

## 1 Introduction

Countries differ tremendously in size. Today, independent countries vary from populations barely over 10,000, for example in Nauru and Tuvalu, to up to almost 1.4 billion in China. China is more than 100,000 times larger than the small Pacific island states. Even a less extreme comparison between the United States and Australia reveals that the former is about 13 times larger than the latter in terms of population size. These differences are considerable and have important, yet understudied, implications for public administration.

For example, public administrators in Luxembourg reason that “Luxembourg is very small; usually, everybody knows everybody” which allows for “relative direct short ways” of communication and “simplifies contacts and reaction time”<sup>1</sup> in the face of challenges. And yet, this rich but small country of roughly 600,000 inhabitants lacks the administrative resources to attend all meetings at the European Union (EU) level. Instead, Luxembourg’s top officials need to prioritize and sometimes hand over their role and even voting rights to officials from Belgium, their midsize but considerably larger neighboring state (Thorhallsson 2000, 57). On the other hand, “a giant [government] system like India’s has an inherent, inbuilt tendency to be cumbersome” (Lewis 1991, 368–69). The Covid-19 pandemic has revealed that larger and more fragmented administrative systems have more difficulties in adopting and coordinating a governmental response to a novel challenge (Bromfield and McConnell 2021; Kettl 2020; Toshkov, Yesilkagit, and Carroll 2021).

Despite large variations in country size and an increasing research focus on contextual factors, issues of size have received insufficient attention by scholars in public management and comparative public administration. The aim of this Element is threefold: first, to offer an overview of country size effects on public administration, especially at the central government level, second, to develop a research agenda around this emerging topic, and third, to provide detailed examples of comparative research techniques for studying contextual factors in PA. The following questions guide this Element: *How does size matter for the organization and functioning of public administration? What is the effect of size on administrative performance? Through which causal channels does size affect administrative performance? And how can size effects be studied empirically?*

There are important economies and diseconomies of scale, advantages and disadvantages of size, for administration. This Element develops a theoretical framework that integrates the effects of size on administrative structures, on practices, and ultimately on public service performance. I argue that there are

<sup>1</sup> Interviews conducted by the author in 2018, see Section 5.1.

mechanical-structural effects as well as cultural-attitudinal effects of size: larger states tend to have larger administrations that can specialize more at the individual, organizational, and system levels, which favors professionalism but comes with additional management costs. Smaller states, in contrast, can only afford administrations of smaller absolute size, which are typically restricted to certain key functions and characterized by multifunctional departments and multiple roles and tasks for individual public servants, which limits professionalization. Through a combination of these structural features of the administration and features of small societies, such as close personal ties and overlapping professional and private roles, small state administrations are dominated by informal practices. These practices can accelerate communication and coordination but also limit Weberian virtues like impartiality and professionalism. Specialized public administrations in large states, on the other hand, emphasize formal roles and rules more, which can have positive effects as well as negative ones such as silo thinking or bureaucratic politics.

Identifying these effects on structures and practices is of theoretical and practical importance, but it remains difficult to predict or assess their joint effects on public service performance. My more abstract and more provocative argument is that there is a golden mean or ideal country size for good administration. Regarding overall public service performance, medium-sized states have the potential for a virtuous combination of the “best of both worlds”: a sufficient degree of specialization and professionalism with flexible and informal coordination practices, while avoiding the disadvantages of excessively large or small size. I argue that all else being equal, we should expect midsize states to achieve the highest levels of administrative performance, fulfill administrative tasks and deliver public services most effectively.

This introductory section sets the scene for later theoretical and empirical discussions. It situates the topic in the public administration literature, defines key concepts, and explains the Element’s approach.

