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ABSTRACT

This chapter reviews the origins, evolution, and modern forms of government, and proposes a research agenda. It contends that rather than being a homogeneous form of patrimonialism, early government was diverse and, at times, fostered order and prosperity. Its subsequent development did not follow an 'evolutionary' path to rational-legal government but was characterized by innovation and frequent collapse. Successful modern states do not all look alike, but follow several different models, as historical states have done.

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1 Introduction

Government is the central actor in modern market economies. It is the one organization that routinely collects, redistributes, and spends up to 40% of Gross Domestic Product. It organizes for defense, crisis relief, and social insurance. At the same time, governments expropriate their own citizens and sometimes become vehicles of more intense repression, and even genocide.

Due to its importance, government is a central focus of study in economics. We know a lot. We have a dominant model of what it means to be a successful government due to Max Weber. His notion of a rational-legal state, which claims a monopoly of violence in a given territory and provides public goods through a salaried, incentivized, and impartial bureaucracy, has been central to theorizing on the development effects of government. We know that countries that are organized in a more 'Weberian' way do better relative to their peers (Besley & Persson, 2014; Dell et al., 2018; Evans & Rauch, 1999). We know that countries that move to more Weberian institutions subsequently do better (Aneja & Xu, 2024), and we know that setting rational-legal incentives for individual bureaucrats improves their performance (Besley et al., 2022; Hanna et al., 2017). We also know that historical government matters. 'Better' organized historical polities exert an influence on public good provision (Acemoglu et al., 2015; Gennaioli & Rainer, 2007), development (Michalopoulos & Papaioannou, 2013), and violence today (Heldring, 2021, 2024). A vibrant new literature, surveyed in Heldring (2025), studies the origins of government and the state, bringing older debates from anthropology and philosophy into modern empirical analysis (Allen et al., 2023; Mayshar et al., 2022; Sánchez De La Sierra, 2020).

This chapter surveys government from the perspective of three interrelated topics, and proposes a research agenda. First, I study the origins of government. Second, I study political development from the first governments of small groups to states and modern government. Finally, I study forms of modern government, and their relationship to development.

I begin by discussing definitions of government and the state. This is a well-studied topic for modern Western economies, but is not straightforward historically, or outside the West. This difficulty stems from the fact that government as an *organization* is a relatively new phenomenon (Mair, 1962; Skinner, 1989). Yet every known human community has had some mechanism for collective decision making. In other words, while many societies may not have had a government, they certainly had *government*. Political communities, groups sharing some form of rules, norms, or governance in common, historically found many ways to organize themselves, ranging from collective governance by all adults, to the appointment of conflict mediators without power over anyone, to meetings of elders or heads of family groups, to more clearly identifiable leaders, such as the Pharaos of Egypt. None had a constitution, and most did

not have written law, bureaucrats, or other vestiges of the state. Few had a monopoly of violence. In fact, many featured strong norms and mechanisms preventing anyone from attaining an elevated position. This variation has led to a proliferation of definitions of the state, and ways of measuring its presence. In section 2, I review the range of definitions used in the literature and propose a simple definition based on the notion of a political community and the standard welfare economics notion of public goods and services. A state is a stable political community, as defined before, that provides public goods and services, and a government is composed of the subset of its members in charge of providing them. This definition has a few implications that will be central for this chapter. First, political communities can have a state and no government when public goods are simply provided by all adults together. Second, there can be an enormous variety of forms of government. Third, states are not necessarily associated with visible vestiges of economic development, or violence. Finally, if what matters for economic development is public good provision, many different forms of government should be consistent with economic development, as long as they find a way to provide public goods.

Because definition is difficult, many disciplines have simply sidestepped the issue and have instead looked for evidence consistent with the presence of a state. This has led to early, or 'pristine', states having traditionally been identified in a few sites around the world, such as ancient Mesopotamia or Egypt. There is no agreement, however, on which political communities are thought to have developed a state, due to these definitional problems. I use data from the SESHAT global history databank (Turchin et al., 2015) to study both a subset of political communities identified as early states and others that are generally not (such as Angkor Wat in Cambodia, or Aksum in Ethiopia). I find that these early states are very diverse. Some are organized fully informally, without anyone in charge, no bureaucrats, and no monopoly of violence, whereas others conform more closely to what we think a state should look like today. I then analyze less 'successful' early political communities that are not generally identified as an early state. I find that some of them look very similar to those that were. In sum, early political organization was heterogeneous, and it is not clear that those that are considered the first states were organized very differently from those that did not.

In section 3, I then review theories of the origins of the state that aim to explain this variation. The vast literature can be split into two main clusters of theories (Heldring, 2025). An important cluster of theories views the origins of the state as essentially kleptocratic. Taking inspiration from Marx and Engels (1967[1848]), the state is thought to be an organization set up by the powerful to expropriate the weak. The state is therefore intimately connected with inequality, taxation, and repression. Another cluster views the state as fundamentally solving (coordination) problems that individuals cannot. This cluster takes inspiration from Hobbes (1980) and Locke (1982) and is closest to what economists have identified

to be the rationales for government intervention (Bator, 1958; Baumol, 1965). Economists have brought together theoretical models and empirical analyses to substantiate either side of this argument. I provide a review of these contributions. I conclude that more work is needed to arrive at a body of evidence that does justice to the richness of historical forms of government and that we need more tests of mechanisms of state formation.

Historically, state formation is rare. Only a handful of political communities have been identified as early states. Today, there are only a few stateless parts of the world. I study this development in section 4. The dominant model of historical political development is the evolutionary model (E. R. Service, 1962). This model posits that societies progress through stages, with the most famous progression being band, tribe, chiefdom, and state. Evolution mostly concerns the form of government, but also incorporates the 'scale' of societies, where bands and tribes are thought to be smaller communities than chiefdoms or states. Progress is about 'unlocking' the next stage of development. This view, intellectually rooted in Marx' notion of stages leading to communism, is extremely influential. Diamond (1997) uses it to describe developments from the innovation of agriculture to the modern day, Weber (1919) describes an evolution from patrimonialism to the rational-legal state, and Fukuyama (2011) describes modern development as 'getting to Denmark'. I review evolutionary theory in light of the literature on early states in anthropology and using new evidence on the evolution of states, again from SESHAT. Anthropologists have formulated three powerful critiques of evolutionism, which have recently been summarized in Graeber and Wengrow (2021). First, evolution is not linear. Many political communities have intentionally moved between more 'advanced' and smaller-scale forms of government. Second, political communities resist the next level of evolution. This implies that evolution is not just constrained by the technology, knowledge, or scale required to progress, but is also often politically resisted or avoided. Third, the scale argument does not hold: There have been small states and large gatherings, even cities, of hunter-gatherer bands.

I construct a longitudinal sample of political communities to provide empirical content to these critiques. I show three main results. First, I construct a transition matrix between stages of political development. I find that political communities are - at every level of political 'complexity' - at least as likely to go down in complexity or simply disappear than to stay at the same level of complexity or go up. In other words, the central directional implication of evolutionism does not hold in the data. Second, political communities with states nearby are less likely to be states themselves. This suggests that absence of a state may often by a choice rather than a technological constraint due to lack of knowledge (a point made strongly by many historians, e.g. Vansina (1990)). Third, there is no correlation between political complexity and the size of the political community. I then review the literature on evolutionism. I conclude that political evolution was highly diverse and featured failure more than evolutionary progress. Further-

more, many political communities stayed intentionally small-scale. The literature has not converged on a real alternative to evolutionary theory in order to explain how political communities evolved over many centuries to, say, the early modern period, when concepts from economics such as state capacity start to have more explanatory power. This lacuna is part of the proposal for a research agenda in this chapter, to which I return below.

In sections 5 and 6, I study the effects of historical states today. I first review the literature on the direct effects of historical states, which work through public good provision, development, and violence. I then study the indirect effects, which I define to be the historically rooted variation in modern government organization. The conclusion of the first two parts of this chapter have been that, despite the presence of a singular, Weberian, model of success, historical government has been highly diverse, and more successful historical political communities have been organized just as diversely as less successful communities. In the last part of this chapter I study the diversity of successful government today and propose an agenda for future research.

To do so, I collect data from the Quality of Government project (Nistotskaya et al., 2021). This project measures several aspects of the 'Weberianness' of governments around the world, including whether civil service examinations are held and whether bureaucrats face security of tenure. I first show that in a global sample (and in two 'waves', 2012 and 2015), these characteristics co-move. In the Appendix to this chapter, I show that this holds for more characteristics, as well as historically: There is something like 'Weberian' government in the data. I then plot 'secure tenure' against 'examination' in four samples defined by GDP per capita quartiles. In the richest quartile, a strong positive relationship emerges, and two main clusters of countries are identifiable. Central European countries (Germany, France, Italy) and East-Asian countries (Japan, Korea) feature stronger examination requirements and higher security of tenure. Nordic countries, as well as, to a lesser extent, Anglo-Saxon countries, feature lower security of tenure and fewer examination requirements. In other words, in this simple exercise, two 'models' of government emerge, both consistent with economic development. This finding is consistent with a literature on the 'varieties of capitalism' (Esping-Andersen (1990), Hall and Soskice (2001), and Acemoglu et al. (2017)). In the Appendix to this chapter, I show that the emergence of distinct models within rich countries is not confined to these two variables, nor to the Quality of Government dataset.

I then show that the same two models appear throughout the world income distribution: In the globally poorest quartile of countries, there are also countries that organize around civil service exams and secure tenure, and there are countries that do not. These simple exercises point to two observations: First, there are different forms of government organization consistent with economic prosperity. Second, it is not the case that rich countries all look alike (or more Weberian) than poorer countries (who also do not

look homogeneously patrimonial). In fact, government is diverse within rich countries and across rich and poor countries. These observations are not inconsistent with the evidence cited at the start of this introduction: Becoming more 'Weberian' is associated with greater prosperity, but the variation 'within' income levels in organization of government is substantial, and does not disappear 'across' income levels. I then implement a simple exercise in which I compare the timing of comprehensive 'Weberian' civil service reforms in the United States and England to GDP per capita growth. In both countries reforms significantly lagged GDP growth. This is consistent with the idea that whatever role modern government played in their development, both pre- and post-reform government was consistent with growth.

The exercises in this chapter are naturally tentative, and designed to stimulate further research into historical government. I therefore close this chapter by bringing together the review and findings so far into a research agenda. The Western intellectual tradition in studying government and the state has so far been predicated on three premises. First, government manifests itself as an organization, often physically in buildings and employees and formally, in constitutions and laws. Second, there is a singular model of successful government: The rational-legal state. This is a model that has been achieved in certain rich countries. All other countries today, and all political communities historically, are under some form of patrimonialism. Third, before the advent of the state as an organization, and rational-legal government as the organizing principle, political evolution occurred in stages. As society 'advanced' politically, the next stage would be unlocked. This chapter casts some initial doubt on this view of government. Its conclusions call for new research in at least three areas of inquiry.

First, the origins of government and the state. It is difficult to measure where early states form, and various lists have been proposed. Theories for the origins of the state have fallen under two broad categories: Extractive or cooperative. Empirical studies of either have typically relied on geographical variation in the incentives to form a state under the extractive model, but a recent literature has attempted to unify the study of both (Heldring, 2025). This chapter has argued that whatever the driver of initial, pristine, state formation, those states that formed did not look meaningfully different from some political communities that have not been classified as such. And even within early states, there is large variation in organizational forms. This means that as it stands, we do not have a good idea of what aspects of historical government are associated with 'success'.

Second, the subsequent development of historical government is not characterized by progression in stages. Political communities for which we can measure developments over time transition between 'levels' of political centralization. In addition, political communities do not transition to the next 'level' because they have achieved sufficient scale, but by conscious political choice. Furthermore, in anticipation of not gaining from centralizing power further, political communities choose not to do so. We therefore

lack a coherent theory of political development from historical government into the modern, formalized, nation-state.

Third, the historical diversity of government carries over to today. Modern market democracies grew rich under governments that look very different from the ones they have today. They were not smaller-scale versions of their current Weberian states, but fundamentally different organizations, that turned Weberian after they got rich. Governments are diversely organized, and this is so for rich and poor countries alike. There is as much variation in organization among rich countries as there is among poor countries, and within each income level, multiple 'models' of government are associated with being at that level.

This chapter is not the first contribution to survey early government, its subsequent development, or government today. I will highlight some key starting references here. I have included with this chapter, as Appendix A, an analytical bibliography of the study of government, which will hopefully be helpful for further research. There are several surveys of early states that are useful, notably Cohen and Service (1978), Trigger (2003), and Heldring (2025). For subsequent political developments, see Finer (1997) and Mann (2012). Marcus (2008) is a good introduction to evolutionism, and Graeber and Wengrow (2021) provide an overview of evolutionism and provide a powerful critique. McIntosh (1999) collects several case studies of different political development paths, as does Vansina (1990) for central Africa. On different models of modern government, see e.g. Evans (1995) and Esping-Andersen (1990). Heldring and Robinson (2023) discuss alternative models in a developing country context.

This chapter proceeds as follows. In section 2 I discuss how to define a government and a state. I also survey the traditional first states. I show their internal diversity and show how they are not so different from other political communities not classified as such. In section 3, I survey the literature attempting to explain the emergence of the state. In section 4 I discuss subsequent political dynamics, focusing on evolutionism and its critiques. In sections 5 and 6 I discuss diversity of the modern state. In section 7 I outline a research agenda and section 8 concludes.

2 What is a government and a state

In this section I discuss definitions. It is not straightforward to arrive at an adequate definition of a government or a state when trying to account for the global variation in historical government. This is fundamentally because political change happens with starts and stops, and takes different forms in different parts of the world. Therefore, any discretization into non-state and state forms of political organization will be useful for some place and time, and not for others. In this section, I review existing definitions, and

discuss why most historical societies that looked like states and performed state-like function would not qualify under most definitions. I then propose a more encompassing definition, which starts out from a simple political community. This definitional step is a crucial building block for characterizing how early states arise, and how they subsequently develop.

2.1 Definitions in the literature

The state is canonically defined as a "human community that successfully claims the monopoly of the legitimate use of physical force within a given territory" Weber (1919, p. 78). A government is a group of people in charge of a state, divided into executive, legislative, and judiciary arms. In his essay, Weber makes it clear that the state is an organization. The three core elements of his definition, force, territory, and organization, have been the building blocks for most subsequent definitions of the state. For example, in history, Charles Tilly defines states as a "coercion-wielding organizations that are distinct from households and kinship groups and exercise clear priority in some respects over all other organizations within substantial territories." (Tilly, 1992, p. 1). Similarly, in sociology, Michael Mann defines a state as "a differentiated set of institutions and personnel embodying centrality, in the sense that political relations radiate outward to cover a territorially demarcated area, over which it claims a monopoly of binding and permanent rule-making, backed up by physical violence." (Mann, 2012, p. 37). In anthropology, Robert Carneiro defines a state as "an autonomous political unit, encompassing many communities within its territory and having a centralized government with the power to draft men for war or work, levy and collect taxes, and decree and enforce laws." (Carneiro, 1970, p. 733). Economists typically follow Weber's definition. The alternative to such states is typically taken to be Max Weber's patrimonial government. He distinguished between modern, organizational, and 'rational-legal' government, which conforms to the definitions here, and patrimonial government. Patrimonial government is organized "not on the official's commitment to an impersonal purpose and not on obedience to abstract norms, but on a strictly personal loyalty" (Weber, 2019, p. 1006).

These definitions, for the purpose of characterizing historical variation as well as variation in the developing world today, are too Eurocentric and restrictive (Heldring, 2025). For example, as is clear from these definitions, the modern social science literature has oftentimes "assumed that government must be carried on through the type of organization which we call the state" (Mair, 1962, p. 12). This is a consequence of the intellectual history of the study of the state in Europe which emphasizes the development of the state *as an organization* (Skinner, 1989). This conceptualization of the state as an "impersonal form of political authority distinct from both rulers and ruled" (Skinner, 1989, p.120) emphasizes the idea that

a state is a persistent entity, defined by laws and physically represented by buildings and individuals. It exists separately from society as well as from any individual government. If its entire elite disappears, the state survives. The state as such an organization enters Western political philosophy primarily through Jean Bodin (1986[1567]) and Hobbes' *Leviathan* (1980) with important antecedents in Chinese and Islamic political thought, such as Ibn Khaldun's *Muqaddimah*. Historically, however, there have always been varying degrees of formality at both the central and local levels. This means then that modern definitions of governments and states that rely on these being connected with *organizations* do not adequately cover the past. In addition, monopolies of violence, or even a fixed territory, do not cover the historical variation.

For example, the Alur of Uganda and the Democratic Republic of the Congo were said to be part of a state by their ethnographer Aidan Southall (Southall, 2004). But this state was composed of independent political communities that recognized the authority of the nominal king up to the point that it was useful to them. The king was supposed to be a rainmaker and provide mediation but did not have a monopoly of violence over anyone, and he did not employ anyone recognizable as a civil servant. The Alur political community did not have a government in the traditional sense of the word, nor did it have a state with a monopoly of violence, or a fixed territory for that matter, as allegiances fluctuated. Yet it is clear that public goods were provided, and that peace was mediated by the presence of the king. The Roman empire had at times a bureaucracy that worked for the 'state', even though it's informal, network-based and unsalaried bureaucracy was several orders of magnitude larger (Jones, 1986). Medieval feudal Europe was a similarly hybrid form of government organization. There was a nominal territory under the suzerainty of the king, but the king directly controlled only a small part of this territory. In the rest of the kingdom, he relied on the cooperation of the elite. And the state as an organization did not exist, it was coterminous with the household of the king. The national 'budget' was the king's money, and diplomacy consisted of the king's personal relations. This is even visible in the word 'state' itself, which used to mean 'circumstance'. It was used by authors like Macchiavelli as 'the king's state' to refer to how the king is faring. The modern state to which modern definitions of the state more readily apply emerges in the early modern period. For example, the constitution of government as an organization is clearly visible in England's 'Tudor revolution in Government'. This program separated officers of 'the state' from the household of the king. For the first time, bureaucrats would not be in the private employment of the king but would be employees of a state organization (Elton, 1953). With the advent of the modern organizational state, the word state changed meaning to its modern use (Skinner, 1989).

By the modern definitions of the state, most societies over the course of human history therefore never had *a* government or a state.[1] This of course does not mean they did not have government. Anthropolo-

[1]This point has been made frequently by anthropologists, see e.g. the contributions in Cohen and Service (1978).

gists and historians are in complete agreement that all human communities - even the smallest communities of hunter-gatherers - have some form of government. In every community there is some way of making decisions that affect the community as a whole (R. Lee & DeVore, 1968).

2.2 The political community

To make progress on definitions, I follow Schapera (1956) in using the term 'political community' for a body of people who share some forms of rules, norms, or governance in common. Such norms typically prescribe what to do when violence is inflicted upon individuals or property, define what rights people have over property, and prescribe who can engage in anything from mediation to feuds when norms are violated. Just as every society has had a way of collective decision making, even the smallest groups, such as San communities in South Africa (R. B. Lee, 1993), have well defined focal norms and processes for redressing wrongs. The boundaries of political community were, in the past, typically kinship based. Kinship-based political community can extend from extended families to larger clans or lineages where kinship may be based on consanguinity or be fictitious by referring to a common imagined ancestor.

It would not be productive to define each political community that has some means of governance as a state because that would imply that every community at all times has been a state. Welfare economics offers a natural solution to this issue. In his dissertation, William Baumol laid out the rationales for government intervention quite clearly (Baumol, 1965), building on work by Pigou (1920). There are several aspects of human interaction, such as public good provision and coordination among larger groups, that are in some circumstances not provided by communities or markets in a decentralized way.

One starting point for a definition of a state is therefore a political community that provides such public goods and services and consider a government to be those in charge of providing such services. This way, a chief in a small political community who mediates political disputes while being a farmer is part of the government, and the Alur have a state. This definition needs one additional element because as such it again encompasses pretty much every political community. I will therefore follow Cohen (1978) and add a notion of stability to this starting point. Many early political communities are characterized by frequent fission; entire kinship branches separate themselves and political communities fall apart as rapidly as they are formed. I will therefore define as a state a stable political community that provides some public goods and services. A government is then simply composed of the subset of people who provide these goods and services.This definition has a few implications: First, political communities can have a state and no government when public goods are simply provided by all adults together. Second, and central for this chapter, it means that there can be an enormous variety in the forms of states, each

potentially organized differently. This point has been made repeatedly by historians and archeologists, see e.g. M. E. Smith (2004) and Yoffee (2005). Third, states are not necessarily associated with visible vestiges of economic development, repression, or violence. Finally, and conversely, if what matters for economic development is public good provision, many different forms of government should be consistent with economic development, as long as they find a way to provide public goods.

Using this definition, it is possible to characterize the internal organization of historical government. After doing so, this chapter discusses the characteristics of the states that are traditionally considered to be 'pristine' innovations, how they compare to other political communities not classified as states, and theories for why states emerged.

2.3 A characterization of historical government

I will now characterize historical government in relation to the three aspects of the definition of states introduced above: A monopoly of violence, territorial definition, and government as an organization.

All modern definition of the state incorporate some notion of a monopoly of violence which, purportedly, is intimately connected to protection of citizens, property rights, and external defense. A key difference between traditional definitions of the state and the one introduced here is that that I don't incorporate this notion. This distinction is fundamentally due to the anthropological and historical record on the status of political and social power in political communities historically. Around the world, in communities that plausibly had a state as well as in those that did not, there oftentimes was no differentiation in *power* between people. This means that a monopoly of violence did not exist.[2] In communities that did have a state, this means that government was not organized along lines of power, and that public goods flowing from a monopoly of violence had to be enforced in different ways. Such egalitarian states are a core theme of the historical scholarship on the development of states historically (Boehm, 1999; Flannery, 1999; Graeber & Wengrow, 2021).[3]

For covering the historical variation adequately letting go of a monopoly of violence is therefore crucial. While it is true that in some states, such as historical Rwanda, or Egypt, rulers did have direct power, many others states were egalitarian. These would range from states that had purely ceremonial purposes,

[2]Boehm (1999) contends that since every individual is stopped from attaining an elevated position, power truly lies with the group which asserts dominance over every individual members. He refers to the constraining of power by a group as a 'reverse dominance hierarchy'.

