

In Poor Countries, Tax Collection is a Function of State Capacity Not Social Diversity: A study of local tax revenues in Benin

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Abstract

This paper tests two competing theories of low tax revenues in very poor countries. The first is that ethnic diversity lowers citizens' willingness to pay taxes, thereby reducing revenues. The second argues that the problem is low state capacity. Using a new dataset of local tax revenues in Benin, I find that urbanization, which makes tax collection easier and more efficient, is a better predictor of per capita government revenues than ethnic or religious fractionalization scores. The second step of the study is to move beyond relative differences in capacity and revenue to look at revenues in absolute terms. I find that they are uniformly low at both the local and national levels. Disaggregating the sources of tax revenue demonstrates, furthermore, that most tax collection occurs where taxes are easiest to extract. These findings offer further support for the tax capacity hypothesis. The paper concludes with a discussion of how the source of government revenues - which in Benin are largely independent of taxpayer contributions - affects the logic of public goods provision. I argue that where citizens do not determine the size of tax revenues, social diversity cannot have a direct effect on the provision of public goods.

1 Introduction

Easterly and Levine (1997) demonstrates a strong correlation between social diversity and public goods provision in a large cross-national sample - finding that more social diversity is correlated with lower public goods provision and growth-retarding public policy - and this seminal finding has given rise to a wealth of studies on the topic. Related research usually falls into one of two camps. The first focuses on community provision of public goods and tends to emphasize the ways in which ethnic diversity decreases community members' ability to sanction free-riders (Costa and Kahn, 2003; Miguel and Gugerty, 2005; Habyarimana et al., 2007; Karlan, 2007).

The second group - and the group in which this paper falls - is interested in government provision of public goods. Here, though public goods are the outcome of interest, there is an

important intervening variable between societal dynamics and public goods provision: taxation.

One approach to understanding variation in public goods provision is therefore to study the politics of taxation, and one prominent strand of this literature has focused on the ways in which social diversity affects tax rates and revenues (Lieberman, 2003; Waldner, 1999; Wimmer, 2002; Wolfe and Klausen, 1997). The standard assumption is that ethnic diversity tends to decrease tax revenues because people in diverse societies would rather self-provision than finance public goods (Alesina, Baqir and Easterly, 1999). This relationship seems to hold in the cross-national sample, since the most diverse countries also tend to provide the fewest public goods. Easterly and Levine’s (1997) “growth tragedy” hypothesis is based on the finding that countries in sub-Saharan Africa are among the most inadequate providers of public goods in the world; they are also among the most diverse. However, the most diverse countries also tend to be the poorest, and poverty is strongly linked to low state (and thus tax) capacity (see Figure 1). The relationship between ethnic heterogeneity and public goods provision might therefore be spurious rather than causal. Both may be the result of a weak state which can neither unify its people nor provide even basic public infrastructure.

This study tests these two competing hypotheses - whether low tax revenues are a function of social diversity or low state capacity - with subnational data from Benin, a poor and ethnically diverse country in West Africa. Using a new and detailed database of local per capita tax revenues, I find that a key correlate of state capacity - the population size of the locality’s main town or city - is a much stronger predictor of local government revenue than either local ethnic or religious fractionalization scores. The fact that the localities with larger towns tend to be more ethnically diverse than rural localities serves to reinforce the point: societal preferences do not determine tax policy where governments still need to overcome the first-order problem of low tax capacity.

Moving beyond the relative differences across localities, this study also considers the size of tax revenues in absolute terms at local and national levels. I find that revenues are uniformly low. Furthermore, in disaggregating the sources of government tax revenue, I find that a very large part of total revenues are derived from customs duties (which can be easily collected at choke points entering or passing through the country), rather than from direct taxes on

