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Working Paper

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WIDER Working Paper, No. 26/25

Provided in Cooperation with:

United Nations University (UNU), World Institute for Development Economics Research (WIDER)

Suggested Citation: Chachu, Daniel Ofoe; Danquah, Michael; Gisselquist, Rachel M. (2025) : Towards a measure of local government performance in Ghana: Conceptual framework, data, and results, WIDER Working Paper, No. 26/25, ISBN 978-92-9256-583-1, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki, <https://doi.org/10.35188/UNU-WIDER/2025/583-7>

This Version is available at:

<https://hdl.handle.net/10419/322099>

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Towards a measure of local government performance in Ghana

Conceptual framework, data, and results

Daniel Chachu,¹ Michael Danquah,² and Rachel M. Gisselquist³

April 2025

Abstract: In recent decades, decentralization reforms have surged across the Global South, aiming to bring governance closer to citizens. Despite extensive debate on their effectiveness, systematic methods to assess local government performance remain underexplored, particularly in data-constrained contexts like sub-Saharan Africa (SSA). Inspired by Putnam et al. (1994), this paper proposes a conceptual framework to measure local government performance, applying it to Ghana—a stable democracy and a leader in decentralization reforms in SSA. Using new data from administrative reports complemented by primary and secondary sources, we construct performance measures for 2016 and 2020. In a data-constrained context, we find that our ‘best possible measure’ is good enough to capture variations in local government performance, despite a restricted list of indicators. Our findings reveal improving administrative reporting quality but generally low subnational institutional performance, with older and larger urban districts outperforming newer, rural ones. Emerging evidence raises questions about the traditional notion of a rigid north–south divide in Ghana’s socio-economic development. Additionally, better-performing local governments tend to be associated with lower poverty outcomes. This study offers a foundation for theory-driven evaluation of local governance with important implications for shaping decentralization reforms.

Key words: local government performance, subnational institutions, governance indices, decentralization, sub-Saharan Africa

JEL classification: D73, H11, H77, O55

Acknowledgements: This study has benefited from the generous support of two excellent projects: UNU-WIDER’s State and Statebuilding in the Global South; and the University of Zurich’s Research Priority Program (URPP) on Equality of Opportunity. The authors are also grateful to institutional collaborators, including the ISSER, the University of Ghana, the National Development Planning Commission, and the Foundation for Security and Development in Africa (FOSDA), for their support. The usual caveats apply.

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This study was prepared as part of the UNU-WIDER research initiative on **Sub-national institutional performance across Ghana’s districts and regions: variation and causes**, which is a component of the project **The state and statebuilding in the Global South: international and local interactions**.

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Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9256-583-7

<https://doi.org/10.35188/UNU-WIDER/2025/583-7>

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The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland and Sweden, as well as earmarked contributions for specific projects from a variety of donors.

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The views expressed in this paper are those of the author(s), and do not necessarily reflect the views of the Institute or the United Nations University, nor the programme/project donors.

1 Introduction

A core question in the social sciences concerns the quality of governance—what constitutes quality governance, and how can this be measured and compared across contexts? Good quality governance has been seen to be at the heart of any meaningful social transformation (see Dellepiane-Avellaneda 2010 for an earlier review). It is argued to be relevant for tackling development challenges, including existential threats to humanity, such as climate disasters, conflicts, and pandemics (Devine et al. 2020; Omri and Ben Mabrouk 2020). A government with effective checks and balances, less corruption, and a commitment to human rights is seen to be in a better position to improve the welfare of its citizens, all other things being equal. Although there is a large literature on the quality and measurement of governance, much of this work has dealt with governance at the national level (Anheier 2018; Anheier et al. 2023; Gisselquist 2014; Kaufmann et al. 2005). Local governance has received relatively less attention, especially for ‘Global South’ countries, where data availability is often a challenge (Andrews 2008; Iddawela et al. 2021; Zuo 2015). This is in spite of the ‘decentralization revolution’ that has occurred in many developing countries and the transfer of various ‘centralized’ functions to subnational entities in almost every country.

Relatedly, the last two decades have seen an increasing number of indices purporting to measure the quality of local governance. These include the Varieties of Democracy (V-Dem) indicators on subnational governance, the Local Governance Performance Index (LGPI), developed at the University of Gothenburg, and several other ad-hoc indices developed and applied in various studies (Iddawela et al. 2021; Knack 2002; Tavits 2006). Most of these measures fall somewhere between ‘objective’ and ‘subjective’ indicators, while others explore some combination of the two (da Cruz and Marques 2017; Hollyer 2018; Williams and Siddique 2008). In line with the critiques on national-level measures, these indicators and resulting indices have been described as ‘personalized’ and lacking a guiding theory-driven framework (Andrews 2008; Andrews et al. 2010; Chachu et al. 2023). A theory-driven approach is important in limiting the arbitrariness that plagues attempts to measure local government performance. It also provides a transparent framework for a better understanding of the drivers of local government performance and its implications, even if data availability becomes challenging in certain contexts.

This paper addresses these gaps by considering how to conceptualize and measure subnational-level government performance.¹ We operationalize our proposed framework in a data-constrained setting, which sets an elevated bar for testing its applicability across different contexts. Using Ghana as a case study, we focus on local governance at the level of the principal subnational government structure with the legal mandate to oversee the development of a locality—whether district, municipality, or metropolitan area. We choose Ghana for several reasons. First, for its reputation as one of the most stable democratic countries in the Global South. Second, because Ghana is celebrated as one of the foremost decentralization reformers in sub-Saharan Africa (SSA), with significant reform implementation experience that has been a subject of vibrant debate (see Chachu

¹ We use the terms subnational institutional performance and local government performance interchangeably to highlight our focus on local government (bureaucratic) institutions and to abstract away from the wider term local governance, which may include other players outside the formal local government setup.

2021 for a review). And third, because recent improvements in Ghana's comparative statistical capacity have enabled a more thorough study of the country's performance.

Our study makes the following contributions. Drawing lessons from Ghana, we demonstrate how theory-informed consideration of governance can be combined with empirical work to provide a context-relevant framework for consideration of public institutional performance at the local level. In particular, our research builds on the seminal work of Putnam, Leonardi, and Nanetti (1994), which developed an institutional approach for understanding the causes of variations in subnational institutional performance in a developed country with developing country features—Italy. Our work adds to attempts to build on this literature (de Sousa et al. 2023; Norris 2001; Pérez Sandoval 2023; Tavits 2006). Specifically, we present a conceptual framework that spotlights the 'rules', processes, and outputs that characterize local government performance. We then draw from data on performance indicators identified by the Ghanaian government as pertinent for meeting national development aspirations and for the annual monitoring of district governance. We arrive at 22 context-relevant indicators. These speak by turns to the relevance, responsiveness, and comprehensiveness of formal rules ('policy rules'), as well as to how these formal rules are determined ('policy processes') and to the connection between formal rules and actual practice ('policy implementation').

Second, we document and illustrate how data gaps pose challenges in the Global South, even for a country like Ghana with comparatively high statistical capacity. We consider what these gaps imply in terms of governance—a lack of capacity for reporting, for instance, or a more deliberate strategy that may signal a lack of transparency and accountability. In doing so, we explore ways in which such gaps might be measured and addressed. Third, we present our main measures of local government performance, contrasting weighted with non-weighted measures and those based on restricted data covering 157 districts with richer data for 16 districts. Regarding the latter, we restrict the coverage of districts while expanding the list of indicators via a survey of one district in each of the 16 regions of Ghana. We complement this approach with key informant interviews and focus-group discussions in 6 of the 16 regions to get a better understanding of the local governance process and the patterns in the data. Finally, in a preliminary cross-district analysis, we examine the correlation between our measures of subnational institutional performance and other existing measures of local socio-economic development. We discuss what our measures suggest for engaging in a comparative analysis of subnational institutional performance within countries as well as the potential for future research.

Overall, our data from Ghana show that the quality of administrative reports at the subnational level is generally low. Not only is this a concern in relation to the key performance areas defined under our framework; it also limits the potential to track the implementation of national development plans at the local level. Despite Ghana's generally low performance in terms of reporting, we find several districts in the poverty-endemic regions in the north of the country performing better than expected. Between the period 2016 and 2020, however, the average quality of reporting across districts improved. This trend may be suggestive of an overall improving institutional or administrative capacity. It also highlights the potential of some districts in the country's northern half—often laggards with respect to many socio-economic indicators. Our evidence further suggests that the improvements in reporting across districts may be driven by the performance of older districts rather than by that of new districts created under the re-districting policies of successive governments. Districts located in urban areas, as well as in the southern part of the country, also generally perform better than rural districts.

We find that the local government performance measures follow a similar trend to the quality of reporting index. On average, urban districts perform better than rural districts despite having greater

variance. The result is likely due to the proximity of urban districts to centres of vibrant economic, cultural, and political activity—attributes that are in themselves endogenous to historical antecedents. This makes it possible for urban districts to attract economic rents. Nevertheless, about half of the top 20 districts are rural. Furthermore, two of the top five districts are located in northern Ghana. These trends are consistent with or without the use of weighted measures. Further, we conclude that, although our best possible measure for the majority of the districts lacks the ideal set of indicators (due to lack of data), it is good enough to capture variations in local government performance; this is supported by a comparison of our best possible measure with assessments based on an extended list of indicators for a selected number of districts. We fit a linear fixed effects model to the data, suggesting that poverty measures tend to be lower in districts with higher local government performance scores, which may reflect the capacity of local governments to tackle local development. Various factors may be at work here, but this correlation is consistent with expectations that more effective and responsive governments better address citizen needs. Finally, our use of different approaches to construct indices of subnational institutional performance highlights the importance of considering alternative approaches based on context and the availability of data.

The remaining sections of the paper are organized as follows. In Section 2, we provide a review of the literature, including efforts across academia, civil society, and national governments to produce metrics that capture various aspects of local governance. Section 3 discusses our proposed conceptual framework for measuring local government performance, whose operationalization with available data is discussed in Section 4. In Section 5, we examine how our proposed indices relate to each other as well as other local development metrics. We conclude in Section 6, highlighting opportunities for further work in this area.

2 Conceptualizing and assessing local governance around the world

Governance is a deeply debated concept that has changed in scope over time. In the development literature, from an initial focus on economic performance, the term has evolved to include the role of politics and non-state actors and the contributions of different levels of government (Faguet and Pal 2023; Rose-Ackerman 2017; Weiss 2000; World Bank 2017). In more recent literature, governance is seen as

a process through which state and non-state actors interact to design and implement policies within a given set of formal and informal rules that shape and are shaped by power [...] governance takes place at different levels, from international bodies, to national state institutions, to local government agencies, to community and business associations (World Bank 2017: 41).

We understand it as a complex process involving multiple actors interacting with diverse interests who exercise power through formal and informal institutions. In this paper, however, our focus is on the exercise of power in the public sector by state actors within subnational state institutions and how that performance shapes outcomes, particularly at the subnational level.

The foundation and rationale for the 'scientific' measurement of public sector performance dates back to early attempts by social scientists to measure the output of individuals and firms (Taylor 1911).

Since the late 20th century, a plethora of studies, particularly within the public administration realm, have concerned themselves with evaluating different aspects of public sector performance (Ammons 1995; Behn 2003; Van Dooren et al. 2015). This has led to the emergence of various movements and debates over concepts, approaches, and applications (see Bouckaert 1990 for a history of the public sector productivity movement and Van Dooren et al. 2015 for a more recent review of the debates on public sector management and performance). Despite the vast literature on the measurement and quality of governance, much of this work has dealt with governance at the national level with less attention to local governance until recently (Anheier 2018; Anheier et al. 2023; Iddawela et al. 2021). This imbalance is especially marked with respect to Global South countries, where data availability is a challenge (Iddawela et al. 2021) and subnational comparative work is consequently hampered (Zuo 2015).

2.1 Measuring local government performance around the world

The recent proliferation of governance indices can be seen in their application to Global North countries and in increasing extensions to low- and middle-income countries in Latin America, Southeast Asia, and Eastern Europe (de Sousa et al. 2023; Pérez Sandoval 2023). Although concerns about weak subnational governance have received considerable attention in SSA, coverage of this region has been relatively sparse. Our review of the application of more recent local government indices across different regions of the world yields several insights.

First, many of the indices purporting to measure subnational governance are based on surveys aimed at capturing perceptions of the effectiveness of local government institutions and public service delivery. They explore citizens' experiences with the delivery of social services and participation in local governance, the extent of corruption, and local government responsiveness, among other factors. Examples include the Provincial Governance and Public Administration Performance Index, originally developed by the United Nations Development Programme (UNDP) and applied in selected countries across Asia; the LGPI, developed at the University of Gothenburg and applied in a number of countries in Africa and Latin America; the European Quality of Governance Index, which covers European states; and Citizen Report Cards, which have been applied in various regions of the world. Other survey-driven indices are developed from subjective assessments by local and international experts. A typical example is the Varieties of Democracy (V-Dem) indicators on subnational governance, which is one of the largest databases on democratic institutions at the subnational level (McMann 2016). More recently, a similar subnational democratic index has been applied to India (Harbers et al. 2019).

A second strand of the literature on subnational governance indices focuses more on 'objective measures'. The indices are often built on administrative data and other subnational statistics and regulations. These may include performance data on local government finances, the delivery of various public goods and services, and the nature and quality of existing regulations. Examples are the Urban Governance Index, which has been applied to several cities around the world; the Measuring Municipal Performance index, which focuses on subnational institutional performance in Paraguay; and the OECD-led World Observatory on Subnational Government Finance and Investment, which covers local governments in more than 135 countries across the world.

A third strand comprises indices that combine different data types. They may summarize subjective as well as objective measures. These include the Local Governance Barometer, which has been applied to several countries in Africa; the Asia Foundation's Subnational Economic Government Index, which is applied across several Asian countries; and the Regional Authority Index, which covers about 96 countries across all global regions except Africa. Another more general measurement approach is seen in the Local Governance Institutions Comparative Assessment (LoGICA), which offers an assessment tool for analysing the multilevel governance structure of a country, along with the subnational institutions and intergovernmental systems that contribute to inclusive governance, effective public service delivery, and sustainable localized development.

