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Taking the State (Back) Out?

Statehood and the Delivery of Collective Goods.

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Abstract

State-building is a central tenet of many current development efforts. This primacy of the state rests on a global normative script that emphasizes the modern state's role in providing collective goods and services from security to education to health. We analyze state performance in six dimensions of service delivery in a cross-sectional sample of more than 150 countries. In addition to exploring the explanatory power of statehood, we examine various control variables and also whether external actors affect the delivery of collective goods and services. The core finding of this paper is that there is remarkably little evidence of any consistent relationship between statehood and service delivery. This result casts doubt on the convention wisdom about centrality of the state for collective goods and services, and suggests that other factors – such as external actors – may explain the observed variation.

1. Introduction

For policymakers and scholars alike, the state plays a central role in explaining the enormous variation in the delivery of collective goods and services such as

security, education, public health, and infrastructure across the globe. This paper offers evidence that this link may not be as strong as usually assumed.

Theoretically, the state is a natural candidate for either the direct provision of collective goods and services or for setting rules that ensure their provision by other actors because the state is in a unique position to enforce the internalization of externalities, to sanction free riders, and to levy taxes (Samuelson, 1954). However, there is no direct link between the existence of a state and the delivery of collective goods and services. Ever since Downs' (1957) classic contribution, public choice theory has long since reminded us that state institutions themselves are highly contested political arenas in which actors at various degrees of entrenchment battle out public policies.

But the successful delivery of collective goods and services is not only a question of political preference and public choice, but also a question of the ability of state institutions to function at all. As outlined in the introduction to this special issue, state*hood* in the sense of stable and capable state institutions is a highly varying characteristic of the world's states.[1] On one end of the scale are the consolidated states of the OECD, and on the other end are failing or failed states where state institutions have all but evaporated. The majority of the world's population lives in neither of these extremes but in states with significant "areas of limited statehood," where state capabilities are seriously challenged in some regions, some policy fields, or with respect to certain social groups (Risse, 2011, pp. 4-5). Thus, the very high global variation in service delivery is commonly attributed to the variation in

[1] For the difference between the "state" as an institution and "statehood" as a characteristic of this institution, see Börzel (2012): pp. 7-8.

statehood. Against this background, it comes as no surprise that "state-building" has become an important topic in the literature. The international relations literature mostly approaches the topic from a security perspective, in which the establishment of stable and capable states is an important pre-condition for securing (international) peace and stability (Menocal, 2011). In development studies, state-building emerged in the 1990s parallel to the discussion on "good governance" that focused on the quality of state institutions as a pre-condition for development (Marquette & Beswick, 2011, p. 1704). Consequently, in the policy arena, state-building is sometimes seen as the "new development paradigm" (Marquette & Beswick, 2011), a paradigm reflected in policy papers of all major player in development policy.

Using macro-quantitative data on more than 150 countries, this paper investigates whether statehood does indeed affect the delivery of collective goods and services in the manner commonly assumed. Our primary conclusion is that, despite the conventional wisdom in the policy and academic communities, there is little statistical evidence at the cross-country level of a consistent relationship between statehood and service delivery. All other things equal, stronger states – those with a higher control over the use of force and with greater administrative capacity – do not appear to perform better at delivering services or ensuring better development outcomes. At the very least, these results suggest that state-building efforts in the absence of other interventions cannot be the sole solution to development problems across the world's fragile and limited states.

2. Theoretical Background: States and the Delivery of Collective Goods

The common focus on the state for the delivery of collective goods and services is linked to well-established lines of reasoning reaching back to the very emergence of the state. Three types of arguments exist. The richest tradition is found in social contract theory, while economic and functional arguments are of more recent origin.

Social contract theories as advanced by Thomas Hobbes (1651, 2009) and others hold that otherwise antagonistic individuals cede their rights to a state that provides collective security in return for the monopoly over the means of violence and the right to regulate social interaction. Indeed, internal and external security was the very *raison d'être* of states at the time of their emergence in Europe in the 16th and 17th centuries (Tilly, 1992). Parallel to the development of the modern state, the normative script about the list of collective goods to be provided by the state has significantly expanded beyond security, though the logic of the original argument still holds.

Couched in the more modern terms of economic theory, the underlying problem Hobbes recognized was that many collective goods and services (like security) have externalities that lead to the overproduction of bad outcomes and the underproduction of good outcomes in the private market. Education and a clean environment are classical examples of collective goods that suffer from market failure and under-provision, but infrastructure and public health have these characteristics as well. According to this logic, the state is an important actor in resolving problems of private market failure because the state can use its comparative advantage in coercion to extract the resources it needs to provide goods and services to everyone

(Lane, 1979). Similarly, the state's coercive advantage also allows the state to enforce rules and regulations that govern the provision of collective goods. From an economic perspective, the state is also a logical provider of collective goods because of the state's ability to generate economies of scale with respect to the delivery of services. Many collective goods (such a health care system) have high marginal startup costs and the state is often better positioned than competing actors to bear the costs of establishing such systems (Pfeiffer et al., 2008).

