Does Efficiency Shape the Territorial Structure of Government?

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Abstract

This article asks three questions. Why is government organized across multiple levels? Does efficiency determine the level at which decisions are made? Does efficiency frame how policy problems are bundled in jurisdictions? Rather than examine how government structure may or may not lead to efficient outcomes, this article considers how efficiency constrains government. The purpose here is to probe fundamental commonalities of government structure which are usually taken for granted because they exist in an otherwise fluctuating political universe.

INTRODUCTION

Does efficiency shape the territorial structure of government?[1] Public choice theorists have long debated whether it is possible to identify an efficient structure of government. Those who believe that it is possible disagree about what efficiency entails. Some, following Oates (1972), argue that decentralization is efficient because local provision can cater to heterogeneous preferences; others frame the question in terms of jurisdictional competition (Tiebout 1956); and yet others make informational arguments (Hayek 1945). Each line of argument is contested by those who claim that central government can do all that local government can do, or that the purported benefits of decentralization depend on contextual factors—corruption, skill, moral hazard—that may or may not favor local decision making (Rodden 2005, Treisman 2007). But even if political scientists could agree on the virtues and vices of different government structures, they would be quick to point out that government is shaped by factors that have nothing to do with efficiency. In the first place, government has distributional consequences that may shape its structure: Dictators centralize authority because they wish to constrain or eliminate political opponents; rich regions strive for greater fiscal autonomy, poor regions for greater central control; Republicans favor decentralization under Democratic administrations and Democrats under Republican administrations. Then there is the powerful force of identity, which may lead to demands for self-rule on the part of groups with distinct cultures or languages. Basque nationalists demand a separate state irrespective of its effect on taxes; the British Independence party campaigns to pull out of the European Union even though this would impose a serious economic cost. Psychologists tell us that the human need for "belongingness" has little or no connection to efficiency (Baumeister & Leary 1995).

[1]Efficiency is defined here as minimal waste in production and is measured as the ratio of inputs to outputs.

Yet, it may be premature to dismiss efficiency as a cause of government structure. This review asks three fundamental questions. Why is government multilevel? Does efficiency determine the level at which decisions are made? How does interjurisdictional efficiency shape government? These topics have generated debate on the implications of particular government structures. Here we turn the question around. Rather than examine how government structure may or may not lead to efficient outcomes, we explore how efficiency constrains government. Rather than explain variation in government, we probe some fundamental commonalities in government structure. Such commonalities are sometimes taken for granted precisely because they appear to be constants in an otherwise fluctuating political universe.

The structure of government from the local to the global level exhibits some simple design properties that appear robust across a wide variety of contexts. Multiple levels of government form a nested hierarchy where successive levels encompass exponentially increasing populations. Local governments have similar policy portfolios across the developed world. Authority at the international level is relatively weak and biased toward task-specific government. Each points to efficiency as cause. But efficiency is a tricky concept, and our first task is to explore its meanings.

CONCEPTUALIZING EFFICIENCY AND ITS EFFECTS

The notion that the territorial structure of government is driven by efficiency has been criticized on several grounds. To begin with, there is no single dimension that captures the efficiency of government, and hence the implications of efficiency for the structure of government involve trade-offs. It therefore becomes implausible to conceive of efficiency as dictating a uniquely efficient government structure.

Table 1 lists three kinds of efficiency. Pure or technical efficiency is the simplest conception; this term refers to the idea that a policy should be allocated to the government that is

able to produce the policy at the lowest cost and to encompass all individuals experiencing positive or negative effects of that policy. The terms Pareto-optimal or allocative efficiency express the notion that government structure should also be responsive to the heterogeneous preferences of individuals. A third type, which we call interjurisdictional efficiency, is concerned with the cost of coordinating policy making among governments. These costs can be reduced by limiting the number of government levels, and therefore the number of governments that negotiate with each other, or by limiting the overlap between the functions carried out by individual jurisdictions. A reform that increases interjurisdictional efficiency may decrease technical or allocative efficiency.

The consequences of government structure appear to be complex and conditional (March & Olsen 1998, p. 949). One of the most-cited virtues of decentralization is that competition among local governments allows citizens to vote with their feet and thereby reproduces some benefits of market competition, including policy experimentation and responsiveness to local preferences (Oates 1972, Tiebout 1956, Weingast 1995). The argument assumes that citizens have sufficient information about the quality of public services, that they know which level of government provides what, that governments do not "overfish" in the common tax pool, and that the expertise of local officials is not inferior to that of national officials. Whether these assumptions hold, and how robust the argument is when they do not, is a matter of debate (Dowding et al. 1994, Lowery et al. 1995, Lyons et al. 1992, Panizza 1999, Treisman 2007, Wibbels 2006). "[W]hile the theoretical case for decentralization is relatively straightforward, the practical case may be less so" (Tanzi 1996, p. 300).

Whether a particular structure of government is locally optimal or suboptimal is likely to depend on the context. In post-Carolingian Europe, localized defense against surprise attacks from loosely organized bands of Vikings was more efficient than centralizing resources in the hands of large-scale rulers. Technological change and consequent changes in relative prices—e.g., the rising capital cost of castles and of the means to breach them—transformed the optimal scale at which security could be provided.