Each of the above approaches to measurement has its merits and demerits. Survey-based indicators convey context-specific information that could be relevant for understanding both demand- and supply-side dimensions of local governance, but the assessment is based on respondents' experiences and includes their satisfaction with various aspects of performance, including government responsiveness, efficiency, effectiveness, and citizens' participation. A major concern with 'subjective' indicators is that different citizens may respond differently to the same treatment, making it difficult to effectively compare the performance of different localities (Bouckaert and Walle 2003; da Cruz and Marques 2017). While approaches that combine survey-based measures with 'objective' data are useful, they often inflate the already costly process of conducting surveys, particularly in developing country contexts. The upshot is that such combined approaches are often short-lived or limited to a few localities. This challenge is more acute in SSA, a region that has lagged behind in developing and using subnational governance indices.

In an attempt to close this regional gap, Iddawela et al. (2021) use Afrobarometer data to build a subnational index of the quality of government for 22 African countries. Building on Rothstein and Teorell (2008)'s concept of quality of government, in which the key index is impartiality in the exercise of public authority, Iddawela et al.'s measure is based on eight questions relating to corrupt practices (e.g. bribe-taking) by subnational government officials, trust in subnational officials, the perceived performance of local government actors, and the quality of the services provided by them. As discussed earlier, a notable conceptual issue concerns the construction of the index, which, by design, relies on citizens' opinions and perceptions of governance. While public perceptions and responsiveness are clearly core aspects of governance, our conceptual framework emphasizes the actual delivery of services and the efficiency of administration. Indeed, recent work shows clear gaps between citizens' perceptions and actual government performance in a broader sense (Shinohara 2022). Another drawback for our purposes is the representativity of the underlying data used in the construction of the index. The Afrobarometer data are generally designed to be nationally representative, not subnationally. Moreover, the unit of analysis—for the case of Ghana, for example—is at the regional level rather than the district level, which is the actual epicentre of decentralized governance.

Another important contribution to the literature on subnational governance in Africa is the LGPI, which aims to help citizens and governments assess their governance and service provision (Lust et al. 2015). Although it is also based on (household) survey data, it is explicitly designed to speak to another critique of Iddawela et al.'s Afrobarometer-based measures through the specificity of information collected across multiple domains of governance (health, education, security, voice, participation, etc.). The LGPI also focuses on the experiences of 'beneficiaries' and not just their perceptions. Besides the concerns about subjectivity and the cost barriers to household survey-based approaches, a drawback in using the LGPI is that, to date, it has not been widely implemented, data

being available only for a few countries, including Tunisia, where it was piloted, Zambia, and Malawi. Nevertheless, it is a useful framework for data collection in less resource-constrained contexts.

While there is no such thing as a perfect index, our approach tries to avoid many of the concerns with existing measures. First, we follow a theory-driven approach that is anchored in critical domains of local governance. Second, we focus more on objective and output-based indicators due to their practical advantages in a resource-constrained context. We also leverage their strength of attribution to local development results. In general, it is easier to develop a theory of change that directly links local government action to output-based results indicators. For example, the provision of a basic public school classroom block in a village can be more easily traced to local government initiative than to the existence of outcome measures such as ‘improvement in learning outcomes’. Despite their attractiveness in the wider scheme of local development, the implementation of outcome-based measures may require the contribution of multiple players at multiple levels in the governance chain. This makes attribution more complex. For example, the achievement of a low maternal mortality rate in a municipality may not be attributable to the action of local government alone; it may also have resulted from inputs by higher-level government structures, e.g. through the supply of trained medical personnel and administrators and the procurement of advanced technology.

2.2 Assessing local government performance in Ghana

In Ghana, local government performance has been the subject of considerable public debate and research. It is usually linked to discussions around the effectiveness of the decentralization process in modern times, which took off in 1988 with the passage of the Provisional National Defence Council (PNDC) Law 207. This led to the creation of Metropolitan, Municipal, and District Assemblies (MMDAs), by far the most consequential subnational governance structure. MMDAs have a constitutional mandate to ensure the holistic development of their areas. Each MMDA is headed by a chief executive (mayor), whom the President appoints for a term of four years. The appointment is subject to the approval of two-thirds of the members of the local assembly. About 70% of local assembly members are elected by adult suffrage, the remainder being appointed by the President in consultation with local stakeholders. Over the years, the number of MMDAs has expanded—from 65 in 1988/89 to 260 in 2021 (see Ayee 2013; Oxford Policy Management 2019; Resnick 2017 for discussions of the process of ‘re-districting’). The present 260 MMDAs come under 16 administrative regions, each headed by a regional minister. Like mayors, regional ministers serve as representatives of the President in their respective jurisdictions. However, they mostly play a coordinating and backstopping role, unlike mayors, who exercise extensive executive authority, including raising revenue for development and initiating development plans.

The literature on Ghana’s local governance has adopted various approaches and methods (see Chachu 2021 for a review). For instance, Crook (1994) uses a two-district case study to assess local government performance on the basis of output effectiveness, responsiveness, and acceptability. Similarly, Ayee (1996) draws on case studies of the (then) Ho and Keta district assemblies to assess local government performance on the basis of the three objectives of the decentralization policy—participation, effectiveness, and accountability. While the case-study approach is common and offers important insights, the use of different approaches across studies and the small-N focus limit our understanding of variations in local governance across the country. Without stronger insights into other Ghanaian districts—i.e. the universe of cases—we cannot say with certainty whether their cases of study are typical or outliers.

A similar assessment can be made of the more recent literature on local governance in Ghana. For instance, Debrah (2009) evaluates the quality of accountability in Ghana's district assemblies and how accountability relationships influence local governance in Ghana. He relies on case studies and surveys of ordinary citizens and elites (district officials, traditional leaders, and professionals) in four districts: Mfantseman East in the Central Region, Ho Central in the Volta Region, Abokobi in the Greater Accra Region, and Gonja East in the Northern region. Egbenya (2010) also employs a case study design, drawing on interviews with key stakeholders in Komenda Edina Eguafo Abaim (KEEA) and Abura Asebu Kwamankese (AAK) districts in the Central Region. Akudugu (2013) considers the transfer and use of financial resources from the centre to districts, with focused analysis of the Bongo District Assembly based on interviews and in-depth consideration of public documents. Adu-Gyamfi (2014) provides insight into the effectiveness of revenue mobilization among local governments by drawing from a survey of assembly members, heads of decentralized departments, opinion leaders, and revenue collectors in the Upper Denkyira East Municipal Assembly.

In 2008, with the support of development partners, the Government of Ghana rolled out an assessment tool for district governance across the country. It was called the Functional Organizational Assessment Tool (FOAT). It formed part of a District Development Facility (DDF) that offers grants to MMDAs contingent on their meeting pre-determined local governance benchmarks. In 2018, the FOAT was revised to the District Assembly Performance Assessment Tool (DPAT) in an effort to include civil society involvement (Ministry of Local Government and Rural Development 2018). For instance, the Local Governance Network—an umbrella organization of CSOs—serves on the steering committee and technical working group of the DPAT. The FOAT/DPAT benchmarks could be viewed as useful context-relevant indicators of local government that also accommodate the role of non-state actors (see, however, the critique by Zakaria 2013).² To date, these data have not been extensively used in research.

Finally, another project providing important countrywide insight is the District League Tables (DLT), an assessment tool that compiles information and ranks all districts in terms of social development outcomes, providing information in six thematic areas: education, sanitation, rural water, health, security, and governance. The DLT provide valuable information on citizen engagement and districts' progress on key development outcomes. They are not strictly a measure of local government performance, however, aiming instead to capture local social development. Thus, the DLT do not relate to an underlying concept of performance in local governance. Moreover, they capture various aspects of subnational development interventions that fall outside the control of local district assemblies. For example, some analyses include the percentage of communities in a district covered by electricity; yet, key factors influencing this outcome (such as production, transmission systems, and production losses) are beyond the remit of any single district and usually require the direct inputs of central government agencies and, in some cases, private sector operators.³

² Zakaria (2013: 90) criticizes the FOAT/DPAT process as top-down and designed to ignore citizens' opinions.

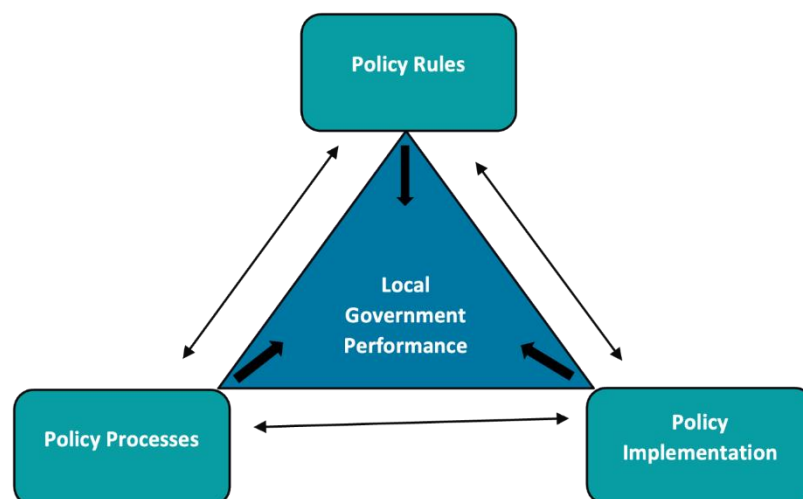
³ In general, the provision of electricity is informed by a national strategy, which sometimes defines a role for the private sector.

3 Towards a new measure of local government performance: a conceptual framework

One of the most elaborate frameworks for evaluating subnational institutional performance is developed in Putnam et al.'s classic *Making Democracy Work: Civic Traditions in Modern Italy* (1994). The concepts of responsiveness and effectiveness of subnational institutions are at the heart of their framework. These concepts speak to the ability of target institutions to demonstrate awareness of citizens' needs but also their willingness and ability to engage with citizens towards meeting those needs. Focusing on Italy, Putnam et al. present a 12-indicator framework spanning policy pronouncement, local government processes, and implementation for measuring variations in regional government performance. We posit that this approach lends itself to the formulation of a theory-driven framework that can be externally valid for studying local governance in other contexts.

Key to our approach is the idea that the way a local government works—subnational institutional performance⁴—is a function of both formal and informal 'rules' that it has in place, its policy processes, and the results of its policy implementation (see Figure 1). A set of measures of 'policy rules' then speak to the relevance, responsiveness, and comprehensiveness of (formal) laws but also of the norms, traditions, and beliefs that structure social interactions within a local government and that act as a social sanctioning mechanism (Hodgson 2015; North 1990; Voigt 2013). For example, a municipal government that has policy rules around the generation, disposal, and recycling of domestic waste is more likely to be able to align incentives towards better waste management than a jurisdiction with no clear rules, since there is an opportunity to exert sanctions on deviants, as may be spelled out *de jure* or *de facto*. In the absence or limitation of formal written rules, local agents can establish alternative equilibrium standards of behaviour which become 'de facto institutions' that constrain human interactions (Greif 2006; Schotter 1981).

Figure 1: Conceptual framework for measuring local government performance



Source: authors' construction based on Putnam et al. (1994).

⁴ The terms local government performance and subnational institutional performance are used interchangeably. Here, we refer to the ADM2 level.

Further, this theory-driven approach to measurement captures 'policy processes' not just as a means to an end but also as an end in itself. Policy processes reflect the mechanisms through which policy intents are realized. They are the organizational neurons that link rules to action within the organ of a local government. This aspect of institutional performance is often assumed or considered an inherent part of policy implementation. Explicitly modelling policy processes in the local government function helps to understand the 'how' of achievements in policy implementation. It contributes to unpacking an otherwise 'black box' of outputs or outcomes that may or may not be exogenous to local government systems.

The final lever identifies measures of 'policy implementation'. It represents what is achieved or produced with local government resources. Policy implementation includes the delivery of public goods and services based on resources generated or received at the subnational level and may include what is transferred from upper levels of government. In capturing measures of policy implementation, we follow Putnam et al. (1994), as our approach emphasizes outputs rather than outcomes.

While each of these levers or any combination of them can stand on their own in articulating aspects of local government performance, our ideal theoretical and measurement framework combines all three to get closer to capturing the complexity of what constitutes local government performance. We focus on performance at the subnational institutional level based on administrative data and do not include subjective measures of citizens' opinions or perceptions. In essence, our approach to measurement is an 'objectivized evaluation' of the functioning of a local government system (Bouckaert and Walle 2003).

Identifying contextually relevant indicators is a key challenge in applying this framework across different contexts. We set out a measurement framework, building on Putnam et al. (1994) and Chachu et al. (2023). We identify a list of mostly output indicators linked to sectors prioritized by the government of Ghana and important for achieving its development goals (Republic of Ghana 2014a, 2014b) (Table 1). This list captures the multi-dimensional nature of Ghana's local governance and does not necessarily speak to the availability or otherwise of data.

Table 1: Indicator framework for Ghana

Theme	Measure	Indicator
Policy rules	Reform legislation	The extent to which a district assembly has comprehensive, coherent, and creative by-laws ⁵
	Legislative innovation	The existence of by-laws to tackle emerging development challenges (e.g. natural disasters, climate change-induced challenges, security) How soon a model by-law is picked up and passed by a district assembly
Policy processes	Leadership stability	The number of times a district chief executive is replaced over a period
		The number of times the executive committee of the district assembly sits for deliberations within a year *
		The average share of district assembly members that participate in general assembly meetings for a particular year
		The number of general assembly meetings held in a year *
Policy implementation	Fiscal stability	The average time it takes a district assembly's annual budget to be approved
		The average number of budget/public hearings conducted by a district assembly within a year *
		The ratio of internally generated funds (IGF) to total annual district assembly common fund (DACF) disbursement * **
	Statistical and information capacity	The availability of a statistical and information office in a district and the extent to which the office is equipped for its role *
	Basic education access	The ratio of the total number of children enrolled in public kindergartens to the number of public kindergarten with permanent structures *
		The ratio of public primary school enrolment to the number of public primary schools with permanent structures *
	Local health care	The ratio of the number of CHPS compounds in operation to the district rural population *
		The ratio of the number of health centres per district to the district population
		Total local government health expenditure per capita
	Industrial policy instruments	The number of potential tools of industrial policy deployed in a district in a reference year *
	Agricultural development capacity	The number of agriculture extension officers per (farmer) population in a reference year *
		Total agriculture expenditure per district population in a reference year
		Total agriculture expenditure per farmer population in a reference year
	Housing and urban development	Total amount of funds disbursed towards housing and urban development per district population
		Water supply coverage *
	Bureaucratic responsiveness	The number of building permits successfully granted or rejected as a share of total requests for a given year *
		The percentage of reported cases of child rights protection (maintenance, custody, paternity, and family reconciliation) successfully closed *
		Performance in the DPAT

Note: * criteria incorporated into the measures included in a 'quality of reporting' index (see Section 3.2); although this measure could also be classified under policy implementation, we leave it here because it is a critical prerequisite for any policy implementation; DACF is a central government grant that is transferred to all district assemblies under a parliament-approved revenue disbursement formula—variation in amounts is largely based on local needs and pressure on local government services due to migration.