Patterns in Wealth, Tax Revenues and Ethnic Diversity

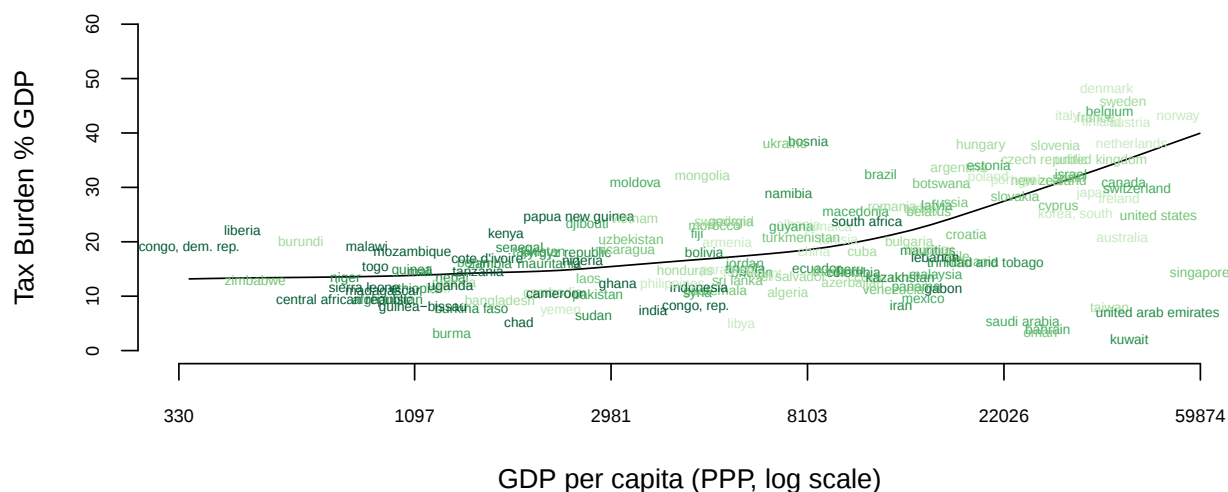


Figure 1: Darker colors indicate higher ethnic fractionalization scores. Ethnic fractionalization data are from Fearon (2003), with replication data available here. Tax and GDP figures (2010) were compiled by the Heritage Foundation, whose data are available here.

income, property or business revenues (which require greater state capacity to collect). These findings are consistent with the low state capacity hypothesis, but what are the implications for public goods provision?

First, Meltzer-Richards-based models (Meltzer and Richard, 1981), in which voter preferences determine the tax rate, are not particularly useful for explaining public policy since 1) the state does not have the capacity to extract much revenue whatever the voters' preferences, and 2) to the extent that government provides public goods, it does so with resources - such as customs duties and foreign aid - that do not depend on taxpayer consent. Second, though public goods distribution might still be affected by ethnic diversity, this would be the result of a political process, determined by things like party structure and electoral institutions. Counting ethnic groups assumes the existence of direct effects on policy by human prejudice and inter-group dynamics, but if resource flows are top-down due to lack of tax capacity (rather than moving from society to state and back again), then no direct links between levels of fellow-feeling and public policy exist.

Note that these findings apply only to poor countries. In places where tax capacity is

no longer an issue, social diversity may well play a role in the level of tax revenue. A third implication of this study is that, to the extent that wealth is correlated with state capacity, rich and poor countries are not comparable cases with regards to public goods provision. Different processes of resource collection - and thus distribution - are at work.

This paper proceeds as follows. First, case selection and data are discussed. Then the diversity and capacity hypotheses are tested with regression analysis on local tax revenues per capita. I find that the size of the locality's main town is a much better predictor of tax revenues than either ethnic or religious fractionalization, which offers support for the capacity hypothesis. Moving beyond relative differences in local capacity and tax revenues, Section 5 looks at tax revenues in Benin in absolute terms (finding that they are quite low) and disaggregates revenues by type of tax (demonstrating that most tax collection occurs where taxes are easiest to extract). Section 6 argues that, due to low tax capacity, the provision of public goods in poor countries follows a distributional logic rather than a logic of re-distribution, which is the case in rich countries. Therefore, rich and poor countries are not comparable with regards to public goods provision. The final section concludes.

2 Two Theories of Low Tax Revenue

To provide public goods, governments must first collect contributions from the population to fund these projects. One theory argues that higher ethnic diversity reduces the taxpayers' willingness to contribute, thus decreasing the amount of public goods provided. In a widely referenced paper on this topic, Alesina, Baqir and Easterly (1999) suggest that perhaps different groups have different preferences about which goods government should provide (and thus which goods they, the taxpayers, should pay for); another possibility is that individuals prefer not to pay for goods that would benefit members of other groups. In either case, people in diverse societies would rather self-provision than finance public goods.