From a functional perspective, the delivery of collective goods and services is a central factor that stabilizes the state via output legitimacy. In this perspective, the legitimacy of the state derives from a relational approach in which the state delivers a social order – which includes the provision of public goods and services – acceptable to its population and the population in turn agrees to comply with the state and not to take up arms against it (Lake, 2009; Levi, 1989, 1997). Even when citizens have internalized the state's rightfulness of rule today, there is no guarantee that citizens would continue to accept the state's rule and obey its dictates if the state began to fail with respect to output legitimacy tomorrow.

Note that all three types of arguments on why the state *should* provide collective goods and services rely implicitly on two core elements of statehood that are central to the delivery of those goods and services: the control of the use of force and the ability to implement and enforce rules and regulations. Consistent with the literature on statehood (see Hanson and Sigman 2011 or Hendrix 2010), these two dimensions of the state form the components of the statehood definition in the introduction to this special issue. They are the among the most basic functions of the state, and most theoretical arguments about the primacy of the state's role in

delivering public goods assume that the state upholds the monopoly of force and implements and enforces rules. That is, the constraint is not simply political preferences or public choice about whether and what goods to provide, but whether the state is functional enough to delivery collective goods and services in the first place. A state that fails to uphold its monopoly of force is likely to be one that faces challenges to its ability to deliver basic goods and services like security and education. A state that lacks the ability to implement and enforce rules and regulations is unlikely to raise the fiscal resources necessary for funding goods and services or to compel its bureaucrats to provide these services effectively and equitably.

Yet, as the introductory chapter to this special issue, the ideal typical sovereign state is the exception rather than the rule in today's international system. Many modern states are those with areas of limited statehood, and face challenges to their monopoly of force, their ability to enforce rules, or both. Although theory suggests that states with areas of limited statehood are less successful at delivering collective goods and services, this is an empirical question that the extant literature has not fully investigated. The remainder of this paper is a quantitative examination of the relationship between statehood (specifically, between monopoly of force and rule enforcement) and the delivery of collective goods and services.

3. Approach, Model and Method

3.1 Approach

We use a macro-quantitative approach to evaluate the role of statehood and other factors for service delivery employing state-level data for more than 150 countries across the globe. In terms of data collection, we differ from the literature in three ways. First, we use disaggregated indicators whenever possible. Aggregate indices often confound statehood and service delivery.[2] In addition, macro-indices sometimes are composites of other indices, and include some indicators more than once. Second, we only use datasets of (in principle) global geographic scope, rather than combining limited-scope datasets. Finally, to maximize the reach and validity of our analysis, we only use sources which – at least in principle – are based on global coverage and collected with comparable standards worldwide.

3.2 The Model

3.2.1 Dependent Variable: Service Delivery Outcomes. We cannot measure the delivery of collective goods and services directly, so we instead examine outcomes related to these goods. We differentiate between six areas of service delivery: security, public health, education, basic subsistence, infrastructure, and the environment. These areas mirror the historical development of state tasks (with the security as the classical function of the state and a sustainable, clean environment only entering the policy discourse relatively recently). They are also the center of much policy attention in the development community, with four of our six areas

[2] See e.g. the "government effectiveness" variable from the World Bank's Worldwide Governance Indicators dataset.

reflected in the Millennium Development Goals (MDGs) as a global blueprint for development. Finally, we focus on a broad range of outcomes to ensure that our conclusions about the role of the state are valid across multiple issue areas (see Posner and Kramon 2011).

Security is such a fundamental good that it is often conflated with concepts of statehood. We are distinguishing between state-centric and citizen-centric conceptions of security. State-centric security is the monopoly of force constitutive of statehood (see below). From the perspective of service delivery, citizen-centric security refers to "the ability of a state's citizens to live free from immediate danger to their lives and livelihood" (Schröder, 2010, p. 19). We therefore operationalize the delivery of security as the absence of violence leading to death. We identified four types of violence that lead to non-natural deaths based on the actors involved: 1) violence perpetrated by private individuals against other individuals; 2) violence perpetrated by the state or non-state organized groups against private individuals; 3) violence between the state and organized non-state groups; and 4) violence between non-state organized groups. We then constructed a composite security outcomes indicator that captures all four types of violence. To capture the first type of violence, we use homicide rates as one of our core indicators for security provision (Schröder, 2010, p. 21). To capture organized violence vis-à-vis private individuals, we included the UCDP One-Sided Violence data (Eck & Hultman, 2007). The third and fourth types of violence result from internal conflicts or wars. Data for these types of violence come from the UCDP data on Non-State Violence, which excludes crime-related homicides (Eck, Kreutz, & Sundberg, 2010), and from UCDP's Battle-related Deaths dataset (UCDP, 2011).