Table 1 Conceptions of efficiency

Technical efficiency	exploit economies of scale; internalize externalities of a policy
Allocative efficiency	exploit economies of scale; internalize externalities of a policy; minimize heterogeneity of preferences within jurisdictions
Interjurisdictional efficiency	minimize the fixed costs of government; minimize negotiation and transaction costs arising from the need to coordinate jurisdictions

What is efficient in one context may be inefficient in others. Economic growth is an interesting dependent variable in this respect: It can be measured quite accurately, and the search for optimality has been more sustained on this topic than any other. The first goal of this research was to explore whether the presumed beneficial consequences of fiscal decentralization in the United States could be generalized to other countries. The short answer is no. A survey of empirical studies between 1995 and 2004 concludes, "Ambivalent effects are at work; clear recommendations regarding the optimal degree of decentralisation are difficult to draw" (Breuss & Eller 2004, p. 7). If there is a robust observation, it may be that, in general, fiscal decentralization has a better chance of producing growth in developed than in developing countries. A recent summary concludes, "Federalism in developing countries . . . is systematically associated with mismanagement, overspending, and market failures . . . . At the other end of the spectrum, advanced federations, such as the USA or Switzerland, are vindicated as illustrations of the positive effects of federal institutions" (Beramendi 2007, p. 763). The benefit of fiscal decentralization for economic growth appears to depend on per capita GDP (Davoodi & Zou 1998, Thießen

2000, Woller & Phillips 1998), a unitary versus a federal system (Inman 2008, Yilmaz 1999), limited opportunities for local rent seeking (Cai & Treisman 2004, Desai et al. 2003), centralization of large infrastructural projects (Zhang & Zou 2001), and, perhaps most importantly, whether subnational governments are constrained to fund spending through their own taxes (Rodden 2005, Rodden & Wibbels 2002). In some contexts, fiscal decentralization has increased economic growth, constrained government spending, and enhanced accountability; in others, it has decreased economic growth and has led to structural fiscal deficits, as well as intense competition for central government transfers (Beramendi 2007; Treisman 2007, ch. 11; Wibbels 2006).

These criticisms suggest that it is fruitless to seek uniquely optimal structures of government. The conditions that determine whether a particular structure is efficient may be difficult to change if they exhibit institutional complementarities (March & Olsen 1998, p. 955; Pierson 2004, pp. 149–50). The state of Bremen in Germany consists of two towns ~60 km apart, and both are enclaves within the state of Lower Saxony. No social planner could dream up such an arrangement, yet attempts to combine the two states have foundered on identities, institutions, and interests that have evolved in tandem with historical borders. The territorial shape of governments is, in almost every case, historically rooted, and this gives rise to path dependencies that resist convergence to a single optimum.

If efficiency shapes government it does so within an historical frame. This has two analytical implications. First, efficiency is likely to be evidenced in negation, in the elimination of options that are grossly inefficient over a range of historical conditions. Although efficiency is unlikely to lead to unique outcomes, it may narrow consideration sets in a way that can be empirically detected. Second, efficiency may be evidenced in aggregation. Although it is infeasible to point-predict, it may be possible to detect efficiency in a probabilistic manner by examining a range of cases where the effects of divergent, historically-conditioned contexts offset each other.

WHY IS GOVERNMENT MULTILEVEL?

Government in civilized societies has never operated at a single level. Large countries, both today and historically, have had several layers of subnational government.[2] Small countries usually have a level of government beneath the state and one or more above. The number of government levels for most people living today is 3–7, of which 1–5 exist within their national state and one or two at a larger regional or global scale.

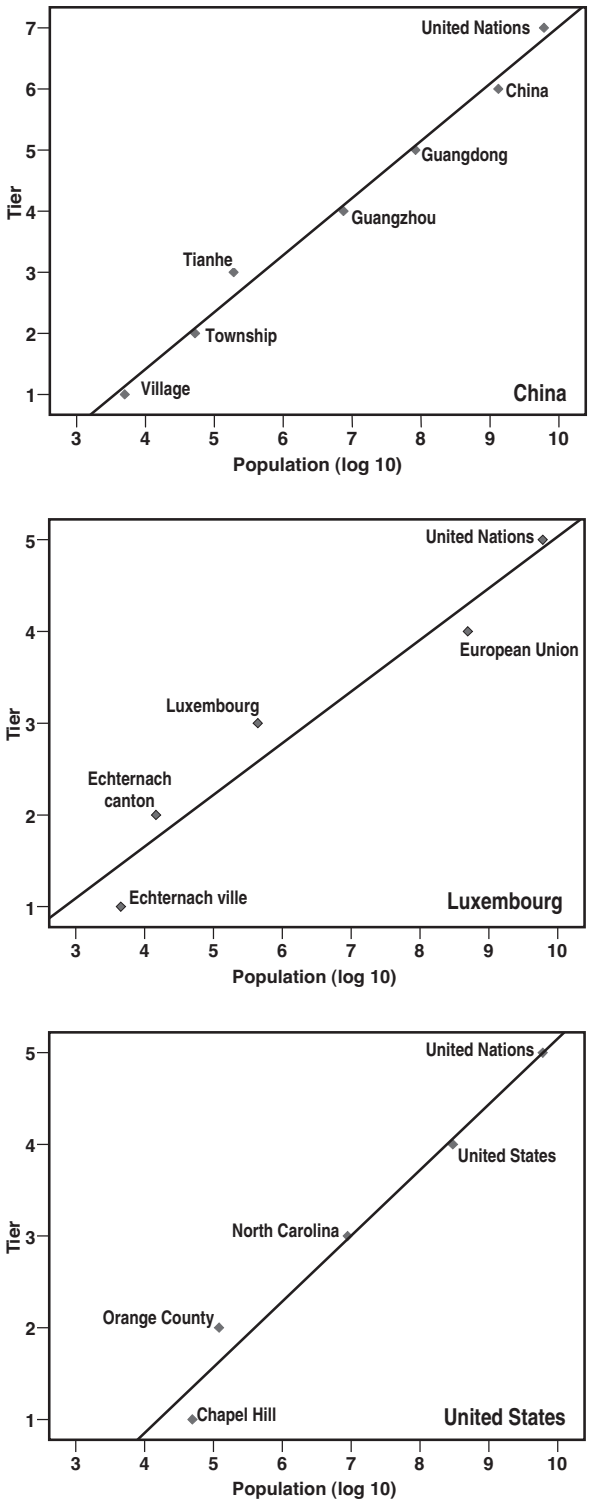
Figure 1 represents these levels for Tianhe–Guangzhou–Guandong–China, Echternach–Luxembourg, and Chapel Hill–North Carolina–United States. Each data point represents a level of general-purpose government from the local up to the United Nations. Country size varies greatly: China has five levels of government below the national level and just one above; Luxembourg has two below and two above. However, in both countries, as in the United States, the scale of government, measured in population, can be described as a sequence of exponential jumps. The jurisdictional axis summarizes the slope across levels.