Source: authors' construction based on Putnam et al. (1994) and Chachu et al. (2023: table 10.1; [CC BY 4.0](#) licence).

⁵ These are laws enacted by local assemblies.

3.1 From conceptualization to empirics: data issues

Our best strategy to operationalize the local government performance framework was to compose an index that summarizes indicators under the three themes in Table 1. This required assembling local government data on these indicators. No such database was readily available. In order to ascertain the level of availability of the data required, we explored several sources. In particular, we turned to, arguably, the most comprehensive administrative report on local governance at the subnational level—The Annual Progress Report (APR).⁶ The APR is a key element of the national monitoring and evaluation system as set out in the legislation establishing local governments (e.g. Local Government Act 936 and Legislative Instrument 2232). It is a primary source of information for the assessment of district-level development.⁷ Each report presents a demographic, administrative, and socio-economic development profile of a district. Additionally, it covers results on pre-determined core national indicators and district-specific indicators of development. It provides updates on local government finances (revenues and expenses), the status of development projects, sector-specific updates, and other district assembly activities, including collaboration with stakeholders. The document size ranges from as few as 15 to as many as nearly 300 pages, with page numbers not necessarily linked to comprehensiveness or quality. The reporting requirements for each cycle are communicated through guidelines issued by the National Development Planning Commission (NDPC), the state development planning, monitoring, and evaluation agency responsible for all MMDAs. Although local governments are expected to abide by these formal requirements, no stringent penalties are applied for non-compliance. Meanwhile, information dissemination is seen as a critical pillar for building effective and responsive democracies (Chong et al. 2010; Ferraz and Finan 2008; Reinikka and Svensson 2011).

How then to explain non-compliance with reporting requirements? Our interviews shed some light. ‘At the end of the day, you will receive your salary’, remarked one of the local officials involved with the APR process in response to a question on sanctions for non-compliance to reporting standards. Local government officials, however, indicate that fear of embarrassment during annual review meetings with officials of the NDPC provides an incentive for comprehensive and accurate reporting. Reputation costs are seen as a credible constraint on opportunities for promotion, including transfers to larger districts.

We complemented these unique administrative data on local government reporting with other secondary data from the National Statistical Office and other government agencies⁸ to compute indices of local government performance for most districts in the country. In doing this, we comprehensively evaluated the administrative reports and constructed an index to gauge their quality. To the best of our knowledge, our work represents the first attempt to provide a framework for crafting a metric for assessing the quality of these reports. In an attempt to address the data gaps in these secondary sources, we commissioned an institutional survey in 16 districts and field interviews in six districts to better understand the context of local governance in Ghana. The institutional survey

⁶ An abridged version is prepared quarterly and submitted to the Regional Coordinating Council.

⁷ The reports are prepared annually but are usually preceded by quarterly updates covering similar topics. The reports are often linked to a mandatory annual action plan. The APR process is also distinct from the DPAT, an operational tool of the Ministry of Local Government designed to exact better local government performance by rewarding good performance with additional funding.

⁸ Ministry of Education, Community Water and Sanitation Agency, Ministry of Local Government and Rural Development.

sought to gather additional data for a limited sample of districts spread across all 16 regional governments in Ghana.⁹ Respondents to the field interviews were mainly members of the District Planning Coordinating Unit (see Appendix Table A1), which oversees coordination, planning, budgeting, monitoring, and evaluation functions at local government level. Its members include a District Coordinating Director, Planning Officers, Budget Officers, Finance Officers, an Internal Auditor, and Heads of departments of the district assembly (between 11 and 16 statutory departments depending on MMDA status).

3.2 Quantifying data challenges: quality of reporting index

Beginning with our ideal framework set up in Section 3, we moved to measurement by first reviewing APRs for different years.¹⁰ As the information from the APRs was not available in a composite or standard format, we began by building an archive of the APRs available from the NDPC's website. It was clear that APRs were not available for all years for all districts. We compiled reports for 2016, the year with the most comprehensive coverage—APRs for 210 out of a (then) total of 216 districts. We added reports for the year 2020 for all 260 districts. The two years are coterminous with the national elections cycle and less than 12 months ahead of the district assemblies elections cycle. The project team had to engage with a technical unit of the NDPC to access outstanding reports, particularly for the year 2020. Overall, reports covering six districts could not be retrieved despite best efforts. Although we had considered the core areas of APR reporting in developing our framework, our review revealed clear gaps between formal requirements and reporting in practice.

We assessed coverage of our 'ideal' indicator framework, finding that, in fact, there were only 14 indicators from our original list on which at least one district reported during our baseline year. In Table 1, these indicators are identified with an asterisk.¹¹ Clearly, they provide uneven coverage of our framework. They include various indicators of policy implementation, the area with the largest number of indicators to start with, but none of policy rules and only one (out of three) of policy processes. While no absolute scale exists for determining the number of indicators to include in an index, we were guided by our theoretical framework and the practical challenges of data availability. We emphasized data quality over coverage. As Goldstein and Spiegelhalter (1996) note, 'No amount of fancy statistical footwork will overcome basic inadequacies in either the appropriateness or the integrity of the data collected'. To gauge the extent or level of missingness of relevant data produced and published by local assemblies we developed a 'quality of reporting' index. This not only gives a country-wide snapshot of the level of missingness of socio-economic data necessary for tracking development progress at the subnational level but also hints at administrative capacity challenges

⁹ The survey was carried out between the third and fourth quarters of 2021. The subsequent field visits to the six districts were carried out in June 2024.

¹⁰ The APR reporting system at the subnational level was introduced in 2007 following strenuous attempts to institutionalize an effective monitoring and evaluation system. It has since been institutionalized by Legislative Instrument 2232 (2016).

¹¹ Note that population was added as a separate indicator due to its importance in local government planning and as a denominator for standardizing indicators. We include the agricultural expenditure variables only for 2020 to reflect the extended coverage of indicators for that year.

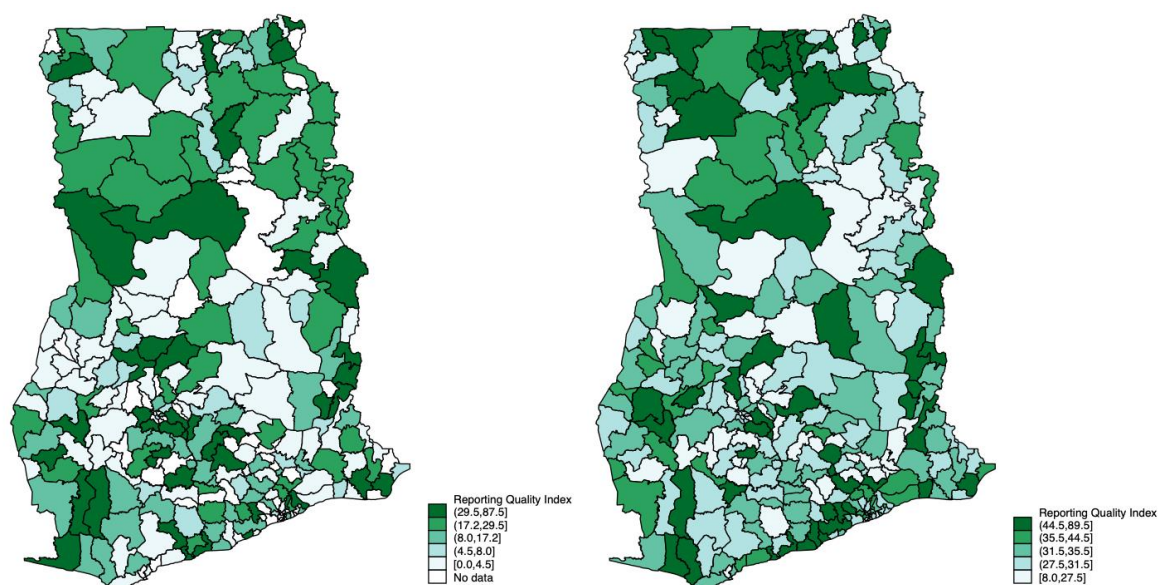
with policy processes and provides an additional indicator for assessing overall local government performance.

We assigned MMDAs a score of 1 for each indicator reported on in the APR. The higher the total score, the higher the quality of reporting. Next, we considered the share of government spending allotted to each sector as a coarse indicator of the relative importance of specific sectors—the idea being that lack of reporting is more serious in areas of greater budgetary importance. We used these broad poverty reduction spending percentages in our baseline year as weights for a weighted measure (see Appendix Table A2). The largest share of poverty reduction spending (approximately 45.6%) goes to the education sector. Reporting on each of the two education-related indicators is thus assigned a weight of about 22.8%. We assumed that the spending shares informing the weights remained unchanged between 2016 and 2020. This assumption is in line with government priorities in the medium term and general policy trends over the period (see National APRs, various issues).

Our review of the APRs for 2016 and 2020 suggests a gap between reporting requirements and actual practice. While Figures 2a and 2b show an unclear pattern of distribution of the quality of reporting index across space, Figure 3 depicts the nature of the skewness of the data. The quality of reporting is generally poor. This is somewhat consistent with assessments by the NDPC, which suggests that in 2016, about 93% of districts did not meet the reporting requirements (NDPC 2016). That notwithstanding, Mfantseman Municipal Assembly, a fishing, commerce, and emerging mining and light industrial hub located on the southern coast of Ghana, emerged as the district with the best performance.¹² Its report captured 10 out of the 14 selected indicators in 2016, and 11 out of 16 in 2020. Although the overall evidence in Figure 2 might suggest an unclear pattern in the quality of reporting, about half of the districts occupying the top 20 positions are located in the northern half of the country, which raises questions about the stylized fact of a north–south dichotomy in development that may not always be in favour of southern Ghana (see Appendix Table A4).

¹² The result discussed here is based on a raw count of the indicators captured in the annual progress report from Mfantseman Municipal Assembly. The raw count of 10, which is the highest among all districts, makes Mfantseman the best performer. This criterion is one of the measures for determining the quality of reporting. The ranking shown in Table A7, on the other hand, uses an index based on aggregating four indicators/variables to construct a local government performance index (LGI), in which Mfantseman occupies the third position.

Figures 2a and 2b: Variation in quality of reporting index across districts—2016 and 2020

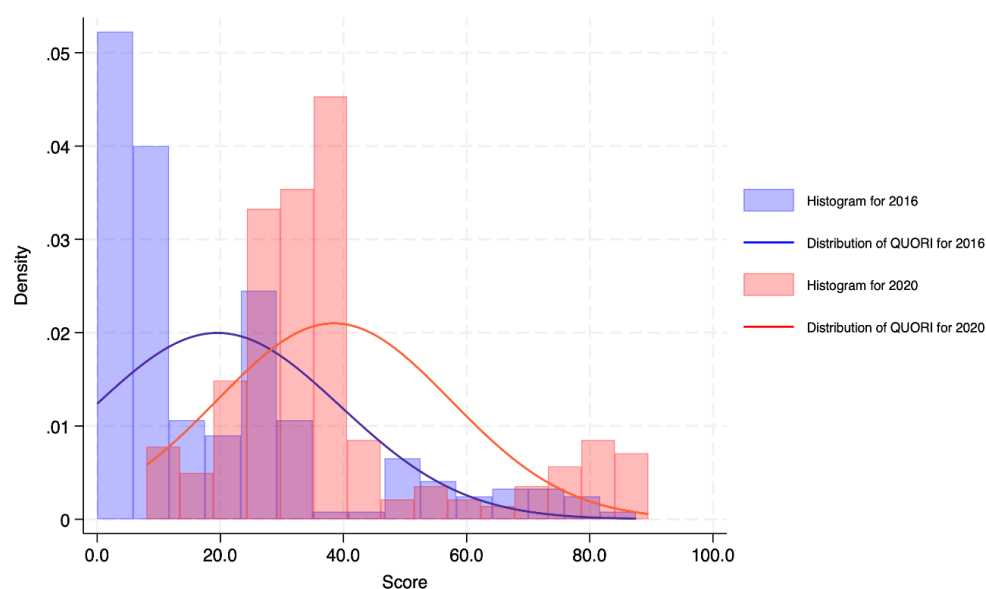


Source: authors' construction based on District Annual Progress Reports, 2016 and 2020.

Mfantseman Municipal remains the top performer for both periods even when government priorities are factored in through a weighting approach. Figure 2 depicts a general improvement in the quality of reporting along the northern borders and the coastal districts (in the south) from the year 2016 to 2020. The top five spots are shared by districts located in the extreme northern or in the coastal and central regions of the country (see Appendix Tables A3b and A4).

This trend of an improvement in the quality of reporting is clearer in Figure 3, where the measures of central tendency, as illustrated by the kernel density curves, display a shift to the right. Despite the improvement in the quality of reporting over time, there is a right-side skewness of the index distribution for each period, which confirms the generally low quality of reporting.

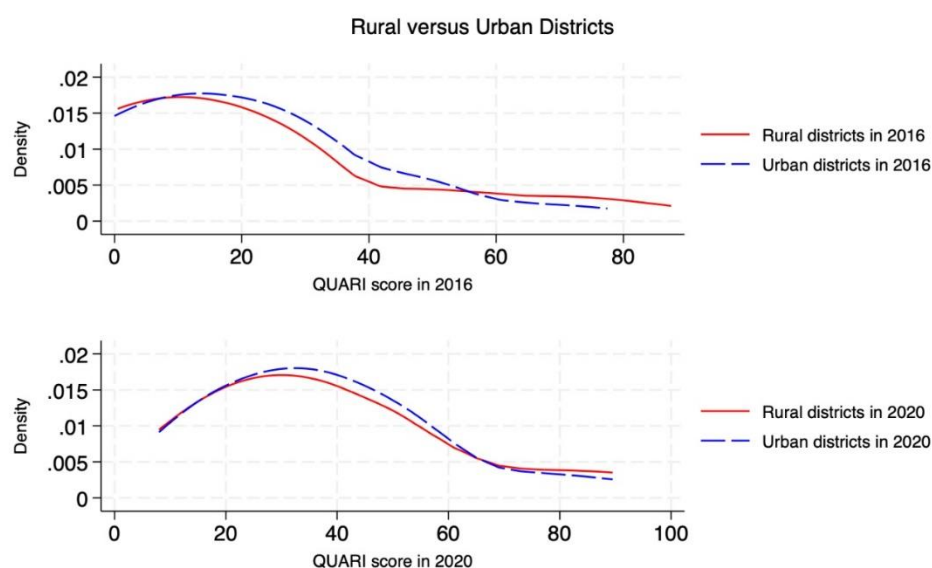
Figure 3: Histogram on quality of reporting index—2016 and 2020



Source: authors' construction.