The link between societal preferences and tax revenues has been assumed to hold in places that are extremely poor (Collier, 2000; Alesina et al., 2003; Jackson, 2013), though it has not been empirically tested in this setting. And there is reason to believe that the determinants of tax collection might be different in poor countries than in middle-income or rich ones. In

poor countries, it could be the case that state capacity is too low to raise revenue effectively, no matter how citizens feel about their compatriots.

Margaret Levi (1988) emphasizes that tax collection requires “quasi-voluntary compliance” by the taxpayers, meaning that government revenues depend on taxpayer cooperation. But the “quasi” is important. There must be some cost of non-payment, some threat of punishment, some difficulty in evading the tax collector. In studies of community-provided public goods, where community members contribute directly to the good provided, it is notable that the key mechanism in many studies linking social diversity and participation in provision is the ability of the community to effectively sanction those who do not participate (Miguel and Gugerty, 2005; Habyarimana et al., 2007; Karlan, 2007). (This idea is that sanctioning is more effective in more homogenous communities.) States must also be able to credibly threaten sanctions, and this is a function of state capacity.

Of course it is a bit tricky to demonstrate that tax revenues are determined by state capacity since capacity is often measured by revenue. In the context of very low capacity, however, we can measure structural variables that make taxation easier and more efficient, thereby boosting state capacity to collect. The literature on early state-building points to urbanization as a key factor here, for several reasons. First, urbanization is linked with greater market activity (even in pre-colonial West Africa: Hopkins, 1973, ch. 2), which boosts both the size of the potential tax base and increases cash liquidity. Furthermore:

[a]ll tax collectors face three major problems: those of measurement - assessing liability on the basis of wealth or output; of collection - persuading or coercing subjects and citizens to pay their taxes; and of remittance - getting money from the point of collection into the coffers of the state. All three are exceptionally difficult to accomplish not only in a poor economy but in one characterized by subsistence agriculture, by scattered, small-scale production, by local markets, poor communications and by exchange in kind rather than through cash or credit (Brewer, 1990, p. 182).

Brewer was writing about differences between the economies of France and Britain in the 18th century, but the difficulties faced by the French government during that period are not so

different from those faced by very poor countries today, especially countries in which a large part of the population is engaged in subsistence farming. Though services and production in the larger towns and cities is often very small-scale, the relative concentration of property holdings and economic activity does offer higher returns to government on investments in tax capacity (causing improved assessment and remittance). Also, the benefits of urban life for residents and entrepreneurs can support a higher tax burden (thus improving collection). Even if people would prefer not to pay - even if the government gave them nothing at all in return - the costs of leaving or closing one's business (or "exit," in Albert Hirschman's terms (1970)) - would outweigh the costs of tax payment, and this allows for higher rates of extraction.

To summarize, the second theory of low tax revenues in very poor countries argues that the problem is not social diversity but low tax capacity. Capacity should be increased where there are larger urban populations because the concentration of people and economic activity makes tax collection easier and more efficient. And where tax capacity is higher, tax revenues per capita should increase as well.

3 Case Selection and Data

The two theories are tested across localities in Benin, a very poor country in West Africa. National per capita GDP was about \$1500 (PPP) in 2010¹ Relative to countries of similar wealth, Benin's national tax burden, at 16% of GDP in 2010, is about average (see Figure 1). Benin is a diverse country in terms of ethnicity and religion, and both are salient political identities (Koter, 2013).

At the local level, Benin exhibits wide variation in ethnic and religious fractionalization. Using data from the 2002 National Census,² I calculated ethnic and religious fractionalization scores for each of Benin's 77 *communes* (localities).³ Fractionalization scores range from 0.01 to 0.83 for ethnicity, and 0.10 to 0.87 for religion, with scores closer to 1 indicating more

¹Figure is from the World Bank's World Development Indicators.

²Census data were obtained by the author from the *Institut National de la Statistique et de l'Analyse Economique* (INSAE) in 2011.