The simplest explanation for this pattern is informational. A multilevel structure is an efficient response to the cost of communicating with a large number of people simultaneously.

[2]The Inca Empire, which in the 1400s had a population of 5–11 million, had a hierarchical, multilevel system of government based on the decimal system (Patterson 1992, pp. 77–85). Cuzco, in modern eastern Peru, was the seat of government. The territory was divided into four quarters or provinces, each under the leadership of a prefect, usually a close blood relative of the emperor. Below the prefects were provincial governors, who oversaw the leaders of ethnic groups in their respective provinces. Serving under each governor were 10 *kurakas*, each of whom ruled a district containing ~10,000 peasants. At the next level down, another official, usually a leader of a large village, ruled over an area containing ~1000 peasants. Below that, 10 foremen each supervised 100 peasants. At the lowest level, an official oversaw a group of 10 peasants.

Figure 1

Is there an underlying structure of government? A glance at the relationship between tiers of government and population size reveals an elegant and puzzling self-organization across a vast range of scale in countries as different as China, Luxembourg, and the United States. The Y-axis in each panel arrays government levels in order of population size for a Chinese, Luxembourger, or American. The X-axis estimates the population of each level on a logarithmic scale. We describe the fitted line in each panel as the jurisdictional axis. Jurisdictional axes can be reproduced in models where a social planner maximizes scale flexibility in policy provision, but minimizes the number of jurisdictional levels and hence the fixed cost of government. The result is government at a limited number of levels encompassing exponentially increasing populations (population figures from 2000 census). Note: "Village" and "Township" indicate mean populations for villages and townships, respectively, in Tianhe, China. General sources: **http://www.geohive.org, http://www.statoids.org**. National sources: the respective national bureaus of statistics. For China: **http://www.stats.gov.cn/english/**; for Luxembourg: **http://www.statistiques.public.lu;** for the United States: **http://www.census.gov/main/www/cen2000.html**.



By sending a message to a limited number of persons, who each send the message on to a similarly limited number of persons, and so on, a single person (or government) can communicate with a vast number of individuals in a few steps. The same logic applies to receiving messages if it is not possible for a single individual to process a very large number of messages simultaneously. The efficient number of steps, or levels, will depend on the number of messages that an individual can simultaneously send or receive, economies of scale in bundling messages, the time it takes to send or receive a message, and the extent to which information is lost or garbled in transmission (Treisman 2007, pp. 209–22).[3]

[3]This raises the interesting question of whether the convergence of the personal computer with fiber-optic cable, and consequent economies of scale in bundling and sending messages, irrespective of distance, reduces the efficient number of government levels.

If efficiency determines the number and spacing of government levels, and the parameters listed above are invariant to scale, the points in **Figure 1** would lie exactly on the jurisdictional axes. Clearly they do not. The population size of countries tends to depart most radically from the jurisdictional axis. Luxembourg is "too small" and China is "too large" in relation to the governments above and below. The reason for this is that the size of countries is mainly determined by distributional factors, in particular, geopolitics and war (Cederman 1997, Lake & O'Mahoney 2004, Tilly 1992).

The chief constraint on efficiency within states arises from the prior existence of independent regions. States composed of preexisting states have much greater variation in the size of constituent units than states in which subnational government is introduced from above. Variation in the population of top-tier subnational units is correspondingly much greater in federal regimes, such as the United States, Germany, Switzerland, or Russia, than in unitary regimes such as France, England, or Portugal.

Unitary schemes often come to nothing in the face of historical regions. Territorial identities embedded in distinctive cultures are astonishingly durable, especially when they are rooted in language. In Spain, pre-Napoleonic Basque and Catalan regions were reintroduced in the late 1970s after more than a century of suppression. From Napoleon to Franco, centralizing regimes imposed a top-down, rationalist structure that fragmented linguistic regions into equally sized provinces, a project that was finally broken by the mobilization of regional communities along pre-Napoleonic lines (Lecours 2001, Marti-Henneberg 2005).