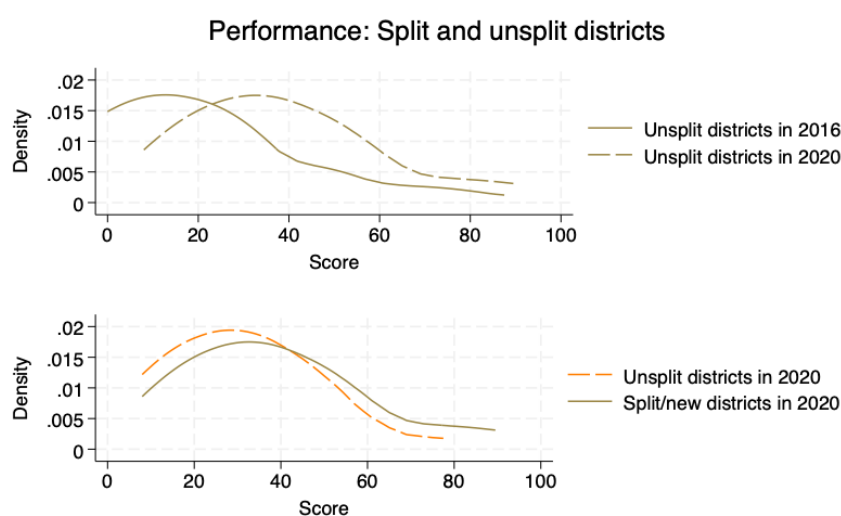
We further disaggregate the data into rural and urban districts, as presented in Figures 4a and 4b, and into newly split versus original or old districts (designated as unsplit districts), as shown in Figures 5a and 5b. While Figures 4a and 4b suggest that there is very little difference in the quality of reporting in rural compared with urban districts, the latter appear to perform better marginally, although the difference is not statistically significant, particularly for the year 2020. Older districts (unsplit) tend to improve in their quality of reporting over time. This is shown in Figure 5a. In Figure 5b, there is very little difference in quality of reporting between old districts and new districts (split) in the year 2020. However, the fact that the kernel density curve of new districts is slightly on the right-hand side of that for old districts in 2020 may signal emerging momentum in new districts. This is only suggestive and requires further scrutiny.

Figures 4a and 4b: Distribution of quality of reporting index: rural versus urban districts



Source: authors' construction.

Figures 5a and 5b: Distribution of quality of reporting index: newly split versus unsplit districts



Source: authors' construction.

Given the formal district reporting requirements in the APRs, how do we interpret such notable gaps? Part of the story, our analysis suggests, is a lack of effective oversight and varying levels of capacity. In order to collect the necessary data and comply with the reporting requirements of the APRs, there must be some basic level of technical and administrative capacity among local government personnel. While our field visits suggest that formal education may not be the main problem, there remains an issue of delivering task-specific APR reporting training in a timely and consistent manner. There also seems to be limited backstopping from the mandated Regional Coordinating Councils (RCCs), which has primarily been through telephone calls. A public official at one of the local assemblies expressed concern about the limited engagement of the RCC for the area.

The fact that district governments vary substantially in size and distance from urban centres, where the RCCs or the NDPC are based, also presents a challenge, especially in districts where transport and telecommunications infrastructure are less developed. Frequent changes in personnel of district assemblies present another layer of challenge. For instance, the lead Planning Officer in the Mfantseman district had an accumulated experience of about a decade in the APR process, while in other districts, such as the Tamale Metropolitan Assembly, the lead officer had been in post for only a couple of years. In the absence of strong support from the political and administrative heads of the local governments, it takes time to navigate and build the necessary working relationships with more than 20 subnational institutions involved in the process. 'Building a rapport and a relationship with the community and all the decentralized departments reduces the chances of missing data', remarked one of the more experienced officers.

Contrary to the provisions of the local government regulations, some of these local institutions do not feel obligated to report to the local government office and insist on reporting directly to their centralized agencies. This challenge speaks directly to the incompleteness of the decentralization process. Factors likely influencing the data gaps include motivation to report and capacity. For instance, Mfantseman Municipal is the district with the best quality of reporting, whether we look at our unweighted or weighted measures. It is also among those with the best indicators overall. For example, about a third of its local revenue sources come from internally generated funds, suggesting significant local government fiscal capacity relative to other district assemblies. Compiling information and filing reports costs resources and time, regardless of the local capacity. Those districts with a highly motivated leadership may be most likely to comply.

Highlighting the crucial role of leadership in local government, a leading local bureaucrat remarked, 'If the DCE understands the system, the district can work'. Another bureaucrat questioned the method of appointing heads of the MMDAs and how that affected their motivation. If, for example, they are appointed by the President, they are likely to champion the interests of the President and his party, which may be inconsistent with the local needs of the citizens. Another key concern is that many appointees lack the relevant professional capacity, experience, and a pro-development mindset, having been appointed because they are party financiers or relatives of politicians or hold some other leverage unrelated to the requirements for the job.

A final possibility is that the data gaps reflect a deliberate attempt to obscure information so that the lack of performance by the district government is not documented. The evidence, particularly for higher levels of government, suggests that data dissemination may be linked to transparency and bureaucratic quality (Hollyer et al. 2014; Williams 2009). Despite the fact that our interviews with bureaucrats in six districts do not provide clear evidence, this remains a possibility for Ghana and requires further study.

4 Towards a new measure of local government performance: method and results

4.1 Method

Our ideal strategy—to use actual data covering the full list of indicators and a sample of districts to examine the evolution of performance across the districts—was not possible due to data limitations. We therefore constructed a ‘next best’ local government performance index (LGI) across nearly three-quarters of all districts using a restricted set of variables. Following Chachu et al. (2023), we included the quality of reporting measure as one of the indicators, since it proxies a key part of the policy processes linked to administrative capacity. This was combined with measures that are mostly related to policy implementation: education delivery, local fiscal capacity, and a composite measure of bureaucratic quality. The data cover the year 2016. The choice of the measures was informed by our quest to operationalize our theoretical framework and at the same time enable a comparative assessment of most districts with available data. Although some information on other sectoral measures was available (e.g. on policy rules), the severity of gaps in the data meant that their inclusion would reduce the likelihood of a meaningful comparative assessment of districts across the country. Given the extent of missing data, employing standard data imputation methods in constructing our index was not advisable. Thus, we focused on case deletion, an alternative option, taking advantage only of the data available. The measures are shown in Table 2.

Table 2: Measures for constructing the LGI

Theme	Measure	Definition
Policy implementation	Education delivery performance	The ratio of primary school population to public primary schools
Policy process	Local fiscal capacity	The ratio of IGF to total annual DACF disbursement
Policy implementation	Bureaucratic quality (DPAT score)	A multi-indicator index measuring the effectiveness of district assembly operations, service delivery, and accountability
Policy process	Quality of reporting	Quality of APRs to capture indicators on MMDA performance in local governance

Source: authors’ construction, adapted from Chachu et al. (2023: table 10.4; [CC BY 4.0](#) licence).

The education delivery measure captures districts’ ability to provide sufficient school structures for children in public primary schools. In a departure from Chachu et al. (2023), we employed the Ghanaian educational standard of 35 pupils per classroom as a benchmark. We used an inverse distance ratio to this benchmark such that districts with a higher number of pupils per classroom are penalized in direct proportion to the distance. The fiscal capacity measure gives an indication of a district assembly’s capacity to raise revenues within its jurisdiction relative to decentralized transfers from the central government (DACF). The bureaucratic quality indicator is a DPAT score, an index that captures the effectiveness of district assembly operations, service delivery, and accountability.

To construct the LGI, we first normalize the education (EdX_{di}) and fiscal capacity ($FinX_{di}$) measures using the following formulae:

$$EdX_{di} = \left(\frac{1}{(X_{di} - 35) + 1} \right) * 100 \dots (i); \quad FinX_{di} = \left(\frac{X_{di} - Min(X)}{Max(X) - Min(X)} \right) * 100 \dots (ii)$$

where X_{di} is the raw score for variable X in district i ; $Max(X)$ is the maximum score for variable X and $Min(X)$ is the minimum score for variable X . With all four variables on a percentage scale, we find a simple average to arrive at the LGI measure.

In a bid to get closer to our ideal measure, we fielded an institutional survey in 16 districts covering all the regional capitals in the country. This brought the advantage of increasing the list of indicators included in the LGI to 9 within a smaller sample of districts. We used both a weighted and non-weighted approach to arrive at our measure of local government performance. We could still not use all the indicators originally identified due to data quality, but we could include a larger number. As part of a number of robustness checks, we explored Principal Component Analysis (PCA), which allowed us to examine the sensitivity of the LGI to the dimensionality of the new dataset for the 16 districts. The PCA approach summarizes the dataset into key components of fewer uncorrelated indicators that yet retain most of the variability in the underlying data (Abdi and Williams 2010). We also examined the sensitivity of the index to the exclusion/inclusion of specific components. Next, we compared these two sets of LGI assessments (i.e. based on restricted versus extended indicator list) and considered how the results from the indices compared.

In the end, the main outputs are a quality of reporting index for 2016 and 2020, and a local government performance index (LGI) with restricted data for 157 out of 216 districts for 2016. Finally, for the same years, we present a second set of LGI measures with extended indicators for 16 districts. Do districts seem to perform better/worse in one index versus the other? Does the restricted index seem to bias results in discernible ways? We discuss these questions in the subsequent sections of the paper, where we also present results on MMDA rankings across indices.

4.2 Local government performance index: results

LGI across all districts: top, middle, and bottom rankings

In summary, the overall performance for the year 2016 is low. Urban districts generally perform better than rural districts. That notwithstanding, about half of the top 20 districts are rural, perhaps signalling the potential of rural districts to deliver good governance to their citizens. The restricted measure also aligns well with the DLT and suggests that improvements in local government performance vary positively with the ability to tackle poverty.

Table 3 presents average LGI scores for all MMDAs, urban MMDAs, and rural MMDAs. The distribution is skewed to the right. On average, there is a 2 percentage point difference in performance between urban and rural MMDAs, although there is greater variance in the former. A test of difference in mean performance between urban and rural districts is statistically significantly distinguishable from zero at conventional levels.

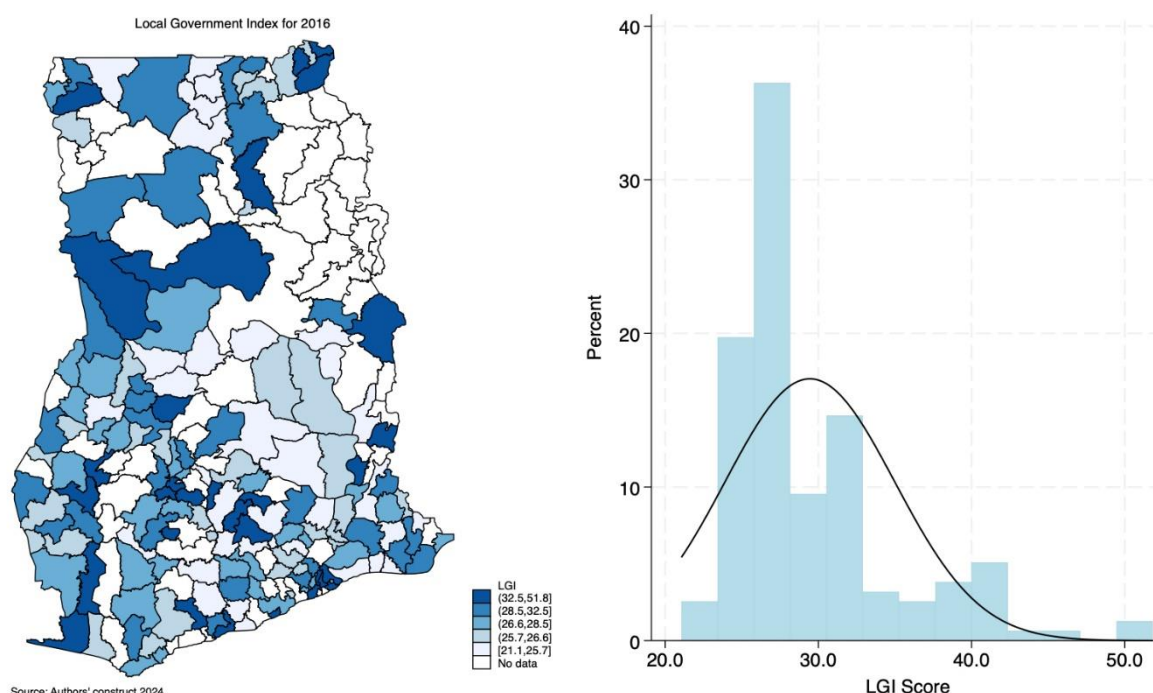
Table 3: Summary statistics on the LGI

Category	Mean	Median	Std dev.	Minimum	Maximum	N
All MMDAs	29.4	27.2	5.5	21.1	51.8	157
Urban MMDAs	31.4	28.3	7	23.5	51.8	46
Rural MMDAs	28.7	26.8	4.6	21.1	43.3	111

Source: authors' construction.

Figure 6 displays the distribution of LGI performance across all 157 districts with data. Although there are no clear patterns in the geographical distribution of performance, partly due to data gaps, the fairly strong performance among several districts in the northernmost part of the country, an area that would otherwise be referred to as the poverty zone, is striking. To examine these emerging patterns more closely, we reproduce the top 20 district rankings in Table 4.

Figure 6: Distribution of LGI across MMDAs in 2016



Source: authors' construction.