We proxy for the delivery of *Public Health* services using the maternal mortality rate, defined as the number of deaths of mothers while pregnant or within 42 days of termination of pregnancy. Reducing maternal mortality is an MDG and at the same time it is a proxy for the overall quality of the health system, and especially for the quality of primary and secondary health care. Mothers depend on local general health care structures as well as on specialists in a number of medical sub-disciplines, including skilled medical personnel and attendance at birth. Data come from the University of Washington's Institute for Health Metrics and Evaluation.

We proxy for *educational service delivery* using the expected years of schooling a child of school entrance age can expect to receive. Although this is an imperfect indicator, in general more years of education signify higher levels of education and thus better educational outcomes. Moreover, expected years of schooling is a better and more comprehensive measure of educational quality than alternatives that only capture outcomes related to primary education. Data come from UNESCO.

On a very basic level, *economic subsistence* requires that the population have access to water and food. Because a lack of access to clean water is an even more immediate danger to people's lives and well-being, we focus on the provision of water instead of food. We thus operationalize basic subsistence as the percentage of the population with access to an improved water source. Although access to an improved water source does not guarantee access to clean water, water is less likely to be contaminated when it comes from an improved source (Lenton, Wright, & Lewis, 2005). Examples of improved water sources include household connections,

protected wells or springs, or boreholes. Data come from the World Development Indicators (WDI).

Infrastructure as a category covers a variety of infrastructure types, including transportation, energy, and communication technology. We focus on energy infrastructure and in particular on the provision of electricity. Unlike other types of infrastructure, energy infrastructure has direct implications for both domestic users (the household) and business users. Moreover, electricity is in many ways a more fundamental or basic good in that it helps create efficiencies for other activities and impacts a broader portion of the population. We proxy for infrastructure service delivery as the proportion of the population with electricity access at the household level as measured in the World Energy Outlook (International Energy Agency, 2011). The measure includes on- and off-grid electricity sold commercially.

The last area of service delivery that we examine is the *environment*. Like infrastructure, a clean environment is a classical public good in the economic sense. To proxy for the overall quality of the environment, we focused on air quality. Our indicator of outdoor air pollution is the amount of very small particulate matter in the air (pm10). This indicator captures the average urban resident's average annual exposure level to finely suspended particulate matter less than 10 microns in diameter. Particulates this small can penetrate deeply in the respiratory tract, with potential to cause serious health damage (Pandey et al., 2006). Since particulate exposure levels are sensitive to local environmental regulations and pollution controls, we consider it to be a proxy for environmental service delivery outcomes. Pm10 data come from the WDI.

3.2.2 Independent Variables. We follow the introduction to this special issue by focusing on two core characteristics of *statehood* as our main independent variable: control over the use of force and the ability to enforce rules and regulations. Control over the use of force is one the classical and indeed constitutive aspects of the state. It is in many ways a prerequisite for other state activities and it constitutes in itself a public good. When the state's monopoly of force is contested, the state lacks control over violence in some or all parts of its territory. We measure control over the use of force with a negative proxy capturing challenges to the state's monopoly of force that combines two variables from the Political Instability Task Force's (PITF) dataset. The first variable (MAGFAIL) captures situations "in which the institutions of the central state are so weakened that they can no longer maintain authority or political order in significant parts of the country" (Marshall, Gurr, & Harff, 2010). The second variable (MAGAREA) measures the proportion of a country "affected by fighting or revolutionary protest" (Marshall et al., 2010). We selected these two indicators to capture the relative strength of state institutions and the territorial reach of coercive state institutions.[3] The ability to enforce rules and regulations is the second core aspect of statehood. We proxy for enforcement capacity with a measure of fiscal capacity. The extraction of fiscal resources is at the core of state capacity (Tilly 1985) because all state activity, including rule enforcement, crucially depends on the ability to pay for it. Levying taxes (especially the income tax or the value-added tax) is bureaucratically complex, and identifying, punishing, and deterring tax evasion requires an administrative apparatus capable of carrying out those tasks. Because of the critical importance of adequate revenues it is likely that states will focus scarce

[3] For a similar measure combining MAGFAIL and MAGAREA see Branovic (2011) or Goldstone et al. (2010).

administrative capacity on this task making this measure a conservative estimate of general administrative capacity. Our measure of extractive capacity comes from the Institutional Profiles Database and is defined as the state's ability to levy income taxes, to levy corporate taxes, to levy taxes across the state, and to curb tax evasion. Each component received equal weight in the final fiscal capacity measure.[4]

As illustrated by the contributions to this special issue, an alternative to the domestic provision of collective goods and services is external provision. The international community sometimes intervenes in extreme humanitarian crises, often in the form of a multilateral coalition to relieve suffering, distribute foodstuffs, and save lives (see contribution by Lake and Fariss in this issue). While some of these *international interventions* may have short-term goals to alleviate immediate problems of service delivery, other interventions are more expansive and seek to build structures that will ensure continued provision of collective goods even after the intervention has left. We control for the possible effect of such interventions by including a dichotomous variable that takes 1 if the country experienced a humanitarian intervention mission in the relevant time frame and 0 otherwise. Data are from Kisangani and Pickering's (2009) military intervention dataset. We only include cases that are marked as humanitarian intervention in the data.