³Fractionalization scores were computed using the Easterly and Levine (1997) formula: $Frac = 1 - \sum_{i=1}^n s_i^2$ where s_i is the share of group i in the local population.

heterogeneity.⁴

Most uniquely for an African country, Benin's local governments have been granted significant autonomy from the national government. Since 2003, all local council members have been chosen by direct popular election. Such political autonomy contrasts with local governments in Ghana, for example, where one-third of the district council members, as well as the district chief executive, are appointed by the president (Ayee and Dickovick, 2010, p. 4). Democracy is a crucial component of the diversity theory, in which citizens *choose* their level of taxation, and so it is important that the relevant governing body - in this case, the local councils - be fully and democratically elected.

Also required to make citizen preferences meaningful is fiscal and administrative autonomy. In the diversity theory, citizens are choosing their tax rate based on the level of public goods they wish to provide for the community. To test the theory at the local level, local governments must have be able to set local tax rates and to keep the revenues they raise. In Benin, though the national government sets the upper and lower bounds for the taxes that can be collected by local government, the councils are free to set their own rates within these limits, and - most importantly - the revenues raised through local taxes are left to the councils to keep and spend as they see fit (Ministère de la Décentralisation, 2010).

3.1 Local revenues

Local tax revenue figures were obtained by the author from the Ministry of Decentralization.⁵ The data are reported annually, from 2003 (when the local governments became operational) to 2010. For the analysis below, all revenue figures are averages for each locality over this period and reported in per capita terms. (In 2006, estimated local population size ranged from 30,499 to 719,912; with a mean of 102,123 persons per locality.)⁶

⁴Fractionalization scores at the *arrondissement* (local electoral district / sub-commune) level were also calculated. Comparing fractionalization scores of the commune as a whole to an average of the fractionalization scores across the commune's electoral districts indicates that mixed communes tend to have equally mixed electoral districts. In other words, the heterogenous localities are not divided into homogenous ethnic or religious enclaves.

⁵More specifically, they come from the *Commission Nationale des Finances Locales* (CONAFIL), a branch of the Ministry of Decentralization, Local Governance, Administration and Planning.

⁶Measurement of the dependent variable, local tax revenues, covers the period 2003-2010, so projected population figures for 2006, about the middle of this period, are used to normalize local tax revenues in per capita terms. These data are available from the INSAE website. Though the population figures from the 2002 census are surely more

Local governments in Benin collect several types of revenue: fees-for-service (e.g., issuing birth certificates and housing permits) and selling local “products” (such as gravel from public quarries); tax revenues that the local governments keep for themselves (such as “direct” taxes on property and business, and “indirect” taxes on taxi-driving permits and public concerts); tax revenues that the local governments send to the national government (mostly customs duties collected on goods travelling through the locality); and funds sent by the national government and foreign donors to the localities to help cover budget shortfalls. In analyzing the effect of fractionalization on tax revenues, the first two types of revenue are used: a measure for the taxes that the locality collects (referred to as *local taxes*); and a measure of these taxes combined with revenues from sales and fees-for-service (referred to as *local revenues*).⁷

Local taxes are disaggregated in Section 4 to demonstrate that revenue from customs duties, which the localities do not keep, often exceed revenues from property and business taxes, which the localities do keep. The explanation offered here is that this is a result low tax capacity: governments collect the most where collection is most easy. Subsidies from the national government and foreign aid are considered in Section 5, which demonstrates that most local government revenues are not derived from taxpayers at all.

4 Empirical Analysis

The analysis here is straightforward. To test the hypothesis that ethnic heterogeneity causes lower tax payments, I estimate variants of the following model:

$$y_i = \alpha + \beta_1 \text{Frac}_i + \beta_2 \text{SpendPC}_i + \epsilon_i$$

where y_i is the natural log of average local government revenues per capita over the period 2003-2010 in locality i .⁸ *Frac* is the measure of ethnic or religious fractionalization of the locality (calculated from 2002 census data). *SpendPC* (log) measures average annual individual

accurate, at least for that year, use of a 2002 head count in calculating spending and revenue per capita would likely result in an over-estimation of payments. Furthermore, since there is variation in local birthrates, relative population size (that is, the total population of one locality compared to that of the others) cannot be assumed to hold steady across time.

⁷Note that these categories are derived from categorization schema of the local tax revenues. See Appendix 1 for an example budget.