While it is reasonable to expect the topmost rankings to be dominated by urban MMDAs and the lowest by rural MMDAs, about half of the top 20 districts are rural. The top three spots are occupied by three large urban metropolitan and municipal assemblies: Kumasi Metropolitan, Accra Metropolitan (which hosts the national capital), and Mfantseman Municipal. This finding is consistent with other recent findings as to the dominance of large urban districts in delivering public goods and services (Andrews et al. 2023). It could also be linked to the capacity of these districts to mobilize IGF, which expands the fiscal space for spending across priority sectors. Relative to rural districts, these larger MMDAs are less dependent on decentralized transfers (grants) from central government, which are often irregular and delayed. A sensitivity analysis that omits the IGF leaves Mfantseman Municipal and Accra Metropolitan as the top performers, joined by three rural districts—Pusiga, Jirapa, and Adansi North—as the top five (see Appendix Table A5). Other top-ranking rural districts include Bosomtwe, North Dayi, Kwaebibirem, and Twifo Hemang Lower Denkyira.

Table 4: LGI ranking of top 20 MMDAs

District	Region	Total score	Overall rank
Kumasi Metropolitan	Ashanti	51.8	1
Accra Metropolitan	G. Accra	50.3	2
Mfantseman Municipal	Central	46.7	3
Pusiga	Upper East	43.3	4
Jirapa	Upper West	42.2	5
La Nkwantanang-Madina Municipal	G. Accra	42	6
Bosomtwe	Ashanti	41.8	7
Nkoranza South Municipal	B. Ahafo	41.7	8
Savelugu Nanton Municipal	Northern	40.7	9
Kwahu West Municipal	Eastern	40.6	10
Birim North	Eastern	40.2	11
Hohoe Municipal	Volta	40	12
Obuasi municipal	Ashanti	39.9	13
North Dayi	Volta	39.6	14
Kwaebibrem	Eastern	39.4	15
Twifo Hemang Lower Denkyira	Central	39.1	16
Kpone Katamanso	G. Accra	38.1	17
Asunafo South	B. Ahafo	37.9	18
Tema Metropolitan	G. Accra	37	19
Binduri	Upper East	36.6	20

Source: authors' construction.

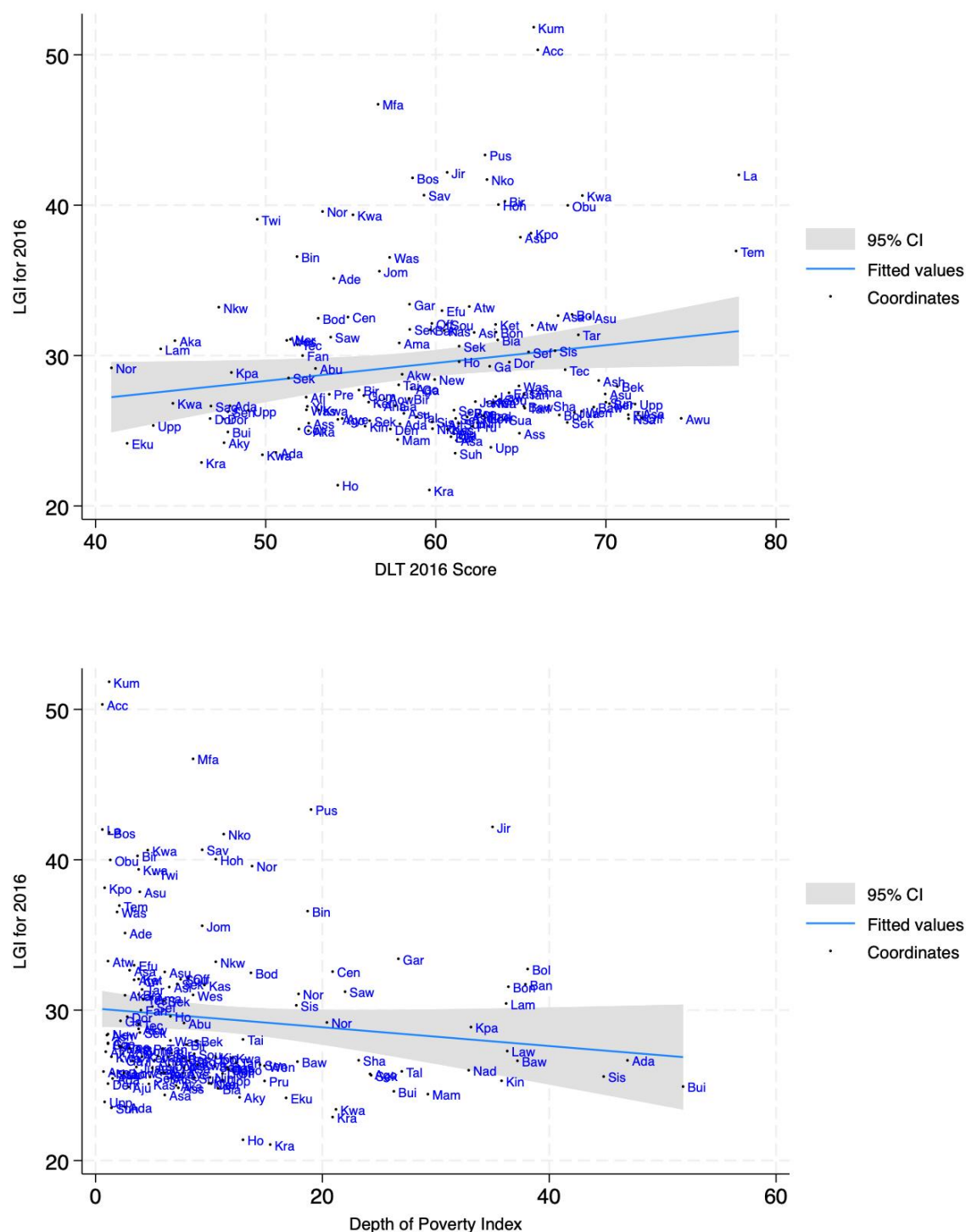
Several of these rural districts rise further when the revenue variable is dropped, suggesting that fiscal capacity is a key influencing variable in the ranking of large MMDAs such as those in two of Ghana's biggest cities—Accra and Kumasi. Where fiscal capacity is challenged, the results suggest that efficiency matters; in this case, administrative capacity and effective delivery of public goods could be important drivers of variations in local government performance. Rural districts may be constrained in mobilizing domestic revenues by several factors, including limited economic diversification, greater dependence on rain-fed agriculture, and lower population density; however, they seem to reap other capacity dividends, a phenomenon that requires further study.

The bottom 20 LGI rankings are mostly made up of rural districts, with urban districts making up only a tenth of the total number. Most of the rural districts are concentrated in the Volta region followed by the northern regions, which account for a fifth. Similarly, the middle-ranking districts are largely dominated by rural districts scattered across the country. The distribution of rural districts across the top, middle, and bottom of the ranking suggests significant heterogeneity in capacity characteristics. At the same time, the evidence suggests that rural districts have potential for securing effective local governance. Despite the obvious limitation of results representing a single year, the variations in performance offer a good baseline for assessing trends in Ghana's local government performance.

To better understand what these results mean and how they compare with other existing measures of local development, we compare the LGI to the DLT for 2016. Figure 7a shows that our LGI is positively correlated with the DLT. In general, MMDAs that perform well on our LGI measure are more likely to be associated with better local development outcomes. We examine this further by comparing our LGI measure with two separate but related poverty indices across MMDAs: a depth of poverty index (also known as the poverty gap) and a severity of poverty index (also known as squared poverty gap). We also fit a linear fixed effects model to the data, controlling for factors such as corruption, population, and level of development (proxied by urbanization status). Figure 7b shows a negative

correlation between the LGI and depth of poverty (for poverty severity, see Figure A1). Parameter estimates from the fixed effects model suggest that districts with better LGI scores are associated with lower poverty levels (see Appendix Table A6).

Figures 7a and 7b: LGI compared with DLT and depth of poverty index



Source: authors' construction.

Filling gaps: targeted analysis of 16 districts

We investigated various ways to fill data gaps, including targeted data gathering in 16 districts. This showed that we could gain a more complete set of data across the three main levers of our conceptual framework, although there are still gaps. The institutional-level survey conducted in 16 districts across all 16 regions of the country expands the list of indicators and, therefore, gets us closer to the ideal framework. The selected districts surround the regional capitals and are mainly urban. Following data-cleaning, we arrived at nine indicators, more than double the number used in the cross-district analysis in the earlier subsection. Table 5 provides summary statistics of indicators for the selected districts. The organization of executive committee meetings, where all major decisions for local government operations are made, shows a fairly consistent pattern across districts, with either three or four sessions per year. Other indicators, such as our measure of fiscal capacity (ratio of IGF/DACF) and access to permanent public preschool educational facilities, show a wider variability across districts.

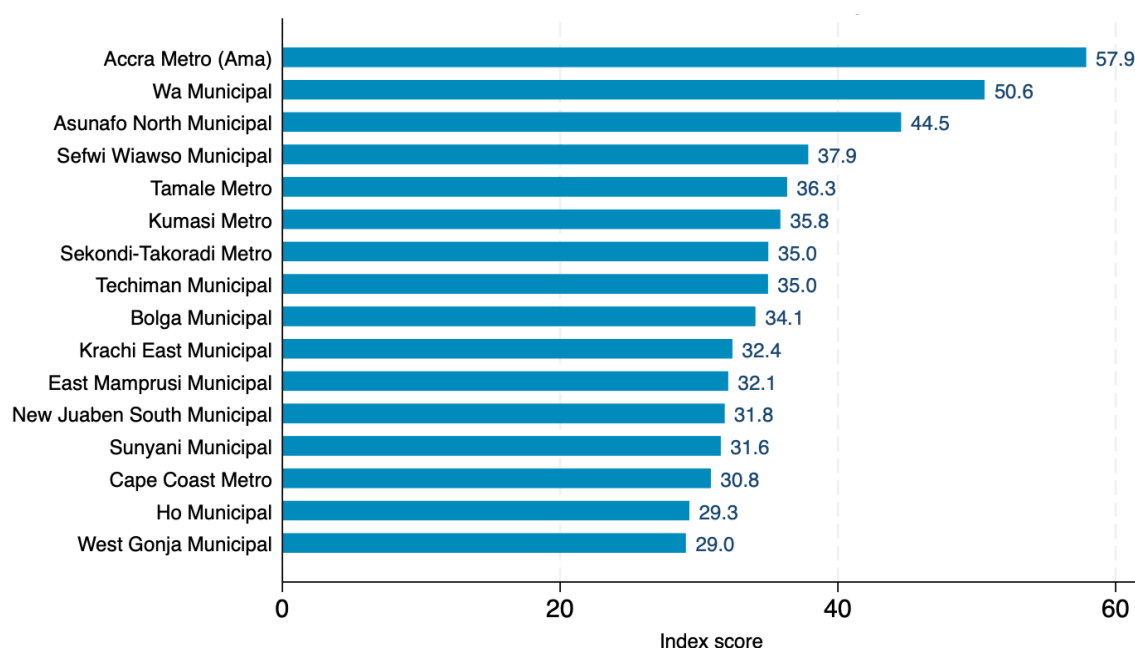
Table 5: Summary statistics on the indicators for the 16 selected districts

Theme	Variable	Obs.	Mean	Std dev.	Min.	Max.
Policy rules	# Byelaws adopted	16	4.81	.98	3	6
Policy process	# General assembly meetings	16	3.5	.89	2	6
	# Executive committee sittings	16	3.25	.45	3	4
Policy implementation	Ratio of IGF/DACF	16	183.41	214.4	3.06	701.9
	Ratio of primary school population/permanent school structures	16	254.83	98.11	41.87	471.71
	Ratio of preschool population/permanent school structures	16	128.22	82.36	34.92	367.6
	Agric. expenditure per capita	16	1.99	2.14	0	5.71
	DPAT	16	95.06	4.91	84	100
	Water supply coverage	16	68.44	18.94	29	97

Source: authors' construction.

We follow a similar approach as in the earlier subsection by first normalizing all indicators and then computing a simple unweighted average. Figure 8 shows the ranking of the 16 districts based on the unweighted index—meaning that we do not factor in government priorities. Overall, the results are broadly consistent with the full-district comparison presented in Section 4.

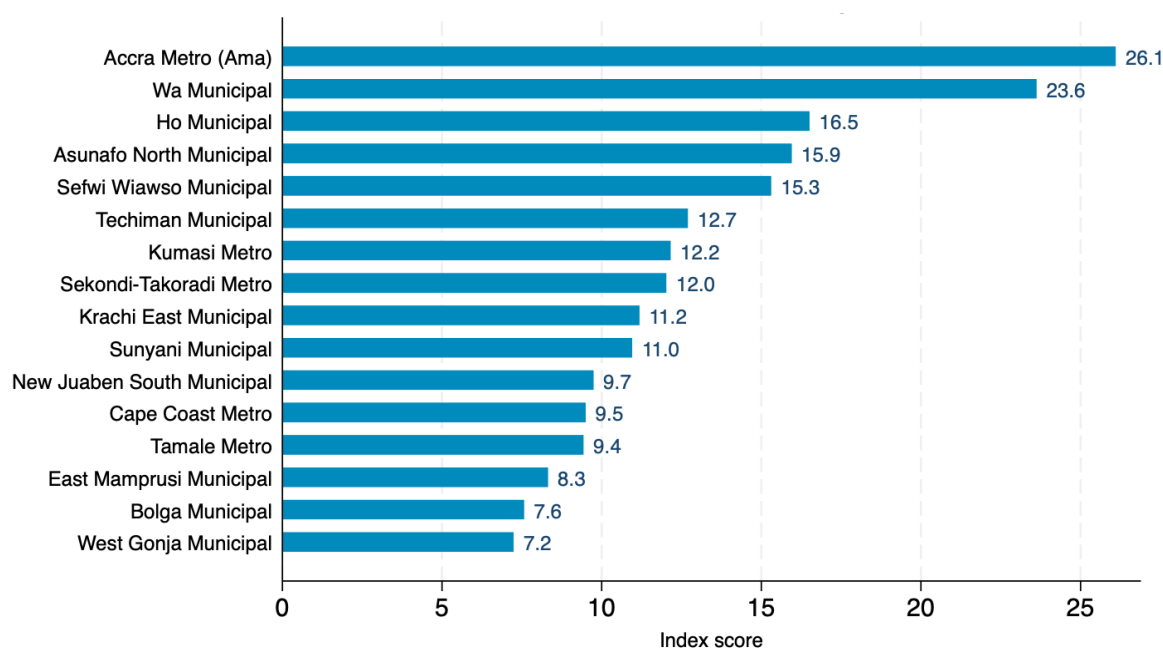
Figure 8: LGI for 2016: unweighted measure



Source: authors' construction.