Many *international NGOs* are also in the business of promoting development and delivering collective goods and services (see contribution by Murdie in this issue). NGO activity has increased dramatically both in terms of scope as well as in financial resources spent. International NGOs therefore represent an important

[4] Rentier states (such as Bahrain) are not comparable to other states, and were therefore excluded from the analysis.

potential source of substitution for state provision. To assess the impact of NGO activity on a global scale, we compiled our own data set from the UN Department of Economic and Social Affairs (UN DESA) civil society database.[5] We generated a count of non-governmental organizations per country of activity and thematic sector based on the information in the organization's respective profile. Additionally, we counted only international NGOs by including in our count those NGOs whose headquarter country (based on headquarter address) differed from the country of activity.

A third type of external activity is *business activity*. Multinational corporations sometimes provide services (such as health care or security) when the host state fails to do so (see the contribution by Hoenke and Thauer in this issue). Businesses may provide services in the context of corporate social responsibility policies but they might also do so for reasons of self-interest (such as the health of their workforce). In either case, external business activity can improve the delivery of collective goods and the associated outcomes by substituting for state provision. We control for the possible impact of external businesses by including the inflow of foreign direct investments as a percentage of GDP. Data are from the UN Conference on Trade and Development (UNCTAD) Statistics Division. Migrants are not direct external providers of collective goods, but their *remittances* constitute a large proportion of transnational non-business financial flows. These flows are generated by economic activities in the host countries of the migrants and are thus external to the country at hand. Remittances serve as an important supplement to household income and can

[5] The civil society database is located at http://esango.un.org/civilsociety/login.do, last accessed August 14, 2012.

help families and individual acquire goods and services on a private basis.[6] This substitution mechanism could operate either by facilitating the purchase of services, such as enrollment in a private school, or by financing the creation of previously unavailable services, such as a community well. We control for the possible effect of remittances by including per capita remittances flows in U.S. dollars. Base data come from the WDI.

Economic development provides the means to pay for services (Huther, 1998, Stiglitz, 2009). With greater economic resources, states are better able to deliver services and individuals are better positioned to acquire such services privately (in substitution of state services).[7] To capture economic development, we include citizens' mean income as a covariate in our model. Data come from OECD data and is given in terms of purchasing power parity (OECD Development Centre, 2011). While the absolute level of economic resources is important, their distribution is also relevant for the delivery of collective goods and services. In highly unequal societies, greater economic resources in the aggregate are unlikely to correspond with overall better collective goods and services outcomes. Even though the rich might acquire services privately, the majority of the population may be too poor to do so. The literature has suggested direct relationships between inequality and specific outcomes (for security, see Jacobs & Richardson, 2008 and Kelly, 2000; for health, see Deaton, 2003; Leigh & Jencks, 2007; Lynch et al., 2004). We therefore include

[6] The World Bank estimates inward remittances of over 300 billion US$ for 2009, and in cases like Tajikistan, Tonga, and Lesotho remittances account for over 25% of the country's GDP (World Bank, 2011b). For an example from Mexico see Adida and Girod (2011) or Alarcón (2002).

[7] Note that economic development in this sense is not the same as extractive capacity (as part of the statehood measure). Whereas the former refers to the level of wealth, the latter is about the state's ability to extract what it is entitled to – independent from the respective level.

economic inequality as a covariate. We measure economic inequality using the Gini coefficient, a commonly-used inequality measure. Gini data come from the World Income Inequality Database (UNU-WIDER, 2008) supplemented with World Bank data when no UNU data were available. (World Bank, 2010).

The large literature on *regime type* revolves around debates about democracy, autocracy, elements of these respective regimes, and their consequences for the provision of collective goods, development, or growth. The literature suggests three hypotheses. Some authors argue that on balance, regime type has no major effect (Glaeser, Ponzetto, & Shleifer, 2006; Kurzman, Werum, & Burkhart, 2002; Ross, 2006). Other scholars claim that autocracies, especially those with lower levels of development, perform better (particularly in fostering growth) because of more efficient rule-making systems (O'Donnell, 1999). However, a significant group of scholars argues that democracy improves the economic and social performance of states (Besley & Kudamatsu, 2006; Iqbal, 2006; Lake & Baum, 2001; T. D. Zweifel & Navia, 2000), a claim that focuses both on accountability structures and broad representation. To account for regime type, we include democracy as a covariate in our analysis. We use the dichotomous democracy indicator from Cheibub, Gandhi, and Vreeland (2010), an update of the measure introduced in Przeworski, Alvarez, Cheibub, and Limongi (2000).