[3]Most political communities, however, do have differentiation in *authority*. Some community members are naturally more central in the community. In virtually all political communities, there is a basis for and legitimation of political authority. Oftentimes, such authority can be based on age or physical achievement. Sometimes authority is prompted by certain events, such as the appointment of a chief in war time (Lowie, 1948). Authority can also be religion-based. The famous *Sumerian King List*, a part-fictitious part-historical list of kings back to the beginning of time, created in the late third millennium BCE to legitimate local rulers, opens with "After the kingship descended from heaven, the kingship was in Eridu" (Jacobsen, 1939; Steinkeller, 2003). Key references for a worldview basis of political authority are De Heusch (1972) for Africa, Urton (1999) for Latin America, and Tambiah (1977) and Leach (1954) for Asia.

such as the one described as the 'theatre state' by Geertz (1980) to states that did actually appoint leaders and vested them with some authority. In several such states "holders of what elsewhere would be called power are actually without power". Critically, the lack of power of leaders was a political choice designed to prevent anyone from getting ahead. In Brazil, Clastres (1989) describes: "the political is determined as a domain beyond coercion" (Clastres, 1989, pp. 11, 12). This quote reflects the fact that politics was *defined* to be a domain of discussion and consensus, and that therefore differences in power were antithetical to functional politics. Importantly, many political communities that featured this type of curtailing of political power did in fact feature public good provision. This can be said of the Great Council of the League of the Iroquois (Clastres, 1989), the Alur state discussed above (Southall, 2004), early Mesopotamia (Ur, 2014), Harappa (Possehl, 1990), medieval/early modern Middle East (Schloen, 2018) and even feudal Europe, in which the nominal king was the most prominent noble and central in the network of nobility that administered a country but did not have (any means of) direct authority over anyone in society. Above I defined the state as a stable political community that provides public goods. This definition of a state does not require a monopoly of violence.

Historical states were not only diverse in their tolerance of power in politics, they were also diverse in territorial definition. Some polities recognizable as states dit not in fact feature a defined territory. This was true for the Alur as well as for any nomadic group that provided public goods such as the Mongols (Kradin, 2019; Munkh-Erdene, 2023; Sneath, 2007). In other states that had a well-defined nominal territory, such as medieval France, the de facto power of the ruler was confined to a narrow area around the capital, and their projection of power over the rest of the territory depended on cooperation. Lombard (2020) similarly describes the current government of the Central African Republic as projecting very little power outside its capital, despite its national borders being well defined. Well into the nineteenth century, English local governments organized 'perambulations' of their boundaries because none were truly fixed and if not asserted from time to time they would fade from memory. The Iroquios League's boundaries constantly fluctuated with the fortunes of its constituent clans, but it nevertheless performed state functions, such as outside diplomacy (Shannon, 2008). Yet other states did attempt to protect their outer borders, like the Roman Empire which built forts along its 'limes'. William the Conqueror famously brought the French practice of castle building and his successors constructed defensive fortresses along the Welsh and Scottish borders. (Lieberman, 2010).

Finally, as discussed above, very few states historically developed the state as an organization. A notable exception was the Roman Empire which, at times, had a state organization that employed people on behalf of the state. More frequently historically state functions were in fact executed locally within communities and the reach of the ruler's entourage into the country was based on negotiation with local

power holders. This was true for the Roman Empire outside Rome (Ando, 2000), for England until the civil service reforms of the nineteenth century (Goldie, 2001), and for historical polities in India (Chutintaranond, 1990), to give a few examples. Different authors have used different terms for the type of state that is network based. Mair (1962) refers to it as 'diffuse' government, Southall (2004) calls it the segmentary state, Heldring and Robinson (2023) call it the networked state, Bayart (1993) the rhizome state, H. J. Claessen, Skalník, et al. (1978) refer to a version of this idea as the inchoate state, and J. Adams (1994) the familial state. In these contributions, it is clear that there is wide variation between these states. The Rwandan segmentary state for example, combined a segmentary state structure, with the king only directly controlling a limited domain with feudal repression and "utter militarization" (Vansina, 2005, p. 122). The nearby Alur state, we have seen, was much more loosely organized. The early Mesopotamian state was essentially a forum for kinship groups to meet. Later Mesopotamian states combined elements of direct coercion with a segmentary provincial structure (Garfinkle, 2021). The definition of state advanced in this chapter does not require a fixed territory, or a modern organization for a political community to have a state.

The fact that early government was so diverse has led anthropologists to publish many very interesting volumes that aim to classify 'political systems' in various parts of the world. For Africa, the key publications on 'political systems' are Fortes and Evans-Pritchard (1940), Vansina (1962), Murdock (1967), Lloyd (1965), and Vansina (1990). For Asia, see Pye (1967), Taylor (1993), and the various publications by Frank LeBar (e.g. Lebar (1972)). For Europe, there are many country specific histories, but for examples of studies for early polities, see part III of Earle (2002), Renfrew et al. (1974), and Wickham (2017). For the Americas, see Lowie (1948), Kroeber (1925), Blanton (1993), Chase and Chase (1996), and Martin (2020). General volumes covering several early polities in comparative perspective include H. J. Claessen, Skalník, et al. (1978), H. J. Claessen and Skalník (2011), and Feinman and Marcus (1998).

2.4 Measurement strategies

Because definitions do not readily apply historically, students of historical government have resorted to various strategies to *measure* the presence of a state. These strategies were largely based on a view of the *origins* of the state, rather than a definition. I will break them up into three categories (see Cohen (1978) for a similar typology). The first measurement strategy focuses on inequality. Mostly following Engels (2001) and Fried (1967), scholars have sought the origins of the state in inequality. The state and its government, in this view, are an instrument for maintaining stratification (Fried, 1978; Krader, 1968) and can therefore be measured by the presence of taxation, repression, or conflict. The second strategy

starts out by hypothesizing an observable organizational characteristic that should be concomitant with the emergence of a state, such as levels of bureaucratic or *jurisdictional* hierarchy. A state can then be measured by the existence of an society in which lower level political units lose their autonomy to higher level units.[4] This approach is common in anthropology (Morgan, 1964[1877]; Murdock, 1967; E. R. Service, 1975), as has been taken up by several economists in their efforts to measure the historical incidence of states (Gennaioli & Rainer, 2007; Michalopoulos & Papaioannou, 2013). Finally, several authors have simply pointed to physical observable characteristics thought concomitant with states, such as buildings with a communal purpose, evidence of economic specialization, and the presence of writing (Lenski, 1966). This latter approach has also been popular in economists' empirical work as (see e.g. Mayshar et al. (2022) and Allen et al. (2023)).

Each of these strategies has its issues too. Scholars have pointed out that there were states historically that were clearly egalitarian, such as the earliest states in Mesopotamia (Flannery, 1999; Frangipane, 2007; Stein, 1994). It is also clear that there were unequal societies that had a state, but no recognizable bureaucracy or writing (Vansina, 2005). Furthermore, there were political communities that performed state like functions without subsuming lower level units, such as the Alur cited above, or the many examples discussed in McIntosh (1999). Finally, it is often hard to say whether a public building was used by individuals in charge of others, or simply as a communal meeting place (Ur, 2014).

I will now discuss the traditional first states in history. When studying the first states in history, anthropologists distinguish between primary or 'pristine' state formation, referring to states that formed absent outside influence, and secondary state formation, referring to states that formed by imitation, conquest, or annexation (Fried, 1960). The next sections discuss generally agreed upon pristine states and candidate states among political communities.

2.5 The traditional first states

There is no agreement on which parts of the world had the first states. The classical six locations of the first state formations (see e.g. E. R. Service (1978)) are Mesoamerica (the Oaxaca valley, and the central valley of Mexico), Peru (Cuzco), Mesopotamia (Uruk in modern-day Iraq), Egypt, the Indus valley (the Harappan civilization), and China (Erlitou). Some authors add Susiana in Iran in one breath with Uruk (H. Wright & Johnson, 1975) and some add societies in West Africa, such as the Yoruba (Trigger, 2003). Others add states in Bolivia and Hawaii (Sandeford, 2018), or Ghana - the confusingly named state in Western

[4] E.g. Runciman (1982, p. 351) lists "... four necessary and jointly sufficient conditions for the emergence of a state from nonstate or stateless forms of social organization: specialization of governmental roles; centralization of enforceable authority; permanence, or at least more than ephemeral stability, of structure; and emancipation from real or fictive kinship as the basis of relations between the occupants of governmental roles and those whom they govern."

Mauretania -, and Polynesia (H. Claessen, 2016). Authors also point to the existence of states in Africa that seem to have been formed independently (Vansina, 1962), and, among yet others, to the predecessors of Angkor Wat in Cambodia (Higham, 2014). The variation in deciding what states are 'early' is due to the definitional problems discussed above: Where in the continuous variation among political communities (and over many dimensions) should we apply a state-non-state distinction? In this section, I study several candidates for early states in more detail. I map each in Figure 1.

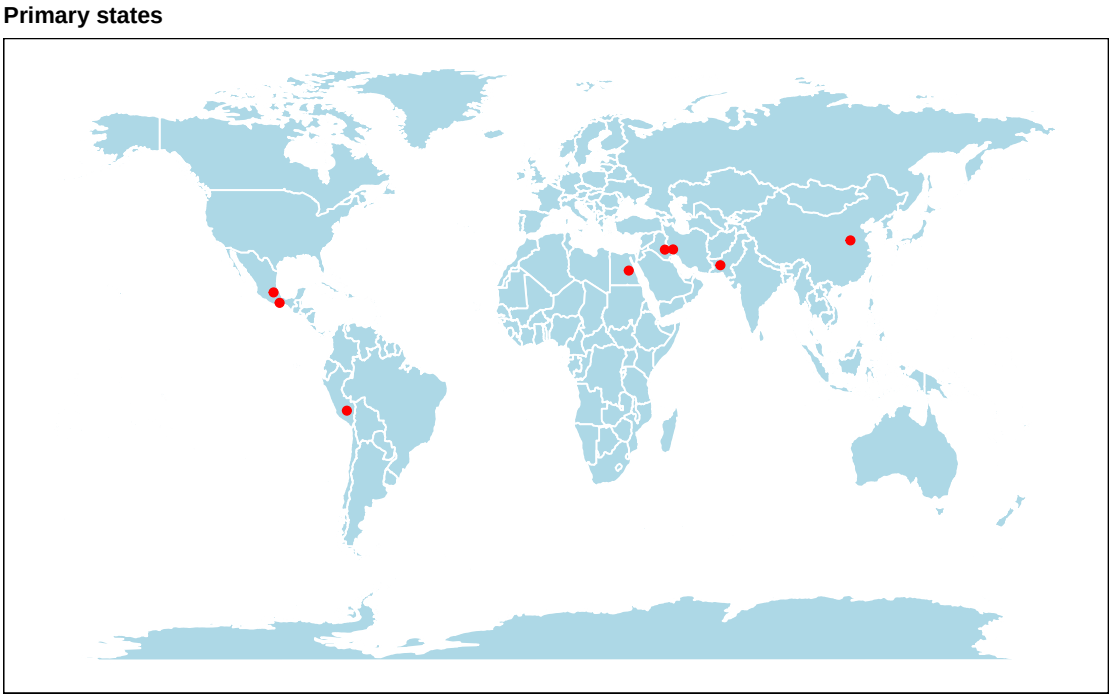


Figure 1: Points indicate the location of the eight known locations of primary state formation, including the basin of Mexico, Oaxaca Valley, Cuzco, Upper Egypt, Southern Mesopotamia, Susiana, the Indus River Valley and the Middle Yellow River Valley. Source: Seshat Global History Databank.

I will discuss measurement of the presence of the state in each of these cases below, in light of the three classes of evidence for states I just introduced: Evidence of inequality, evidence of political centralization, and evidence of development. Before doing so, I want to point out that the canonical early states are to some extent the 'winners' among many contenders for early states.[5] They are winners along the dimensions of development that qualify a society as an early state. Yet what we will see is that, despite their success, they were very heterogeneously organized among themselves, and do not, therefore, suggest that there is a standard model for the organization of the early state. A fortiori, they were, as a group, *not* that differently organized from other societies, such as the ones mentioned above, that could just as well have

[5]In Mesopotamia alone, Ur and Eridu, two ancient cities, ticked several of the boxes associated with statehood as well (see e.g. Nissen (1988)).

been 'early states'. I now discuss the eight early states mapped in Figure 1. First, I discuss each state in turn. I present an abridged overview of the full documentation of each of these states in Table 1.

Southern Mesopotamia (Pollock, 1992; Yoffee, 1995). The 'cradle of civilization', as southern Mesopotamia is often called, coincides with the area around modern Warka (Uruk) up to Baghdad. The first state identified here is the city of Uruk, starting in the 'Early Uruk' period, around 4000BCE. Commonly used identifiers to substantiate this claim are the presence of a settlement hierarchy (with Uruk at the top, and smaller settlements in several tiers around it), the presence of public buildings, and the presence of luxury goods and writing. Each identifier for the early state is therefore present: inequality (luxury goods), centralization (government buildings), and markers of development (writing). While early writers considered Uruk an example of an almost 'Weberian' state, with bureaucrats running a centralized administration that, among other things, redistributed resources, modern scholars consider this a misrepresentation and instead emphasize the informality of its government, which was run by individual political communities that coordinated through the state. Bureaucrats would seem agents of the state, but were in fact acting on behalf of their communities (Allen et al., 2023; Emberling, 2015; Ur, 2014).

Susiana (Schmandt-Besserat, 2018). Northeast of Uruk, the state of Susiana emerged around 3800BCE, which corresponds to the beginning of the Susa II period. Prior to the emergence of this state, communal granaries were maintained to store and redistribute grain. The state that subsequently developed appears to have coordinated for labor allocation. For the measurement of this state too, scholars emphasize markers of inequality, political centralization and development, but the metrics used differ from Uruk. Here, inequality is indicated by the depictions of religious figures that appear unusually tall relative to others (Harper et al., 1992). 'Development' is found in urbanization, labor specialization and proto-writing (Schmandt-Besserat, 1992, 2018), and centralization is evidenced by the redistributive state apparatus, indicated by complex tokens used for accounting similar to those found in Uruk (Schmandt-Besserat, 1992). Since these 'complex tokens' appear in Susiana slightly later than they do in Uruk, some scholars view the state of Susiana as an imitation of the Uruk state apparatus, possibly developing as part of the Uruk expansion (Carter & Stolper, 1984).

Oaxaca valley (Spencer & Redmond, 2004). Scholars mostly agree that by around 300 BCE, corresponding to the start of the Late Monte Albán I phase, the Zapotec state had emerged in Oaxaca Valley. Located in what today constitutes Mexico, with the hilltop of Monte Albán as its capital, the Zapotec state covered a territory of about 20,000 km^2. The development used to identify this state is less about internal affairs and more about indications of predatory expansion of the state's territory. There is also evidence of hierarchical settlement patterns, seen as markers of social stratification, as well as a centralized bureaucracy indicated by public buildings like palaces and temples (Spencer & Redmond, 2004).

Central valley of Mexico (Spencer & Redmond, 2004). Close to the state of Zapotec, the state of Cuilcuilco emerged around 200 years later, in 100BCE. Though scholars still debate the exact timing of the emergence of this state compared to the nearby monumental Teotihuacan, the majority of archeologists argue that the slightly smaller state of Cuicuilco preceded it. One issue with the measurement of indicators of this state is the fact that much of the archeological site is covered in lava, leading to minimal opportunity for excavations. Nonetheless, scholars discuss evidence for all three categories of indicators of a state. Inequality is shown from the hierarchical nature of settlement patterns (Spencer & Redmond, 2004), centralization is evidenced by public buildings like temples, palaces and a famous 'round pyramid' (Müller, 1990). Similarly to the leader-follower relationship hypothesized between Uruk and Susiana, there is a discussion of whether Cuilcuilco acted as a follower from the Zapotec state.

Yellow River valley (Erlitou) (Liu, 2009). Located along one of the valleys of the Yellow River in China, the state of Eritou is seen as existing from around 1900-1800 BCE. The evidence they use to substantiate this argument is along all three lines of inequality, political centralization and markers of development. Social stratification is evidenced not only by a hierarchical settlement pattern (Qiao, 2007), but also by some differentiation between an elite from the rest of the population (Liu, 2006; Liu & Xu, 2007). Political differentiation is evidenced by control of vital resources (Liu & Chen, 2003), as well as the organization of production and multi-cropping (G.-A. Lee & Bestel, 2007; Liu, 2009). Development indicators are population growth and territorial expansion, and some scholars argue that the sophistication of later writing implies that there must have been writing in Erlitou, despite no records of it surviving until today (Chang et al., 2005). One apparent similarity with Uruk is the role of the state in organizing irrigation infrastructure in the face of climatic challenges (Allen et al., 2023).

Indus valley (Harappa) (Possehl, 1990) The Harappan state was founded around 2500BCE. This was a big state, approximately four times the size of the entire Mesopotamian plain. Its political development was seen as more gradual than in Mesopotamia but followed by rapid urbanization which marked the timing of the emergence of the state (Possehl, 1990). Inequality is not indicated by settlement distributions between archaeological sites, but rather from indications that parts of settlements were of restricted access to an elite only, including public bathhouses and warehouses (Possehl, 1990). Also, there is a substantial difference in the sizes of domestic housing, indicating yet another line of stratification. Centralized decision making is evidenced by the existence of public buildings, as well as evidence of redistribution of grains. Furthermore, the development that marked the rapid urbanization process is coupled with labor specialization (Fairservis, 1967) and the emergence of writing (Schmandt-Besserat, 1977, 1979). Factors used to define the state can thus all be categorized along the lines of inequality, political centralization and markers of development, but scholars debate whether there really was an organized state apparatus

as opposed to a religious institution (Possehl, 1990).

Peru (Cuzco) (Stanish, 2001). Scholars argue that by the time of the Middle Horizon (alternatively names the Early Intermediate II) period which corresponds to about 500BCE, three societies, centered around Moche, Wari and Tiwanaku can be identified as early states. Archeologists have found monumental architecture and irrigation systems, but these appear to predate the state, and it is only when additional markers of social stratification and predatory expansion appear that the Andean state polities are classified as constituting a state (Stanish, 2001). Metrics used to identify inequality in the Andean state polities are hierarchies in settlement patterns, royal tombs and evidence of a warrior elite. The bureaucracy is observed from public buildings like pyramids, courts, palaces, as well as the centralized control over distant 'colonies'. Markers of development are road infrastructure, defense fortresses and the intensification of agricultural and commodity production (Stanish, 2001).

Egypt (Wenke, 1989). The state of Egypt was founded around 3100 BCE. Archeologists point to indicators of rank and wealth hierarchies (Baer, 1960) and the existence of stratified tombs and differences in grave goods (Wenke, 1989) as evidence of inequality. Development indicators are labor specialization, as well as territorial expansion (Trigger, 1984) and a strong economic and military force (Wenke, 1989). Most interestingly, we have the highly centralized bureaucracy (Emery, 1972) which according to Wenke (1989) "touched every citizen". Badawy (1967) discusses the use of taxes and corvee labor in the organization of the state.