⁸Local tax revenues (which exclude fees) were tested as well, but the effects of social diversity were stronger with regards to revenue. Average annual growth as a dependent variable was also tested, with no difference in results.

spending (from locally representative surveys conducted in 2007 and 2010) and serves as a control for a locality's wealth and the capacity of its residents to pay taxes. The total number of localities is 77.⁹ To give the diversity theory as much as fair a test as possible, models are estimated with and without the country's three main cities (Cotonou, Porto Novo and Parakou) since the major urban localities are much wealthier than all the others, and they also tend to be relatively diverse. Results are reported in Table 1.

Table 1: The Weak Relationship between fractionalization and local revenues

DV = Revenues PC (ln)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Ethnic Frac	-0.29 (0.35)	-0.41 (0.35)					
Relig. Frac			0.78* (0.41)	0.83* (0.40)	0.34 (0.44)		
South					0.40* (0.17)		
CityPop (ln)						0.33* (0.10)	0.43* (0.13)
Spending PC (ln)	1.60* (0.25)	1.51* (0.28)	1.48* (0.23)	1.34* (0.26)	1.35* (0.25)	1.30* (0.24)	1.45* (0.25)
Intercept	-12.7* (2.94)	-11.6* (3.31)	-11.8* (2.72)	-10.3* (3.11)	-10.3* (3.01)	-12.4* (2.64)	-15.2* (3.10)
Main Cities	Y	N	Y	N	N	Y	N
N	77	74	77	74	74	74	71

*A star denotes confidence levels at 95% or higher.

Notably, religious diversity does seem to have some effect on government revenues per capita, though the effect runs against the diversity theory prediction: increasing religious

⁹Tax data are missing for 11 commune-years, but because revenue figures are calculated as averages for each commune, all localities are represented in the analysis. The missing commune-years are: Adja-ouere, 2006 and 2007; Agbangnizoun, 2003; Akpro-misserete, 2009; Athieme, 2005; Bopa, 2009; Kandi, 2009; Ketou, 2009; Ouesse, 2010; Save, 2009; and Tchaourou, 2009.

fractionalization is correlated with increased tax revenues. But this result should be taken very seriously. Further inspection of the data indicates that both religious fractionalization and revenues per capita tends to follow a north-south divide: southern localities tend to collect higher taxes; northern localities appear more religiously homogenous. Religious homogeneity in the north is probably a quirk of the census data. The north of the country is mostly Muslim, and the census data provides only one category for Muslims. The south is mostly Christian, but several types of Christian (catholic, protestant, other protestant, other christian) are recorded. The south therefore seems much more religiously diverse than the north.

But why are tax revenues higher in southern localities? In keeping with the capacity hypothesis, the south has more and larger cities, and population density in general is much higher. This is likely due to greater economic opportunity in the south, which has multiple geographic advantages over the north. First, the south enjoys two rainy seasons - and thus two major crop cycles - while the north has just one. Second, the main hubs of economic activity are at the port (located in Cotonou); in the capitals (Cotonou and Porto Novo) set up by France, the old colonial power whose soldiers and traders arrived on the Atlantic coast; and along the main roads linking the economic hubs of other coastal West African countries (whose economic geographies mirror Benin's).

In the first test of the capacity hypothesis, a north-south dummy is added to the basic model (1 for south, 0 for north), and this causes the apparent effect of religious fractionalization on revenues to disappear. In the second test, the size of the locality's main city¹⁰ (log) is substituted for fractionalization in the basic model. The effect is positive and significant with and without the main cities.

¹⁰Most localities have a district that shares the name of the locality, and this is usually the "seat" (*siege*) of the locality, where the urban population is centered and where the local government offices are located. For example, the rural locality of Gogounou has six districts: Bagou, Gounarou, Ouara, Sori, Zoungou-Patrossi and Gogounou. Here, the size of the locality's "main town" is the population of Gogounou district. It is not always the case that the namesake district is the largest population center in the locality, but it is a good approximation of the size of the "urban center." Where an actual city is included in the locality - or in the cases of Porto Novo, Parakou and Cotonou, where the locality is the city - the "urban center" is broken into several numbered districts, all sharing the name of the locality. In these cases, the size of the main town is calculated as the sum of the population size of all districts that share the locality's name. For example, the more urban locality of Kandi has 10 districts: Angaradebou, Bensekou, Donwar, Kassakou, Saah, Sam, Sonsoro, Kandi I, Kandi II and Kandi III. The size of the urban center is calculated as the total population of Kandi I, II and III. Population figures are from the 2006 population estimates. The localities of Abomey, Aguegues and Cove have no namesake districts. They are therefore excluded from the analysis.