### 1.1 Locating the Argument in the Literature

Public administration research is becoming increasingly comparative and attentive to the role of context (Bertelli et al. 2020; Meier, Rutherford, and Avellaneda 2017; Ongaro, Gong, and Jing 2021; O’Toole Jr. and Meier 2014; van der Wal, van den Berg, and Haque 2021). Context can refer to a variety of factors beyond the direct control of public managers or policymakers. This includes external factors like political, cultural, and societal aspects, and contextual factors that are internal to the public organization including goal clarity, professionalism, and organizational culture. Context can have direct effects on

the performance of public services or public organizations as well as indirect effects: it can moderate the relationship between a specific management structure, tool, or practice on the one hand and performance outcomes on the other (Ongaro, Gong, and Jing 2021; O'Toole Jr. and Meier 2017). For example, O'Toole and Meier (2017, 9) hypothesize that the dispersal of political power, a central element of a complex external environment, will have two effects. First, dispersal of political power will reduce the likelihood of administrative performance and program success because public managers must respond to more complex demands and expectations; this is the direct effect on performance. Second, in such a complex context of dispersed political power, the actions of public managers should have a greater impact on performance; this is the indirect effect on performance.

Studying context requires that researchers look at empirical cases or phenomena in different political, societal, and organizational contexts. This argument relates to Robert Dahl's (1947) classic claim that public administration should be studied from a comparative perspective (see also Pollitt 2011). Indeed, the debate on context has already sparked considerable progress in this regard, by openly encouraging and integrating studies from a variety of national backgrounds. However, public administration research continues to focus on large OECD countries such as the United States, the United Kingdom, or Germany- or the Netherlands, a medium-sized country. In particular, most public administration studies do not cover the full range of country sizes from very small to very large states, nor do they take size seriously. While scale issues receive some attention in terms of organizational size (Andrews, Beynon, and McDermott 2016; Bertels and Schulze-Gabrechten 2021; Jung and Kim 2014) or size of subnational units (Blom-Hansen, Houlberg, and Serritzlew 2014; Boyne 1995; Ostrom 1972), country size has been largely ignored as a contextual factor. Related studies in the field of economics on corruption (Knack and Azfar 2000; Xin and Rudel 2004), rule of law (Congdon Fors 2014; Olsson and Hansson 2011) or governance outcomes at large (Bräutigam and Woolcock 2001; Rose 2006) offer some insights, but their empirical results on country size effects are mixed and often lack convincing theoretical explanations.

Another strand of the literature focuses on the effects of *small* country size on governance and administration. Works in this vein are mostly theoretical (Randma-Liiv 2002; Randma-Liiv and Sarapuu 2019; Sarapuu 2010) or based on case studies (Corbett, Veenendaal, and Connell 2021; Dumont and Varone 2006). Randma-Liiv (2002) and Sarapuu (2010) aim at theoretical generalizations about small state administrations; their starting point is their experience as public administration scholars in a small state. Recently, they asked for more comparative research as "the knowledge on the impact of size is [still]

ambiguous” (Randma-Liiv and Sarapuu 2019, 162). Based on qualitative case studies, Thorhallsson (2000) analyzes how smallness shapes the foreign services of small European Union (EU) member states and their internal practices and performance in EU negotiations. Farrugia (1993) describes the problems of public administration in small developing countries. Recently, Corbett, Veenendaal, and Connell (2021) have compared coordination practices and challenges in six small states from various continents. The main shortcoming of these studies is that they do not include sufficient variance in size as the explanatory variable. They aim to derive generalizable arguments about size effects from single cases or a small number of small state cases. Although such analyses have some merits, especially those with a most-different systems design that distills the essence of diverse small state cases, they are limited. Largely descriptive approaches and an exclusive focus on small states do not offer enough analytical leverage to formulate generalizable claims about the effect of size as such.

This Element aims to fill some of these gaps in the literature. It conceptualizes country size not only as an independent variable but as a contextual meta factor, one that shapes administrative structures and practices as well as the social and political context in which public administration operates. This perspective combines structural-organizational aspects internal to the administration (Egeberg 1999) and cultural aspects in the administrations’ environment (Bertelli et al. 2020; McDonnell 2017). The Element takes a macro-level perspective and focuses on “big questions” (Moynihan 2018), namely how size at the systems level affects the functioning of administration and how administrations can adapt to this macro-level factor. The theoretical framework also considers effects down to the meso level of institutions, organizations, and practices, and to the micro level of public administrators and their actions and attitudes. It demonstrates how size as a macro-level factor permeates administrative structures and behaviors at all levels (Roberts 2020). Importantly, every administrative system is affected by this contextual meta factor, not only those in small states. To study the effects of size, not smallness, and overcome the limitations of previous works, this Element compares countries of virtually all sizes, from Seychelles to China. Given the global perspective, the analyses span countries of different political, cultural, and economic contexts and distinguish size effects from these other important contextual factors.