Table 1: Tabular overview of traditional first states

Southern Mesopotamia

Name: Uruk

Founded: 4,000-3,700 BCE

Territorial extent: 2000-2100 km^2

[1.] Review article: Yoffee (1995)

Social stratification

- Four settlement tiers (Nissen, 1988)
- Hierarchical settlement patterns (R. M. Adams, 1981; R. M. Adams, 1965)

Observable characteristics of the bureaucracy

- Public buildings: Temples, palaces, courts[1]
- Administrative cuneiform tablets[1]
- Production and distribution of goods (Pollock, 1992)
- Centrally administered labor system (Pollock, 1992)

Development

- Urbanization[1]
- Writing[1] (Yoffee, 1995)
- Labor specialization (Pollock, 1992)
- Irrigation infrastructure[1]

Susa

Name: Susiana

Founded: 3,800 BCE

Territorial extent: 1500 km^2

[2.] Review article: Schmandt-Besserat (2018)

Social stratification

- Depictions of heightened religious figures (Harper et al., 1992)

Observable characteristics of the bureaucracy

- Imitation of the Uruk state apparatus (Carter & Stolper, 1984)
- Complex tokens used for administrative redistribution (Schmandt-Besserat, 1992)

Development

- Proto-writing (Schmandt-Besserat, 1992)
- Urban population[2]
- Labor specialization (Schmandt-Besserat, 1992)

Oaxaca Valley

Name: Zapotec

Founded: 300 BCE

Territorial extent: 20,000 km^2

[3.] Review article: Spencer and Redmond (2004)

Social stratification

- Four settlement tiers (Stanish, 2001)

Observable characteristics of the bureaucracy

- Unification of previously independent polities (Elson, 2003; Flannery & Marcus, 1983)
- Palaces and temples[3]

Development

- Territorial expansion and defense (Spencer & Redmond, 2001)
- Writing (Marcus, 1980)

Basin of Mexico

Name: Cuicuilco

Founded: 100 BCE

Territorial extent: $>$ 4 km^2

[3.] Review article: Spencer and Redmond (2004)

Social stratification

- Four settlement tiers[3]

Observable characteristics of the bureaucracy

- Palaces, temples and round pyramid (Müller, 1990)

Development

- Maybe territorial expansion[3]

Middle Yellow River Valley

Name: Erlitou

Founded: 1,900-1,800 BCE

Territorial extent: 10,000-20,000 km^2

[4.] Review article: Liu (2009)

Social stratification

- Four tiers of settlement (Qiao, 2007)
- Elite culture (Liu, 2006; Liu & Xu, 2007)

Observable characteristics of the bureaucracy

- Organization of production and multicropping (G.-A. Lee & Bestel, 2007; Liu, 2009)
- Control of vital resources (Liu & Chen, 2003)

Development

- Population growth (Qiao, 2007)
- Territorial expansion (Liu & Chen, 2003)
- Maybe writing (Chang et al., 2005)

Indus Valley

Name: Harappa

Founded: 2,500 BCE

Territorial extent: 100,000-170,000 km^2

[5.] Review article: Possehl (1990)

Social stratification

- Public bathhouses and warehouses with restricted access[5]
- Differences in house sizes[5]

Observable characteristics of the bureaucracy

- Public buildings[5]
- Redistribution[5]

Development

- Labor specialization (Fairservis, 1967)
- Urbanization (Possehl, 1986)
- Irrigation infrastructure[5]
- Writing (Schmandt-Besserat, 1977, 1979)

Cuzco

Name: Andean state polities

Founded: 500 BCE

Territorial extent: 1,000 km^2

[6.] Review article: Stanish (2001)

Social stratification

- Four tiers of settlement[6]
- Royal tombs [6]
- Warrior elite [6]

Observable characteristics of the bureaucracy

- Pyramids, courts, palaces, other public buildings[6]
- Control over distant colonies [6]

Development

- Road infrastructure [6]
- Defense fortresses[6]
- Intensification of agricultural and commodity production[6]

Upper Egypt

Name: Egypt

Founded: 3,100-2,500 BCE

Territorial extent: 50,000-110,000 km^2

[7.] Review article: Wenke (1989)

Social stratification

- Rank and wealth hierarchies (Baer, 1960)
- Inequalities in goods in tombs and graves[7]

Observable characteristics of the bureaucracy

- Centralized hierarchical bureaucracy (Emery, 1972)
- Tax and corvee labor (Badawy, 1967)

Development

- Territorial expansion (Trigger, 1984)
- Strong economic and military force[7]
- Labor specialization [7]

2.6 The diversity of the first governments: Data

The eight cases I described are part of the diversity of the first governments, but have, in some scholars' view, ticked enough boxes to qualify as a state. In this section, I will use data from the SESHAT online database of early societies to study how these early 'winners' compare to communities not traditionally classified as having a state. The SESHAT database aims to cover societal development over the past 10,000 years in a stratified sample of 35 natural geographic areas that are constructed to be globally representative. Their latest release includes information for 373 societies with temporal coverage between 9600 BCE and 1900 CE.

From this dataset, I identify the eight societies that are the commonly identified as 'first states'. SESHAT contains several variables that characterize the political and bureaucratic organization of these political communities. The first relevant measure they record is an assessment of the overall political development of a community. I will refer to this classification as a political community's 'centralization'. They classify societies as having no centralization, to 'quasi-polity', 'nominal', 'loose', 'confederated state', and 'unitary state'. Absence of centralization or a 'quasi-polity' refers to no discernable political authority or many politically independent groups. 'nominal' is closer to a segmentary state, with only nominal allegiance to a central authority, but full independence of local communities. 'loose' refers to some control over local matters by cooperation with elites. SESHAT gives the example of early medieval European feudalism. 'confederated state' refers to large degrees of autonomy in internal (regional) government, but a larger degree of cooperation. SESHAT uses the example of high medieval feudalism. In 'unitary states' regional leaders are appointed and removed by the central authorities and any taxation flows to the center. In addition, SESHAT records the presence of some markers of political organization. I focus on the presence of dedicated government buildings, whether full-time bureaucrats were recorded, whether a professional priesthood was recorded, whether professional military officers were recorded, and whether writing is recorded. In Appendix section C.1 I provide frequency plots of the presence of these characteristics for the full SESHAT dataset for all political communities in existence pre-0CE and around the year 1000CE.

I first record the level of centralization and the presence of these characteristics by early states in the left panel of Figure 2. The height of each bar records the number of characteristics present and I report centralization in parentheses after the name of each polity. Several early states are characterized as 'quasi-polities' (Harappa, Erlitou, Cuzco, Cuicuilco, and Allen et al. (2023) show that the same holds for Uruk). This means that despite the polities being classified as early states, there was no real centralized political

authority.[6] This does not mean that there wasn't any government. Clearly communal decisions were made. In the next section I discuss one case, Mesopotamia, in more detail, but the broad pattern is that individual communities constituting the state sat together and engaged in collective decision making. On the other end of the spectrum in SESHAT's classification are the Zapotec, Susiana, and Egyptian states where power was comparatively centralized. These classifications, taken at face value, support the idea that the internal political organization of those societies classified by the literature as early states was very diverse. The bars measuring, instead, the presence of characteristics concomitant with political organization show a similar pattern. There are polities, such as Uruk and Cuzco, that display very few vestiges of organized government whereas others, like Harappa, display several. Note that all three of these political communities are classified by SESHAT as having little centralization. This means that even among uncentralized polities we find large diversity in these characteristics. In the right panel of Figure 2 I instead plot the number of early states by characteristic. The solid part of each bar is the number of early states that had the relevant characteristic, and the shaded is the number that did not. Two out of seven societies have attested government buildings. Most did not have bureaucrats or military officers, but the majority had a priesthood and some writing. These findings are in line with the left panel of this Figure. There is wide variation, even among this handful of early states, in their organization.

The choice for these political communities as the first states in the literature is an outcome of path-dependence in history and anthropology rather than the consistent application of a rule. I will now collect candidate political communities from SESHAT that have not been identified as early states but could have been. I select candidate political communities in SESHAT that do not have predecessors and are the first polities within their language families. The use of language family is not crucial, and I use it simply to make sure I have a geographically representative sample.[7] Among this set of 51 political communities are candidates from around the world, from pre-Columbian native North-American political communities (Cahokia), to Aksum in Ethiopia, to Angkor Wat, to the Halstatt culture in Europe. Each of these political communities left ample archeological evidence and could very well be classified as an early state. I now repeat the coding of the characteristics of the early state polities before, within this new sample. I report results in Figure 3.

As before, the left panel records characteristics by polities. I selected eight polities out of the 51 candidate polities to show that among candidate polities there is very similar variation to that among early

[6]The review articles cited in Table 1 provide the relevant literature and background on each of these early states. Note that the summary table does not always congrue with the evidence provided by SESHAT.

[7]I select the ten earliest political communities within each language group identified in the SESHAT data. This ensures I could get early polities from Oceania as well as Europe which, for their part of the world, are the relevant candidates but do not exist at the same point in time.

states. For example, Angkor Wat and Hawaii are classified as unitary states whereas others, such as Aksum and the Yoruba states, are classified to be uncentralized. Similarly, some polities have up to five observable characteristics of political activity. Angkor Wat has all five characteristics, whereas the maximum number for early states in the previous Figure was 4. In the right panel, I again plot the number of polities by characteristic. The patterns in this panel are very similar to the patterns in Figure 2. There are 7 political communities that have government buildings, most communities have writing, and several have specialized officers.

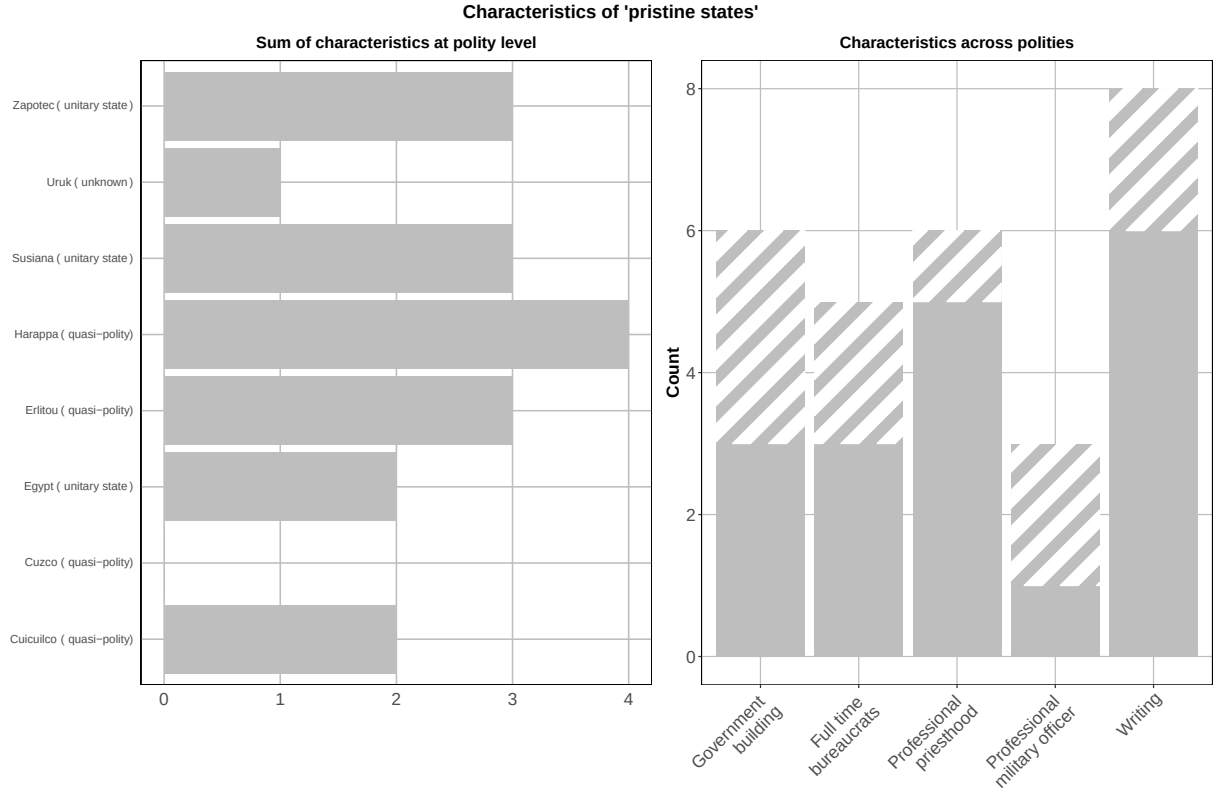


Figure 2: The left panel of this figure lists the number of observed characteristics measured by the length of the bars, and the level of centralization, in parentheses, for the eight 'pristine states': Zapotec, Uruk, Susiana, Harappa, Erlitou, Egypt, Cuzco, and Cuicuilco. The characteristics are: Presence of dedicated government buildings, whether full-time bureaucrats were recorded, whether a professional priesthood was recorded, whether professional military officers were recorded, and whether writing is recorded.In the right panel, I count the number of polities with a characteristic. The height of the bars is the total number of states for which this characteristic is recorded. The solid part of each bar is the number of societies that have this characteristic. The shaded part is the number of states that do not. Data source: Seshat database.

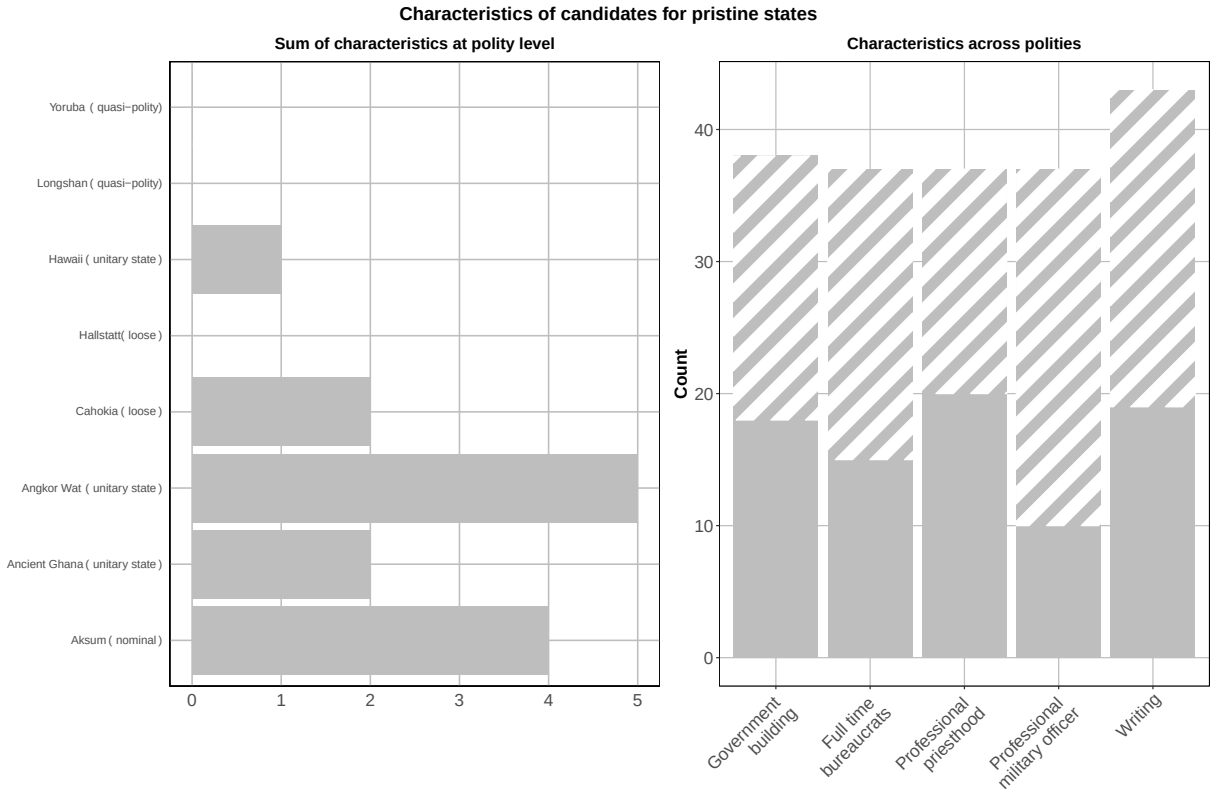


Figure 3: This figure plots variation in the characteristics of 'candidates for pristine states', excluding those included in Figure 3. The left panel of this figure lists the number of observed characteristics measured by the length of the bars, and the level of centralization, in parentheses, for the eight candidate pristine states. The characteristics are: Presence of dedicated government buildings, whether full-time bureaucrats were recorded, whether a professional priesthood was recorded, whether professional military officers were recorded, and whether writing is recorded.In the right panel, I count the number of polities with a characteristic. The height of the bars is the total number of states for which this characteristic is recorded. The solid part of each bar is the number of societies that have this characteristic. The shaded part is the number of states that do not. Data source: Seshat database.

In sum, there are a few places in which scholars have located 'pristine' states. This is done based on ad-hoc definitions and is up for debate. In this section I have documented that pristine states were organized very differently. In contradistinction, as a group, early states did not look very different from other political communities that were not identified as early states. If we take being classified as a pristine state as a measure of 'success', then this also means that success can be the result of different forms of government organization. In summary, early states should be characterized as highly diverse. They solve problems that were there before their inception, and the cutoffs provided in the literature in space and time for the emergence of the state are debatable.

I now briefly review theories that explain why states form, when they form, and where they form.

3 Theories of state formation

In this section, I discuss theories of state formation advanced by social scientists. The literature on this topic is vast, and I will sketch the main theories before discussing empirical evidence. I provide a list of review articles on individual states in Table 1. The essays in Cohen and Service (1978) are a good starting point for understanding the anthropological literature and Heldring (2025) provides a review article focused on the social science literature on the origins of the state. I will start my discussion by clustering theories of the origins of the state in two big buckets, before discussing the state of empirical evidence on each.

Theories of the origin of the state have typically fallen in either one of two sides of what Heldring (2025) calls the 'fundamental dichotomy' of the study of the state. They either contend that the state is a vehicle for extraction of the population on behalf of an elite, or that the state is fundamentally an organization that solves problems on behalf of society. Other authors have pointed to this cleavage in theorizing on the origins of the state as 'contract' and 'predatory or exploitation' (North, 1979), 'voluntaristic' and 'coercive' (Carneiro, 1970), and 'integration' and 'conflict' (E. R. Service, 1978). This dichotomy is a useful way to categorize the literature, but is not absolute. States can be created by an elite, rather than *for* an elite, and appear to be beneficial for a larger segment of society than just the elite. Sánchez De La Sierra (2020) studies such processes in the Democractic Republic of the Congo.

The kleptocracy cluster of theories of the states goes back to Marx and Engels (Engels, 2001; Marx & Engels, 1967[1848]). For example, Engels writes that the state is "an institution which perpetuated, not only this growing cleavage of society into classes, but also the right of the possessing class to exploit the non-possessing, and the rule of the former over the latter." (Engels, 2001, p. 59). This line of reasoning made its way into anthropology through, among others, Morton Fried, who wrote that the state is a "formal organisation of power [which] has as its central task the protection (and often extension) of the order of stratification" (Fried, 1978, p. 36). In social science, Mancur Olson picked up on these ideas and envisioned a state of anarchy in which 'roving bandits' steal any surplus. States form when "a bandit sets himself up as a dictator - a "stationary bandit" who monopolizes and rationalizes theft in the form of taxes." (Olson, 1993, p. 567). The clearest empirical prediction from this theory of the origins of the state is that states should form where the returns to extraction are higher.

Intellectually, cooperative theories originate most centrally with Hobbes and Locke (although with important antecedents, see Skinner (1989)). Central to both their theories was an envisioned state of nature, in which individuals were at odds with one another, either violently (Hobbes) or more generally

due to opposing interests (Locke). The way out was a social contract, in which individuals "by their own consents, ... make themselves members of some politic society" (Locke, 1982, p. 62). They both envisioned the state as an organization that solves problems for society, albeit under a very different political system. For Hobbes, the main service provided was 'peace' and security, which was supposed to be achieved through an absolute ruler. For Locke, the state should provide dispute resolution, protect property rights, and preserve peace, but through limited, coordinating, government. Adam Smith followed Locke in advocating for limited government that guarantees the function of markets (Irwin, 2020).

Following the formalization of the nature of public goods and externalities (Bator, 1958; Samuelson, 1954), economists have pointed out clearly that the rationale for having a government is cooperative. Agents stand to gain from having an organization provide goods and services that the market or communities can't provide (Baumol, 1965). A more applied theory of the cooperative origins of the state is due to Wittfogel (1957), who argued that *where* irrigation was necessary for subsistence, states form to manage irrigation. He explicitly hypothesizes that these states manage cooperation. The main empirical implication of this line of work is that states form when and where the returns to cooperation are high enough for state formation to be worth it, relative to an outside option.

3.1 Empirical evidence on the origins of the state

Mayshar et al. (2022) estimate the relationship between state formation and one particular incentive to form a state, namely, the degree to which agricultural surplus is taxable. The idea is that in places where agricultural output is storable, rather than perishable, it can be taxed, and an elite therefore has an incentive to set up a state where productive crops are storable. Fundamentally, this is therefore a geography-driven explanation of the origins of the state. The authors focus on the distinction between cereals, which are harvested seasonally and are therefore stored, and roots and tubers, which are perennial and perishable. The main measure the authors use for the presence of a state is evidence for bureaucracy, either from a sample of historical ethnic groups from Murdock (1967) or from encyclopedic reconstructions of the duration a particular place has had government, from Borcan et al. (2018). They find that places that grow cereals have more complex political institutions.

Other research focuses on the role of citizens in an extractive view of the origins of the state. In a seminal study, Carneiro (1970) suggested that when agents face difficulties moving due to unfavorable geography, it becomes easier for rulers to extract resources since the agents' alternative options are less appealing. Carneiro referred to these agents as being "circumscribed" by poor geography.[8] This concept

[8]While not the focus of circumscription-focused contributions in economics, circumscription can be social too. If identities differ

has been explored in several recent works. For instance, Mayoral and Olsson (2024) examines the early state dynamics in Egypt by analyzing the core region around the Nile River and the periphery, measuring rainfall shocks in the periphery and floods in the core. According to circumscription theory, resource extraction in the core should increase following adverse weather in the periphery. Their study, which covers the period from 2686 to 740 BCE, links these environmental events to time-series data on political stability (ruler tenure length) and state capacity (the geographical extent of the state). Their key finding is that political stability rose during periods of heightened circumscription. Similarly, Schönholzer and Francois (2023) approaches circumscription differently by dividing the world into grid cells and comparing soil productivity differentials between a cell and its surrounding areas. They use this measure in various historical datasets, including reconstructions of early state formation and archeological data on public buildings. Their main analysis shows that circumscribed grid cells are more likely to exhibit early state formation, based on samples from individual societies, archeological sites, and a global grid sample. The authors move beyond the initial focus on extraction and argue that circumscription not only limits flight but also enhances the benefits of cooperation, once a state is established.

A recent study brings these ideas closer to today. Sánchez De La Sierra (2020) explores roving bandits in the modern context of the Democratic Republic of the Congo (DRC). He uses a retrospective survey detailing the presence and activities of armed groups in the DRC's eastern region, an area outside the control of the central government. In 2000, a significant price shock affected columbite-tantalum (coltan), followed by a substantial rise in gold prices. Coltan, being bulky and hard to hide, led armed groups to take control, tax coltan production, and offer protection to mining villages—effectively transforming themselves into "stationary bandits." After the gold price surge, similar stationary bandits emerged in villages where gold revenues were consumed. In some cases, these armed groups even developed more advanced state-like functions, such as issuing visas. Dimico et al. (2017) provides a parallel example with the Mafia in Italy, where a citrus fruit demand shock prompted them to act as stationary bandits, offering protection and collecting rents. In the DRC case, the natural resource distribution determined where the stationary bandits settled, while price shocks dictated when they appeared. Additionally, the visibility of resources like coltan and gold influenced the specific actions taken by these bandits.