Economists, political scientists, and policymakers have recognized the potential role good governance can play in delivering collective goods. Good governance refers to a broad discussion that posits a central role for certain qualities of public institutions (The World Bank, 1989, p. 60; Kaufmann et. al. 2009; Fukuyama 2013). Although the literature identifies many characteristics of good governance, we

chose to focus on the *rule of law*. The rule of law can be important for the provision of collective goods and services when conflicts about the distribution of services arise. In particular, problems of inequitable access or discrimination in provision can be addressed in the legal system. Of course, this mechanism depends on the legal system being functional and accessible to the population. We thus use access to the legal system as a proxy for the rule of law. We use an indirect measure focusing on the plaintiff's cost of settling a legal claim relative to income per capita. We use the World Bank's cost of claim indicator that covers court costs, enforcement costs, and average attorney fees as a percentage of a financial claim equivalent to 200% of annual income per capita in the respective country (World Bank, 2011a). Bribes are excluded. High values on this indicator suggest that legal conflict resolution becomes more and more difficult.

Since the 1970s, there has been an ongoing discussion about the role of women, gender discrimination, and development. Currently, the discussion revolves increasingly around the role women can play in increasing the overall effectiveness of development programs and sustainable development (Kerner, 1999; Momsen, 2004; UNDP, 2006; Verband Entwicklungspolitik deutscher Nichtregierungsorganisationen e. V. (VENRO), 2010). *Female empowerment* can affect the provision of collective goods and services in several ways. Women are often the primary caregivers and make decisions regarding their family's education, health, labor, and nutrition. When empowered and given basic rights, women are more likely to take advantage of existing services that could benefit their children and their families.[8] We measure

[8] Miller (2008), Shaikh and Hatcher (2005), and Holmes (2003).

female empowerment as the ratio of girls to boys in primary education corrected for the gender distribution of all children under the age of 15 in the population. A society with a relatively equal ratio of girls to boys in school suggests that the overall situation of women is better than in a society where this ratio is low. Education ratios also correlate with a large variety of gender-specific indicators, due to the fact that educational choices are not made by the children themselves but by their parents. For robustness, we use two alternative variables: the de facto existence of polygamy and women's access to credit. All measures are from the OECD Gender, Institutions, and Development Database (OECD Development Centre, 2011).

Ethnic, linguistic, or *social fragmentation* commands a particularly prominent role in the literature on collective goods. Some scholars argue that in a fragmented polity, it is more difficult to achieve consensus on public policies since different groups have competing opinions on the provision of public goods (Easterly & Levine, 1997); that there are generally higher transaction and transmission costs (Kimenyi, 2006); or that in case of asymmetric fragmentation, the most powerful ethnic group might pass self-interested policies favoring that group with negative consequences for the rest of society. In contrast, in homogeneous communities, reciprocity norms that foster risk-taking, investment, and cooperation can facilitate a greater production of public goods than in diverse communities where these norms are weaker (Habyarimana, Humphreys, Posner, & Weinstein, 2007). Other scholars argue that fragmentation might actually have a positive effect on the provision of public goods. If the state fails to provide such goods, people might turn to their ethnic communities for self-provision of public goods and services (Alesina & Zhuravskayay, 2009; Kimenyi, 2006). Our fragmentation data comes from the Minorities at Risk (MAR)

project (Minorities at Risk Project, 2009b). We operationalize fragmentation using MAR data on the share of the population in politicized groups.

Finally, we considered the role of environmental and demographic conditions that may influence the severity of the service delivery challenge states and other actors face. We refer to environmental or demographic conditions collectively as the *size of the challenge* and included an appropriate covariate in our models whenever this was feasible. In the security dimension, we included the percentage of male youth population – a segment of the population commonly associated with high crime rates and a general propensity for violence (Heinsohn, 2003; Redo, 2008). For education, we included a general "youth bulge" variable since the challenge to educate youth increases as their proportion in the overall population rises. The youth bulge is defined as percentage of the population between the ages of 0-14. Both measures come from the WDI. For environment, we included the percentage of the population living in areas with an arid or dry climate which is particularly prone to natural pm10-type pollution (covered by our environmental services variable). Data are from Gallup, Mellinger, and Sachs (1999).

3.3. Method

To test our model, we use OLS regression with robust standard errors on a sample of more than 150 developing and developed countries. Because of data limitations across our indicators, we were unable to conduct a time-series analysis. Moreover, because statehood characteristics change slowly over time, a time-series analysis would require long panels to allow for sufficient longitudinal variation in our

primary independent variable – and the majority of our outcome variables are unavailable earlier than the year 2000. While we primarily look for evidence of linear relationships, we also test for non-linear relationships whenever we observe extreme levels of service provision at the tails of the independent variables. We report whenever we detected a significant non-linear relationship. For reasons of parsimony, we focus primarily on the results for statehood and external actors in our discussion below.

4. Statehood and Beyond: Explaining Outcomes

Below we present the results of our analysis for each issue area of service delivery. Since not all covariates are conceptually relevant for each individual domain of service delivery, we only include covariates in the respective regression only when the relevant literature reports a plausible causal link between the specific issue area of service delivery and the predictor.