The concept of the jurisdictional axis provides a partial view because it does not summarize what jurisdictions actually do, but it expresses the idea that government from the local to the global level is a coherent phenomenon. It echoes the efforts of international relations scholars and comparativists to build conceptual bridges across the international/domestic divide (Enderlein et al. 2009, Kahler & Lake 2003, Keohane & Ostrom 1995, March & Olsen 1998). It also reflects some profound developments in jurisdictional architecture, particularly in Europe, which have spawned several concepts—*Mehrebenensystem*, multi-layered, multi-centered, and multilevel governance—that encompass government from the local to the global (Bache & Flinders 2004; Benz 2003; Hooghe & Marks 2001, 2003; Kohler-Koch & Eising 1999; Leibfried & Pierson 1995; Marks 1993; Sbragia 1993, Scharpf 1997). The premise, which was always implicit in public choice theory, is that the structure of government within and among states reflects contrasting circumstances rather than different causal logics. Although European integration engages relations among states, the issues are similar to those posed about the pros and cons of fiscal decentralization within states (Tanzi 1996, p. 296). "From an economic viewpoint there is nothing special about the point on the spectrum called the 'nation'. Some activities might best be assigned to that level of government but certainly not all. The crucial issue is to identify which level of decentralization is appropriate for each kind of activity" (Wildason 1996, p. 325).

WHY EFFICIENCY REQUIRES DECENTRALIZATION

According to public goods theory, the purpose of government is to supply goods that would not be provided spontaneously by rational individuals because it is impractical to confine use of the good to those who pay for it and because those who use the good do not diminish its utility for others. Security is such a good, and Thomas Hobbes argued that it is necessary to contract a Leviathan to supply it. The Leviathan monopolizes authority in order to prevent the disastrous consequences of faction. Hobbes believed that division of authority was incompatible with

security, and security was the basis for government activity.[4]

Contemporary public choice analysis comes to almost the opposite conclusion, for it assumes that government provides diverse public goods in addition to security. Efficient jurisdictional design requires (*a*) minimizing positive and negative externalities leading to the undersupply or oversupply of the public good, (*b*) exploiting scale economies in the provision of the public good, and (*c*) tailoring policy to the heterogeneous preferences of those living in different communities (Musgrave 1959; Oates 1972, 2006). Because these vary across public goods, the implication is that government should be multilevel.

Whether this means that authority—the legitimate exercise of political power—should be dispersed is another matter. If each citizen wanted the same basket of goods, it might not matter if decision making were uniform, but if tastes differ from one locality to another, uniform decision making would be suboptimal (Besley & Coate 2003, Rubinchik-Pessach 2005). Theoretically, it is possible for a government to make decisions at the national level for the society as a whole but differentiate its policies in response to the particular problems and tastes of the people living in each locality (Treisman 2007, pp. 53–73). This kind of arrangement goes by several names: administrative decentralization (versus political decentralization), deconcentration (versus devolution), or centralized differentiation. Administrative decentralization combines the virtues of authoritative centralization and decentralized policy provision. It has the Hobbesian virtue of hierarchy, eliminating ambiguity about who rules, yet it can provide each locality with the policies it prefers (except one: self-rule).

[4]Hobbes was aware that distance compromised the capacity of the monarch to rule in all matters. He therefore contrasted division of authority with division of administration, and advocated division of administration for far-flung territories or colonies. Hobbes had little to say about the scale of the Leviathan, although he was aware that the war of all against all might be replicated (less destructively, he asserted) in a struggle among Leviathans (Hobbes 1960 [1651]).

The debate about this involves two separate questions. The first is whether decisions about local public goods should be made at the national level. Public choice theorists agree that efficiency requires centralizing the provision of public goods having national externalities or national economies of scale; the open question is whether local public goods—public goods designed to meet local tastes and having only local externalities and local economies of scale—can be efficiently determined at the national level. Is it better to make decisions on local public goods at the local or national level? A second question is who selects those local actors. Should they be centrally appointed or locally elected?

This distinction clarifies the positions taken by proponents of administrative decentralization. The claim that local public goods can be efficiently provided by central government rests on an optimistic view of the capacity of central decision makers to collect and process local information. Central decision making about local goods requires that information collected by local agents be communicated to the center and that the center uses this information to differentiate policy across subjurisdictions to respond to local preferences. It is difficult to escape the conclusion that this involves at least one additional layer of communication as information is relayed from the local to the national level and back again. As in the Chinese whispers game, this added step increases the risk that information will be miscommunicated. Treisman (2007, p. 213) has an ingenious response: "[I]f—as is usually the case even in small units—the information collector is not the same person as the decision maker, such communication is inevitable whether government is centralized or decentralized. In either case, the information gatherer must communicate with the decision maker. So the argument reduces to one about whether the cost of physically transmitting information increases with geographical distance."