3.2 The origins of government: Cooperative theories

Cooperative theories are simultaneously the closest to how economists think about government, but have also have received comparatively little empirical attention, likely due to measurement problems.

too much between neighboring groups, migration may be more costly.

Allen et al. (2023) attempt to tackle the issue by studying one of the regions where "pristine" states emerged—southern Iraq, or Mesopotamia. They exploit a natural experiment that allows not only for testing a cooperative theory of the origins of the state, but also to compare between cooperative and extractive theories of the state. Their natural experiment is based on the exogenous shifts in the courses of the Euphrates and Tigris rivers. When these rivers change course, individuals who can no longer irrigate from the river must cooperate and simultaneously become less appealing targets for predation. In contrast, areas where the river remains unchanged continue to attract predation, and the potential benefits of cooperation stay the same. The study finds that states form in areas where river shifts occur, as the returns to cooperation increase and the returns to predation decrease. One of the attractive features of their setting is that river shifts are shocks in a panel and any time-invariant factors, such as the suitability of the soil for growing appropriable crops, resource endowments, and circumscription, can be kept constant. They find that where rivers shift *away*, states form. This finding is consistent with cooperative theories of the state, and inconsistent with extractive theories of the state. Where rivers shift, the authors also observe public goods being provided, and the construction of public buildings. By analyzing cuneiform tablets, the authors further investigate the functions of early states and conclude that their primary role was mediating between extended kinship groups, in line with the segmentary state model. Early rulers had no direct authority over supposed "subjects," but instead acted as intermediaries, with public goods provided by ordinary citizens within their communities. Allen et al. (2023) argue that the initial establishment of the state was likely an extension of existing social structures and was not perceived as a significant change at the time. It was only gradually that governments evolved into more formalized states, although it took thousands of years for these governments to transform into recognizable organizations.

Fenske (2014) tests Bates (1983)'s idea that "The origins of the state, then, lie in the welfare gains that can be reaped through the promotion of markets" (cited on p. 613 in Fenske (2014)). Fenske (2014) operationalizes this idea by postulating that in more ecologically diverse places gains from trade are higher and the incentives to form states to protect property rights and more broadly facilitate trade are thereby greater. To test this idea, he collects data across 440 ethnic groups in Africa, and measures the number of levels of 'jurisdictional hierarchy' above the local level as well as a Hirschmann-Herfindahl index of ecological zones within an ethnic group's territory. He finds that greater ecological diversity is positively associated with the complexity of political organization. Although he does not explicitly take a cooperative view of state formation, his evidence is consistent with such a view.

3.3 Concluding comments

In line with the discussion above on the definition of an early state, the main challenge in studying the origins of government and states empirically is identifying the presence and actions of the earliest states and measuring the factors that explain their formation. To address the difficulty of measuring state presence, economists often use proxies in line with the indicators proposed by anthropologists, such as historical reconstructions based on secondary sources (Borcan et al., 2021), anthropological data (Fenske, 2014; Mayshar et al., 2022), archeological evidence (Allen et al., 2023; Schönholzer & Francois, 2023), or fieldwork data (Sánchez De La Sierra, 2020). The scarcity of data on the political dynamics during the formation of early states has led scholars to focus on time-invariant, often geographical factors as drivers of state formation. Given the difficulty in observing benefits of government, such as trade institutions or social order and peace, which are rooted in economic theory, researchers have instead concentrated on more observable phenomena like predation and taxation. The evidence in Allen et al. (2023) also speaks to the relative absence of states in the historical record. In a series of cost-benefit analyses, they show that cooperative states only form in places where migration is not a preferable option, where the returns to cooperation are sufficient, and where public good provision is not too costly.

The literature on the origins of the state has covered some fascinating cases, potential explanatory variables, and has been very creative in its empirical strategies. More research is necessary to zoom in on the trade-offs between cooperation and coercion in state formation, to explain the timing of state formation, and to explain state development after its initial formation.

The one body of literature that aims to explain the political development of humanity up to the modern state is evolutionary theory which I will discuss now.

4 Political development as evolution

In this section I study the subsequent dynamics of state formation after the initial foundation of a political community. Political communities were once thought to progress through evolutionary 'stages' of development, with each new stage, such as a chiefdom, unlocking greater growth potential. This paradigm has been extremely influential, until today. I discuss challenges to this framework and provide empirical evidence to substantiate these challenges. I then discuss the study of 'state capacity', which is the attempt of social scientists to study the development of the modern state. I close this section by surveying empirical evidence on evolutionary theories and state capacity.

4.1 Evolutionism as a model of political and state development

By far the most influential model of the development of government is due to anthropology. Based on early progenitors such as Morgan (1964[1877]), anthropologists proposed a model of social evolution. Societies progress through stages, with the most famous progression being band, tribe, chiefdom, state, with each successive stage indicating greater 'evolution' (Sahlins & Service, 1960; E. R. Service, 1962).[9] Evolution mostly concerns the form of government, but also incorporates the 'scale' of societies, where bands and tribes are thought to be smaller communities than chiefdoms or states. The latter have more advanced political institutions, commensurate with the larger populations they govern.

In its simplest form, evolutionism prescribes that political communities, as they grow in size, potentially through sedentary agriculture and economic specialization, they 'progress' to the next stage of evolution. Stages are explicitly thought to be directional. Societies progress "in such a way that the probability of staying at the same level is greater than the probability of regressing" (E. Wright, 1983, p. 26). On average, E. Wright (1983) summarizes, evolution is biased upwards although societies may linger in one stage.

Intellectually, this program has been very influential. It provided an intellectual bridge from theories of the 'state of nature' in which humans hunted and gathered in small family 'bands' until they settled down in larger communities and congregated into tribes.[10] From there, specialization and inequality led to the appointment of hereditary chiefs and, ultimately, to chiefdoms and states (see e.g. Diamond (1997)). It spurred large data collection exercises on political 'centralization' such as the contributions by Murdock (1967) resulting in "an inventory of societies according to the greater or lesser proximity their type of power has to ours" (Clastres, 1989, p. 19) The idea of stages that end up, inevitably, in a society that looks like the modern Western world has suffused through social science. Diamond (1997) outlined a canonical version of the argument. Sedentary agriculture led to surplus food production over subsistence. This, in turn, led to increased population density, occupational specialization, trade, urbanization, and the need for institutions to protect trade and property. This led to the development of more sophisticated forms of government. Similar arguments can be found in A. Smith (1978) and Childe (1936). H. Wright and Johnson (1975), Bates (1983), Johnson and Earle (2000). North et al. (2009) link 'surplus' production in agriculture to social 'complexity' and the need for protection. In line with evolutionary thinking, societies that haven't

[9] Morgan divided social evolution into *savagery*, *barbarism*, and *civilization*. His effort was preceded by the, sometimes still current, division into stone, bronze, and iron ages.

[10] Above I briefly reviewed the variation in political forms among hunter-gatherers. Here it is worthwhile pointing out that notions of the 'state of nature' have always been thought experiments. The Hobbesian war of all against all doesn't really show up in any serious anthropological fieldwork, or the archeological record. Nor does a blissful state of nature in which 'noble savages' live in harmony (Keeley, 1997).

made the transition towards more Western government are 'embryonic', 'nascent', and 'poorly developed' (Clastres, 1989, p. 16).

Yet modern anthropologists have largely abandoned the evolutionary model of societal development. The key critique is that "the model to which political power is referred and the unit by which it is measured are constituted *in advance* by the idea Western civilization has shaped and developed" (Clastres, 1989, p. 16, emphasis in original). This and other critiques that have been developed over time have recently been collected by Graeber and Wengrow (2021). I will summarize the various critiques here.

4.1.1 Critique 1: Societies transition between 'stages'

Suppose we take at face value that the classification into bands, tribes, chiefdoms, and states is reasonable. The most potent critique is the point that historically societies moved between stages, transitioning from chiefdoms, in which there was political inequality, to egalitarian tribes, and back. In this sense, there is no 'next stage' to 'unlock', but political 'complexity' is a much more fluid concept.

Some of the most evocative counter examples to evolutionism come from societies that transition between political forms between *seasons*. For instance, Graeber and Wengrow (2021) discuss the study of Mauss (1979) of the Inuit. In summer, the Inuit would live in 'bands' of about 20 to 30 people under the strict leadership of one chief. This chief had almost tyrannical authority to direct people to pursue hunting. In winter, the Eskimo would group together in egalitarian groups. Even more striking is the description of Lowie (1948) of the Plains Indians. Several groups would, in anticipation of the hunting season, congregate in large settlements. In these settlements, they would appoint a strict political hierarchy, complete with a police force. "during a communal hunt ... a police force-either coinciding with a military club, or appointed ad hoc ...issued orders and restrained the disobedient. In most of the tribes they not only confiscated game clandestinely procured, but whipped the offender, destroyed his property, and, in case of resistance, killed him." (Lowie, 1948, p. 18). Similarly, "Omaha captains even appointed policemen who had the right to beat refractory or lagging warriors" (Ibid.). Any ethnographers studying these tribes during these times might detect a chiefdom or even an incipient state. When the hunt was over, however, the tribes disbanded completely. "During a large part of the year the tribe simply did not exist as such; and the families or minor unions of families that jointly sought a living required no special disciplinary organization. The soldiers were thus a concomitant of numerically strong aggregations, hence functioned intermittently rather than continually." (Lowie, 1948, p. 19). The Plains Indians clearly knew something about political centralization and even state organization, Lowie contends, but moved between forms as a result of collective decision making. Examples of such dynamics are found on each

continent. See e.g. Vansina (1999) and McIntosh (1999) for Africa, and M. L. Smith (2022) for a discussion.

4.1.2 Critique 2: Societies anticipate the centralized state

A different version of the idea that societies move between stages is that societies know about political forms that would be more 'sophisticated' but resist higher centralization. The locus classicus on this topic is Clastres (1989), who describes various native American groups. He writes that except for the early states described above, "all, or almost all [groups], are headed by leaders, chiefs, and - this decisive feature merits attention - none of the caciques possesses any "power"." [p. 11]. The leaders of the large confederacies, he explains, similarly, coordinate, mediate, and discuss, but there is no "essential difference between the Iroquios sachem and the leader of the smallest band". This is essentially the same point made by Lowie (1948), Mauss (1979), and several other cases discussed in Graeber and Wengrow (2021). The key difference between Clastres' and these contributions is that it's not just that societies moved between types of states, but that the fact that societies that didn't appear to move between 'stages' did not mean at all that they didn't know about different or 'higher' forms of political organization. Rather, they knew about or had experimented with different forms of political organization, and chose to either resist accumulation of power altogether, or empower someone during particular activities only to constrain them after. For example, in some native American societies, a war chief was appointed at times: "During military expeditions the war chief commands a substantial amount of power ... But once peace is restored the war chief loses all his power" (Clastres, 1989, p. 30). Outside these extraordinary periods, Clastres describes, the authority of the chief is typically supervised by a council of elders, and the chief is a mediator, orator, and peacekeeper. Societies reject further centralization and concentration of power to resist coercion. If they would 'transition' "the political function would be performed not on the basis of the structure of society and in conformity with it, but on the basis of an uncontrollable and antagonistic beyond" (Clastres, 1989, p. 44). These societies, rather than "giving us the lackluster image of an inability to resolve the question of political power, these societies astonish us by the subtlety with which they have posed and settled the question" [Ibid.]. In other words, these political communities knew about the next 'level', sometimes instituted it, but most of the time resisted. Observing the absence of, say, a chiefdom, therefore does not mean society hasn't evolved to that level yet.

The idea that societies know about stronger forms of organization but reject them is prevalent in ethnographies around the world. See e.g. Vansina (1990), Gulliver (1971) and Bohannan (1958) for Africa, Scott (2009) for south-east Asia and Thurston (2016) for Europe.[11]

[11] A different perspective is advanced in Acemoglu et al., 2011. They consider a model in which elites handicap the bureaucracy

4.1.3 Critique 3: Size inferences do not add up

The last critique concerns the core correlation between size and political complexity as posited by evolutionary theory. Graeber and Wengrow (2021) point to several societies that were 'large' in the sense that they consisted of a large number of people that built monumental architecture but were either not farming, or were politically decentralized. The most famous such site is Göbleki Tepe in Turkey. This site contains several monumental pillars, inscriptions, and what appear to be ritual centers, all dating from 9500BCE. It appears to have been built by hunter-gatherers. Similarly, hunter-gatherers in North America appear to have built the giant earth mounds at Poverty Point in Louisiana. Later on, before 4000BCE and therefore before the rise of Uruk, settlements featuring up to a thousand houses sprang up around the Black Sea. These 'megasites' present "no evidence of centralized administration or communal storage facilities. Nor have any governmental buildings, fortifications, or monumental architecture been found." (Graeber & Wengrow, 2021, p. 291). These case studies, if generalizable, would challenge the part of evolutionary theory that posits that a transition to agriculture is necessary to achieve both high population density and the political cooperation necessary to build such sites.

4.2 Empirical evidence on the critiques of evolutionism

In this section, I bring together new evidence from the SESHAT dataset on the critiques of the evolutionary model of societal development. The key aspect of the SESHAT data that facilitates this exercise is that it links societies over time. It defines successor societies when a polity continues to exist in an area but there are marked changes in the nature of the archaeological evidence. Examples of changes are cultural assimilation, elite migration (the preceding elites replaced by new elites coming from elsewhere), or population migration (evidence for substantial population replacement), or political change.

I start out by collecting a set of initial candidates for pristine states, and then I include their direct successors as defined in SESHAT until there are no more successors. I do so as follows. To account for variation over space when we observe the first polities (e.g. in Oceania much later than in the Middle East), I start out by locating the first 20 polities that emerge within each language family. The use of language family is not crucial and I use it simply to make sure I have a geographically representative sample.[12] I also consider the 70 earliest polities without a linguistic family reported in SESHAT and I exclude large empires. This process results in a sample of 143 initial polities with 156 successors. Within

so as to prevent the implementation of redistribution.

[12]For the Afro-Asiatic and Niger-Congo linguistic family I deviate from this and consider the first 30 because independent states. This is to obtain enough African variation, as state formation in Africa is comparatively rare before 1800.

this sample, I will now study each critique empirically.

4.2.1 Critique 1: Societies transition between 'stages'

In this section I study whether a successor society is typically of a higher 'level' of political aggregation than its predecessor. In the main text, I group these into 'low', 'middle', and 'high', as follows: Low corresponds to 'none' and 'quasi-polity', middle corresponds to 'nominal' and 'loose', and high corresponds to 'confederated state' and 'unitary state'. In Appendix section C.2, I show results by constituent group.

In this sample, I group the number of political communities by initial centralization and record the centralization of their successor communities. The result is in Figure 4. For example, the first group of bars are polities that at the start of the relevant sample period (recall that I construct the sample to start at different points in time for different parts of the planet). Evolutionary theory would suggest that 'successor' political communities should mostly have higher centralization. I find that political communities were equally likely to stay at the same level of centralization as they were to 'progress'. The most likely outcome, however, is for political communities to simply disappear. This exercise does not capture the seasonal changes of political organization such as those of the Inuit, but it does capture the broader predictions of evolutionary theory.

The main test of the evolutionary argument is in the second group, the 'middle' group. From here, societies should transition 'up' from smaller states to larger states under evolutionary theory. The data, however, show that political communities are about six times more likely to altogether disappear than they are to 'advance'. I find something similar for high centralization political communities. In this last group (the bottom set of bars in the Figure) I observe that societies are more likely to shrink or disappear altogether than to stay at this 'high' level of centralization. See Allen and Heldring (2022) for an example of an empirical analysis of one such collapse in Mesopotamia. See Tainter (1988) and Yoffee and Cowgill (1991) for contributions discussing several cases of historical state collapse.

The dynamics graphed here can be more succinctly depicted in a simple transition matrix between 'stages' where a stage is again 'low', 'medium', or 'high' centralization. I provide this matrix in Table 2. Rows capture the initial degree of centralization, columns capture the 'subsequent' degree of centralization, and cell report transition probabilities. The simplest version of evolutionary theory would predict that this matrix would be upper triangular: All societies stay at the same level or transition 'up' in stages. The patterns that emerge using the SESHAT data are quite different. The middle row shows that societies that are somewhat centralized are less likely to transition 'up' and more likely to transition 'down': The transition probability in columns 1 is higher than in column 3. The bottom row shows that centralized

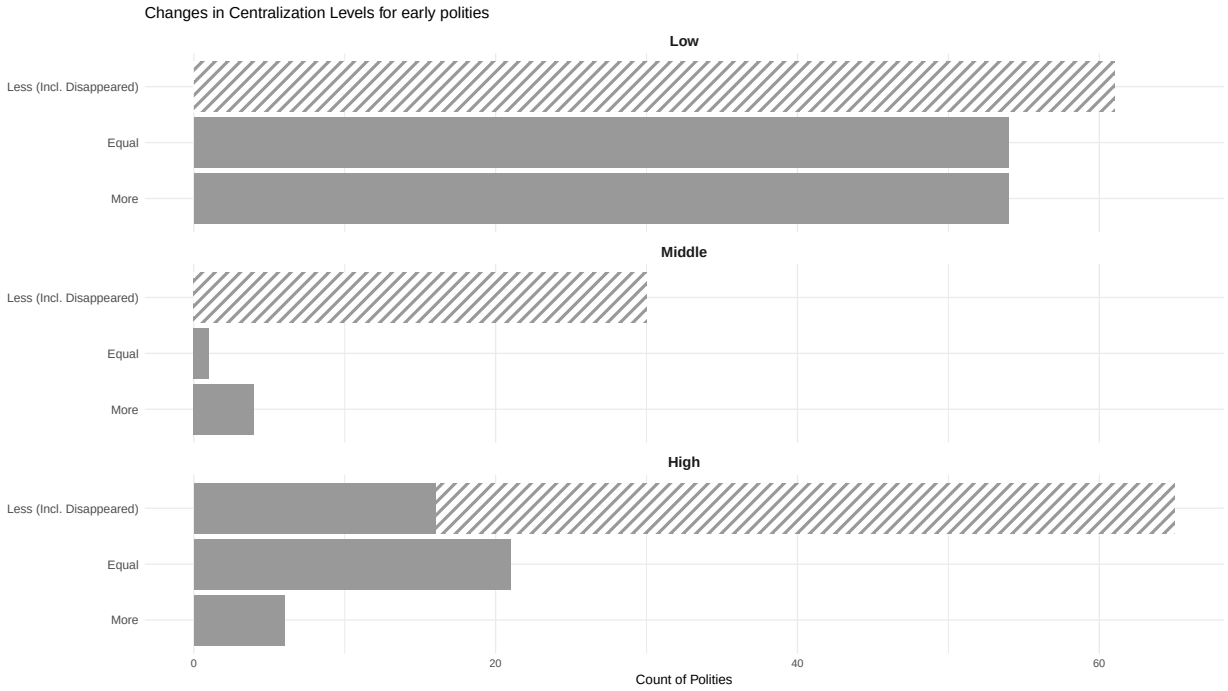


Figure 4: Distribution of levels of centralization of successor polities. The plot is grouped by initial level of centralization of the first polity in a succession, 'low', 'middle' and 'high'. The bar plots within each category indicate the relative centralization of successors to such polities. Polities that disappear are indicated by the striped bar. Data source: SESHAT Global History Databank.

societies are as likely to transition down as they are to stay at high levels of centralization: The sum of the transition probabilities in columns 1 and 2 is equal to the transition probability in column 3. In other words, the main prediction of evolutionary theory is not borne out in this simple empirical exercise.

Table 2: Transition Matrix of Centralization Levels

Initial Centralization	Low	Middle	High
Low	0.645	0.099	0.255
Middle	0.500	0.200	0.300
High	0.383	0.117	0.500

Rows are the initial the level of centralization of the first polity in a line of succession, and columns are the levels of centralization of their successors. The "Low" category includes disappeared polities. Cells indicate the fraction of successor polities that have each level of centralization. Data source: SESHAT Global History Databank.

4.2.2 Critique 2: Societies anticipate the centralized state

The second critique of evolutionary theory is more subtle: Even among relatively uncentralized societies, there are many that understand the next 'level' of centralization but make the political choice to stay

more decentralized.

This critique is more difficult to scrutinize empirically, but the SESHAT dataset provides some possible avenues. To construct an analysis sample, I take the same sample for the previous analysis and modify it in a few ways. I first remove all societies for which the dataset does not provide a focal or 'capital' city. Then, for each society, I measure whether there is a centralized (confederated state, or unitary state) political community within 1,500KM or not. I allow a polity that exists in a particular time-frame (say 3000BCE - 2800BCE) to be 'matched' to nearby polities within a similar time window of 500 years (starting 5500 BCE to 5000 BCE. This results in two samples: One group of societies that did not have a centralized polity 'nearby' and a group that did.

The idea is that if a society had a centralized nearby political community they could have known about the 'next' level of centralization, but may still opt to not adopt it. By comparing the distribution of centralization between those societies that did have nearby centralized polity to those that did not, I can ask whether simply having knowledge of a higher form of centralization leads societies to be more centralized. If not, this is some evidence that societies choose to be less centralized, rather than absence of centralization being some technological constraint.