The Accra Metropolitan Assembly (AMA) occupies the top spot, followed by Wa Municipal in northern Ghana. When the performance scores are weighted to reflect government expenditure priorities (Figure 9), AMA continues to dominate the rankings, followed by Wa Municipal. Despite ranking high in Figure 8, Kumasi Metro drops two places once the indicators are weighted. Kumasi Metro's position appears to be sensitive to the education indicators, where its performance lags behind comparator districts. Below, we discuss further how these rankings compare across the different approaches.

Figure 9: LGI for 2016: weighted measure



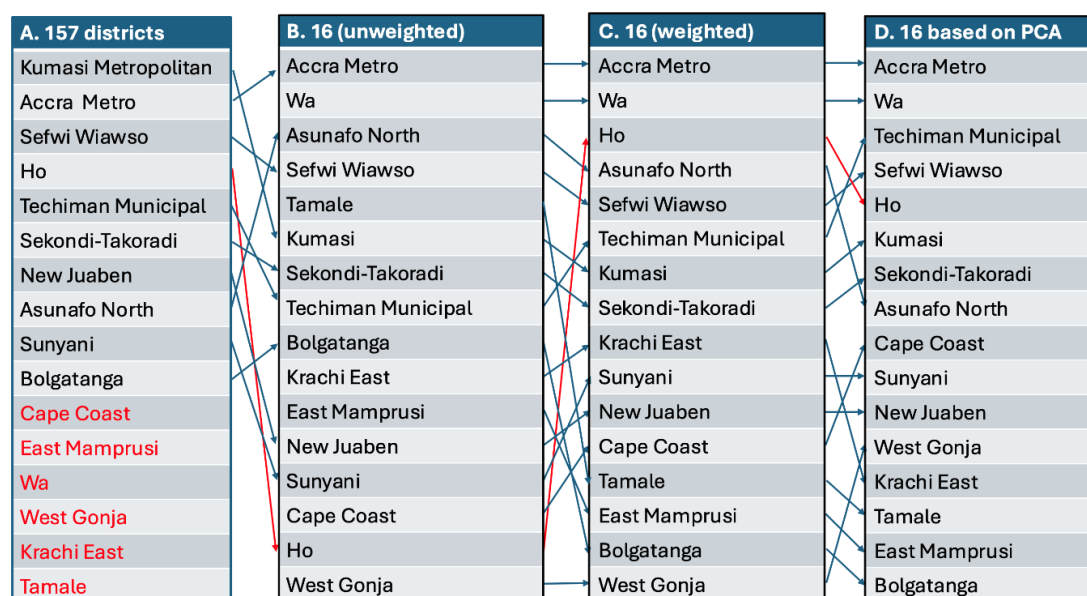
Source: authors' construction.

How do the results for these 16 districts compare with the all-district assessment?

From a comparative analysis we conclude that, although our ‘best possible’ measure of LGI lacks the ideal set of indicators, it covers a majority of districts and is good enough to capture variations in local government performance when compared with measures based on the extended list of indicators.

To facilitate the comparison presented in Figure 10, we show the top 16 districts in the all-district ranking and the 16 urban district rankings generated by the three different approaches. We match the positions of the same districts across the different panels to examine the relativity in the rankings across the different approaches. Panel A represents the all-district rankings using the index with restricted indicators across two of the three levers of our ideal framework (see Table A7 for the full list). At the bottom of the panel (in red) are districts not included in the ranking of the 157 districts due to data gaps: Cape Coast Metro, East Mamprusi, Wa Municipal, West Gonja, Krachi East, and Tamale Metro. Panels B to D show the ranking of the top 16 urban districts with double the number of indicators and spanning all three levers of our ideal framework. They are distinguished by a no-weighting approach (simple average) in panel B, a weighting approach informed by government spending priorities in panel C, and a PCA approach in panel D.¹³ These differences would have implications for the relative rankings on districts across panels. However, there is relative stability in rankings across approaches, especially where it gets closer to capturing our ideal framework.

Figure 10: Different approaches to index construction compared



Note: figure depicts a comparison of top district rankings across different measurement approaches: panel A shows the top rankings of all districts with available data compared with the top rankings of 16 urban districts (coterminous with the 16 main regional capitals in Ghana) in panels B, C, and D.

Source: authors' construction.

¹³ An alternative to the PCA approach is the inverse covariance weighting method. However, we opt for the PCA approach since we do not engage in multiple hypothesis testing, nor is our summary index an outcome variable of interest in a regression model. See Figure A2 for the PCA result shown in panel D of Figure 10.

Irrespective of the approach, the topmost rankings confirm the relative advantage of large urban districts in driving subnational governance while at the same time not discounting the potential of smaller urban or peri-urban districts. Again, in the case of Wa Municipal, a smaller urban setting in northern Ghana, the finding confirms that the notion of a north–south dichotomy of development in Ghana is neither deterministic nor a foregone conclusion in the evolution of subnational governance. According to the National Annual Progress Report for 2016, Wa Municipal was among only three districts that fully implemented their annual action plans. The large swings in the ranking of Ho Municipal and Tamale Metropolitan between the unweighted and weighted rankings reveal the importance of getting closer to our ideal framework with additional data and a justifiable weighting procedure. However, our best possible approach in panel A (see also Table 6) is not unduly undermined, especially if the goal is to compare a larger sample of districts with data deficits. In this case, it provides back-of-the-envelope metrics for capturing variations in local government performance. This view is further confirmed when panels A and C are compared. In effect, although our best possible measure for the majority of the districts lacks the ideal set of indicators, it is good enough to capture variations in local government performance when compared with measures based on the extended list of indicators. Furthermore, we see greater comparability in the topmost and lowest rankings across the weighted indices in panels C and D, with fewer jumps in rankings overall. Where government spending priorities remain stable over time, we expect rankings of the kind in panel C to remain meaningful; otherwise, the weighting procedure should vary with government spending priorities. The PCA approach could serve as a robustness check in this instance despite the drawback of reducing the dimensionality of the data and, consequently, some loss of information.

5 Conclusion

This study demonstrates that attempts to understand variations in subnational institutional performance can be successful even in data-constrained contexts. Our work allows us to leverage available local administrative reports, secondary data, and a regional-level survey to contribute to an understanding of local government performance in Ghana. We build on the work of Putnam et al. (1994) to articulate a conceptual framework for measuring local government performance. We test this framework, allowing us to optimize available data to propose measures of subnational government performance. Our approach enables us to develop and compare performance measures based on restricted data that can be used for wide coverage of districts against survey-driven measures with richer data that cover fewer districts.

Overall, the quality of information dissemination has been low, although this has been improving over time. Older and urban districts are associated with better reporting standards than newly created and rural districts. There is a correlation between our local government performance index (LGI) and various indicators of development, including poverty measures and the outcome-based DLT ranking. Parameter estimates from a linear fixed effects model with relevant controls suggest that the LGI is negatively associated with poverty. Districts with better local government performance are more likely to do better at tackling local development challenges. Moreover, our measure is positively correlated with the DLT, which focus more on development outcomes at the subnational level. The evidence suggests a link between good local governance and better local development outcomes. However, the direction of causality may run the other way: wealthier and more developed districts may have more capacity for better governance. The quest to understand these causal relationships can be pursued in future work.

As the literature suggests, local institutional performance may also be related to various other factors, such as political linkages with the national government or ethnic diversity. Using our data, such factors could be analysed further in future work. Similarly, our approach can complement the rich case study literature on Ghana, helping to situate the findings from particular districts. It contributes to understanding the broader generalizability of findings from these studies. Finally, our approach is complementary to a number of analyses of government performance that draw on surveys of public opinion and experience. These might be combined with ours, where it is logistically feasible.

In sum, there are clear gaps in what we know about subnational institutional performance, especially in Global South countries. This is true for all regions but arguably especially so for SSA, where data challenges have been greatest. It is also true for Ghana, where there have been various efforts to measure subnational governance, but there is clearly space for more work. Across countries, much of the existing work draws heavily on public opinion data, which has various drawbacks. Several frameworks for measurement are promising but have not been implemented widely. More work can also be done on some of these to link them more closely to theories of governance and institutions, and on others to provide context-relevant measures of more generalized frameworks.

References

- Abdi, H., and L.J. Williams (2010). 'Principal Component Analysis. *Wiley Interdisciplinary Reviews: Computational Statistics*, 2(4): 433–59. <https://doi.org/10.1002/wics.101>
- Adu-Gyamfi, E. (2014). 'Effective Revenue Mobilisation by District Assemblies: a Case Study of Upper Denkyira East Municipal Assembly of Ghana'. *Public Policy and Administration*, 2(1): 97–122.
- Akudugu, J.A. (2013). 'Inducing Local Government Performance in Ghana: the Case of the District Development Facility'. *International Journal of Asian Social Science*, 3(6): 1402–17. <https://doi.org/10.5296/ijpag.v3i2.3977>
- Ammons, D.N. (1995). 'Overcoming the Inadequacies of Performance Measurement in Local Government: the Case of Libraries and Leisure Services'. *Public Administration Review*, 55(1): 37–47. <https://doi.org/10.2307/976826>
- Andrews, M. (2008). 'The Good Governance Agenda: beyond Indicators without Theory'. *Oxford Development Studies*, 36(4): 379–407. <https://doi.org/10.1080/13600810802455120>
- Andrews, M., R. Hay, and J. Myers (2010). 'Can Governance Indicators Make Sense? Towards a New Approach to Sector-Specific Measures of Governance'. *Oxford Development Studies*, 38(4): 391–410. <https://doi.org/10.1080/13600818.2010.524696>
- Andrews, R., M.J. Beynon, and F. Baafi (2023). 'Access to Basic Infrastructure Services in Ghanaian Local Government: a Contextual Approach'. *Local Government Studies*, 51(1): 178–201. <https://doi.org/10.1080/03003930.2023.2289609>
- Anheier, H.K. (2018). 'Governance Indicators: Development and Assessment'. In H.K. Anheier (ed.), *Governance Indicators: Approaches, Progress, Promise* (Vol. 1). Oxford: Oxford University Press. <https://doi.org/10.1093/oso/9780198817062.003.0001>
- Anheier, H.K., M. Lang, and E.L. Knudsen (2023). 'Introducing the Berggruen Governance Index I: Conceptual and Methodological Framework'. *Global Policy*, 14(S4): 5–15. <https://doi.org/10.1111/1758-5899.13278>
- Ayee, J.R. (2013). 'The Political Economy of the Creation of Districts in Ghana'. *Journal of Asian and African Studies*, 48(5): 623–45. <https://doi.org/10.1177/0021909612464334>
- Ayee, J.R.A. (1996). 'The Measurement of Decentralization: the Ghanaian Experience, 1988–92'. *African Affairs*, 95(378): 31–50. <https://doi.org/10.1093/oxfordjournals.afraf.a007712>
- Behn, R.D. (2003). 'Why Measure Performance? Different Purposes Require Different Measures'. *Public Administration Review*, 63(5): 586–606. <https://doi.org/10.1111/1540-6210.00322>
- Bouckaert, G. (1990). 'The History of the Productivity Movement'. *Public Productivity and Management Review*, 14(1): 53–89. <https://doi.org/10.2307/3380523>

- Bouckaert, G., and S. van de Walle (2003). 'Comparing Measures of Citizen Trust and User Satisfaction as Indicators of "Good Governance": Difficulties in Linking Trust and Satisfaction Indicators'. *International Review of Administrative Sciences*, 69(3): 329–43. <https://doi.org/10.1177/0020852303693003>
- Chachu, D. (2021). 'Review of Sub-National Institutional Performance in Ghana'. WIDER Background Note 2021/1. Helsinki: UNU-WIDER. <https://doi.org/10.35188/UNU-WIDER/WBN/2021-1>
- Chachu, D., M. Danquah, and R.M. Gisselquist (2023). 'Subnational Governance in Ghana: a Comparative Assessment of Data and Performance'. In J. Faguet and S. Pal (eds), *Decentralised Governance: Crafting Effective Democracies Around the World* (pp. 271–99). London: LSE Press. <https://doi.org/10.31389/lsepress.dlg.j>
- Chong, A., A.L. De La O, D. Karlan, and L. Wantchekon (2010). 'Information Dissemination and Local Governments' Electoral Returns, Evidence from a Field Experiment in Mexico'. Draft. Available at: <https://www.povertyactionlab.org/sites/default/files/research-paper/266%20Information%20Dissemination%20and%20Local%20Governments%20Electoral%20Returns%20in%20Mexico.pdf> (accessed 27 March 2025).
- Crook, R.C. (1994). 'Four Years of the Ghana District Assemblies in Operation: Decentralization, Democratization and Administrative Performance'. *Public Administration and Development*, 14(4): 339–64. <https://doi.org/10.1002/pad.4230140402>
- da Cruz, N.F., and R.C. Marques (2017). 'Structuring Composite Local Governance Indicators'. *Policy Studies*, 38(2): 109–29. <https://doi.org/10.1080/01442872.2016.1210117>
- de Sousa, L., N.F. da Cruz, and D. Fernandes (2023). 'The Quality of Local Democracy: an Institutional Analysis'. *Local Government Studies*, 49(1): 1–29. <https://doi.org/10.1080/03003930.2021.1882428>
- Debrah, E. (2009). 'Assessing the Quality of Accountability in Ghana's District Assemblies, 1993–2008'. *African Journal of Political Science and International Relations*, 3(6): 278–87. Available at: <https://academicjournals.org/journal/AJPSIR/article-full-text-pdf/143FB7031576> (accessed 27 March 2025).
- Dellepiane-Avellaneda, S. (2010). 'Good Governance, Institutions and Economic Development: beyond the Conventional Wisdom'. Review Article. *British Journal of Political Science*, 40(1): 195–224. <https://doi.org/10.1017/S0007123409990287>
- Devine, D., J. Gaskell, W. Jennings, and G. Stoker (2020). 'Trust and the Coronavirus Pandemic: What Are the Consequences of and for Trust? An Early Review of the Literature'. *Political Studies Review*, 19(2): 274–85. <https://doi.org/10.1177/1478929920948684>
- Egbenya, G. (2010). 'The Effectiveness of Decentralization Policy in Ghana: a Case Study of Komenda-Edina-Eguafo-Abirim (KEEA) and Abura-Asebu-Kwamankese (AAK) Districts in Ghana'. *African Journal of Political Science and International Relations*, 4(January): 13–28.
- Faguet, J., and S. Pal (2023). 'Decentralised Governance: Crafting Effective Democracies Around the World'. In J. Faguet, and S. Pal (eds), *Decentralised Governance: Crafting Effective Democracies Around the World*. London: LSE Press. <https://doi.org/10.31389/lsepress.dlg>
- Ferraz, C., and F. Finan (2008). 'Exposing Corrupt Politicians: the Effects of Brazil's Publicly Released Audits on Electoral Outcomes'. *Quarterly Journal of Economics*, 703–45. <https://doi.org/10.1162/qjec.2008.123.2.703>
- Gisselquist, R.M. (2014). 'Developing and Evaluating Governance Indexes: 10 Questions'. *Policy Studies*, 35(5): 513–31. <https://doi.org/10.1080/01442872.2014.946484>
- Goldstein, H., and D.J. Spiegelhalter (1996). 'League Tables and their Limitations: Statistical Issues in Comparisons of Institutional Performance'. *Journal of the Royal Statistical Society Series a: Statistics in Society*, 159(3): 385–409. <https://doi.org/10.2307/2983325>
- Greif, A. (2006). *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade*. Cambridge: Cambridge University Press. <https://doi.org/10.3917/rpec.102.0121>
- Harbers, I., J. Bartman, and E. van Wingerden (2019). 'Conceptualizing and Measuring Subnational Democracy across Indian States'. *Democratization*, 26(7): 1154–75. <https://doi.org/10.1080/13510347.2019.1606797>
- Hodgson, G.M. (2015). 'On Defining Institutions: Rules versus Equilibria'. *Journal of Institutional Economics*, 11(3): 497–505. <https://doi.org/10.1017/S1744137415000028>
- Hollyer, J.R. (2018). 'Measuring Governance: Objective and Perceptions-based Governance Indicators'. In H.K. Anheier, M. Haber, and M. A. Kayser (eds), *Governance Indicators: Approaches, Progress, Promise* (Vol. 1). Oxford: Oxford University Press. <https://academic.oup.com/book/6798>
- Hollyer, J., B. Peter Rosendorff, and J. Raymond Vreeland (2014). 'Measuring Transparency'. *Political Analysis*, 22: 413–34. <https://doi.org/10.1093/pan/mpu001>