This is a plausible argument for numerical or hard data, but implausible for soft information, that is, information that is expensive for an additional agent to verify (Stein 2002) and

SOFT INFORMATION AND DECENTRALIZATION

Many social problems, such as school dropout, youth crime, alcohol abuse, and urban decay, manifest themselves differently from locality to locality. To address these effectively, a policy maker may need access to local "soft" information. In the United Kingdom, social policy making has traditionally been influenced by the principle "Whitehall knows best," but in recent years, policy makers have come to rely more on local and regional input. One instrument for structuring such input is the "local area agreement." Such agreements are three-year renewable contracts between central government, local or county councils, and local organizations to "deliver national outcomes in a way that reflects local priorities" (**http://www.lga.gov.uk**, accessed July 20, 2008). The agreements focus on problems involving children and adolescents, neighborhood safety and security, local health issues, aging, or economic development. An academic evaluation claims, "The neighbourhood is . . . an appropriate location for programmes that stress prevention through changing citizens' behavior . . . for example, better parenting, smoking cessation. The success of such sensitive interventions depends upon detailed knowledge about lifestyles and family life" (Lowndes & Sullivan 2008, p. 66). A government-commissioned assessment finds "evidence of savings, improved outcomes, and good practice attributed to local area agreements" (Peterson 2007, pp. 1, 13; **http://www.towerhamlets.gov.uk**, accessed Sept 4, 2008).

difficult to evaluate without local knowledge (see sidebar "Soft Information and Decentralization"). At this time of writing, the town of Carrboro in North Carolina is debating whether to give planning permission for a new downtown development. The criteria include consistency with the architectural character of the town. Surely, a decision maker who is personally familiar with the town, its people, and its infrastructure would be better placed to evaluate information relating to this criterion than one sitting in Washington, DC. Diffuse local knowledge is inconsequential when evaluating hard information but is useful in appraising soft information.

Hard information—quantitative data from mass surveys, financial data, and so forth—is particularly useful if one wishes to abstract from particular cases in order to formulate general principles that might improve public policy. Such scholarly enterprise has national or global externalities and is therefore appropriately conducted by large jurisdictions, or by small jurisdictions acting in concert. Local decision making may benefit from general principles, but in most cases, this information must be interpreted against local circumstances.

There may, of course, be other reasons to centralize decision making. Local decision makers may be more incompetent or more corruptible than central decision makers. They may be more prone to undue influence by special interest groups. Or they may pursue immoral policies that induce the central government to intervene. But unless there is some countervailing concern, local decision making is at least as informationally efficient as central decision making for local public goods, and more efficient when decision making involves soft knowledge. The principle here appears simple and compelling: Local decisions are best made by locals. How those people are selected is a separate matter.

DOES EFFICIENCY DETERMINE THE LEVEL AT WHICH DECISIONS ARE MADE?

Allocative efficiency is a prescriptive notion. Does it actually influence government structure? The short answer appears to be yes.

The fact that certain policies are provided at a similar scale in different countries is consistent with an efficiency explanation. Comparing public spending data across 14 western societies, Osterkamp & Eller (2003, p. 41) find that policies for recreation, culture, religious affairs, housing and community amenities, education, transportation and communication, and public order and safety are decentralized even in relatively centralized countries such as Luxembourg and France.

Surveys commissioned by the Council of Europe and the Local Government Institute in the late 1990s reveal a broader pattern of commonality (Schakel 2008). Refuse

disposal is determined locally in all 39 countries surveyed; nursery school/kindergarten, sewage/water treatment, and parks/open spaces are handled locally in 37 of 39 countries. The exceptions are illuminating. Very small countries sometimes conduct policies with only local externalities at the national level (e.g., nursery/kindergarten education in Cyprus; sewage in Malta). In Belarus, sewage and parks policies are regional, rather than local. In some cases, a commitment to national unity (often in the face of demands for regional autonomy) sustains centralization. In Turkey, nursery school and kindergarten policies are national, as are primary, secondary, and tertiary educational policies. The same logic applies in reverse where there are entrenched regional identities. Road construction, for example, involves the national level in all countries except Azerbaijan and Belgium.

Most policies are not uniformly conducted at one population scale. However, one cannot deduce from this that efficiency plays no role. Some policy areas, such as the environment, contain a basket of policies that may be efficiently provided at diverse scales. Other policies appear to require coordination among governments across scales. Of the 24 countries in the Council of Europe/Local Government Institute survey that have three government tiers, 18 countries involve all three tiers in policies on road construction, 16 on libraries, and 15 on the environment and museums. A majority involves all three tiers in policies related to theater, tourism promotion, and preventive health.

Public goods that tend to be provided locally—refuse disposal, nursery/kindergarten education, sewage/water treatment, and parks/open spaces, for example—appear to be characterized by local externalities and local economies of scale. But to press home the argument, one would wish to have a more systematic way of identifying which public goods are local and which national. No econometric analysis of externalities or economies of scale is available, but policy experts have been asked to evaluate the optimal scale for 34 policies on the basis of their technical efficiency.[5] **Figure 2** compares mean expert evaluations for the 10 most and 10 least local policies against their actual provision, and suggests that technical efficiency is, on average, strongly related to provision.