Results are in Figure 5. The left panel plots the distribution of polities over five centralization categories in SESHAT for political community without a nearby centralized political community, and the right panel does the same for political communities with a nearby centralized political community. There are a few things to note. For societies without a centralized polity nearby, we observe societies at every level of centralization. It is skewed towards more centralized polities due to the sample construction requirement that we can identify a central location or capital (which we need for 'nearby' identification). In the right panel, I plot the same distribution for political communities that have a centralized political community nearby. Evolutionary theory would predict that the right panel should be more centralized. Leaving aside level 5 which is mechanically higher for the left panel, the number of polities with one or two levels centralization relative to the number of polities at levels three and four is very similar. This suggests, in turn, that polities are choosing their political form and may opt for less centralization when they know about a nearby centralized polity.

4.2.3 Critique 3: Size inferences do not add up

The final critique of the evolutionary model concerns the correlation between size and 'complexity'. Evolutionary theory posits that as societies grow, problems become more difficult to manage using 'simpler' political forms and therefore we should see a correlation between the size of a polity and its political

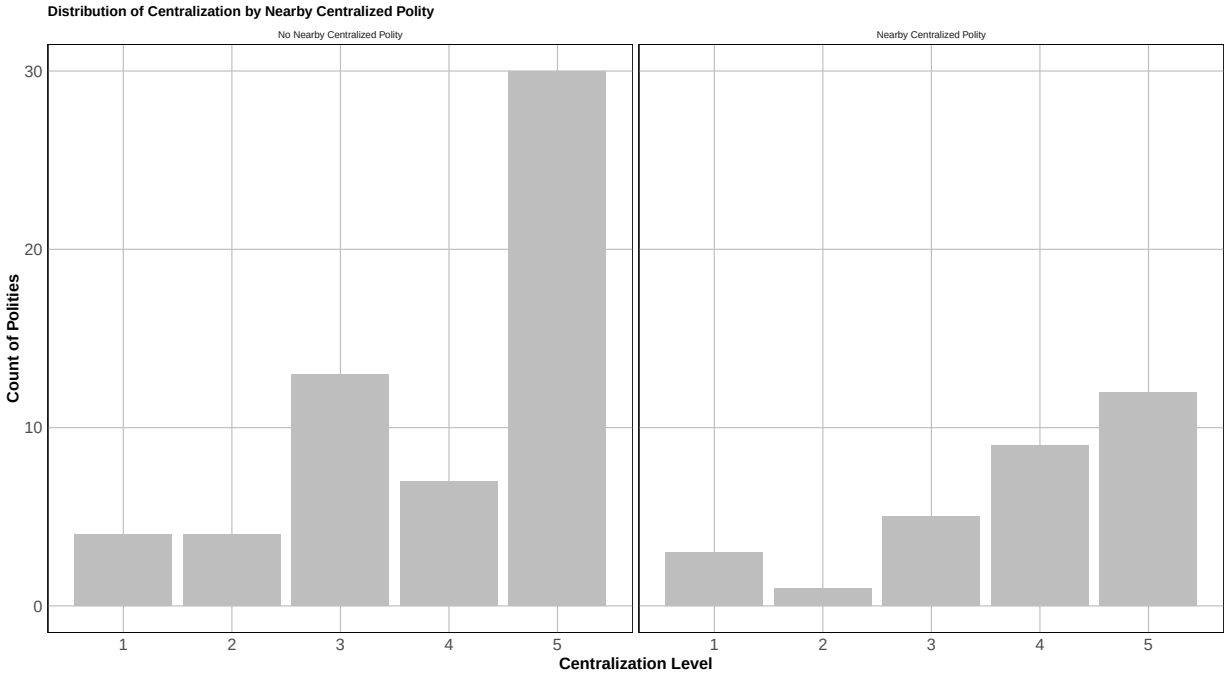


Figure 5: Distribution of levels of centralization for polities that are not next to a centralized polity (left pane), and for polities that are next to a centralized polity (right pane). Only polities that exist within the same 500 year time interval are compared, and the distance cutoff for being nearby a centralized polity is 1,500 km. A centralized polity is defined as 'confederated state' or 'unitary state', corresponding to levels 4-5 in the figure. The polities are the same as in Figure 4, but they are restricted to those with a capital that can be geolocated. Data source: SESHAT Global History Databank.

centralization. Or, conversely, greater political centralization enables larger communities to coexist.

I test this idea again using the SESHAT data. I use the initial sample of pristine plus successor polities and I exclude polities for which territorial size is unreported or equal to zero in SESHAT. I then estimate the following simple linear model, using OLS:

$$Centralization_s = \beta_0 + \beta_1 * size_s + \beta_2 * X_coord_s + \beta_3 * Y_coord_s + \mathbf{Z_s} * \boldsymbol{\beta_3}' + \epsilon_s \quad (1)$$

The dependent variable is the level of centralization of society s, ranging from 0 to 5, and the independent variable of interest is the size of the polity in square kilometers. I include latitude and longitude (for the centroid of the territory) as well as an indicator for the presence of precious metals, as a measure of trade potential, and language family fixed effects, to hold fixed broad geographical differences, all from SESHAT. I restrict my sample to political communities smaller than 400,000 square kilometers. This excludes empires larger than Paraguay, or California.

Results are in Figure 6. This is a partial residual plot and fitted regression line. I plot individual

polities by their residualized values of centralization levels, and polity territories in square kilometers. The regression line is the fitted line from equation 1. In line with the third critique of evolutionary theory, there is no discernable relationship between size of the polity and the centralization of a polity among the polities in the SESHAT sample.

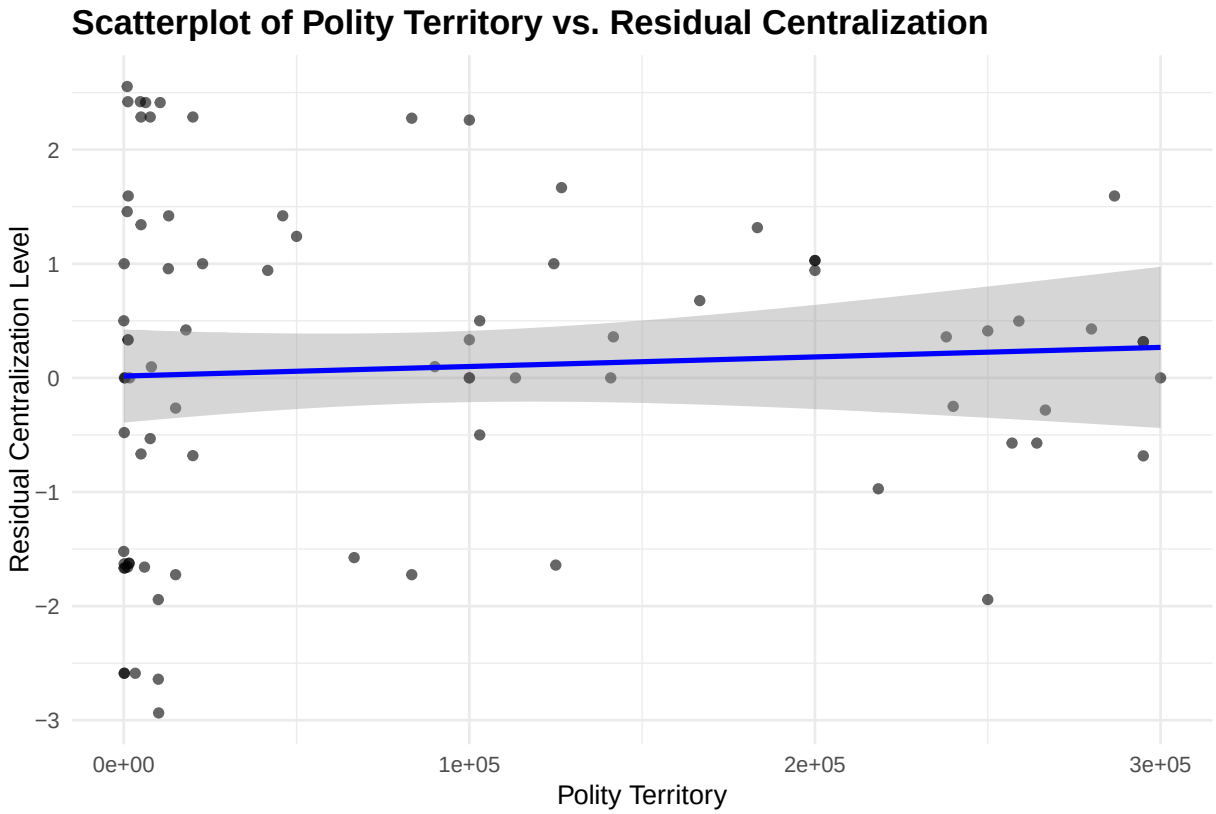


Figure 6: Scatterplot with linear fit of residual level of centralization against territorial size of successor polities in square kilometers. Centralization is residualized using data on geographic coordinates, a binary indicator on the presence of precious metals, and linguistic family fixed effects. When data on precious metals is missing, the binary indicator is set equal to zero. The polities the same as in Figure 4, but restricted to those with data on territorial size and the linguistic family. Data source: SESHAT Global History Databank.

4.3 Evolutionary theory in economics

In this section I review evolutionary theory as it is used in economics. Adam A. Smith (1978) stated one line of evolutionary argumentation that went from the transition to agriculture to surplus food production over subsistence. This, in turn, led to increased population density, occupational specialization, trade, urbanization, and the need for institutions to protect trade and property. Diamond (1997) built on these ideas. Surplus production leads to occupational specialization, and the need for someone in charge to

manage society. This idea is known as 'integration theory' in anthropology (E. R. Service, 1962). North et al. (2009) make similar arguments. Max Weber envisioned the evolution from patrimonalism to the rational-legal state. Similarly, in Rostow's stages of economic growth, evolution is thought to 'unlock' the next stage of development, culminating in Western mass consumption society (Rostow, 1959). More modern authors have envisioned of modern development economics being about 'getting to Denmark' (Fukuyama, 2011).

Other authors focus more explicitly on violence. Their ideas come in three forms. One, following A. Smith (1978), emphasizes that after becoming agricultural, societies need to protect their livestock and crops and govern long-distance trade (aside from Smith, see Bates (1983) and Johnson and Earle (2000). These ideas have been formalized by, among others, Dow and Reed (2013). They provide a model linking sedentary agriculture to social stratification. Their model studies variation among early agricultural sites. Some are better than others and for individuals arriving later, there are now only less productive agricultural plots left, creating inequality. The second, following Marx, emphasizes that sedentary agriculture may lead to economic inequality which then may give to the state as a vehicle for the rich to repress the poor (see e.g. Lenski (1966)). This idea is widespread, from at least Oppenheimer (1975[1908]) who writes that the state: "a social institution, forced by a victorious group of men on a defeated group, with the sole purpose of regulating the dominion of the victorious group over the vanquished." (p. 8). Third, governance may be organized in response to the necessity to protect against *external predation*. Dal Bó et al. (2022) provide a model of this idea. They study a setup in which economic surplus (over subsistence) needs to be produced but also protected. This combination of requirements generates predictions where early states should form under this model. The most well-known hypothesis on the relationship between violence and the state concerns Europe. Tilly (1992) posited that in early modern Europe interstate conflict led to the development of fiscal states (which were then more successful in interstate conflict).

Borcan et al. (2021) study the relationship between the transition to agriculture and the emergence of states. In a dataset of modern countries, they reconstruct the total time elapsed since the innovation/adoption of agriculture and the time elapsed since the first state emerged. Their measure of the emergence of the first states is based on historians' reconstructions. They find that countries that innovated agriculture earlier achieve statehood earlier. On average, the lag is about three millennia long. One-millennium earlier evidence of agriculture is associated with about 300 years earlier evidence of a state. The authors suggest that the main mechanism may be increased social stratification. Their findings are therefore in line with the notion that the state is founded by an elite, although the authors do not come down strongly on one side or another of the fundamental dichotomy.

5 Political forms and State capacity: Modern evidence

The study of the evolution of political forms, and the internal organization/centralization of the state is not just a historical subject of study. In economics, scholars study its modern forms under the headings of 'institutional change' and 'state capacity'.

Institutional change. The modern literature on this topic is surveyed in Acemoglu et al. (2021). The key differentiator between this literature and the literature in evolutionary theory or the contributions that directly study the origins of the state theoretically, is the introduction of a notion of power. Institutional 'stasis' occurs because power begets power. Institutional change occurs because those out of power threaten those in power. This literature has been very successful in explaining alternative constitutional arrangements as well as transitions between dictatorship and democracy.

Although several authors, such as Fried (1967), do emphasize power, the literature in economics applying power-based models to the type of political and governmental change in the medieval or more distant past is less dense.[13] We saw that even societies without power imbalances manage to provide public goods and organize collectively. They display different forms of internal organization, and may be composed of hunter-gatherers, agriculturalists, or differentiated professions. Importantly, they may have strong mechanisms of *preventing* power imbalances from arising in the first place. The evidence in Clastres (1989) suggests that these mechanisms arise anticipating some of the consequences of the power imbalances that economists study. Heldring (2025) reviews several theoretical contributions trying to model early political inequality.

State capacity. Another literature studies the 'capacity' of the modern state to provide goods and services. This literature is surveyed in Besley and Persson (2014) and Besley et al. (2022). This literature contends that higher capacity states provide more public goods and are richer. The development of state capacity is due to past investments in the productive capacity of the state. There is now a body of work that shows that various forms of state capacity mattered historically in Asia (Dell et al., 2018), Europe (Cox & Dincecco, 2021; Dincecco & Onorato, 2016), Latin America (Acemoglu et al., 2015; Chiovelli et al., 2024), and Africa (Heldring, 2021). The main theory of the build up of state capacity is due to Tilly, discussed above. Gennaioli and Voth (2015) test some of Tilly's ideas. They show that richer countries in early-modern Europe are more likely to win wars, and more-money intensive wars lead to subsequent buildup of further state capacity.

The literature on historical political development in economics. I review the theoretical literature

[13] There are of course central exceptions, such as Acemoglu and Robinson (2000) and Myerson (2015).

on historical political change in Heldring (2025). Here I briefly review contributions to studying the development of government in economics. One early contribution is due to Greif (1993). He discussed the development of governance structures favoring impersonal exchange in medieval Europe (cf. also Milgrom et al. (1990)). Often, changes in governance in medieval Europe are studied as an *outcome* of the process of expanding trade. For an example from England see Angelucci et al. (2022), and for an example from Venice, see Puga and Trefler (2014). The themes in this literature often center around a ruler, the elite, and the role of independent city states (Mokyr & Tabellini, 2024; Myerson, 2015).

These contributions, while useful for thinking about modern states, or states that look like Europe, are less helpful for understanding which forms of government arise where. Over the longer stretches of history some political communities had part-time agents of the government (that were either unpaid, in the employment of a ruler, or in the employment of the state) whereas other did not, and the timing of the transition to a state as an organization differed widely. The literature on political development in economics so far has not studied these phenomena in detail. There is also little guidance in this literature on the different forms of policy implementation ranging from completely decentralized community-based public good provision to intermediate 'feudal' arrangements to modern public good provision. There is similarly very little guidance on the dynamic development of communities' public good provision capacity outside Europe. These are all fruitful areas for future research.

I now survey what we know of the direct impacts of historical states today.

6 The historical and modern state

In this section, I survey first the direct impact of historical states. I then discuss their indirect impact, which I define to be the (historically driven) varieties of government today. While there is one hegemonic intellectual model of success, the 'Weberian' state, governments today are organized in different ways. I show in this section that even among rich nations, there are distinct clusters of countries in terms of their internal organization, just like there were historically. These clusters are not particular to 'success': There are similar clusters for poorer countries. This means that today, just like in the past, several models of government organization are consistent with success.

6.1 Direct effects of historical states

This section provides a brief discussion of several studies that examine how variations in historical states influence present-day outcomes. These studies fall into two broad categories: those focusing on

individual historical states and those comparing different measures of political centralization across historical polities.

Lowes et al. (2017), for example, examine the Kuba kingdom in the Democratic Republic of the Congo, which introduced formal institutions such as courts with juries, a police force, taxation, and public goods provision. Comparing descendants of Kuba ancestors with those from nearby regions, the authors find that while these institutions provided structure, they also weakened cooperative norms. Kuba descendants display a higher tendency to cheat for personal gain and a lower inclination to follow unenforced rules. According to Murdock (1967), the Kuba kingdom had two levels of jurisdictional hierarchy beyond the local level, whereas nearby Rwanda had three. Heldring (2021) examines Rwanda's historical state, which functioned without writing, a police force, or formal bureaucracies. Instead, governance relied on an army and intricate patron-client networks. Young men were organized into age-based military service, with commanders acting as intermediaries for the king. Rather than salaried officials, governance operated through ritual tribute exchanged for protection. Heldring and Robinson (2023) find no evidence linking the intensity of this patron-client structure to modern public good provision. Relatedly, Hjort (2010) demonstrates that Botswana's precolonial deliberative institutions contributed to stronger property rights and more democratic political structures post-independence. The Tswana, as recorded by Murdock (1967), had two jurisdictional levels beyond the local community.

The organizational structures of historical states varied significantly. The Kuba kingdom developed legal institutions and a bureaucratic system, whereas Rwanda's historical state functioned entirely through informal mechanisms. The Alur state, in contrast, operated as a federation of autonomous communities, with the king primarily serving ritual and mediation roles (Southall, 2004). Meanwhile, the first Mesopotamian states emerged as voluntary associations of independent lineage groups rather than centralized polities (Allen et al., 2023).

Some contributions provide a comparative perspective, often using the anthropological dataset compiled by (Murdock, 1967). For example, Gennaioli and Rainer (2007), Mayshar et al. (2022), and Fenske (2014) analyze the long-term effects of historical political centralization. Gennaioli and Rainer (2007) examine 42 African countries, measuring the proportion of each country's population that historically belonged to a centralized ethnic group. Their findings suggest that greater historical centralization correlates with better public good provision today — evidenced by a higher percentage of paved roads, lower infant mortality, higher vaccination rates, and increased educational attainment. They argue that this effect stems from historical accountability mechanisms, where chiefs in centralized states answered to higher authorities, reinforcing governance structures that persist in modern times. Michalopoulos and

Papaioannou (2013) shift the focus to ethnic groups as the unit of analysis, linking historical centralization to economic prosperity, as measured by satellite light density at night. Their findings indicate that ethnic groups with greater historical centralization tend to be wealthier today.[14]

A different approach is taken by Bockstette et al. (2002) and Borcan et al. (2018), who introduce the concept of 'state antiquity'—a measure of how long a country has had a state, based on records from the Encyclopedia Britannica. Beginning their analysis in 4000 BCE, they identify a hump-shaped relationship between state antiquity and GDP. Initially, regions where the earliest states emerged—such as Iraq, Egypt, India, and China—were economically ahead. However, over time, they have been surpassed by countries with long-standing but non-pristine state formations, such as the United States. Olsson and Paik (2020) finds a similar pattern when analyzing the historical duration of agriculture. When the analysis is restricted to the last two millennia, state antiquity is consistently associated with higher GDP per capita.

6.2 Indirect effects of historical states: Varieties of government today

The recurring theme of the analysis of this chapter so far has been twofold. First, there was enormous variety in terms of the organization of government historically. Second, it isn't obvious that one form of organization is associated with more 'success' than another.

In this section, I push these arguments to modern data. In the modern social science literature, the varieties of historical government, as well as varieties of government in the developing world, are typically placed under one rubric labeled 'patrimonialism'. Development of 'good government' is then a process (that occurs in stages) going from patrimonialism to rational-legal government.

Successful governments have capacity that is maintained by a workforce of salaried, incentivized, bureaucrats who are impartial implementors of the law. Politics is separate from policy implementation, and both constrain one another. This Weberian model as the singular source of government organization that leads to success is absolutely paradigmatic in social science (Besley et al., 2022; Evans & Rauch, 1999), mostly due to the strong correlation in the data between various aspects of bureaucratization of the state and economic development. Besley et al. (2022), for example, show a correlation between two variables, "meritocratic recruitment" and "rigorous and impartial public administration" from the V-Dem dataset. This dataset, which I use below, is ultimately based on an aggregation of expert opinion (Coppedge & et al., 2019).[15] In addition, the Weberian model has given rise to a 'personnel economics of the state' that

[14]These studies are complemented by studies of individual states, such as Becker et al. (2016) and Bandyopadhyay and Green (2016).

[15]In Appendix section C.5.2 I show the correlations between these two measures of 'Weberianness', in 1900 and 2015. They are highly correlated in both years. In Appendix Section C.5.1, I show that this comovement of various measures of Weberianness

studies the incentives bureaucrats face (Hanna et al., 2017).

An exception to the hegemony of the Weberian model is the literature that studies 'varieties of capitalism' (Hall & Soskice, 2001). This literature observes that economic institutions tend to differ within modern market economies, and that therefore even *within* economies that are broadly Weberian, there is substantive variation in organizational structure. While it might be the case that even within rich market economies, different organizational structures are associated with more 'success' (Acemoglu et al., 2017), one of the reasons for the succes of the Weberian model is that these varieties are thought of as small relative to the large differences in organization of government between poorer and richer countries. A final exception is an attempt to augment Weberianness with another axis of variation. The main reference here is Evans (1995). His book on 'Embedded Autonomy' tried to add a dimension of state-society relations. Successful government should be 'embedded', which means it should be close enough to society to be informed enough to implement policy successfully, but at the same time 'autonomous', meaning free from capture (and therefore Weberian).

In the remainder of this section, I use data on the internal organization of governments around the world to show three things. First, there are different 'models' of government practiced today. Second, these models are not obviously related to economic development. Third, we can already observe the models in 1900, bridging the gap between the previous analyses. In sum, this section shows that the conclusions from earlier sections carry over to today. I close this section by showing that modern economic growth in the United States and the United Kingdom preceded the sweeping government reforms that built the modern Weberian state. This implies that whatever type of government countries used before the Weberian reforms, they were not inimical to economic development.