[Table 1 about here]

4.1 Security

Columns 1a to 1c in table 1 present the results for security. In model 1a, our monopoly of force measure does not significantly affect the provision of security. The reason for this non-finding is the presence of outliers such as Honduras, Venezuela, and El Salvador, where homicide rates of more than 60 deaths per 100,000 outweigh even the highest fatality numbers from the UCDP conflict datasets. These extreme homicide rates coincide with a high level of a formal monopoly of force according to

our measure and alternative measures. The presence of these outliers leads to weak and statistically insignificant regression coefficients. To investigate whether there is evidence for a statistical relationship between the state indicators employed here and war-related deaths, we ran separate regressions on deaths classified as crime-related homicides, and on deaths from the UCDP conflict datasets. Model 1b shows that when violent deaths from homicides are excluded from the dependent variable, both statehood indicators have a significant impact on security provision, as predicted by theory. In all three regressions, we fail to find any conclusive effect of humanitarian interventions as providers of security, a finding consistent with the Lake and Fariss argument advanced in this issue. We conclude with caution that statehood is associated with war-related security outcomes, but the effect is much less clear than expected and no effect is discernible for external humanitarian interventions. Inequality, on the other hand, seems to play an important role, particularly with regard to crime-related homicides and in conjunction with a male youth bulge. We also conclude that the extreme crime situation in some Latin American countries should lead us to rethink the meaning and measurement of the monopoly of force, and whether the pattern of violent crime observed in Latin America reflects a missing element of the monopoly of force.

4.2 Public Health

Columns 2a and b in table 1 show the results for maternal mortality rates, our outcome indicator for health service provision. The two statehood variables are not significant. Stronger monopoly of force and a greater fiscal capacity have no apparent *linear* effect on maternal mortality rates. Figure 1, however, illustrates a u-shaped relationship between fiscal capacity and mortality rates (illustrated also by the

significance of the quadratic term in the regression). States with very low fiscal capacity perform particularly poorly at preventing maternal deaths. The quadratic correlation suggests that it may be that strong statehood serves as a necessary condition rather than a sufficient condition for health service delivery.

[Figure 1 here]

The evidence that external actors can provide health services directly or indirectly is mixed. While we find no significant effect for humanitarian interventions, private remittances are clearly associated with lower maternal mortality rates, consistent with the idea that remittances allow for greater private access to existing services. At the same time we also observe a significant relationship between NGO activity, FDI, and maternal mortality, but the sign of the coefficient is contrary to theoretical explanations. NGOs likely concentrate their activities countries with poor health outcomes, and this non-random selection makes it difficult what to conclude from our results. The two likely scenarios are that NGOs have no effect on maternal mortality, or that they reduce maternal mortality relative to mortality rates in the absence of NGOs. Unfortunately, our research design does not allow us to distinguish between these possibilities. Similarly, we doubt that FDI drives up maternal mortality. Rather, we assume a third factor to influence both the choice of foreign direct investment and poor maternal mortality outcomes.

The ratio of female education is also statistically significant and in the predicted direction. In the case of maternal health, the increased uptake mechanism described in the previous section may be particularly important. Countries with higher levels of female empowerment are likely those where women have more freedom to

access professional health services critical for reducing the risks of pregnancy and childbirth (Simkhada, Teijlingen, Porter, & Simkhada, 2008).[9]

4.3 Education

Column 3 in table 1 illustrates that neither measure of statehood has a statistically significant relationship with our education outcome. A higher monopoly of force does not lead to longer expected years of schooling, nor does the state's extractive capacity play a role in extending education. We also find little evidence that external actors affect education quality. External flows like remittances and FDI appear to have no effect on the number of expected years of schooling. In other words, income supplements alone do not prolong the number of years a child can expect to be educated. Nor does foreign business activity in the form of FDI appear to create large enough incentives for longer education detectable at the national level. NGO activity also has no apparent relationship with the quality of education as we define it. While NGOs certainly assist in the delivery of some educational services, NGOs may have had less success in supplying or affecting the demand for secondary or tertiary education.

The only relationship we find between external actors and education services is for humanitarian intervention missions, but again with a coefficient sign contrary to theoretical predictions. However, we doubt that any direct negative causal relationship exists between humanitarian intervention and education. Many countries

[9] Because some scholars and policymakers consider maternal mortality rates as an indicator of female empowerment, we ran a robustness check using under-5 mortality rates, which measure the number of deaths before the fifth birthday per 1,000 live births. Our results are robust to this alternate dependent variable.

suffer from poor education outcomes, yet humanitarian intervention is exceedingly rare, and generally not predicated on education. More likely, some confounding factor influences both intervention and poor education service delivery.

Female empowerment is a strong predictor of the quality of educational services. This finding is consistent with the literature. Evidence suggests that the mother plays a significant role in her daughter's education. At the same time, mothers do not discriminate against boys and a mother's educational attainment has a positive impact on the educational attainment of all their children (Kurosaki, Ito, Fuwa, Kubo, & Sawada, 2006; Paul Schultz, 2002). Thus, higher ratios of female attendance in school are associated with overall longer expected years of education. These results are robust to our two alternate operationalizations of female empowerment,[10] indicating that the relationship is not driven by our favored operationalization.