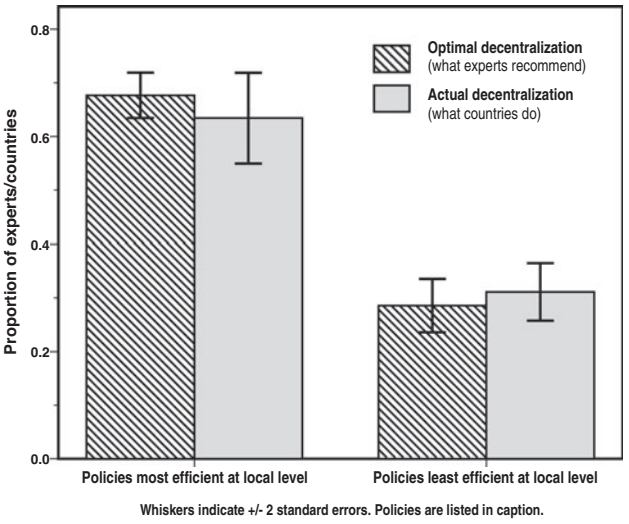


Figure 2

Optimal and actual decentralization. Does actual decentralization reflect technical optimality? Apparently it does. This figure compares how experts evaluate the efficient allocation of two sets of policies (*striped bars*) with the actual provision of the same two sets of policies in 25 countries (*solid bars*). The bars on the left summarize 10 policies that experts regard as most efficiently provided at the local level: cemeteries/crematoria, fire protection, kindergarten, preschool education, town planning, refuse collection, primary education, district heating, in-home services for elderly, and parks. The bars on the right summarize 10 policies that experts regard as least efficiently provided at the local level: museums, roads, gas, regional/spatial planning, transport, electricity, environmental protection, health protection (including diseases), higher education, and consumer protection. Data on actual provision are from the Council of Europe (2007) and the Local Government Institute (Horvath 2000, Kandeva 2001, Munteanu & Popa 2001). Data on optimal provision are evaluations of technical efficiency averaged across 35 public policy experts. It is no surprise that expert evaluations differ significantly between the two sets of policies. Interestingly, countries follow the same pattern: the proportion of countries where the first set of policies is local is significantly higher than that for the second set ($t = 7.63$ for difference of means test, $sig = 0.0001$).

If the technology of policy provision changes or if the policy portfolio changes, this should be reflected in the structure of government. The period since World War II has seen an

[5]The survey was conducted by Hooghe, Marks, and Schakel in 2006 (for details see Schakel 2008).

Table 2 Two types of multilevel governance (based on Hooghe & Marks (2003)

	General-purpose jurisdictions (type I)	Task-specific jurisdictions (type II)
Design features	combine problems with similar scale in one jurisdiction; territorially nonintersecting; limited number of jurisdictions; limited number of levels	separate nearly decomposable problems in discrete jurisdictions; territorially intersecting; unlimited number of jurisdictions; no limit to number of levels
Biases	intrinsic community; voice; conflict articulation	extrinsic community; exit; conflict avoidance
Examples	London, Catalonia, Flemish Community, United States, China, European Union, African Union, Inca Empire	U.S. school districts, local area agreements, Chesapeake Bay Council, NATO, World Health Organization, Dutch water boards

unparalleled extension of government competence in policies concerning welfare, microeconomics, the environment, education, health, and transportation (Agranoff 2008, Loughlin 2007, Sharpe 1993). Education, social security, and health have become the three most important expenditure categories for subnational government (Osterkamp & Eller 2003; see also Braun 2000, Ter-Minassian 1997). Correspondingly, a survey of regional authorities in 21 OECD countries from 1950 indicates that government has become more multilevel as the policy portfolio has diversified (Marks et al. 2008). This is consistent with the functional theory of federal-state relations, which expects regional and local government to assume primary responsibility for providing the social and physical infrastructure in a modern economy, while the national government takes primary responsibility for redistribution (Peterson 1995, pp. 17–38).

DOES INTERJURISDICTIONAL EFFICIENCY SHAPE GOVERNMENT?

The fundamental insight of technical and allocative efficiency is that public goods should be provided across a range of territorial scales, from the local to the global. In Olson's words, "there is a need for a separate governmental institution for every collective good with a unique boundary, so that there can be a match between those who receive the benefits of a collective good and those who pay for it" (Olson 1969, p. 483). Yet this is problematic, for it reproduces the dilemma of coordination at the level of jurisdictions.[6]

Two kinds of institutional setup reduce transaction costs among governments and thereby interjurisdictional efficiency losses (**Table 2**). The first, general-purpose (or type I) government combines functions in nonintersecting governments at a limited number of levels. As noted above, nesting streamlines communication and is used widely in information processing systems and in organizational design (Radner 1993; Treisman 2007, pp. 63–69). This is depicted in **Figure 1**, and it appears to be a universal feature of general-purpose government.

General-purpose governments generally bundle competencies for territorial communities where membership is inherited or reflects life choices.[7] Correspondingly, general-purpose jurisdictions do not choose the

[6]If bargaining among the parties affected by a collective action problem were costless, then "all desirable public goods could be provided by voluntary action" (Olson 1969, p. 480). This applies to governments as to individuals.

[7]General-purpose governments may also be based on nonterritorial community membership. Examples are the clan system in Somalia, communal self-governance in the Ottoman Empire, religious self-governance in India, and cultural-linguistic membership in the Communities in Belgium.

collective problems they deal with; they engage the problems that confront given communities, including the conflicts that arise within them. Such governments exploit economies of scale in rule making and rule adjudication, and consequently they have elaborate institutions for aggregating interests and expressing political competition.

The alternative form of government limits interjurisdictional coordination by disaggregating policy problems into nearly decomposable pieces. Simon (1969) argues that efficient organizational design requires minimizing the extent to which the decisions of each constituent unit have short-term effects on other units. Applied to government, this is task-specific (or type II) government—that is, government designed around problems that can be dealt with independently. Task-specific governments cater to groups that happen to share a problem. Their forte is technical proficiency, not providing a stage for deliberation or resolving the clash of interests. Task-specific government avoids conflict or seeks to insulate decision making from political pressures (see sidebar, "Task-Specific Government and Political Insulation"). Membership is problem driven, not intrinsic.