6.2.1 Data: Quality of Government

The main dataset I use is the Quality of Government (QoG) Expert Survey (Nistotskaya et al., 2021). This survey has been conducted in three waves, providing country-level data on democracy and bureaucratic characteristics based on expert scores. For this study, I use data from waves I and II, as changes in wave III variables limit comparability. I use - for my main analysis - the following two measures of Weberian government: Whether there are formal qualifications/examinations to enter government service, and whether there is security of tenure and a predictable career ladder for civil servants. Both measures range from 0 to 7, with higher scores indicating higher 'Weberianness'. I provide a full overview of the

extends beyond these two variables to more aspects of government, using variables in the Quality of Government dataset which I'll introduce below.

data sources used in the Appendix. I replicate all results in this section using several other measures on the Weberianness of the bureaucracy in Appendix section C.3. I also replicate the results in this section using the V-Dem dataset in Appendix section C.4.

6.3 Different models of government today

I start with plotting the score on 'examination' against 'security of tenure', broken down by GDP per capita in the four quadrants of Figure 7. Relative to Besley et al. (2022), the main innovation is to consider these relationships by different quartiles of GDP per capita, rather than as one big dataset. Consider first the bottom-right panel of Figure 7. This panel plots security of tenure against examination and shows a linear fit. Each data point represents one country, and values are averaged over two waves of the survey, 2012 and 2015, for both survey outcomes and for GDP per capita. The positive slope on the linear fit shows that whether examinations are used and whether there is security of tenure move together. I plot, in dashed lines, the means of security of tenure and of examination, creating four quadrants. Note that the top-left quadrants and the bottom-right quadrants are empty, creating two 'models' of government (this same fact is of course captured by the upward sloping linear fit). One model features less examination and uncertain tenure and the other model features formal examinations and secure tenure.

In different colors I then highlight natural groups of countries. We see, in purple, that Japan and Korea cluster together as having civil service examinations and high tenure security. Several central and southern European countries, Germany, France, Italy, Spain, similarly offer high security of tenure, but are less rigid with examination requirements. Another cluster of rich European countries, the 'Nordics', appears in the bottom-left quadrant. Norway, Sweden, Finland, Iceland, Denmark and the Netherlands all feature insecure tenure and little examination. The final cluster is composed of the 'Anglo-Saxon' countries: the United States, Great Britain and Canada that feature examination, but less security of tenure. Importantly, all clusters are rich. This finding is consistent with the literature on varieties of capitalism. In fact, the clusters here map onto the 'three varieties of capitalism' identified by Esping-Andersen (1990) (United States (liberal), Germany (corporatist-statist) and Sweden (social democratic)). Relative to this literature, I added the East-Asian model. In Appendix section C.3, I show that these models are pervasive in the sense that they do not depend on specific combinations of aspects of government — such as security of tenure, examinations, indicators of merit-based appointments, special bureaucratic recruitment laws, or on an index of these aspects.

It is useful to now compare these models of governance within rich countries to the other plots, which

capture poorer countries. I do this in two ways. First, I compare means of both examination and security of tenure across income groups, and then I compare the upward sloping regression line in the highest income group to the same line in other groups. The first comparison tells us something about whether these aspects of bureaucracy are related to GDP per capita. The second tells us something about whether different 'models' of government are a feature of rich countries, or occur throughout the world income distribution. In all four panels of Figure 7 I plot variable means with dashed lines and I report the positions of these lines in the inset box of each panel. There are no meaningful differences in the means of examination and security of tenure across the first three quartiles of the world income distribution. The means of the fourth quartile, the rich countries, are somewhat higher, but only about half a point on the 7-point scale. This slightly positive relationship is behind the correlations linking Weberianness and income found in e.g. Besley et al. (2022) and Evans and Rauch (1999). But now let's look at the 'models' of government. If there was one successful model of government, we would expect countries to cluster in the bottom-left quadrant of the top-left panel, and move along the 45-degree line as they get richer. Instead, in each panel, the range of values on both axes is the same across income quartiles, meaning countries span the same support and do not all cluster together at lower values for lower income levels, and higher values for higher income levels. The regression slopes are very similar across the first, second, and fourth quartiles. This implies that the 'models' of government show up across the income distribution and each model is therefore consistent with prosperity in the sense that each model is practiced by richer and poorer countries. It is not the case that all rich countries follow one model, and all poorer countries do not, or that poorer countries follow a 'worse' version of the same model that rich countries use. This pattern, too, holds when using other variables in the Quality of Government dataset. I show this in Appendix section C.3.

In Appendix section C.4 I show that the strong correlations between aspects of Weberian government that we observe in 2012-2015, and their similarity across income levels, were already present in 1900. This last observation bridges the gap between the historical analyses in the previous section and the contemporary analysis here.

I now discuss a different type of evidence for the idea that different models of government are consistent with economic success, looking at Weberian reforms.

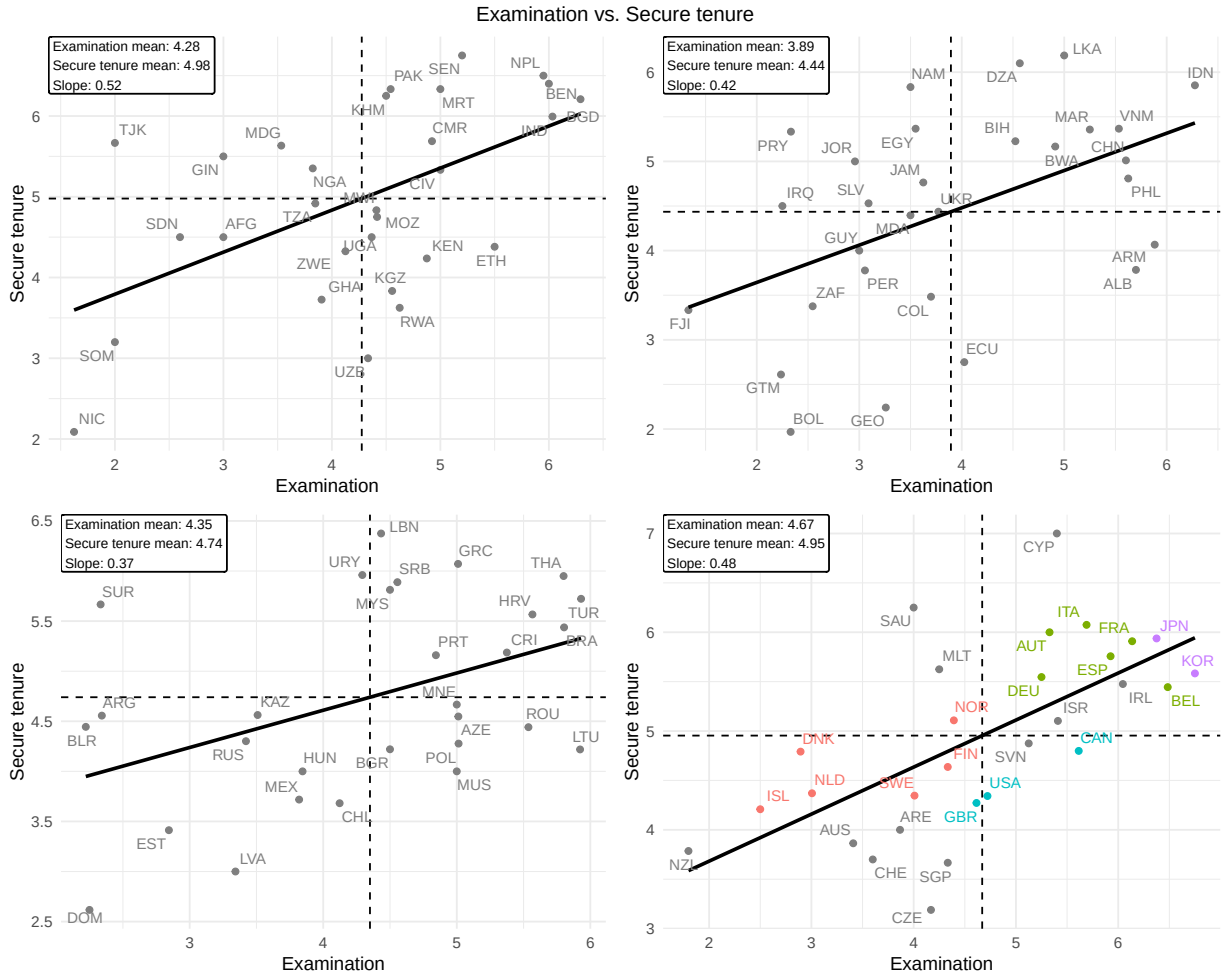


Figure 7: Binned scatterplots showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. Each bin groups quintiles of GDP per capita (2017 international dollar), from the bottom quintile in the top left to the top quintile in the bottom right. The horizontal axis represents the degree of formal examination of bureaucrats, and the vertical axis represents the degree of security in tenure and a predictable career ladder for bureaucrats. Notably, there is no consistent increase in means or slopes across bins, but rather a consistent spread in the organization of government across income levels. Data source: QoG Expert Survey.

6.4 Weberian reforms and Economic Development

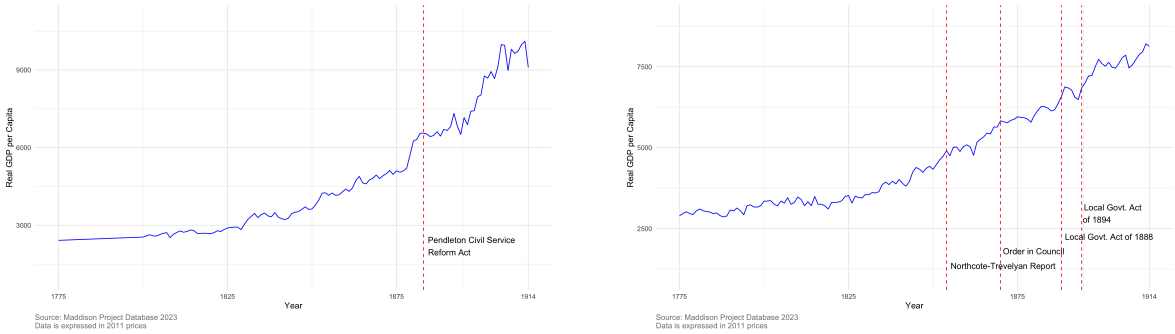
Weberian government has been introduced in various steps in Western Europe over the last few centuries, but most centrally in several big civil service reforms. In the United Kingdom, for example, the central government was professionalized following the publication of the Northcote-Trevelyan report in 1854. Local government was finally professionalized in 1888 and 1894. In the United States, the Pendleton act of 1883 ended the spoils system, which was patrimonial by design. Its implementation improved public service delivery, at least in the post office (Aneja & Xu, 2024).

If Weberian government is the *only* model of government consistent with economic development then it should be the case that modern economic growth was associated with the professionalization of the government. In fact, this argument has been advanced, most notably by Brewer (1989). In contrast, several authors suggest that the centralization and de-personalization of the national bureaucracy was an innovation in England's central government (see e.g. Goldie, 2001). At a local level, informal government organized by local elites, or by parishes and boroughs in an informal manner, continued well into the nineteenth centuries when the Municipal Corporations Act (1835) and the local Government acts of 1888 and 1929 removed unpaid, amateur local government. Until then, English local government had been characterized by "lack of a national salaried bureaucracy ... Beyond Whitehall, government was amateur, part-time and unsalaried. Governance was thereby highly dispersed, and was conducted by gentlemen, yeoman and tradesmen ... the crown's capacity to exert its will depended upon ... cooperation" (Goldie, 2001, p.154). In other Western countries, while national governments were increasingly centralized, local government was informal into the nineteenth century. See e.g. Treffer (1996) for Germany and Bensel (1990) for the United States. These contributions suggest that older, more cooperative forms of government that I described throughout this chapter may have operated alongside modernizing effort in the central government.

In this section I show two simple plots, which show GDP per capita growth and the timing of these reforms. I use data from the Maddison project for GDP per capita in 2011 prices for 1775-1914 (Bolt & van Zanden, 2024), and I plot the relevant reforms as vertical lines, separately for the United States and the United Kingdom in Figure 8. Subpanel (a) shows results for the United States. Economic growth significantly precedes civil service reform. In the United Kingdom, in subpanel (b), economic growth similarly precedes civil service reform. These simple correlations may of course simply be interpreted as saying that government does not matter at all for growth, but more realistically, and especially in light of the preceding paragraph, this means that - again - several different ways of organizing government are consistent with economic growth.

In this section, I have tried to bring together some evidence showing that it is not necessarily the case that countries move to different models of government as they get richer. Conversely, I have provided some evidence that, like in history, several models of government are consistent with economic development and growth.

Figure 8: GDP per capita and civil service reform in the United States and the United Kingdom



(a) United States (b) United Kingdom

Notes: GDP per capita and civil service reform in the United States and the United Kingdom. GDP per capita data from Bolt and van Zanden (2024). For the United States, the Pendleton Civil Service Act of 1883 ended the spoils system, a patronage-based hiring system, and introduced a merit-based system of open competition for selecting of government officials in which competitive exams were to be used. The Act also promoted political neutrality of civil service by making it unlawful to fire or demote government employees protected by the government act and barred civil servants from engaging in political activities. For the United Kingdom, the 1854 Northcote-Trevelyan Report and act proposed significant reforms to transform the civil service into an efficient, unified, and apolitical body of public servants. Their suggested reforms were two-pronged; one area concerned itself with the recruitment of effective civil servants, and the other with the function and structure of the civil service itself. It introduced examinations and merit promotion. The 1870 Order-in-Council confirmed and practically implemented examinations. The Local Government Acts of 1888 and 1894 established councils at different levels of local government and regularized the administrative powers of counties.

7 Discussion: A research agenda

The Western intellectual tradition in studying government and the state has been predicated on three premises. First, government manifests itself as an organization, often physically in buildings and employees and formally, in constitutions and laws. Second, there is a singular model of successful government: The rational-legal state. This is a model that has been achieved in certain rich countries. All other countries today, and all political communities historically, are under some form of patrimonialism. Third, before the advent of the state as an organization, and rational-legal government as the organizing principle, political evolution occurred in stages. A lack of political 'complexity' would prevent communities from reaching the next stage. As they 'advanced', the next stage would be unlocked.

In this chapter, I have tried to bring together evidence from the humanities and social sciences to evaluate this tradition. Collectively, this evidence casts doubt on the applicability of this model to most of human history, and to the developing world today. This is so for three main reasons. First, there was massive variety of government historically. Public goods were provided in political communities that were organized completely informally, without anyone in charge, or anyone appointed or elected to public office, as well as in political communities with varying degrees of formality. In addition, successful early states were organized equally heterogeneously, and as heterogeneously as political communities not formally identified as 'early states'. Second, there is little evidence for a stage-wise process leading from smaller scale polities to larger scale polities. Instead, political communities innovate in politics constantly, and choose their political system, often in full awareness of the next 'level' of political centralization. Finally, just as government was diverse historically, today there is not one model of success. The Weberian tradition has been so influential that any country (or for that matter any place historically) that has a functional government was a priori identified to be Weberian, as that is the only possible way to be successful. This logical fallacy is inconsistent with the data. Successful east-Asian countries are differently organized from European countries, and richer and poorer countries are often organized quite similarly.

I will outline a three-part research agenda that may serve as a starting point for studying historical government and government outside the West on its own terms. Before doing so, I should of course flag that none of the analyses in this chapter are definitive. Each of the empirical analyses are aimed to be tentative. While each of them is, as far as I'm aware, new, they are intended to simply provide evidence on the central assertions of the Weberian model of studying government. Collectively, they are aimed at substantiating the need for more research. With that said, I envision a research agenda into historical government to consist of three different but interrelated branches.

Forms of government. Relative to the theoretical and empirical literature on the *state*, the current literature that classifies and studies different forms of historical government is fragmented between history, anthropology, and archeology, and lacks a theoretical framework. While there are theories for the emergence of a state, with vestiges of the state, there is little guidance on how authority is formed in societies, who becomes a leader, how leaders are empowered on constrained, and what activities become under the purview of a leader. We also lack a consistent set of comparative static results for these questions, predicting where what type of government would emerge.

In part, this is because measurement is difficult, so it is hard to agree on a set of facts. To circumvent this problem, authors have often equated government and a state, projecting all variation onto a single dimension, such as on levels of jurisdictional 'hierarchy' or on archeological evidence of state presence, which tells us little about forms of government. The dearth of evidence makes it hard to agree on the facts to be explained. I hope that this chapter can serve as a starting point for collecting those facts, and theorizing about the variation.

Mechanisms of political change. For modern nation-states, economics has produced a robust set of theories for political change, and a smaller literature on the incentives to develop different forms of bureaucracy (Acemoglu et al., 2021; Besley & Persson, 2009). For historical political developments, this literature is less well developed. How was early egalitarianism enforced? And how did some societies, but not others, innovate and sustain a hierarchy? Why do we see conquest in some parts of the world, and coexistence of different types of political forms elsewhere?

Different models of successful government. It is hard, historically, to pinpoint particular aspects of government that are clearly associated with success. What aspects of *organization* are associated with greater success? The results in this chapter would suggest that this holds today as well. Among less 'Weberian' governments, there is a lot of variation in economic success. For example, Heldring and Robinson (2023) study the case of the government of Rwanda, which is poor by international standards, and does not employ many bureaucrats. In fact, it doesn't even pay most of its employees (who have day jobs to support themselves). This is not too dissimilar from other countries in Africa, but Rwanda is successful compared to other African countries, in part due to low levels of corruption, property rights protection, and reliable international partnerships with Western economies (although its role in local conflict is contentious). Even among rich countries there is significant variation in the internal organization of the state. Therefore, it seems, that there are multiple ways to organize for successful government, and investigating these alternative models will help us understand the variation in economic performance due to government (policy) in a much richer way than we currently do.

8 Conclusion

In this chapter, I have attempted to bring together several different data sources and scholarly contributions from the social sciences and humanities to discuss three interrelated topics in the historical development of government and the state.

First, the origins of government and the state are diverse. It is difficult to measure where early states form, and various lists of early states have been proposed. Theories for the origins of the state have fallen under two broad categories: Extractive or cooperative. Empirical studies of either have typically relied on geographical variation in the incentives to form a state under the extractive model, but a recent literature has attempted to unify the study of both (Heldring, 2025). This chapter has argued that whatever the driver of initial, pristine, state formation, those states that formed did not look meaningfully different from some political communities that have not been classified as states. And even within early states, there is large variation in organizational forms. This means that as it stands we do not have a good idea of what aspects of historical government are associated with 'success'.

Second, the subsequent development of historical government is not characterized by progression in stages. Political communities for which we can measure developments over time transition between 'levels' of political centralization. In addition, political communities do not transition to the next 'level' because they have achieved sufficient scale, but by conscious political choice. Furthermore, in anticipation of not gaining from centralizing power further, political communities choose not to do so. We therefore lack a coherent theory of political development from historical government into the modern, formalized nation-state.

Third, the historical diversity of government carries over to today. Modern market democracies grew rich under governments that look very different from the ones they have today. They were not smaller-scale versions of their current Weberian states, but fundamentally different organizations, that turned Weberian after they got rich. Governments are diversely organized, and this is so for rich and poor countries alike. There is as much variation in organization among rich countries as there is among poor countries, and within each income level, multiple 'models' of government are associated with being at that level.

Taken together, the literature discussed in this chapter, and the correlations presented, present the evolution of government as a complex and diverse historical process with clear direct, and indirect, ramifications today. It is therefore of paramount importance to advance our understanding of its development.

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A Analytical bibliography

In this section, I present several key references on the origins, development, and varieties of the state in four broad categories: General works on government and the state, general works from anthropology, sociology and history, case studies on specific societies, political rituals, or historical periods, and a section on contributions to the study of the state in economics.

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B Data

I compiled the dataset that underlies the empirical analyses in this chapter from three different sources: The Seshat Database, the QoG Expert Survey and Varieties of Democracy (V-Dem). I briefly describe each dataset and how I use it.

Seshat Database. This database compiles historical polity characteristics based on archaeological evidence, contributed by expert archaeologists. I use data on duration, degree of centralization, bureaucratic features, size, and geographic characteristics of selected polities.

- **Centralization**. Variable name in SESHAT: 'Degree of Centralization'. Categorizes the following degrees of centralization:
  - **None**. No degree of centralization.
  - **Quasi-polity**. The area is composed of many small-scale polities (e.g., independent villages or even many small chiefdoms) or it is controlled in quick succession by a number of different regimes.
  - **Nominal**. Regional rulers pay only nominal allegiance to the overall ruler and maintain independence on all important aspects of governing, including taxation and warfare.

  - **Loose**. The central government exercises a certain degree of control, especially over military matters and international relations. Otherwise the regional rulers are left alone.
  - **Confederated state**. Regions enjoy a large degree of autonomy in internal (regional) government. In particular, the regional governors are either hereditary rulers, or are elected by regional elites or by the population of the region; and regional governments can levy and dispose of regional taxes. Use this category for the more centralized 'feudal states'.
  - **Unitary state**. Regional governors are appointed and removed by the central authorities, taxes are imposed by, and transmitted to the center.

- **Territorial size**. Size of the polity territory in squared kilometer. Corresponds to the variable 'Polity territory' in SESHAT.

- **Duration**. The start and end dates for which the variable codification is attributed. When substantial changes in the nature of the polity happen, a successor polity with a later duration interval is included.

- **Latitude** and **longitude**. This data is not reported in SESHAT, but I have computed X and Y coordinate values based on UTM centroids when UTM zones are reported are reported in SEHSAT. In remaining cases and in cases where the UTM zone provides too little granularity, I have geolocated the polities based on the reported capital name in SESHAT.