One possible concern with these results is the reliability of the revenue data, the main problem being corruption. Interviews and informal conversations with tax payers, tax collectors and local government officials all indicated that some portion of the taxes paid never make it to the local government treasury, and I have no reliable estimates about the amounts that are stolen. Despite this issue, the empirical analysis remains valid for two reasons. First, the state capacity problems that would reduce revenue received by government include corrupt tax collectors and local government officials. My argument is that urbanization (and the potential for higher revenues) increases the government's incentive to curb corruption, thus boosting government revenue. Part of the problem in lower tax areas may be relatively high corruption, but that is not a problem for the capacity theory.

For the diversity theory, the corruption problem has the potential to be more serious, since here, tax revenues are a measure not of state capacity but of willingness to pay. If payments are stolen, we do not have an accurate record of taxpayer cooperation. However, despite the lack of an absolutely accurate record of tax payment, the relationship between social diversity and recorded revenues is likely only to be strengthened by corruption. Increased social diversity is usually thought to worsen corruption (La Porta et al., 1997), meaning that higher levels of ethnic fractionalization should, on the one hand, lower tax payment; and on the other, boost corruption. The combined effect of decreased tax payment and increased corruption would only further lower recorded revenues in more diverse places. In more homogenous places, by contrast, tax payment would be higher, corruption would be lower, and recorded revenues would move further in the expected direction (that is, up). In other words, if corruption causes any bias in the data, it is likely to exaggerate the effect of diversity on recorded revenue. Since we find no effect of ethnic diversity on tax revenues, bias caused by unobserved corruption is not a substantial concern.

An alternative argument to the capacity theory is that people in rural areas are paying as much or more than their urban counterparts, but that these taxes are "informal" - that is, enforced by non-state officials, or by government officials in a non-state role - often paid through in-kind labor, and unrecorded in government records (Prud'homme, 1992; Olken and Singhal, 2011). There is no doubt that such systems are in effect in Benin, though I have no data about the size of payments. However, even if the *de facto* tax burden is lighter on those in

urban areas, the point remains that governments in localities with more populous towns have greater tax capacity than governments in more rural areas. If taxes in rural areas are collected “informally,” this further strengthens the argument that local tax capacity is deficient and underperforming relative to the size of the tax base and the demand for government provision of goods and services. Furthermore, “informal” and official taxation are not comparable solutions to the problem of public goods provision. “Informal” taxation can usually be used only for very local and small-scale projects, such as the construction of simple school buildings and community wells. Larger and more long-term projects - road construction and maintenance, marketplace development, higher education, the kinds of things cited by Easterly and Levine (1997) that make for macro growth success - require sustained government revenues.

The story sketched above argues that urbanization is a cause of increased tax capacity, but might the direction of causality be reversed? As with many intertwined and mutually reinforcing processes, the case here is unclear. On the one hand, the local governments in Benin were not established until 2003, by which time current population patterns had already been set. On the other hand, population patterns are closely linked to previous national government investments in the construction of road networks and the establishment of regional capitals. So perhaps local tax capacity is highest where the national government made previous investments in state-building. This is an important debate, but untangling the causal process of population density, economic development and the development of state capacity lies outside the scope of this paper. The point is that a classic correlate of increased tax capacity - urbanization - offers a better explanation of variation in local tax revenues than does social diversity. This is due to the fact that Benin still faces the first-order problem of low state capacity.

5 Beyond Variation: Tax capacity is weak overall

Though taxes and revenues per capita vary quite a bit across localities - the highest fifth earns over 10 times as much per capita as the lowest fifth - it is important to note that, in absolute terms, none of them is earning very much. Tax capacity in Benin is still in its nascent stages. At the commune level, median local revenue per capita for the 2003-2010 period was only

\$1.27.¹¹ Cotonou, the commercial capital and highest revenue earner, collected on average about \$18 annually per person. The government of Seme-Kpodji, which serves as a suburb for both the southern capitals (Cotonou and Porto Novo) collected the 2nd-highest revenues, taking in about \$7.50 per person. Parakou, the de facto capital of the north and 6th-highest earner, collected about \$6 per capita. Average revenues for 29 of the 77 localities (or 38%) were less than \$1 per person annually; over 70% of the localities (55 in total) collected less than \$2 per person.