General-purpose government and task-specific government have contrasting strengths and weaknesses that ground expectations about their relative incidence. Type I jurisdictions make decisions on behalf of territorial communities. They are functionally appropriate for redistributive decisions and, correspondingly, for decisions where trade-offs across policies may facilitate agreement. Type II jurisdictions are efficient for problems that are nearly decomposable, for problems that can be solved by the application of knowledge, and for problems that do not involve redistribution.

Type I governments usually provide the context for type II governance; even when they do not establish or monitor type II governments, they determine the legal context. Type II jurisdictions often lie at the interstices of type I jurisdictions or overarch them in a scale-flexible way (Blatter 2004, Börzel & Risse 2005, Skelcher 2005). For example, the governance of rivers and water basins often involves externalities that cut across existing general-purpose jurisdictions. Several European governments created special-purpose jurisdictions in response to the European Union's clean-water directive of 2004. In Sweden, five water authorities combining local governments, users, and environmental groups were set up to match water catchment areas and sea basin tributaries. Each is run by a centrally appointed board of governors that can "overrule national sectoral administrations to safeguard environmental water quality norms" (Lundqvist 2004, p. 420). The Chesapeake Bay Council, established in 1983 by the U.S. Environmental Protection Agency, is similar in purpose. Set up in collaboration with Washington, D.C., Virginia, Maryland, and Pennsylvania, it marshals a variety of public and private organizations to provide a collective good—environmental protection of a water resource—that cross-cuts established government boundaries (Karkkainen 2004).

Task-specific government is preponderant at the international level. The chief line of research on international organizations starts "from the premise that there is always a

TASK-SPECIFIC GOVERNMENT AND POLITICAL INSULATION

Landfill policy in New York State appears to be an example of task-specific government that failed to insulate decision making (Bourdeaux 2008). Landfill location involves technical issues relating to hydrogeology and long-term leachate testing of groundwater, but it is also contentious because nobody wants a landfill in his backyard. When a 1980s state law required counties to set up systems for landfill management, many counties farmed out the task to autonomous type II authorities to "take the politics out of decision making" (p. 350). But these type II authorities "exacerbated conflict by failing to account for political pressures in their decision making, and at the same time, when the decision was forced back into a political arena, the elected officials then did not have the knowledge about or commitment to a particular solution that would have enabled them to make an informed decision" (p. 353).

need for international organizations whenever interdependent crossborder relations lead to interactions which states view as undesirable" (Rittberger & Zangl 2006, p. 19; Martin & Simmons 1998). International regimes enable state actors to overcome problems of collective action, high transaction costs, and informational deficits or asymmetries. "The denser the policy space, the more highly interdependent are the different issues, and therefore the agreements made about them .... Where issue density is high, ... one substantive objective may well impinge on another and regimes will achieve economies of scale, for instance in establishing negotiating procedures that are applicable to a variety of potential agreements within similar substantive areas of activity" (Keohane 1982, pp. 339–40).

This might be considered a recipe for general-purpose government, and under certain conditions it is. Several regional regimes bundle a range of public goods and have sophisticated machinery for arriving at agreements in the face of distributional conflict. But type I governance is rare. The vast majority of international agreements are bilateral or multilateral deals without agency. Of 35,269 post–World War II international agreements filed with the United Nations up to 1999, 2330 are multilateral and the remainder bilateral (Koremenos 2005). The Correlates of War dataset lists 332 self-standing international organizations having at least three member states, a permanent secretariat and headquarters, and a plenary session at least once every ten years (Pevehouse et al. 2004). Some 50 of these can be described as authoritative, having a formal constitution, a supreme legislative body, a standing executive, a permanent professional administration, and some formal mechanisms for enforcing decisions and settling disputes. Of these, 13 are responsible for a range of policies and might be described as general-purpose.

Figure 3 maps the 50 most authoritative international governmental organizations (IGOs) by geographical community and policy scope. "Geographical community" represents the diversity of the member states of each organization across nine world regions: Africa, Middle East, Europe, South Asia, East Asia, North America, Central America, South America, and Australasia. "Policy scope" estimates the number of policy areas (from 13 categories) over which an IGO has formal authority: political cooperation, foreign policy, diplomacy; security and defense; justice and interior affairs; trade; finance and monetary affairs; common-pool resource problems (including environment); standard setting, coordination, and monitoring; industrial policy (including sectoral policies, such as transportation, energy, telecommunications, natural resources); aid (development, regional development, poverty reduction); human rights (including social and labor rights); health, food safety, nutrition; culture and education; research and data collection (L. Hooghe, G. Marks, C. De Vries, H.J. Van Alphen, unpublished manuscript).

One distinctive characteristic of international government is its relative scarcity. Another is that it is preponderantly task specific. Just 13 of the 50 IGOs have authority in five or more policy areas listed above. Task-specific government is oriented toward Pareto optimality; it is most likely where distributional conflict is not especially intense (Fearon 1998). Sixty-five percent of task-specific IGOs in **Figure 3** specialize in standard setting (e.g., the World Customs Organization, which seeks to harmonize and simplify customs procedures) or research and data collection (e.g., the Organization for Economic Cooperation and Development, which provides information and forecasts on trade, environment, technology, taxation, and social policy). General-purpose IGOs are four to five times more likely to have authority over a core element of sovereignty: foreign policy, security, justice, or monetary policy.