- Recoded binary variables on archaeological evidence of the presence or absence of different traits. When they appear as 'inferred absent' or 'absent' in SESHAT they are recoded to 0 and when 'inferred present' or 'present' they are recoded to 1. When no evidence is provided, the variable is recoded to missing. The resulting binary variables are listed below, and the variable names correspond to the original variables in SESHAT.

  - **Specialized government buildings**. Present if there are buildings are where administrative officials are located, and must be distinct from the ruler's palace. They may be used for document storage, registration offices, minting money, etc. (Does not include defense structures or state-owned workshops.)
  - **Full-time bureaucrats**. Present if in addition to a specialized government building, there is archeological evidence of functional specialization in government (duties performed by chiefs or sub-chiefs are not sufficient to be seen as "functional specialization").

- **Merit promotion**. Present if there are regular, institutionalized procedures for promotion based on performance.
- **Examination system**. Present if there is evidence of an examination system in the bureaucracy.
- **Professional priesthood**. Present if there is evidence that priesthood is a profession.
- **Professional military officer**. Present if there is evidence that there were military officers with this as their profession.
- **Written record**. Present if there is evidence of written records. These are more than short and fragmentary inscriptions, such as found on tombs or runic stones. There must be several sentences strung together, at the very minimum.
- **Precious metal**. Present if there is evidence of precious metals. These include non-coined silver, gold and platinum.

QoG Expert survey. The Quality of Government (QoG) Expert Survey has been conducted in three waves, providing country-level data on democracy and bureaucratic characteristics based on expert scores. For this study, I use data from waves I and II, as changes in wave III variables limit comparability. In addition to income data, the survey includes Weberian characteristics of bureaucracy, such as secure tenure, formal examinations of bureaucrats, special laws for recruitment of bureaucrats, the degree of merit-based appointment of bureaucrats, and an index capturing the bureaucracy's degree of closedness. These variables are measured on a scale from 0 to 7.

- **Merit-based appointment of bureaucrats**. Respondents report how often the following occurs (scale 1-7): "When recruiting public sector employees, the skills and merits of the applicants decide who gets the job." Corresponds to question $q2_a$ in wave I and II.
- **Formal examinations of bureaucrats**. Respondents report how often the following occurs (scale 1-7): Respondents report how often the following occurs (scale 1-7): "Public sector employees are hired via a formal examination system?" Corresponds to question $q2_c$ in wave I and $q2_d$ in wave II.
- **Secure tenure**. Respondents report how often the following occurs (scale 1-7): "Once one is recruited as a public sector employee, one stays a public sector employee for the rest of one's career." Corresponds to question $q2_f$ in wave I and $q2_j$ in wave II.
- **Special laws for recruitment of bureaucrats**. Respondents report how often the following occurs (scale 1-7): "The terms of employment for public sector employees are regulated by special laws

that do not apply to private sector employees." Corresponds to question $q8_f$ in wave I and $q4_f$ in wave II.

- **Closedness index** This index is composed of formal examination of bureaucrats, secure tenure and special laws for recruitment of bureaucrats. It is computed as a mean of the means of each of these variables.

- **GDP per capita (2017 international dollar)**. This data is originally from the World Development Indicators by the World Bank.

The V-Dem dataset. The Varieties of Democracy (V-Dem) dataset offers extensive measures of democratic attributes, along with analogues to Weberian bureaucratic characteristics found in the QoG survey, such as meritocratic recruitment and bureaucratic impartiality. Its long temporal span, covering data from 1900 onward, allows for historical comparisons and extends the analysis of bureaucratic measures over time.

- **GDP per capita** Original source: The Maddison Project Database (2018). Used instead GDP data from the World Bank due to historical span.

- **Criteria for appointment decisions in the state administration**. Question: To what extent are appointment decisions in the state administration based on personal and political connections, as opposed to skills and merit? Response range: 0-4

- **Rigorous and impartial public administration**. Question: Are public officials rigorous and impartial in the performance of their duties? Response range: 0-4

C Additional figures

C.1 Variation in early organization

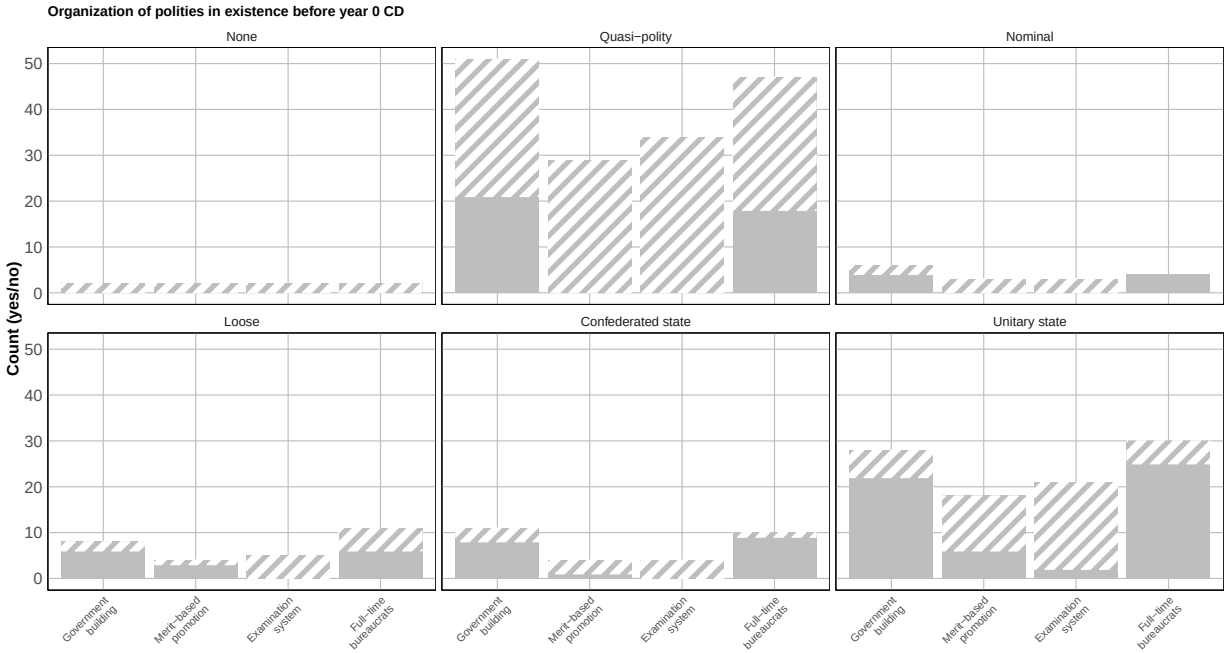

Figure 9: Variation in the organization of polities in existence before year 0 BCE. For each degree of centralization ((none, quasi-polity, nominal, loose, confederated state, unitary state), the figure depicts counts of binary indicators on the organization of government, where filled bars indicate presence and striped bars indicate absence. The indicators represent whether there are specialized government buildings, whether bureaucrats have merit-based promotion, whether there is a formal examination system for hiring of bureaucrats, and whether there are full-time bureaucrats. Data source: SESHAT Global History Databank.

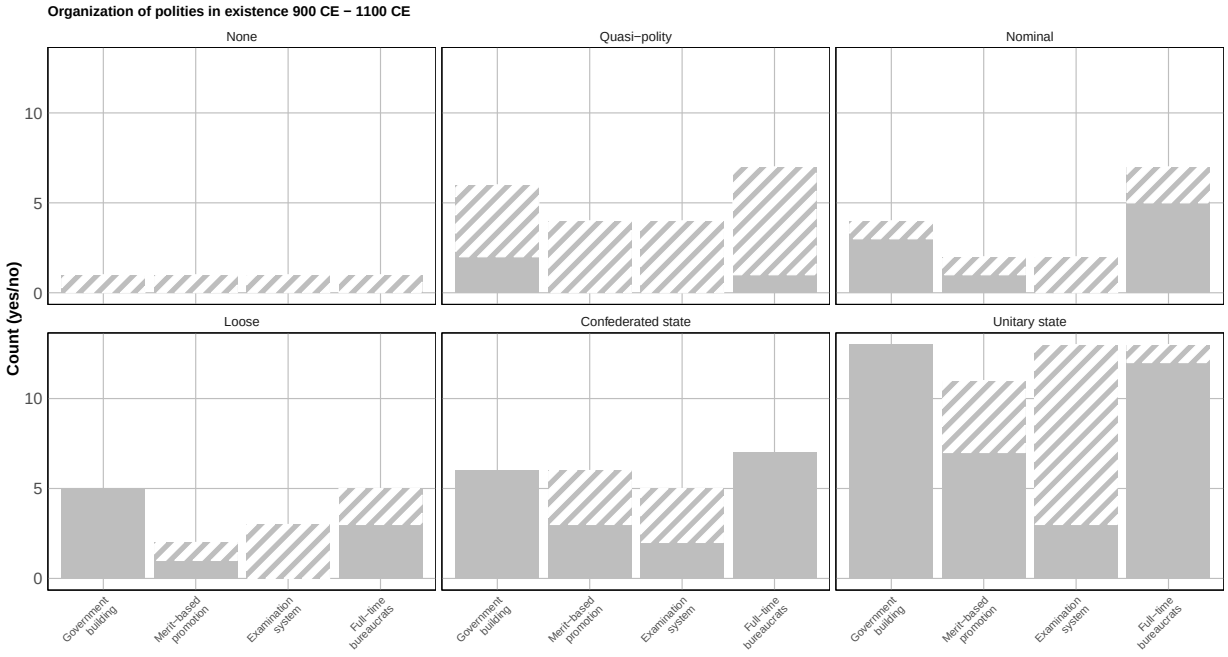

Figure 10: Variation in the organization of polities in existence 900 CD - 1100 CD. For each degree of centralization (none, quasi-polity, nominal, loose, confederated state, unitary state), the figure depicts counts of binary indicators on the organization of government, where filled bars indicate "yes" and striped bars indicate "no". The indicators represent whether there are specialized government buildings, whether bureaucrats have merit-based promotion, whether there is a formal examination system for hiring of bureaucrats, and whether there are full-time bureaucrats. Data source: SESHAT Global History Databank.

C.2 Evolutionary critique

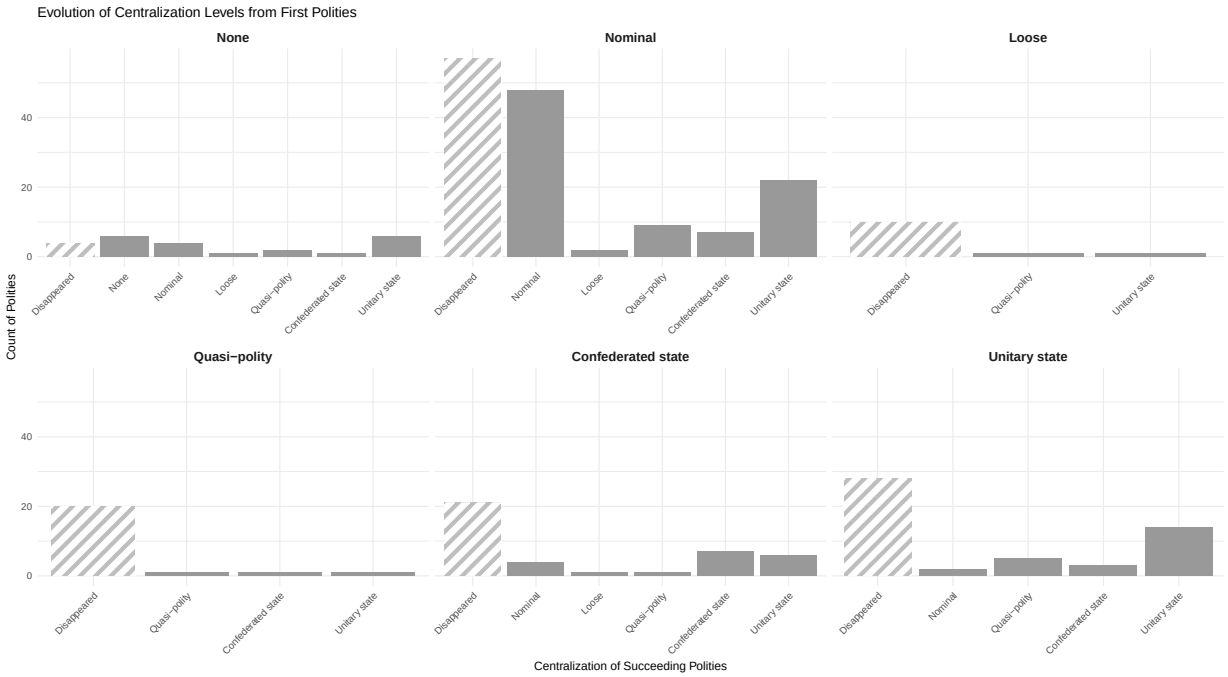

Figure 11: Distribution of levels of centralization of successor polities. The plot is grouped by initial level of centralization of the first polity in a line of succession, 'none', 'nominal', 'loose', 'quasi-polity', 'confederated state', and 'unitary state. The bar plots within each category indicate the relative centralization of successors to such polities. Polities that disappear are indicated by the striped bar. Data source: SESHAT Global History Databank.

C.3 QoG bin-scatters: additional characteristics of the bureaucracy

This section of the appendix includes figures with the same format as Figure 7, **??** and **??**, but here with alternative characteristics of the bureaucracy.

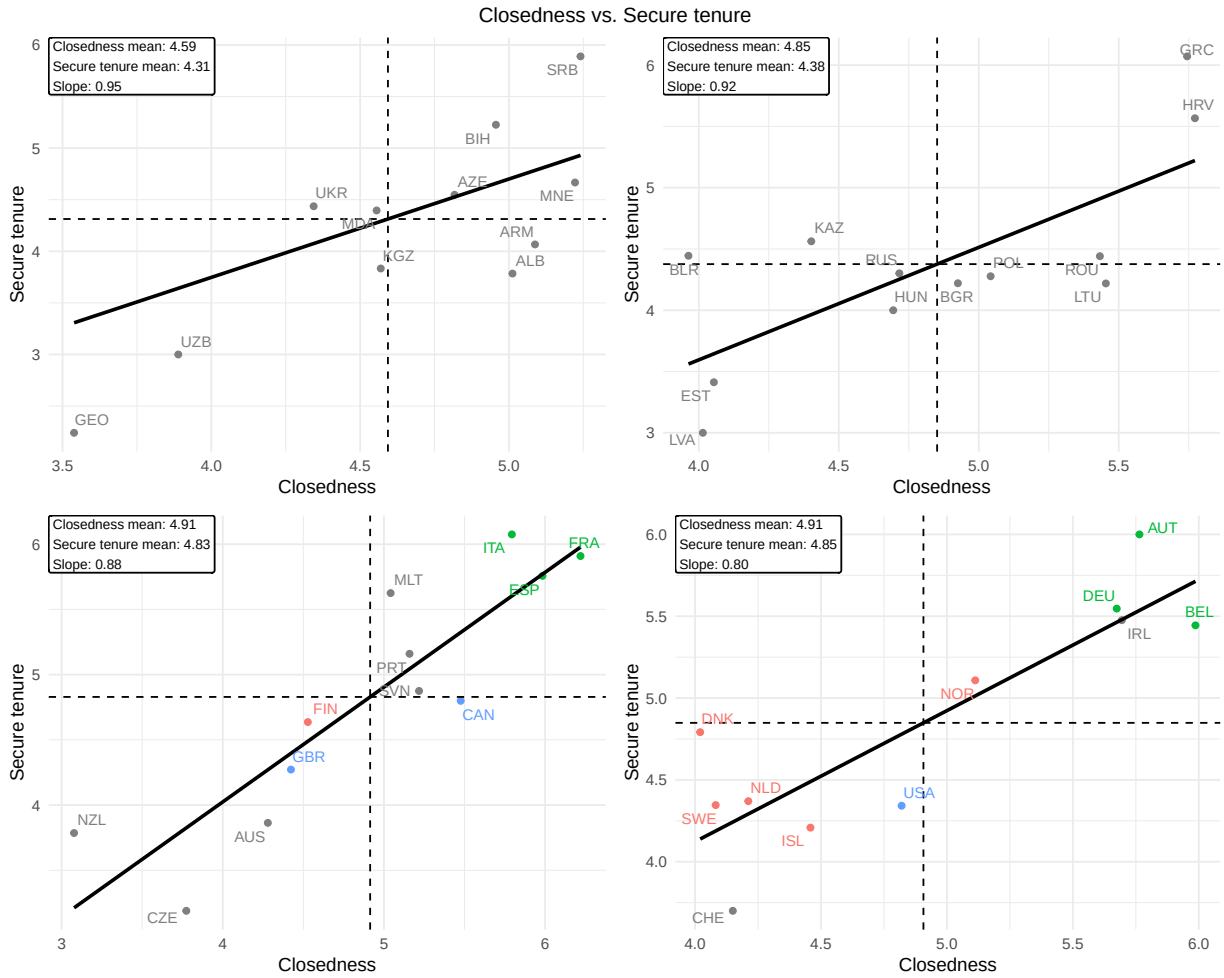

Figure 12: Scatterplot showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. Each bin groups quintiles of GDP per capita (2017 international dollar), from the bottom quintile in the top left to the top quintile in the bottom right. The horizontal axis represents an index for the degree of closedness of the bureaucracy, and the vertical axis represents the degree of security in tenure and a predictable career ladder for bureaucrats. Data source: QoG Expert Survey.

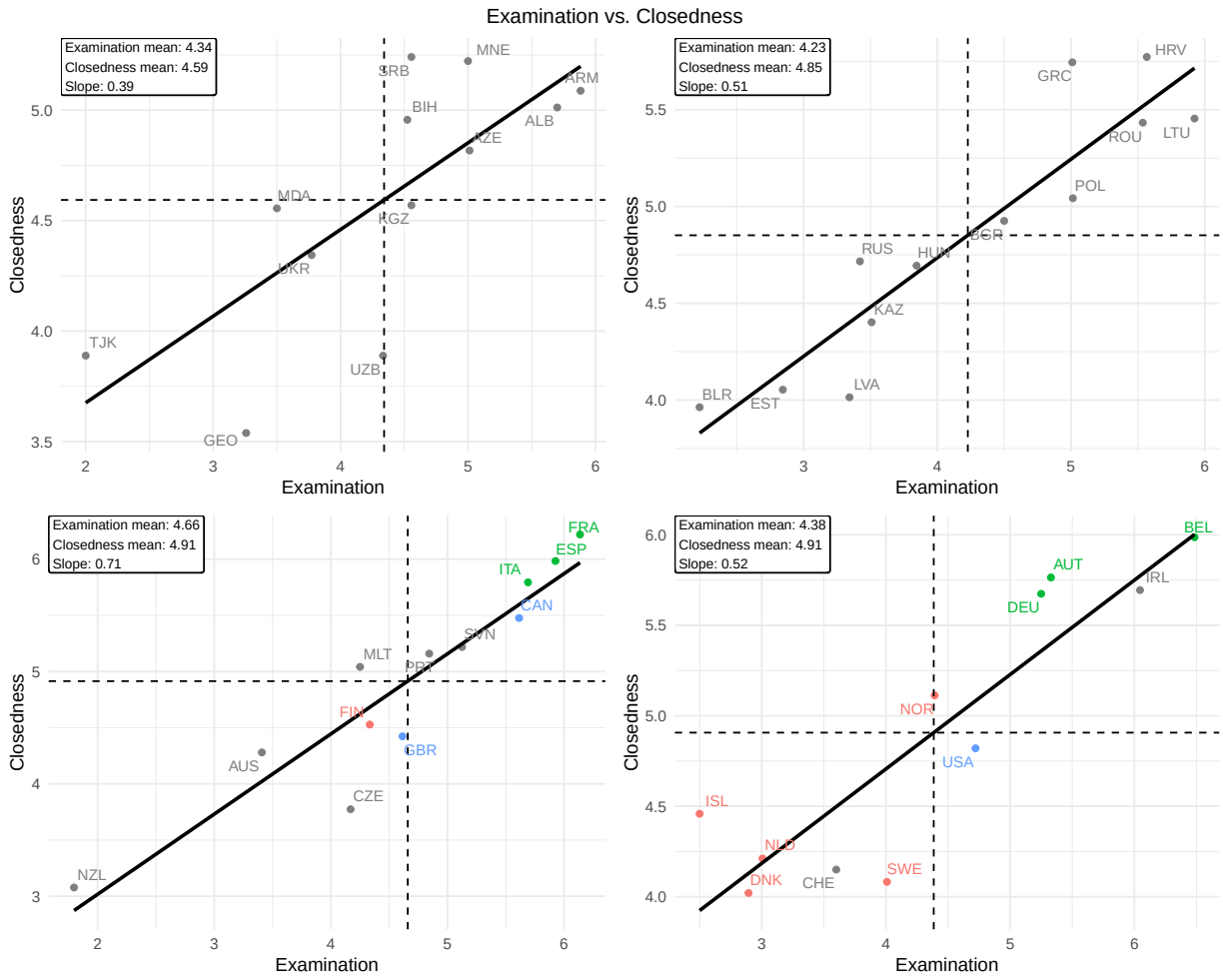

Figure 13: Scatterplot showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. Each bin groups quintiles of GDP per capita (2017 international dollar), from the bottom quintile in the top left to the top quintile in the bottom right. The horizontal axis represents the degree of formal examination of bureaucrats, and the vertical axis represents an index for the degree of closedness of the bureaucracy. Data source: QoG Expert Survey.