- Iddawela, Y., N. Lee, and A. Rodríguez-Pose (2021). 'Quality of Sub-National Government and Regional Development in Africa'. *The Journal of Development Studies*, 57(8): 1–21. <https://doi.org/10.1080/00220388.2021.1873286>
- Kaufmann, D., F. Léautier, and M. Mastruzzi (2005). 'Governance and the City: an Empirical Exploration into Global Determinants of Urban Performance'. Policy Research Working Paper 3712. Washington, DC: World Bank. <https://doi.org/10.1596/1813-9450-3712>
- Knack, S. (2002). 'Social Capital and the Quality of Government: Evidence from the States'. *American Journal of Political Science*, 46(4): 772–85. <https://doi.org/10.2307/3088433>
- Lust, E., P. Landry, D. Malouche, and J. Alaref (2015). 'The Local Governance Performance Index: Report'. Series 2015:3. University of Gothenburg, Sweden. <https://gld.gu.se/media/1107/lgpi-report-eng.pdf>
- McMann, K.M. (2016). 'Measuring Subnational Democracy'. V-Dem Working Paper 2016:26. <https://doi.org/10.2139/ssrn.2747922>
- Ministry of Local Government and Rural Development (2018). 'District Assembly Performance Assessment Tool (DPAT): Operational Manual'.
- National Development Planning Commission (2016). 'Implementation of the Ghana Shared Growth and Development Agenda (GSGDA) II, 2014–2017. Annual Progress Report'.
- Norris, P. (2001). 'Making Democracies Work: Social Capital and Civic Engagement in 47 Societies'. *British Journal of Political Science*, May.
- North, D.C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511808678>
- Omri, A., and N. Ben Mabrouk (2020). 'Good Governance for Sustainable Development Goals: Getting Ahead of the Pack or Falling Behind?'. *Environmental Impact Assessment Review*, 83: 106388. <https://doi.org/10.1016/j.eiar.2020.106388>
- Oxford Policy Management (2019). 'Formative Evaluation of the "I Am Aware" Social Accountability Project in Ghana'. Oxford: Oxford Policy Management.
- Pérez Sandoval, J. (2023). 'Measuring and Assessing Subnational Electoral Democracy: a New Dataset for the Americas and India'. *Democratization*, 30(4): 715–40. <https://doi.org/10.1080/13510347.2023.2183195>
- Putnam, R.D., R. Leonardi, and R.Y. Nanetti (1994). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press. <https://doi.org/10.1515/9781400820740>
- Reinikka, R., and J. Svensson (2011). 'The Power of Information in Public Services: Evidence from Education in Uganda'. *Journal of Public Economics*, 95(7–8): 956–66. <https://doi.org/10.1016/j.jpubeco.2011.02.006>
- Republic of Ghana (2014a). 'Coordinated Programme of Economic and Social Development Policies 2014–2020: an Agenda for Transformation'.
- Republic of Ghana (2014b). 'Medium-Term National Development Policy Framework 2014–2017'. In 'Ghana Shared Growth and Development Agenda'.
- Resnick, D. (2017). 'Democracy, Decentralization, and District Proliferation: the case of Ghana'. *Political Geography*, 59: 47–60. <https://doi.org/10.1016/j.polgeo.2017.02.011>
- Rose-Ackerman, S. (2017). 'What Does "Governance" Mean?'. *Governance*, 30(1): 23–27. <https://doi.org/10.1111/gove.12212>
- Rothstein, B.O., and J.A. Teorell (2008). 'What is Quality of Government? A Theory of Impartial Government Institutions'. *Governance*, 21(2): 165–90. <https://doi.org/10.1111/j.1468-0491.2008.00391.x>
- Schotter, A. (1981). *The Economic Theory of Social Institutions*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511983863>
- Shinohara, S. (2022). 'Bad Government Performance and Citizens' Perceptions: a Quasi-Experimental Study of Local Fiscal Crisis'. *International Review of Administrative Sciences*, 89(3). <https://doi.org/10.1177/00208523211067085>
- Tavits, M. (2006). 'Making Democracy Work More? Exploring the Linkage between Social Capital and Government Performance'. *Political Research Quarterly*, 59(2): 211–25. <https://doi.org/10.1177/106591290605900204>
- Taylor, F.W. (1911). *The Principles of Scientific Management*. NuVision Publications.
- Van Dooren, W., G. Bouckaert, and J. Halligan (2015). 'Performance Management in the Public Sector'. London: Routledge. <https://doi.org/10.4324/9781315817590>

- Voigt, S. (2013). 'How (Not) to Measure Institutions'. *Journal of Institutional Economics*, 9(1): 1–26. <https://doi.org/10.1017/S1744137412000148>
- Weiss, T.G. (2000). 'Governance, Good Governance and Global Governance: Conceptual and Actual Challenges'. *Third World Quarterly*, 21(5): 795–814. <https://doi.org/10.1080/713701075>
- Williams, A. (2009). 'On the Release of Information by Governments: Causes and Consequences'. *Journal of Development Economics*, 89(1): 124–38. <https://doi.org/10.1016/j.jdeveco.2008.08.001>
- Williams, A., and A. Siddique (2008). 'The Use (and Abuse) of Governance Indicators in Economics: a Review'. *Economics of Governance*, 9(2): 131–75. <https://doi.org/10.1007/s10101-006-0025-9>
- World Bank (2017). 'World Development Report 2017: Governance and the Law'. Washington, DC: World Bank.
- Zakaria, H.B. (2013). 'Looking Back, Moving Forward: towards Improving Local Governments' Performance in Ghana'. *Commonwealth Journal of Local Governance*, 13–14: 90–108. <https://doi.org/10.5130/cjlg.v0i13/14.3726>
- Zuo, C. (2015). 'Scaling down: Subnational Comparative Case Studies in Comparative Politics and Chinese Politics'. *European Political Science*, 14(3): 318–39. <https://doi.org/10.1057/eps.2015.26>

Appendix

Table A1: Members of district assemblies interviewed

District	Participant	Position
Tamale Metropolitan Assembly (TaMA)	Zakari Wahabu	Principal Development Planning Officer
Wa Municipal Assembly	Yussif Yakubu	Principal Development Planning Officer
Kassena Nankana Municipal Assembly	Iddrisu Andani	Chief Development Planning Officer
	Hilary Aknalu	Principal Development Planning Officer
Kumasi Metropolitan Assembly (KMA)	Charles Akwasi Adjei	Metropolitan Development Planning Officer
	Edward Takyi	Principal Metropolitan Development Planning Officer
	Belinda Oduro Yeboah	Assistant Development Planning Officer
	Nathaniel Addae Cheremeh	Central Administration Officer
	Raiza Baba	Assistant Development Planning Officer
Mfantseman Municipal Assembly	Mary Nana Adwoa Mensah	Municipal Development Planning Officer
	Timothy Dadzie	Assistant Development Planning Officer
	Julius Sakyi	Assistant Development Planning Officer
Sekondi-Takoradi Metropolitan Assembly (STMA)	Kenneth Frimpong	Assistant Development Planning Officer
	Maame Efua Wilson	Assistant Development Planning Officer
	Mavis Kwartenmaa	Assistant Development Planning Officer
	Alberta Ekua Buabin	Assistant Development Planning Officer

Source: authors' construction.

Table A2: Sectoral spending of poverty reduction and proposed weights

Key area of poverty reduction expenditure	Spending as a percentage of total poverty reduction spending (%)	Relevant quality of reporting measures	Weight per measure
Education (basic)	45.55	Kindergarten enrolment, primary school enrolment	$45.55/2 = 22.775$
Health (primary)	19.26	CHPS compounds	19.26
Agriculture	1.86	Agriculture expenditure	1.86
Water (rural)	0.45	Water supply coverage	0.45
Other expenditure (governance, housing, human rights, vocational/employment skills, roads, electricity, etc.)	32.88	<i>All other measures</i>	$32.88/9 = 3.65$

Source: authors' construction, adapted from Chachu et al. (2023: table 10.2; [CC BY 4.0](#) licence), based on data from NDPC (2016) derived from Ministry of Finance.

Table A3a: Descriptive statistics of quality of reporting index scores for 2016 (weighted)

Category	Mean	Median	Std dev.	Minimum	Maximum	N
All MMDAs	19.54	8.5	19.98	0	87.5	210
Urban MMDAs	20.11	8.5	23.37	0.5	87.5	58
Rural MMDAs	19.31	10.5	18.6	0	77.5	152

Source: authors' construction.

Table A3b: Ranking of districts based on quality of reporting index scores for 2016 (weighted)

District/MMDA	Region	Total score	Overall rank
Mfantseman Municipal	Central	87.5	1
Bosomtwe	Ashanti	77.5	2.5
Pusiga	Upper East	77.5	2.5
Accra Metropolitan	G. Accra	77	4
Adansi North	Ashanti	75.5	5
Jirapa	Upper West	75	6
Twifo Hemang Lower Denkyira	Central	73	7
North Dayi	Volta	71	8
Nkoranza South Municipal	B. Ahafo	69.5	9.5
Savelugu Nanton Municipal	Northern	69.5	9.5
Hohoe Municipal	Volta	69	11.5
Ejisu-Juaben Municipal	Ashanti	69	11.5
Kwahu West Municipal	Eastern	64	13
Birim North	Eastern	62.5	14
Kwaebibirem	Eastern	60	15
La Nkwantanang-Madina Municipal	G. Accra	58	16
Wassa Amenfi Central	Western	56	17
Wassa Amenfi West	Western	54.5	19
Obuasi municipal	Ashanti	54.5	19
Awutu Senya	Central	54.5	19

Source: authors' construction.

Table A4a: Descriptive statistics of quality of reporting index scores for 2020 (weighted)

Category	Mean	Median	Std dev.	Minimum	Maximum	N
All MMDAs	38.4	33.5	19	8	89.5	260
Urban MMDAs	38.9	33	21.3	8	89.5	63
Rural MMDAs	38.3	33.5	18.2	8	89.5	197

Source: authors' construction.