Whereas task-specific IGOs often encompass states across the globe, general-purpose IGOs are almost always limited to one, or perhaps two, of the world's nine regions—with one exception: the United Nations. The mean value on "geographical community" for the 13 general-purpose governments is 0.78, compared to 0.48 for 37 task-specific IGOs. That is

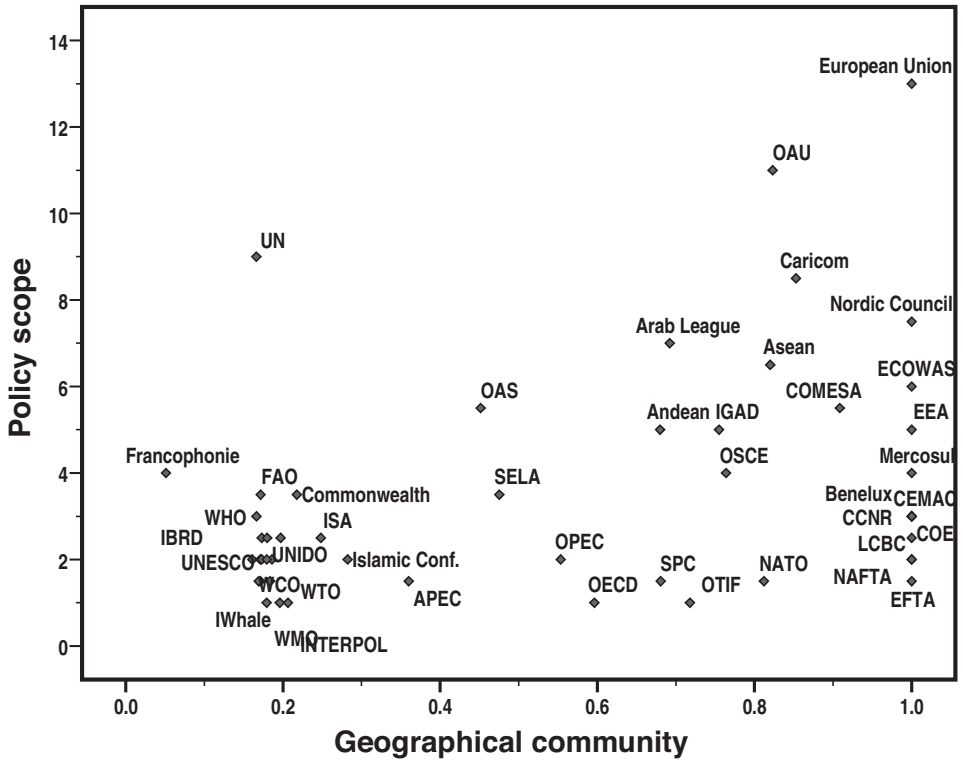


Figure 3

International government and community. This figure maps the 50 most authoritative international governmental organizations (IGOs) by policy scope and geographical community. "Policy scope" estimates the number of policy areas (from 13 categories; see text) over which an IGO has formal authority. Two teams coded each IGO on these categories. The simple correlation of their evaluations is 0.71. "Geographical community" is the diversity of the member states of each organization across nine world regions (see text) formulated as $\sum_{i=1}^{m} s_i^2$, where s_i is a region's share in an IGO's membership and m refers to the number of regions present in the IGO. Membership and population figures are for 2000 (Pevehouse et al. 2004).

to say, they have, albeit weakly, the attributes of what Ostrom (2005, pp. 26–27) identifies as a community: a level of common understanding or shared mental frames, some degree of homogeneity of preferences, and limited inequality of assets. As weak as these are at the international level, their existence appears to be important in creating and sustaining general-purpose international governments.

The limited number of authoritative regimes, predominance of task-specific government, and rarity of general-purpose government can therefore be viewed as efficient adaptation. But it appears to be adaptation within particular, historically given, contexts. The development of national states and the consequent weakness of community at the international level have narrowed, but have not eliminated, the possibility of general-purpose government at the international level.

CONCLUSION

The territorial structure of government exhibits some patterns that appear to be explicable as efficient adaptation. Government in complex societies is arranged as a series of nested tiers encompassing exponentially increasing populations. Public goods having merely local externalities and local economies of scale are usually

provided by persons living in the locality, rather than by central government. International public goods are generally provided by bilateral agreements. Where international government exists, it is preponderantly task-specific, except where regional community can sustain general-purpose government.

On one level, the evidence summarized here reveals a surprising degree of universality in the territorial structure of government. However, in each case, efficient adaptation is channeled by distributional and identity pressures. The interaction is perhaps most transparent for IGOs. The weakness of community at the international level constrains the exercise of supranational authority, and this biases jurisdictional design away from general-purpose government to jurisdictions that are designed to deal with specific, relatively decomposable problems. Such jurisdictions are poorly suited to providing solutions in the face of distributional conflict, both because they cannot exploit linkages across different policy fields and because redistribution is regarded as illegitimate when overarching community is weak.

The structure of subnational government hangs on the size of the state, which is the outcome of historical forces that have little to do with efficiency and a lot to do with distributional geopolitical conflict. Moreover, in some states, regional units have histories as independent polities and resist being marshaled by the drum of efficiency. As a result, the jurisdictional axes of states are never identical, but are diversely oriented at the national level. Even here one finds multiple causal paths rather than convergence to a single equilibrium.

The efficiency perspective set out here is intended to complement, not replace, a political explanation of multilevel governance. Comparative politics is usually concerned with variation across societies, and to explain such variation one must pay detailed attention to identity and distributional conflict. Yet, at a sufficiently abstract level, one may detect commonalities arising from fundamental principles of human organization.

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