapter provides an example of a study based on a laboratory experiment. In this study, the author tests the degree to which individuals with high levels of public service motivation choose to cooperate with their opponents in a negotiation setting. The findings show that indeed, individuals with high levels of public service motivation are more cooperative than those with lower levels of public service motivation.

#### **Part IV: Program Evaluation, Policy and Network Analysis**

Part IV of the book includes four chapters dealing with program evaluation, policy analysis, and network analysis. The first chapter by Huey T. Chen suggests that program evaluation has evolved on many fronts in the last several decades. Nowadays, program evaluation does not only provide traditional approaches for addressing common issues but has also developed innovative approaches for expanding the scope of the assessment and for tackling more complex issues. This chapter systematically introduces both traditional and innovative approaches for each program stage, to enhance evaluators' capability to serve stakeholders' needs to meet accountability and program improvement requirements. In the program planning stage section, the discussion centers on conventional *logic models* that are useful for describing programs, as well as on the innovative *action model/change model schema*, that is useful for addressing more complicated issues such as prescriptive and descriptive assumptions. The program development stage section introduces the traditional *formative evaluation* as well as a new approach, the *multi-wave formative evaluation*, which reflects current interests in the ongoing improvement of a program. In the implementation stage section, the discussion begins with the traditional *fidelity approach* along with the new *adaptation approach* as an alternative, reflecting the local conditions of communities where the program is implemented. Finally, in the outcome stage section, the discussions include the traditional *experimentation approach*

and the new *holistic effectuality approach*, as an alternative for real-world programs' evaluations. These alternative methodologies are focused on the reality of the communities where programs are needed to address contextual issues, and are inclusive of the stakeholders' view and expertise on making community changes, as repeatedly encountered by the author during his decades of practice and research.

Next is Frans Leeuw's chapter on evaluation, big data, and artificial intelligence. Leeuw suggests that despite the rapid digitization and datafication of society since the early 2000s, evaluations that use big data and artificial intelligence (BD & AI) as part of their methodology have till recently been an underdeveloped field of interest. This chapter addresses the following questions: which role(s) can BD & AI play *when doing evaluations*? Why is evaluating (the roles of) BD & AI in *policy making and policy implementation* important? *When evaluating BD & AI*, what are (some of) *the roles evaluation then can play*? The chapter starts with showing the gap between digitization and datafication of society and the limited attention paid to these developments by the evaluation community. Only recently has this situation changed (somewhat). The chapter also discusses a few central concepts. In the third section five roles that BD & AI can play *in program and policy evaluation* are described and discussed. The following two sections deal with the other side of the BD & AI 'coin': not what BD & AI can contribute to the evaluation (profession), but why evaluations have to address (the roles of) BD & AI in *policy making and policy implementation* and what that work, if and when done, includes. Working with BD & AI goes hand in hand with (new) challenges for evaluators regarding theory and methodology. One challenge concerns the role of theories in policy and program evaluation, the other is how to combine (quasi-)experimental evaluations with BD & AI.

The third chapter in this part is by Shlomo Mizrahi and deals with policy analysis. Mizrahi argues that policy research deals with the various stages of the policy process, which includes policy making, policy implementation, and the evaluation of policy outcomes. The research in the first two stages mainly tries to explain decision-making processes, while research in the third stage is evaluative. In this chapter the author concentrates on methods for analyzing and explaining decision making. The chapter first presents the research strategy and methods used for explaining policy making and implementation. To that end, it discusses the foundations of policy analysis and then the principles of public choice theory and new institutionalism analysis as the two main methods utilized to explain the making and implementation of policy. In the second part of the chapter, Mizrahi demonstrates how these research methods are applied in practice by analyzing policy making and implementation in the electricity sector and in the water supply sector. Overall, the analysis emphasizes the interaction between politicians and the general public as a key factor in the policy process and the role of policy entrepreneurs as agents of change. The chapter shows that a high level of centralization of the bureaucratic and economic systems limits competition and allows special interests to maximize their benefits at the expense of social welfare.

In the following chapter Pamela Mischen explores social network analysis (SNA) that enables public administration researchers to answer questions about the structure of networks, both intra- and inter-organizational, that traditional statistical methods cannot. This chapter introduces the benefits and drawbacks of SNA; the conceptual language of social networks; and provides an introduction to the method, including data collection, storage of data in matrices, and data visualization via sociograms. The concepts and measurement of network density, clustering, node centrality, and homophily are also introduced. Although SNA can be used to answer questions at the level of the dyad, such as the likelihood of a trust tie being present

between two network members, this chapter focuses on whole-network research. SNA at the whole-network level has been used to understand how the structure of relationships, including the structure of governance, influences network effectiveness. Drawing upon the network governance models of Provan and Kenis (2007), this chapter uses data collected from two local kindergarten readiness networks to make a recommendation about how they may merge and be governed.