4.4 Basic subsistence

For basic subsistence (column 4 in table 1), neither measure of statehood explains any variation in access to water, while income and remittances are associated with an increase in the population with access. This could be explained by a substitution effect in which private resources allow individuals to obtain water even without state-provided infrastructure. Improved water sources include rainwater collection facilities, boreholes, and protected wells, all of which can be built and maintained with private resources. Private provision need not eliminate the role of the

[10] These alternative operationalizations are the de facto existence of polygamy and women's access to credit.

state in delivering water, but it could explain why we do not observe a clear relationship between statehood and water access.

Other than remittance flows from migrants, we find no evidence that external actors play a significant role in explaining variation in subsistence. This result does not necessarily mean actors like international NGOs have no effect; it may be that their overall impact is not large enough to be picked up in national-level indicators.

Female empowerment is statistically significant and in the predicted direction. Two mechanisms might be at work. Women are the prime users of “domestic water,” so a greater proportion of educated and empowered women could lead to demand-side efforts to obtain sustainable access to improved water sources (UN Division for the Advancement of Women DESA, 2005). A reverse mechanism may be at work as well. A recent World Bank paper suggests that female enrollments increase as a result of better access to rural water infrastructure by releasing girls from water collection, a laborious, time-consuming, and primarily female-dominated task (Koolwal, 2010). In general, freeing women and girls from water collection allows them to take advantage of other opportunities like education, formal employment, or entrepreneurial work that increase the overall empowerment of women.

4.5 Infrastructure

In column 5 of table 1, we see again that statehood indicators have no significant relationship with infrastructure outcomes. Unsurprisingly, economic development correlates positively and significantly with electrification rates, while economic inequality remains insignificant. The lack of significance on the statehood indicators may arise because individuals need not rely solely on the state for

electricity. Small private generators bypass the electrical grid and power individual households, reducing the importance of the state as a provider of electrical infrastructure through its public companies. The positive coefficients on remittance flows and economic development support the idea that private provision substitutes for state provision.

4.6 Environment

For the issue area of the environment (column 6 in table 1), the existence of a state monopoly of force has no impact on the protection of the environment. This result is not very surprising. Countries with a defunct state monopoly of force may have relatively low levels of air pollution simply because economic activity that could cause such pollution has collapsed as a consequence of fighting. Fiscal capacity, however, is equally insignificant. Taking a closer look at the data, in cases like Sudan and Mali a low degree of statehood coincides with a poor economic development and a relatively high intensity of mining and resource extraction which results in extreme air quality degradation. The only non-natural factor that does seem to explain variation in air pollution is economic development. The main man-made sources for pm10 pollution are fuel combustion for transportation and stationary combustion for energy. Reducing air pollution through technology is often simply a matter of costs. This finding remains significant when controlling for natural sources of pm10 like wind-blown dust that drives the high rates in desert countries. Based on an overall low prediction power of our model we thus cautiously conclude that the strongest effect on environmental service delivery is to be found in overall economic development while statehood and our other control variables remain insignificant.

5. Conclusions

The state has long held a position of primacy in the academic and policy communities. The maintenance of the monopoly of force and the ability to extract taxes, an important component of the state's fiscal capacity, are the two central features of modern states. Yet, our statistical results suggest that contrary to the conventional wisdom, statehood does not matter for the delivery of public goods and services as strongly as academics and policymakers have suggested. These basic components of the state have weak or no explanatory power in our six issue areas. In fact, our models yielded results consistent with the predicted relationship only in the case of war-related security outcomes (a subset of the security issue area) and with public health services (a non-linear effect of fiscal capacity).

The non-relationship between statehood and service delivery outcomes has some theoretical and policy implications. First, academics may need to reconsider or enrich existing theories about the central role of the state in delivering basic public goods and services. At the very least, statehood alone appears to be insufficient for explaining the cross-country variation. For policymakers interested in helping improve development outcomes in fragile states and states with limited statehood, our work suggests that the policy prescription must combine efforts to shore up the state with other policy interventions.

Second, the non-relation between statehood and service delivery, combined with the observation in the introduction of this paper that states with areas of limited statehood (states in the middle ranges of statehood), suggest that other actors, such as external actors, may provide goods and services in lieu of (or alongside) the state's own efforts. In our own analysis, we found mixed evidence that external actors

have an impact large enough to be detected at the national level. Private remittances from international migrants did affect outcomes related to public goods provision in three of our six issue areas, but capital flows from businesses (FDI) did not have any statistically significant impact. We also examined the effect of NGOs and humanitarian interventions, but our research design was unable to distinguish between the true effects of these external missions and selection bias. Contributions to this issue by Beisheim et al., Hoenke and Thauer, and Murdie further explore the role of external actors in providing public goods and services using different research designs and levels of analysis.

We also found that female empowerment had a consistent relationship with health, education, and basic subsistence outcomes. Although we cannot point to a causal relationship, these results do support the policy community's focus on increasing female empowerment and participation as a means toward increasing development and improving collective goods outcomes.