Only a truly comparative perspective allows scholars and practitioners to fully understand the characteristics and constraints of their own national administrative system (Dahl 1947). Taking country size seriously as a contextual factor means rejecting one-size-fits-all solutions to public management. The Element’s more practical goal is to raise awareness of the effects of country size

among scholars and practitioners in national governments and international organizations. It invites the reader to reflect on how size structurally restricts public administration in their country or moderates the effect of management tools, and it suggests analytical approaches to study the effect of size. This should contribute to a better understanding and practice of public management and help to avoid the prescription or adoption of management structures or tools regardless of context or in contexts where they do not fit and undermine performance.

## 1.2 Conceptualizing Country Size

Before outlining the empirical approaches of the Element, it is necessary to clarify the key concept used here: country size. Far from being a merely technical matter of definition, the conceptualization of country size matters because concepts are important building blocks of research that link theory and empirics (Goertz 2006). While most people and researchers have an intuitive understanding of what constitutes a small or a large state, there is no agreement in the literature on a clear definition or operationalization. Essentially, country size refers to the size of an independent state, and the Oxford Dictionary defines “size” as the “relative extent of something; a thing’s overall dimensions or magnitude; how big something is” (Stevenson 2015). While a magnitude can be objectively measured on a scale, the definition also refers to a relative extent. Size is an inherently relative and comparative concept. If only one country existed in the entire world, it would not be possible to indicate its size as small or large. One could measure its absolute magnitude in terms of population or area, but deducing from these indicators “how big” the country is would not be possible without a comparison. Since there are many countries in the world, labeling one as small implicitly means “smaller than others.”

Country size can be conceptualized as a combination of several dimensions, most prominently population (*how many people?*), area (*how big is the territory?*), and resources, such as military, economic, or natural resources (*how powerful in economic or military terms?*) (Crowards 2002; Taylor 1969). In research practice, however, social scientists often employ more simplistic definitions and measures of country size. These definitions and measures vary between two poles. On one side, studies of a single case or a few cases (small N) tend to use relative, multidimensional concepts of size or smallness. These are often based on a qualitative assessment of several dimensions of size, resulting in categorical classification: a state is small or not. Focusing on one or a few cases allows scholars to consider multiple

dimensions, including aspects of relative size compared to neighboring countries and aspects of identity (see, e.g., Campbell and Hall 2017; Gingrich and Hannerz 2017). It allows them to discuss at length how a specific country case fulfills these complex criteria for “smallness.” On the other extreme, studies with a medium or large number of countries, especially quantitative studies in economics, require measures of country size that are quantifiable and easily comparable, most commonly utilizing population size (e.g. Alesina and Wacziarg 1998; Congdon Fors 2014) followed by area (Olsson and Hansson 2011).

Public administration and governance research often lie between these two extremes with a tendency to employ quantitative indicators of country size, primarily population size, but with a focus on cutoff points instead of a continuous scale (Streeten 1993; Thorhallsson 2000). For example, Randma-Liiv (2002, 375) uses a threshold of 2 million to define small states; Corbett, Veenendaal, and Connell (2021, 107) use 1 million; and other prominent cutoffs are at 1.5 and 3 million. Many authors admit that cutoff points or thresholds that separate small states from others (i.e., medium and large states) are inherently arbitrary and debatable (Panke 2010, 15; Taylor 1969, 116–17). The use of thresholds does not preclude a comparative perspective, although it often goes together with an exclusive focus on small states and disregard of larger ones. However, it predefines a *categorical* understanding of size, which means that a country can either be small or not according to a definition or cutoff, but it does not allow for degrees or gray areas. In contrast, Sarapuu and Randma-Liiv (2020, 56) have recently highlighted the *continuous* nature of country size, which is an important conceptual step toward a truly comparative study of size effects on public administration.