## **Part V: Big Data and Advanced Methods**

In Part V we turn to new frontiers of research methods in times of digitized societies and big data. The chapter by Donald Kettl explores this territory in an inspiring way. It suggests that with the avalanche of information generated in the twenty-first century, 'big data' became a popular buzzword. Information is being created much faster than our ability to figure out what to do with it, including in the public sector. But in public administration, big data offers vast potential, in two spheres: in improving the effectiveness of public programs, by relying on real-time data to better connect policy goals with policy results; and in strengthening research, by creating new realms of evidence to complement and supplement the analysis conducted by more traditional research tools, through existing collections of data. It is tempting to promote big data as a panacea, but it is impossible to escape the ways in which it is certain to transform practice and research in public administration.

Next is a chapter by Vanessa Hernandez Oliveira de Oliveira and Róberson Macedo de Oliveira who discuss the Open Government Data (OGD) initiatives that have sprung up around the world to make public data available to everyone for free, without restrictions. This public sector information is a primary material for OGD reuse in the development of value-added products. Despite the potential, public administration has not assumed itself to be a stakeholder in the value creation process, only taking responsibility and commitment to make data available, leaving virtually unexplored the use of OGD as performance indicators in a data-driven management approach. The chapter is in two parts. First the method of using open data in government is presented. Second, an example on using open data in the Brazilian setting is suggested of reusing open data to measure the performance of public higher education institutions. In doing so, it uses government open data portals and exemplifies using it as the best practice tool for public higher education institutions (PHEIs). Preliminary results indicate that open data reuse can be successfully employed to measure performance as well as benchmarking exercises through a user-friendly way of visualization. The chapter concludes with a discussion of the future direction of research in this study, in particular, the potential for using open data in the composition of a multi-dimensional assessment system.

## **Part VI: Ethics, Outliers and Reporting**

Part VI adds knowledge on several issues that are extremely useful in any study of our discipline: ethics in research, outliers, and frameworks for reporting research. The first chapter by Richard W. Schwesler presents the fundamental principles of research ethics. Central principles include the protection of human subjects and maintaining the integrity of the research process. Both of these principles are discussed in the context of past transgressions of researchers. The importance of ethical codes of conduct and ethics training are presented as means of minimizing future ethical dilemmas stemming from human subjects research.

The following chapter by Anat Gofen and David L. Weimer examines outliers in public administration and policy studies. They argue that commonly defined as observations inconsistent with general patterns in a data set, researchers often consider outliers to be undesirable because they do not fit well with hypothesized generalizations or because they exert disproportionate influence in commonly-used statistical estimation techniques. Less commonly, outliers are viewed as providing valuable information rather than being just unlucky realizations of random error. For public policy and public administration researchers, who look for ways to promote *change* that improves public well-being, identifiable differences between outliers and the more general pattern may contribute to innovative and desirable policy designs and formulations. This chapter introduces a three-phase method called *outlierism*: (1) identifying relevant outliers; (2) identifying possible underlying mechanisms that give rise to the outliers; and (3) assessing accumulated knowledge about outliers for use in policy design. Moving from outliers to policy poses methodological challenges, including establishing a credible relationship between identifiable difference and the outcome of interest, determining if the difference is *sui generis* or something that could be replicated, and translating the differences into working policies. Outlierism seeks to address these challenges in a structured, systematic way that allows a better integration and exploitation of scientific knowledge to improve policy and administration.

The closing chapter of the book is by Alexey G. Barabashev and deals with an important section of any study: reporting. It suggests that the final segment of any research project in the area of public administration consists of the *conclusion and discussion* sections which act as paramount elements of the entire text presented for publication. The methods and procedures applied in the preparation of the conclusion and discussion sections are highlighted, including the description of their goal, and an explanation of their common features and differences. To analyze the main parameters of the conclusion and discussion sections, examples of research articles from leading academic journals in the area of public administration are presented, and some data reflecting the distribution of conclusions and discussions in one of the top journals is calculated. The findings show that despite some intersections in content, concentrated mostly in the *implication of the results* which act as a bridge between the conclusion and discussion sections, these sections in research articles have remarkable peculiarities. The types of newly generated ideas and hypotheses for future research under the discussion section as an element of the research article are also described. Some procedures for highlighting results, including conceptual and subject proliferation, summarizing the methods of research, and visual (graphic) procedures of result proliferation are also presented.