Benin is of course a very poor country - 75 percent of the population lives on less than \$2 a day; nearly half lives on less than \$1.25¹² - and so it is important to consider tax payments in relation to income. Even here, however, Beninese are paying very little to their local governments. Using annual spending¹³ to approximate income, I calculate that 70 localities (90%) collected revenues equal to or less than one percent of annual expenditures per capita (that is, spending by the individual, not the government). The maximum amount of revenues collected as a portion of annual spending per capita was less than 2 per cent.¹⁴

Local government fees are also quite low. In Cotonou, for example, many of the most common fees - birth, marriage and death certificates, and notarizations - cost less than 1 USD (see Figure 2). The most expensive fees (related to property) are only about \$50 USD.

One possible explanation for such low formal payments is that significant revenues are being extracted from the tax payers, but that these revenues are collected by the national government rather than the local ones. National government revenues are much stronger than those of the local governments, but that is quite a low bar. Revenue figures indicate that national tax capacity is weak as well. In 2002, the year before the local governments were first put in place, the national government collected tax revenues equal to 14.5% of GDP; in 2010, the tax burden was 16% of GDP.¹⁵ By way of comparison, the United Kingdom, which has a

¹¹The raw data is given in Franc CFA (XOF). Conversion to USD is calculated at $506.89F = 1USD$, the average exchange rate over the 2003-2010 period (reported by fxtop.com).

¹²World Bank, 2013. World Development Indicators. The most recent survey for Benin was conducted in 2003.

¹³This study calculates per capita spending by averaging the figures reported in surveys conducted in 2007 and 2010 by Benin's statistics bureau (EMICoV, 2009, 2010).

¹⁴Measuring tax payments per capita is not exactly representative of the burden felt by the typical taxpayer, who supports a family of non-taxpayers (often many young children and more than one wife). The tax burden is more appropriately calculated at the household level, though in the end, the ratio of tax payment to annual spending would be the same.

¹⁵National revenue data come from the Ministry of Economy and Finance. GDP figures, reported in current USD,

Figure 2: Local Government Fees-for-service in Cotonou. Exchange rate is about 500 F to 1 USD

N°	DESIGNATION	MONTANT
1.	DEPOT DE SIGNATURE	200
2.	DECLARATION DE NAISSANCE, DE MARIAGE, DE DECES, (VOLET GRATUIT)	250
3.	CERTIFICATION DES PHOTOCOPIES D'ACTE DE NAISSANCE, DECES, MARIAGE	250
4.	CERTIFICATION DE DIVERS ACTES	250
5.	CERTIFICAT DE VIE ET DE CHARGE	250
6.	CERTIFICAT DE VIE	250
7.	CERTIFICAT DE NON REMARIAGE	250
8.	ATTESTATION DE NON ENREGISTREMENT	500
9.	ATTESTATION DE NON INSCRIPTION	500
10.	ATTESTATION DE PATERNITE (DEPOT DE SIGNATURE Y COMPRIS)	700
11.	CERTIFICAT DE RESIDENCE	750
12.	CERTIFICATION DES DIPLOMES DE FIN DE FORMATION	1000
13.	CERTIFICAT DE CELIBAT	1000
14.	CERTIFICAT DE COUTUME	1000
15.	LIVRET DE FAMILLE	1000
16.	ATTESTATION DE CONCUBINAGE	1000
17.	CERTIFICATION D'ACTE PORTANT PLUSIEURS SIGNATURES	1000
18.	CERTIFICAT DE DEMENAGEMENT	1000
19.	FICHE INDIVIDUELLE D'ETAT CIVIL	1000
20.	FICHE FAMILIALE D'ETAT CIVIL	1000
21.	ETABLISSEMENT CARTE NATIONALE D'IDENTITE	2400
22.	CONVENTION DE VENTE DE MOTO	5000
23.	CONVENTION DE VENTE DE VEHICULE A QUATRE ROUES	10000
24.	LETRE D'INVITATION	10000
25.	AUTORISATION DE SORTIE DES MINEURS (CONSTITUTION DE DOSSIER)	20000
26.	CELEBRATION DE MARIAGE	25000
27.	CONTRAT DE SAIL	25000
28.	HEBERGEMENT	25000