In this Element, I understand the size of a country primarily in terms of its society and inhabitants and measure it as the absolute size of its population. While I acknowledge that country size is multidimensional, the sociodemographic dimension of size (compared to the economic and geographic dimensions) matters most from a public administration perspective because population size is a proxy for the human resource pool, the complexity and number of social relations in society, and the diversity of citizens’ and bureaucrats’ identities and preferences. Because this sociodemographic dimension of size is at the heart of the arguments developed in this Element, population size is the simplest and most appropriate operationalization. I apply a continuous understanding of country size (from now on synonymous with population size) and avoid a priori cutoffs for small or large states in order to consider the full empirical variation of country sizes.

### 1.3 The Approach of This Element

To answer the guiding questions about size and its effects on public administration, this Element creates a bridge between different perspectives. The next section discusses arguments about the effects of country size on public administration. It reviews theoretical arguments and empirical findings from literature on small state and more “mainstream” public administration research. It integrates them to present a new, coherent theoretical framework that clearly distinguishes size effects on administrative structure, practice, and performance. In doing so, it provides an unprecedented level of theoretical depth and detail on the topic. Another theoretical innovation already alluded to is that size effects are not only conceived for small states but also for medium-sized and large ones. By explicitly theorizing ideal-typical medium and large states, this framework enables the application of the size argument to states and administrations that are not considered “small states.” Given the extreme variation in country size globally and even among the OECD countries, the proposed framework explains why size effects should not only be a preoccupation for small states.

To illustrate the theoretical arguments and demonstrate the applicability of the framework, three empirical sections follow. Because no research method is perfect, the three empirical sections employ different methods that complement each other. In doing so, they provide examples of how comparative research techniques can be applied fruitfully to the study of contextual factors in public administration. This answers calls to combine different research methods and to design research in order to explicitly address questions about context (Ongaro, Gong, and Jing 2021, 7). The specific methodological challenges, advantages, and disadvantages are discussed for each method in a way that is intended to be accessible for scholars and practitioners with different methodological training and backgrounds.

Section 3 presents descriptive data on national administrative systems from a variety of sources to provide evidence for the relationship between country size and the size, structure, practices, and performance of the (central) public administration across countries and broad geographic regions. To investigate these indicators in relation to population size, the section employs scatter plots, correlations, and comparisons of group means. The variety of sources ensures broad coverage and allows for an overview of size and public administration across the globe. Given the novelty of the comparative study of size effects on public administration, this descriptive analysis provides original insights and the most comprehensive mapping of varieties of country size, administrative size, structure, practice, and performance of its kind.



Section 4 presents explanatory statistical analyses of the relationship between population size and performance, applying more advanced statistical techniques to the data introduced in the preceding section. The section explains the motivation and rationale behind the modeling strategies: in short, a random-effect within-between model isolates the between-country effect of the sluggish population size variable, and an instrumental variable approach serves as a causal identification strategy. Based on a global sample of countries, the analysis reveals a robust inverse U-shaped relation, meaning that all else being equal, midsize states achieve the highest levels of performance. This relation is particularly marked among democracies.

Section 5 adopts a qualitative approach and compares three country cases based on a “most similar systems” design: it presents empirical case studies of public administration in Luxembourg (small), the Netherlands (medium), and Germany (large), which vary primarily in terms of country size but share many other characteristics. Based on government documents, academic literature, and original field research, the section describes the countries’ administrative systems, structural and organizational particularities, systematic challenges, and performance and discusses how size affects these aspects. This section provides a more hands-on perspective on size effects, what difference size variation can make, and how size-based challenges can be addressed. As such, this section should be particularly relevant for practitioners.

While the three sections can be understood as separate empirical approaches to study size effects on public administration, they are constituent parts of the Element’s larger mixed-methods strategy. Mixed methods (Mele and Belardinelli 2019), or the combination of methods for data collection and analysis, are used for two reasons. The first reason is to triangulate the findings and increase the validity of the results. The second reason is to gain a multilevel understanding of the phenomenon: How much of global variation in public administration practice and performance can be explained by size, and how and through which channels do size effects play out in individual countries? To form an integrated study, several “connecting points” (Mele and Belardinelli 2019, 337) link the different types of data and analysis in this Element. The research questions in this introductory section and the integration of findings in the concluding section form a bracket that integrates the empirical analyses. The theoretical framework helps align the analyses in Sections 3 and 5 along the dimensions of administrative structure, practice, and performance, while Section 4 focuses only on the performance dimension. In particular, different data sources and analytical techniques are used to respond to the same research questions and explore the same dimensions of administrative systems. Section 5 in itself combines data sources, including documents, indicators and interviews,