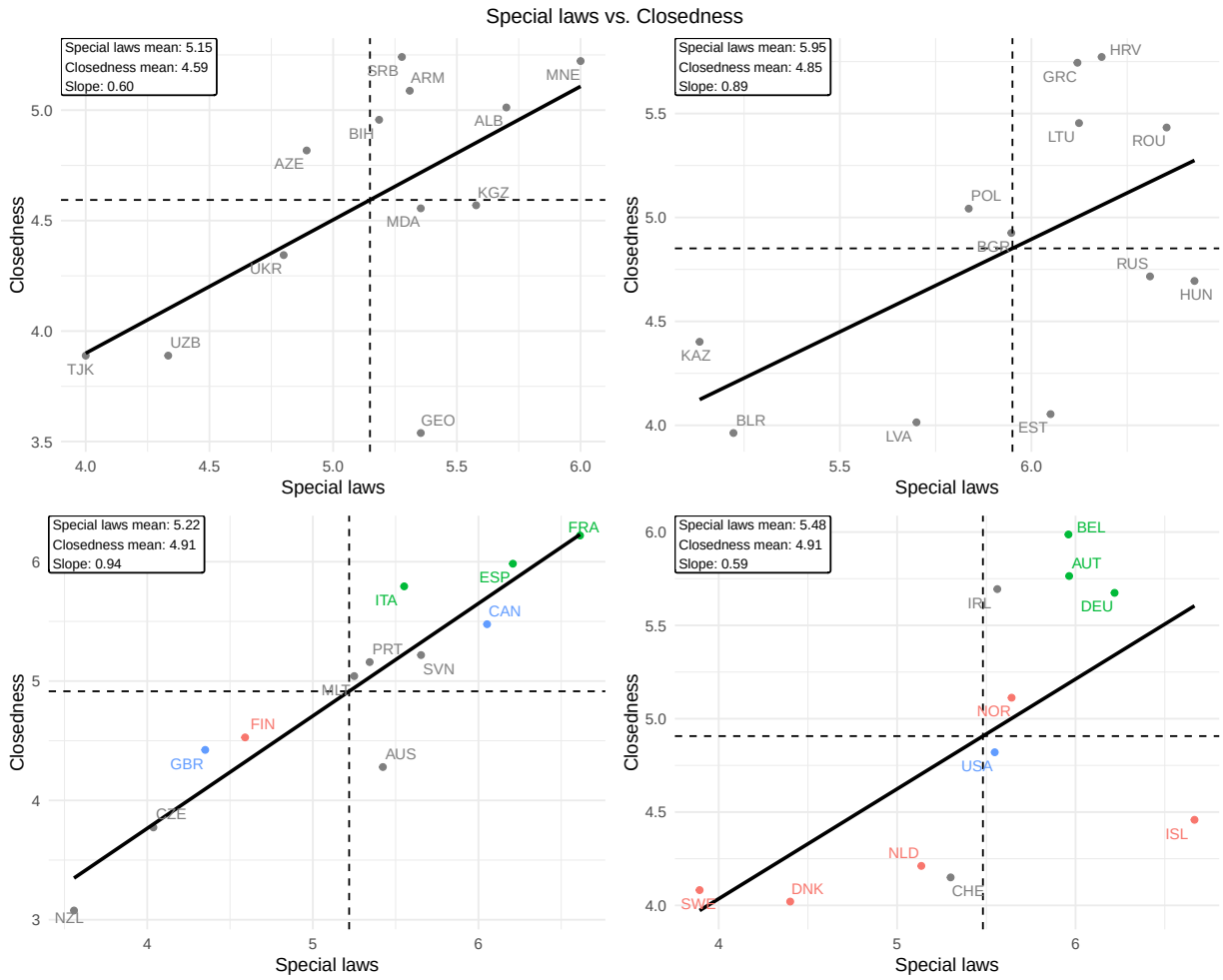

Figure 14: Scatterplot showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. Each bin groups quintiles of GDP per capita (2017 international dollar), from the bottom quintile in the top left to the top quintile in the bottom right. The horizontal axis represents the whether there are special laws for the hiring of bureaucrats, and the vertical axis represents an index for the degree of closedness of the bureaucracy. Data source: QoG Expert Survey.

C.4 V-Dem bin-scatters: replication exercise

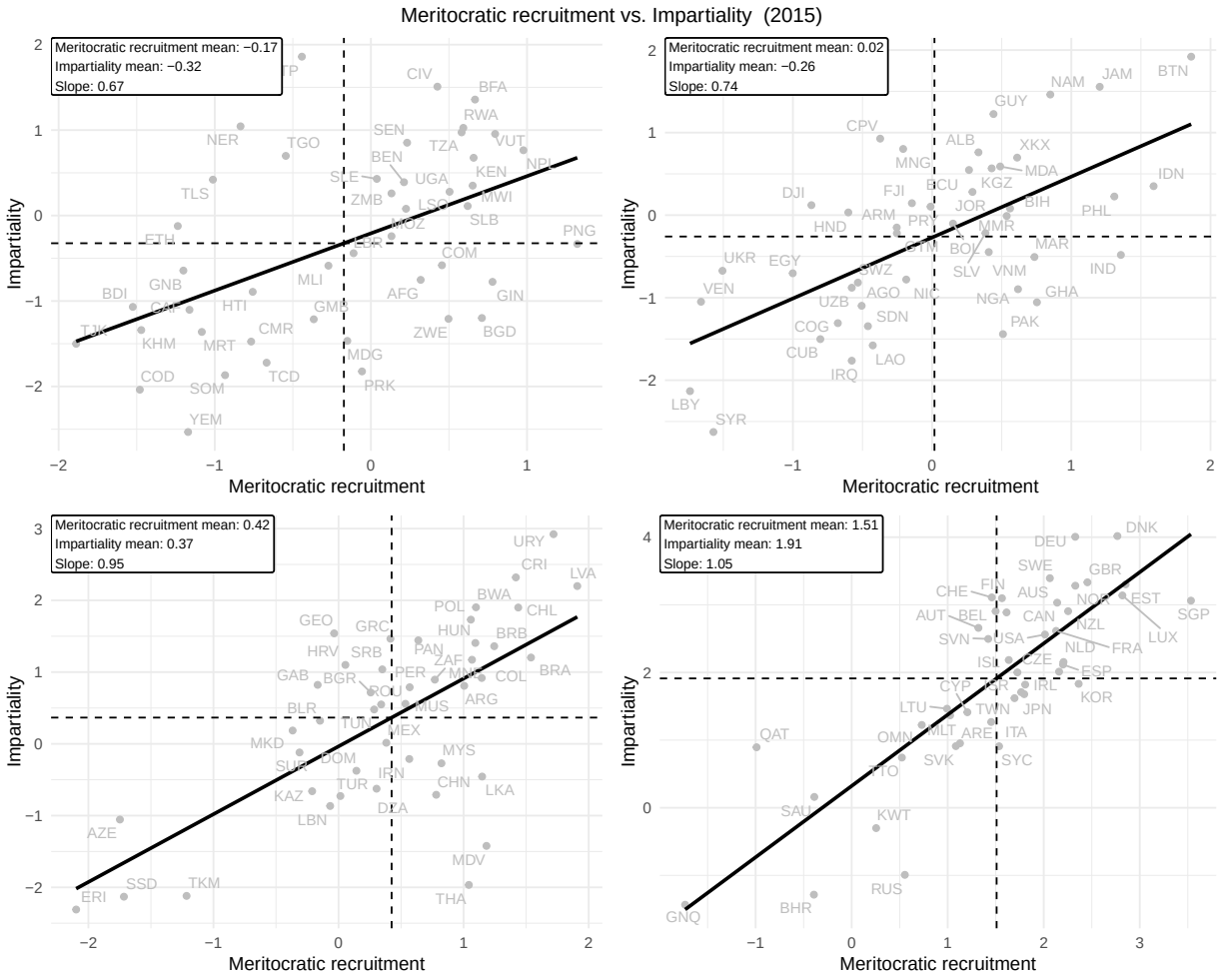

Figure 15: Binned scatterplots showing variation in the organization of bureaucracies in 2015, where lines are linearly fitted. Each bin groups quintiles of GDP per capita, from the bottom quintile in the top left to the top quintile in the bottom right. The horizontal axis represents the degree of meritocratic recruitment of bureaucrats, and the vertical axis represents an impartiality index capturing the degree of corruption in the bureaucracy. Data source: The V-dem Institute.

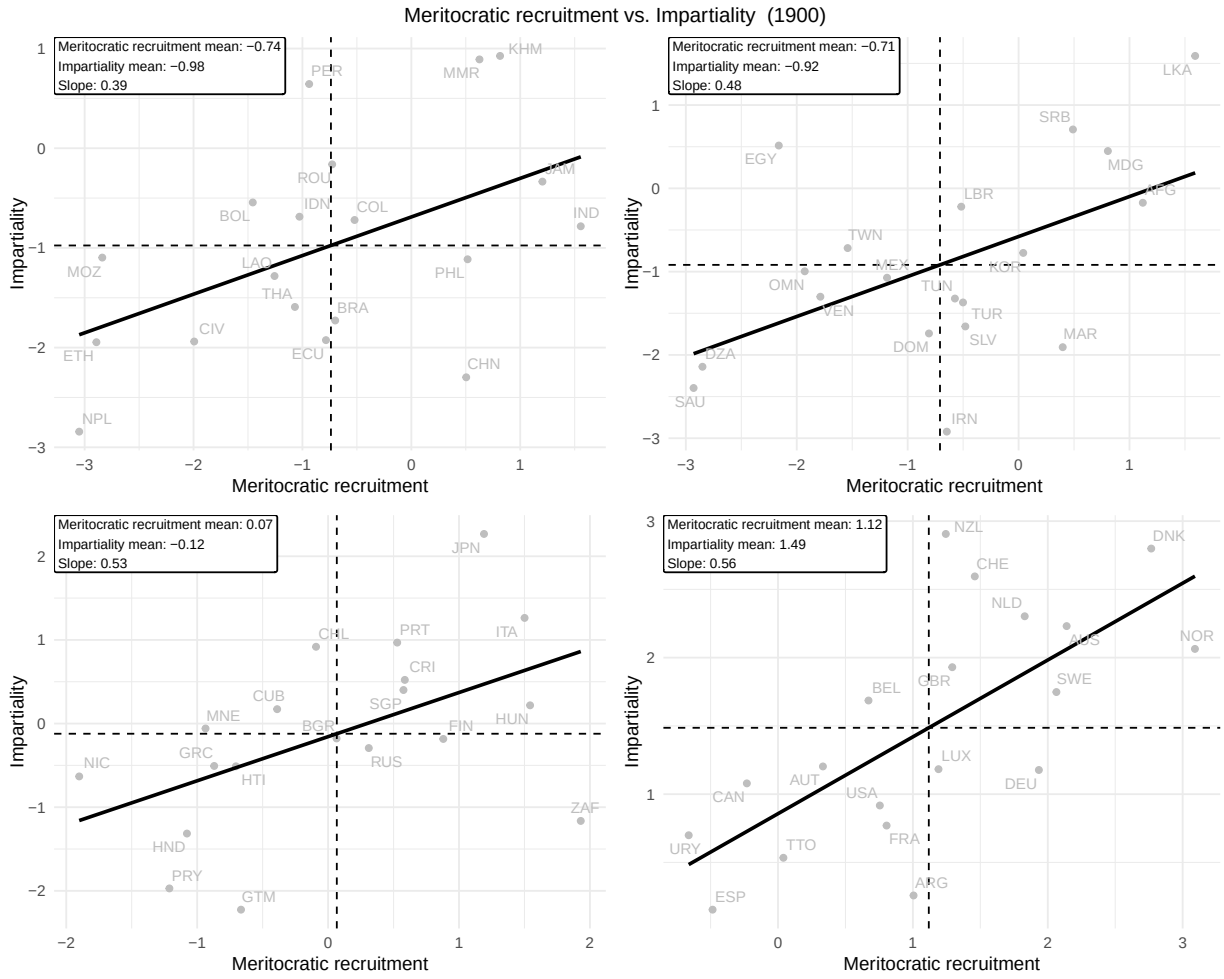

Figure 16: Binned scatterplots showing variation in the organization of bureaucracies in 1900, where lines are linearly fitted. Each bin groups quintiles of GDP per capita, from the bottom quintile in the top left to the top quintile in the bottom right. The horizontal axis represents the degree of meritocratic recruitment of bureaucrats, and the vertical axis represents an impartiality index capturing the degree of corruption in the bureaucracy. Data source: The V-dem Institute.

C.5 Scatters

C.5.1 Scatters: QoG data

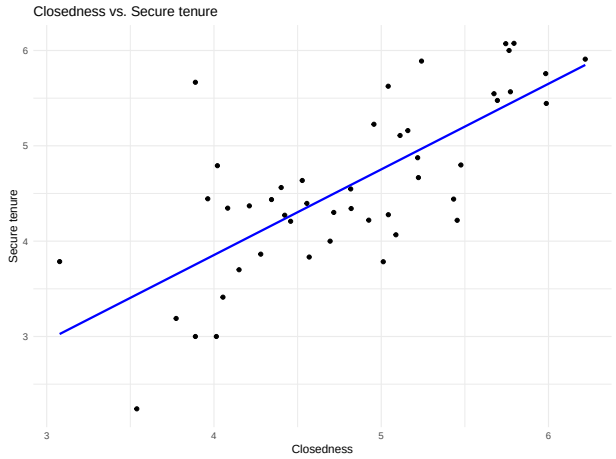

Figure 17: Scatterplot showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. The horizontal axis represents and index for the degree of closedness of the bureaucracy, and the vertical axis represents the degree of security in tenure and a predictable career ladder for bureaucrats. Data source: QoG Expert Survey.

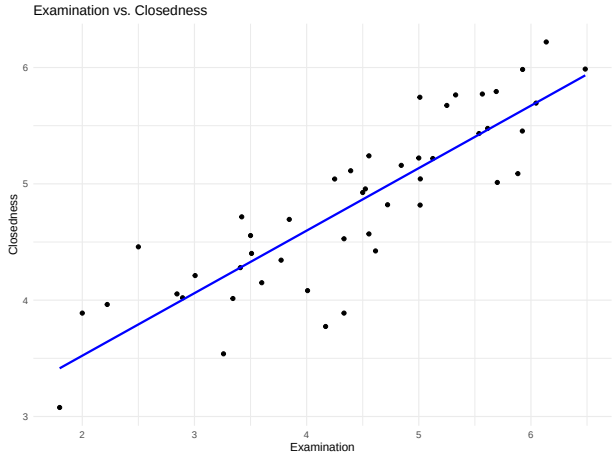

Figure 18: Scatterplot showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. The horizontal axis represents the degree of formal examination of bureaucrats, and the vertical axis represents an index for the degree of closedness of the bureaucracy. Data source: QoG Expert Survey.

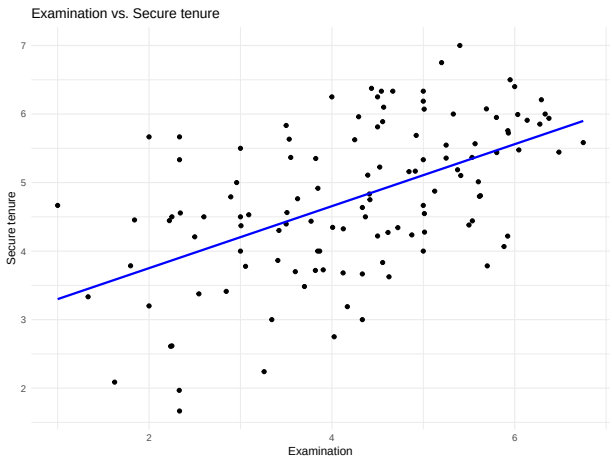

Figure 19: Scatterplot showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. The horizontal axis represents the degree of formal examination of bureaucrats, and the vertical axis represents the degree of security in tenure and a predictable career ladder for bureaucrats. Data source: QoG Expert Survey.

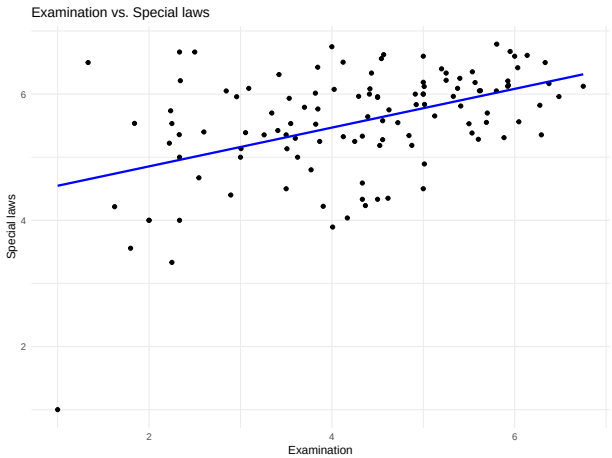

Figure 20: Scatterplot showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. The horisontal axis represents the degree of formal examination of bureaucrats, and the vertical axis represents whether there are special laws for the hiring of bureaucrats. Data source: QoG Expert Survey.

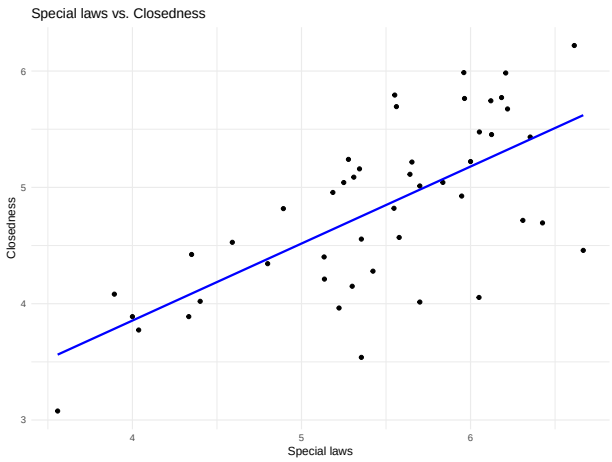

Figure 21: Scatterplot showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. The horizontal axis represents the whether there are special laws for the hiring of bureaucrats, and the vertical axis represents an index for the degree of closedness of the bureaucracy. Data source: QoG Expert Survey.

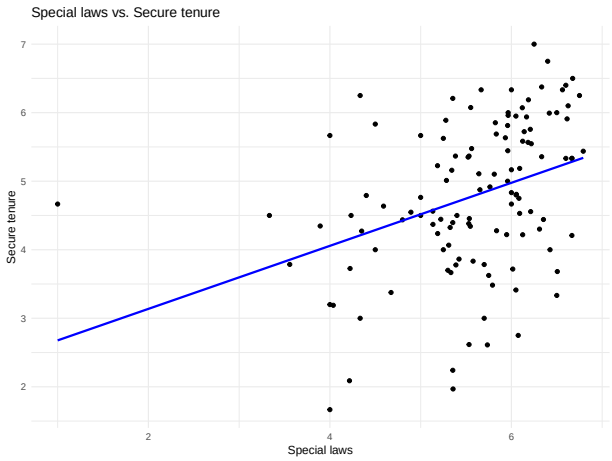

Figure 22: Scatterplot showing variation in the organization of bureaucracies in 2012-2015, where each point indicates the 2012-2015 average and the lines are linearly fitted. The horizontal axis represents whether there are special laws for the hiring of bureaucrats, and the vertical axis represents the degree of security in tenure and a predictable career ladder for bureaucrats. Data source: QoG Expert Survey.

C.5.2 Scatters: Vdem data

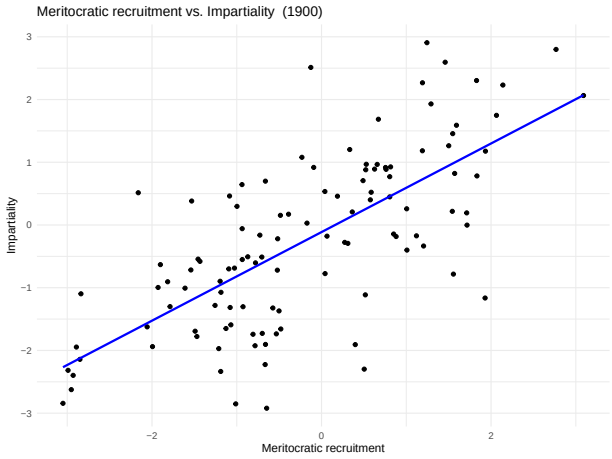

Figure 23: Scatterplot showing variation in the organization of bureaucracies in 1900, where lines are linearly fitted. The horizontal axis represents the degree of meritocratic recruitment of bureaucrats, and the vertical axis represents an impartiality index capturing the degree of corruption in the bureaucracy. Data source: The V-dem Institute.

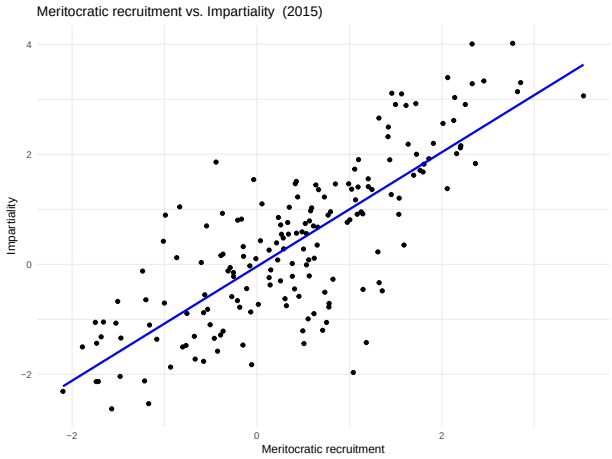

Figure 24: Scatterplot showing variation in the organization of bureaucracies in 2015, where lines are linearly fitted. The horizontal axis represents the degree of meritocratic recruitment of bureaucrats, and the vertical axis represents an impartiality index capturing the degree of corruption in the bureaucracy. Data source: The V-dem Institute.