Table A4b: Top 20 ranking of districts based on quality of reporting index scores in 2020

District/MMDA	Region	Total score	Overall rank
East Mamprusi	North East	89.5	1
Mfantseman Municipal	Central	89.5	2
Kassena Nankana Municipal	Upper East	87.5	4.5
Agona East	Central	87.5	4.5
Biakoye	Oti	87.5	4.5
Builsa North	Upper East	87.5	4.5
Atiwa (West)	Eastern	87.5	7.5
Nzema East Municipal	Western	87.5	7.5
Kassena Nankana West	Upper East	85.5	9
Cape Coast Metropolitan	Central	85.0	10
North Dayi	Volta	83.5	13
Binduri	Upper East	83.5	13
Nabdam	Upper East	83.5	13
Sene West	Bono East	83.5	13
Jasikan	Oti	83.5	13
Bolgatanga Municipal	Upper East	81.5	16.5
Asunafo North Municipality	Ahafo	81.5	16.5
Central Gonja	Savannah	79.5	20
Builsa South	Upper East	79.5	20
West Mamprusi	North East	79.5	20
Adansi North	Ashanti	79.5	20
Keta Municipal	Volta	79.5	20

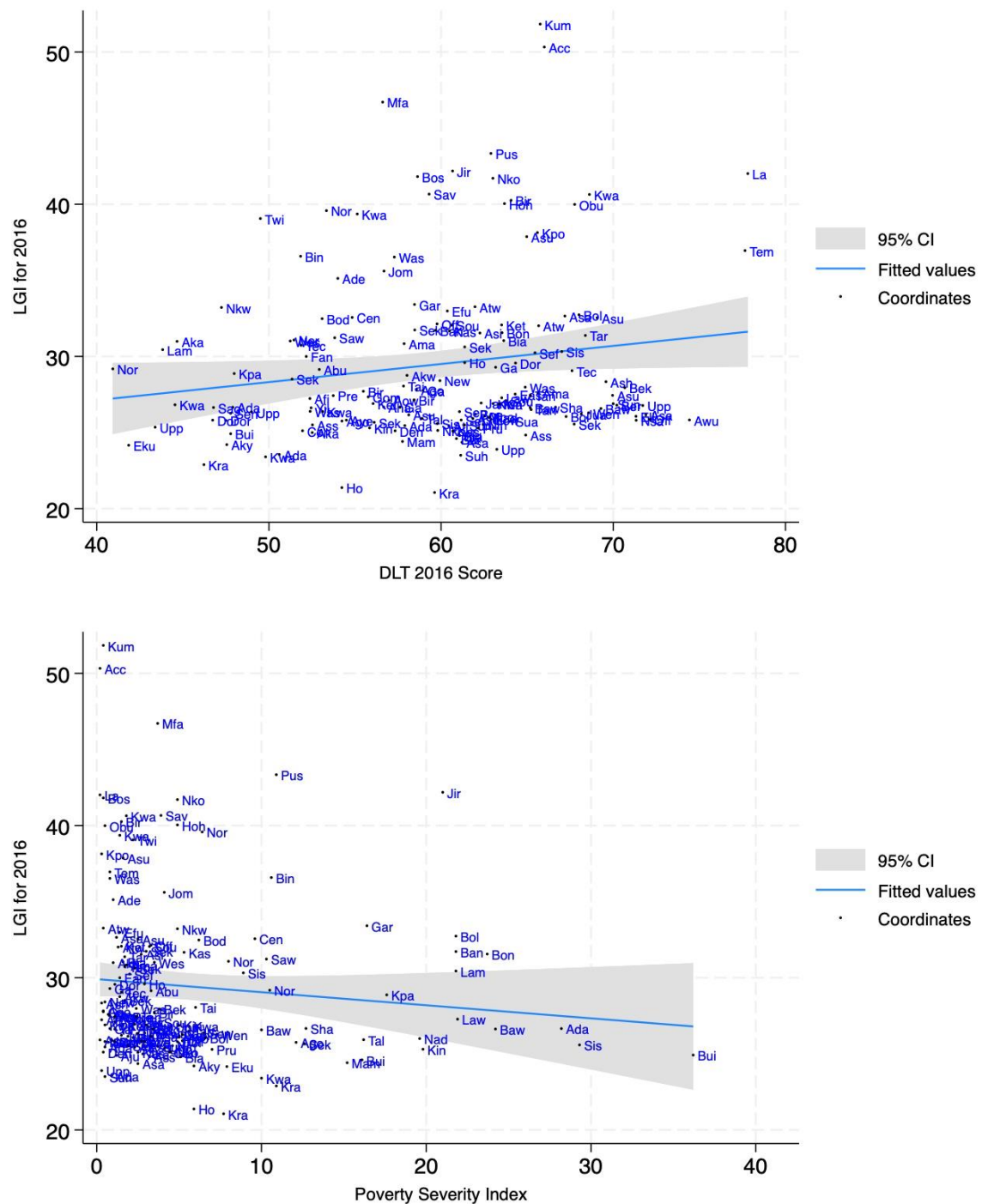
Source: authors' construction.

Table A5: Sensitivity analysis: top 20 LGI rankings without IGF/DACF variable

District/MMDA	Region	Total score	Overall rank
Kwaebibirem	Eastern	70.86	1
North Dayi	Volta	70.64	2
Mfantseman Municipal	Central	70.63	3
Twifo Hemang Lower Denkyira	Central	68.96	4
Adansi North	Ashanti	68.53	5
Afadzato South	Volta	67.49	6
Wassa Amenfi Central	Western	66.96	7
Nkoranza South Municipal	B. Ahafo	66.90	8
Birim North	Eastern	66.86	9
Sekyerere Afram Plains South	Ashanti	66.67	10
Kwahu West Municipal	Eastern	66.12	11
Jasikan	Volta	64.33	12
Hohoe Municipal	Volta	64.29	13
Savelugu Nanton Municipal	Northern	64.01	14
Accra Metropolitan	G. Accra	63.55	15
Bosomtwe	Ashanti	63.27	16
Adansi South	Ashanti	62.93	17
Central Gonja	Northern	62.16	18
Asunafo South	B. Ahafo	61.85	19
Pusiga	Upper East	61.66	20

Source: authors' construction.

Figure A1a and b: Correlation between LGI score and other measures (DLT and poverty severity index)



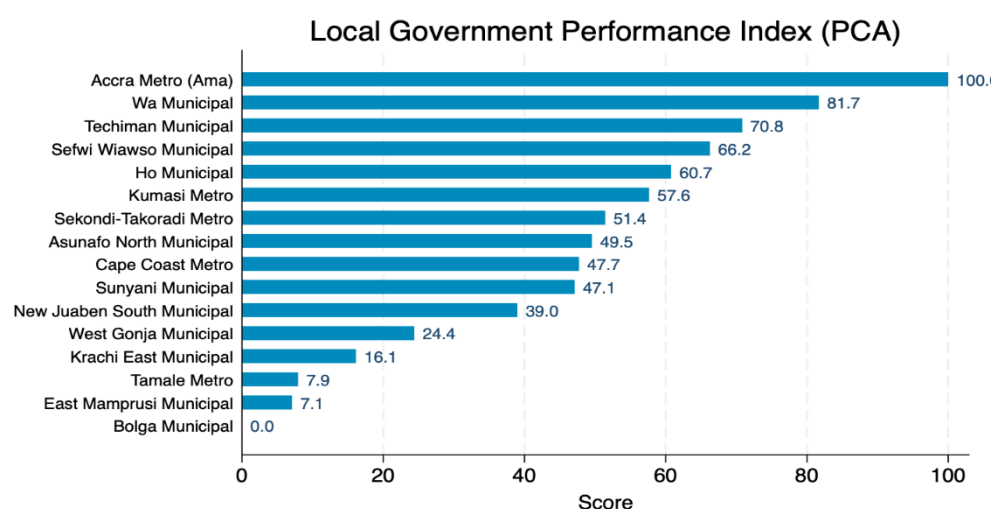
Source: authors' construction.

Table A6: Relationship between LGI and depth of poverty index—fixed effects model

	(1)	(2)	(3)	(4)
LGI	-0.230* (0.132)	-0.0969 (0.129)	-0.188** (0.0869)	-0.113 (0.101)
Controls	No	Yes	Yes	Yes
Fixed effects	No	Yes	Yes	Yes
R ²	0.014	0.107	0.539	0.562
Obs.	157	157	157	157

Note: robust standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: authors' construction.

Figure A2: Ranking of 16 urban districts based on PCA analysis

Source: authors' authors' construction.

Table A7: Ranking of districts based on the LGI for 2016

District/MMDA	Region	Total score	Overall rank
Kumasi Metropolitan	Ashanti	51.83	1
Accra Metropolitan	G. Accra	50.33	2
Mfantseman Municipal	Central	46.71	3
Pusiga	Upper East	43.34	4
Jirapa	Upper West	42.18	5
La Nkwantanang-Madina Municipal	G. Accra	42.01	6
Bosomtwe	Ashanti	41.81	7
Nkoranza South Municipal	B. Ahafo	41.70	8
Savelugu Nanton Municipal	Northern	40.66	9
Kwahu West Municipal	Eastern	40.64	10
Birim North	Eastern	40.26	11
Hohoe Municipal	Volta	40.04	12
Obuasi municipal	Ashanti	39.99	13
North Dayi	Volta	39.58	14
Kwaebibirem	Eastern	39.36	15
Twifo Hemang Lower Denkyira	Central	39.06	16
Kpone Katamanso	G. Accra	38.14	17
Asunafo South	B. Ahafo	37.87	18
Tema Metropolitan	G. Accra	36.95	19

District/MMDA	Region	Total score	Overall rank
Binduri	Upper East	36.58	20
Wassa Amenfi West	Western	36.53	21
Jomoro	Western	35.61	22
Adentan Municipal	G. Accra	35.13	23
Garu-Tempane	Upper East	33.42	24
Atwima Kwanwoma	Ashanti	33.26	25
Nkwanta South	Volta	33.22	26
Efutu Municipal	Central	32.99	27
Bole	Northern	32.74	28
Asante Akim Central Municipal	Ashanti	32.65	29
Central Gonja	Northern	32.56	30
Asutifi South	B. Ahafo	32.54	31
Bodie	Western	32.48	32
Offinso North	Ashanti	32.14	33
Keta Municipal	Volta	32.07	34
South Tongu	Volta	32.06	35
Atwima Nwabiagya	Ashanti	32.02	36
Sekyere South	Ashanti	31.74	37
Banda	B. Ahafo	31.72	38
Kassena Nankana Municipal	Upper East	31.67	39
Bongo	Upper East	31.56	40
Asikuma Odoben Brakwa	Central	31.54	41
Tarkwa Nsuaem Municipal	Western	31.38	42
Sawla-Tuna-Kalba	Northern	31.23	43
North Gonja	Northern	31.08	44
Bia West	Western	31.04	45
West Mamprusi	Northern	31.01	46
Akatsi South	Volta	30.99	47
Amansie Central	Ashanti	30.84	48
Techiman North	B. Ahafo	30.73	49
Sekyere Central	Ashanti	30.62	50
Lambussie Karni	Upper West	30.44	51
Sissala East	Upper West	30.32	52
Sefwi Wiawso Municipal	Western	30.24	53
Fanteakwa	Eastern	30.00	54
Ho Municipal	Volta	29.59	55
Dormaa Central Municipal	B. Ahafo	29.57	56
Ga West Municipal	G. Accra	29.29	57
North Tongu	Volta	29.18	58
Abura Asebu Kwamankesse	Central	29.14	59
Techiman Municipal	B. Ahafo	29.06	60
Kpandai	Northern	28.88	61
Akwapim South	Eastern	28.76	62
Sekondi-Takoradi Metropolitan	Western	28.51	63
New Juaben Municipal	Eastern	28.41	64
Ashaiman Municipal	G. Accra	28.34	65
Tain	B. Ahafo	28.05	66
Wassa Amenfi East	Western	27.98	67
Bekwai Municipal	Ashanti	27.95	68
Agona West Municipal	Central	27.82	69
Ga East Municipal	G. Accra	27.77	70
Birim South	Eastern	27.71	71

District/MMDA	Region	Total score	Overall rank
Amansie West	Ashanti	27.59	72
East Akim Municipal	Eastern	27.53	73
Asunafo North Municipal	B. Ahafo	27.44	74
Tano North	B. Ahafo	27.44	75
Prestea-Huni Valley	Western	27.43	76
Gomoa East	Central	27.34	77
Lawra	Upper West	27.28	78
Afigya-Kwabre	Ashanti	27.23	79
Birim Central Municipal	Eastern	27.15	80
Aowin	Western	27.12	81
South Dayi	Volta	27.09	82
Jaman North	B. Ahafo	26.94	83
Ketu South	Volta	26.91	84
Kwabre East	Ashanti	26.90	85
Sunyani Municipal	B. Ahafo	26.89	86
Kintampo North Municipal	B. Ahafo	26.87	87
Kwahu East	Eastern	26.82	88
Berekum Municipal	B. Ahafo	26.80	89
Upper Denkyira East Municipal	Central	26.78	90
Ahanta West	Western	26.67	91
Shai-Osudoku	G. Accra	26.67	92
Adaklu	Volta	26.66	93
Ga Central Municipal	G. Accra	26.66	94
Sagnerigu	Northern	26.64	95
Bawku West	UpperEast	26.63	96
Yilo Krobo Municipal	Eastern	26.62	97
Bawku Municipal	Upper East	26.58	98
Tano South	B. Ahafo	26.50	99
Wassa East	Western	26.39	100
Kwahu Afram Plains North	Eastern	26.38	101
Sene West	B. Ahafo	26.37	102
Upper West Akim	Eastern	26.35	103
Wenchi Municipal	B. Ahafo	26.30	104
Sene East	B. Ahafo	26.27	105
Juaboso	Western	26.22	106
Bosome Freho	Ashanti	26.21	107
Asuogyaman	Eastern	26.16	108
Asante Akim North	Ashanti	26.16	109
Mpohor	Western	26.09	110
Ellembele	Western	26.07	111
Bolgatanga Municipal	Upper East	26.05	112
Nadowli-Kaleo	Upper West	26.00	113
Talensi	Upper East	25.93	114
Asokore Mampong Municipal	Ashanti	25.92	115
Lower Manya Krobo Municipal	Eastern	25.87	116
Offinso municipal	Ashanti	25.86	117
Awutu Senya East Municipal	Central	25.83	118
Sefwi Akontombra	Western	25.82	119
Ayensuano	Eastern	25.82	120
Dormaa West	B. Ahafo	25.82	121
Nsawam-Adoagyiri Municipal	Eastern	25.81	122
Dormaa East	B.Ahafo	25.80	123

District/MMDA	Region	Total score	Overall rank
Suaman	Western	25.76	124
Agotime Ziope (Adaklu Anyigbe)	Volta	25.76	125
Sekyere Kumawu	Ashanti	25.67	126
Sissala West	Upper West	25.59	127
Sekyere East	Ashanti	25.55	128
Ningo-Prampram	G. Accra	25.53	129
Assin South	Central	25.50	130
Sunyani West	B. Ahafo	25.49	131
Ada East	G. Accra	25.45	132
Atiwa	Eastern	25.43	133
Upper Manya Krobo	Eastern	25.35	134
Kintampo South	B. Ahafo	25.30	135
Pru	B. Ahafo	25.29	136
Nkoranza North	B. Ahafo	25.14	137
Central Tongu	Volta	25.12	138
Denkyembour	Eastern	25.11	139
Kassena Nankana West	Upper East	25.10	140
Akatsi North	Volta	25.00	141
Builsa South	UpperEast	24.92	142
Ajumako-Enyan-Essiam	Central	24.89	143
Assin North Municipal	Central	24.83	144
Biakoye	Volta	24.80	145
Builsa North	Upper East	24.60	146
Mamprugu-Moagduri	Northern	24.41	147
Asante Akim South	Ashanti	24.36	148
Akyemansa	Eastern	24.20	149
Ekumfi	Central	24.17	150
Upper Denkyira West	Central	23.90	151
Ada West	G. Accra	23.56	152
Suhum Municipal	Eastern	23.51	153
Kwahu Afram Plains South	Eastern	23.40	154
Krachi Nchumuru	Volta	22.89	155
Ho West	Volta	21.38	156
Krachi West	Volta	21.06	157

Source: authors' construction.