and qualitative analytical techniques, namely within-case and between-case analysis. A complementary connecting point is that different analytical strategies are also applied to similar data sources. For example, the same performance indicator on Government Effectiveness is analyzed with descriptive statistics in Section 3, with causal statistical methods in Section 4, and as one among many data points in the qualitative analysis in Section 5. Finally, the selection of the three qualitative cases in Section 5 builds on the quantitative “mapping” of the global distributions of country size and on previous findings from the quantitative analyses.

The final section discusses conclusions and outlines a research agenda. I suggest for future research to examine size effects in understudied settings such as developing or nondemocratic countries and to explore the implications of size effects for policy making and substantive policy outcomes. Considerations about the advantages of small states and how they thrive despite limited resources may contribute to a better understanding of government success in a turbulent and increasingly complex world.

## 2 Theoretical Framework

Although several authors have identified different country size effects in public administration, there is no comprehensive and systematic theoretical account of these effects. This section addresses this gap by outlining an original theoretical framework that summarizes how different country sizes – small, medium, and large – affect the structures, practices, and performance of national public administration. This advances the literature about country size and public administration by synthesizing existing arguments and by formulating explicit theoretical expectations for medium-sized and large countries as well.

So far, the small state literature has neglected larger states as the implicit “other” with its focus on small states’ administrative characteristics and challenges; whereas mainstream public administration treats medium and larger states as the implicit norm. My aim is to integrate both and make size effects explicit across the range of country sizes. Medium and larger states are not merely a mirror image of small states, defined by the absence of small-state characteristics. We should characterize large states by what they are rather than by what they are not. It is worth reemphasizing that I do not formulate empirical cutoffs or thresholds for small or large states *a priori*, although these labels (small, medium, and large) are central in the theoretical argument. Rather, I employ them as theoretical labels and theoretical ideal types. In this section, I do not specify to which empirical cases these arguments apply. It is an empirical question what a midsize state is, and at which population size the

“golden mean” for administrative performance is reached. I tackle these empirical questions in Section 4.

The theoretical framework should be read with two qualifications in mind. First, it works under a *ceteris paribus* assumption. This assumption is often fundamental in comparative research, and it means that relations or effects that are expressed in theoretical or empirical terms only hold if all other factors are equal. In the context of this Element, this means that the arguments about size effects on administrative structure, practices, and performance should only be observable in a group of countries with similar levels of wealth, political systems, and political-administrative cultures and welfare systems. Characteristics pertaining to political, cultural, and social context should be similar because otherwise they could confound or outweigh the effect of country size. This Element does not claim that country size is the most important determinant or explanation of variation in administrative practice and performance. In a global comparison, income or GDP per capita explains a great deal of variation in public service performance. Country size is one of several determinants that drive the variation of bureaucracies across countries. In order to focus on this single factor, others must be held constant. This is an important caveat readers should keep in mind when comparing the theoretical arguments in this section with empirical cases of small, medium, or large states familiar to them. Later sections employ two empirical techniques to hold such factors constant: control variables in the quantitative analyses in Section 4 and theory-based case selection holding other important factors as constant as possible in Section 5.

A second and related qualification is that the arguments advanced are probabilistic rather than deterministic. They should not be interpreted as an eternal truth that applies in every single case, which would imply a deterministic understanding of a certain country size necessarily leading to a certain outcome. Instead, the expected size effects should apply as a tendency. A single case that is not fully congruent with the argument is not sufficient to invalidate the argument entirely, as long it holds for the majority of cases or “on average.” My understanding of country size effects is also probabilistic. If a fictitious state “A” has a population of 0.5 million and “B” has 3.5 million, both are small, but state A is closer to the theoretical ideal type of a small state and is a clearer empirical manifestation of the concept of smallness. The continuous understanding of size comes with a probabilistic understanding of what a smaller or larger state entails. I presume that a country that is smaller than another *tends* more strongly to display the characteristics of smallness described in the literature (Benedict 1966, 1967; Gingrich and Hannerz 2017; Lowenthal 1987).