In highlighting our null finding on statehood, the mixed picture for external actors, and the significant effects of female empowerment, we remain conscious of the limitations of our study. State-level data can never take into account sub-national variation such as regional or urban-rural differences (for an examination of regional variation in Somalia, see Schaferhoff in this issue). In addition, the quality and reliability of that data varies from country to country – not least because of variations in statehood and the capacity of national statistics bureaus, a particularly thorny problem whenever state sources are used. Finally, our design does not allow us to identify the causal effect of statehood or any other variable in our analysis. We can only claim that there is only a weak association between statehood and outcomes

where that relationship exists at all. To shed further light on our findings, time-series analyses, lower levels of abstraction or aggregation, and qualitative studies can be particularly productive. Such approaches seems to be particularly promising for female empowerment where further knowledge about the causal links can inform policy decisions, and for the role of external actors, a task that is taken up by the other contributions to this special issue.

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Table 1: Regression results

	VARIABLES	(1 a) Security	(1 b) Conflict-related Deaths	(1 c) Homicide Rate	(2 a) Maternal Mortality	(2 b) Maternal Mortality	(3) Expected Years of Schooling	(4) Access to Water	(5) Electri-fication Rates	(6) PM10
Statehood	Monopoly of Force	0.095	-0.367+	-0.048	0.064	0.054	0.027	-0.100	0.013	-0.027
		(0.9)	(-1.8)	(-0.5)	(1.2)	(1.1)	(0.8)	(-1.9)	(0.2)	(-0.3)
	Fiscal Capacity	0.095	-0.254+	0.0005	-0.200	-0.076	0.030	0.148	0.065	-0.185
		(0.8)	(-1.8)	(0.0)	(-1.9)	(-0.9)	(0.6)	(1.3)	(0.6)	(-1.8)
	Fiscal Capacity – Quadratic Term					0.200**				
						(2.8)				
External Actors	Remittances				-0.143**	-0.157**	-0.007	0.147*	0.188**	
					(-2.6)	(-3.2)	(-0.2)	(2.1)	(3.4)	
	NGO Activity				0.360***	0.280***	-0.020	-0.165		
					(4.6)	(3.7)	(-0.5)	(-2.0)		
	Foreign Direct Investments				0.128*	0.124*	0.003	-0.078		
					(2.2)	(2.1)	(0.1)	(-1.0)		
	Humanitarian Intervention	-0.069	0.098	0.068	0.137	0.129	-0.182***	-0.030		
		(-0.6)	(0.6)	(0.6)	(1.5)	(1.5)	(-4.0)	(-0.4)		
Economic Development	Mean Income	-0.110	0.133	0.118	-0.111	-0.502**	0.745***	0.256*	0.266*	-0.254*
		(-0.9)	(0.7)	(1.1)	(-1.0)	(-3.1)	(6.2)	(2.0)	(2.1)	(-2.1)
	Mean Income – Quadratic Term					0.254*	-0.305**			
						(2.4)	(-3.2)			
	Economic Inequality	-0.435**	0.072	0.474***	0.067	0.106	0.015	-0.042	-0.037	
		(-2.8)	(0.6)	(3.7)	(0.9)	(1.6)	(0.3)	(-0.5)	(-0.5)	
Regime Type	Democracy	-0.123	0.058	0.080	-0.090	-0.091	0.080	0.092	0.192	0.157
		(-1.1)	(0.7)	(0.8)	(-1.1)	(-1.2)	(1.7)	(1.0)	(1.9)	(1.6)
Rule of law	Cost of Claim	-0.019	0.058	-0.010	-0.132	-0.101	-0.026	0.197*	0.338***	0.007
		(-0.3)	(0.5)	(-0.1)	(-1.8)	(-1.4)	(-0.7)	(2.2)	(3.7)	(0.1)
Empowerment	Ratio of girls to boys in primary education				-0.225*	-0.197*	0.160**	0.210*		
					(-2.5)	(-2.5)	(3.3)	(2.3)		
Fragmentation	Social Fragmentation	0.047	0.098	-0.025	0.015	0.037	0.063	0.016		
		(0.6)	(1.1)	(-0.3)	(0.2)	(0.5)	(1.6)	(0.2)		
Size of the Challange	Male Youth Bulge	-0.300*	-0.015	0.390***						
		(-2.5)	(-0.1)	(3.4)						
	Youth Bulge						-0.275**			
							(-2.9)			
	% Population in Arid/Dry Climate									0.423***
										(4.0)
	Observations	104	106	105	98	98	100	96	98	105
	R-squared	0.372	0.231	0.444	0.691	0.742	0.890	0.625	0.547	0.394
	Adj. R-squared	0.312	0.159	0.391	0.647	0.699	0.872	0.571	0.512	0.357

Figure 1: Augmented Partial Residual Plot - Linear and Nonlinear Relationships between Maternal Mortality Rates and Fiscal Capacity