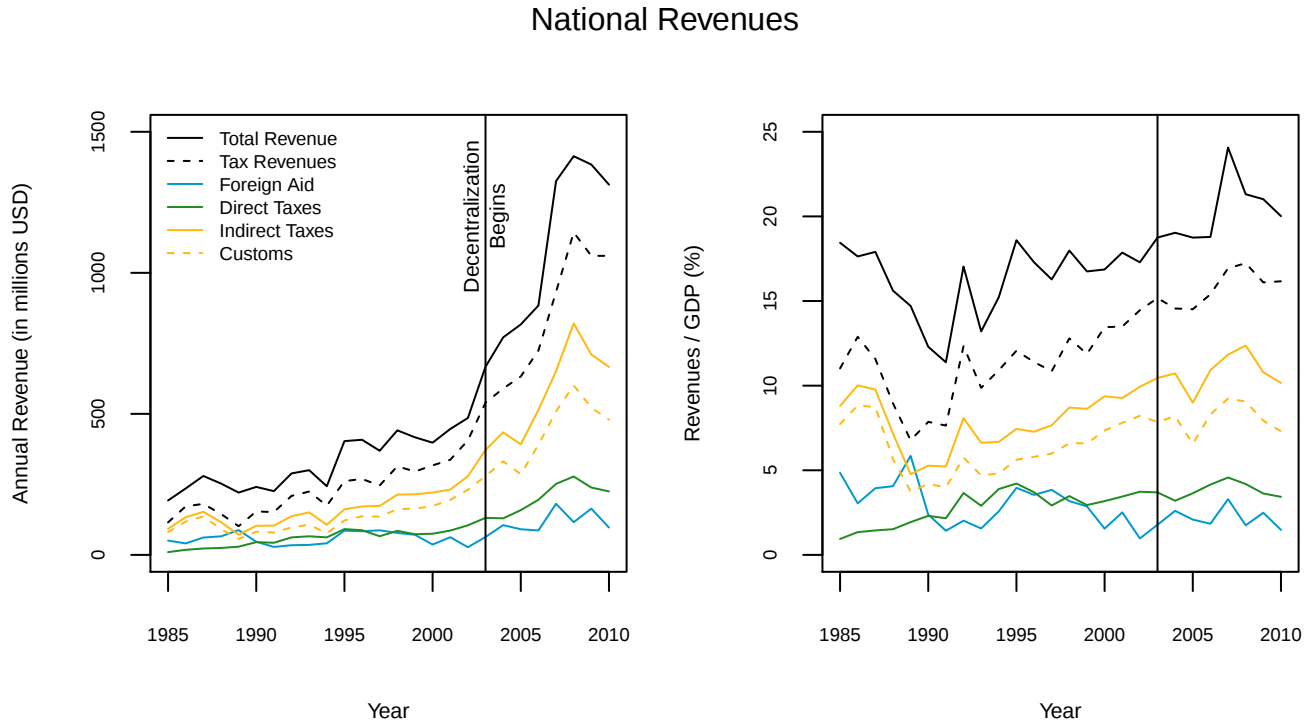
liberal welfare state and an excellent “economic freedom” score from the Heritage Foundation - in other words, a country with a preference for lower taxes - earns tax revenues equal to 35% of GDP. Notoriously troubled Greece manages to collect revenues equal to 31% of GDP. Returning to sub-Saharan Africa, Botswana and South Africa collect tax revenues equal to 31% and 24% of GDP, respectively, but they are outliers with regards to state capacity in the region. The tax burden in Benin is more in line with the regional average: 17.2% of GDP.¹⁶

A breakdown of national tax revenues in Benin provides further evidence of state weakness (see Figure 3). The first thing to note is the ratio between direct and indirect taxes: the former

are from the World Bank’s *World Development Indicators*. Exchange rates (to convert revenue figures from FCFA to USD) are the annual averages reported by fxtop.com.

¹⁶Data on taxes as a portion of GDP (excluding Benin, above, though the Heritage Foundation comes up with the same numbers) are from: Heritage Foundation, 2013. *Index of Economic Freedom*.

Figure 3



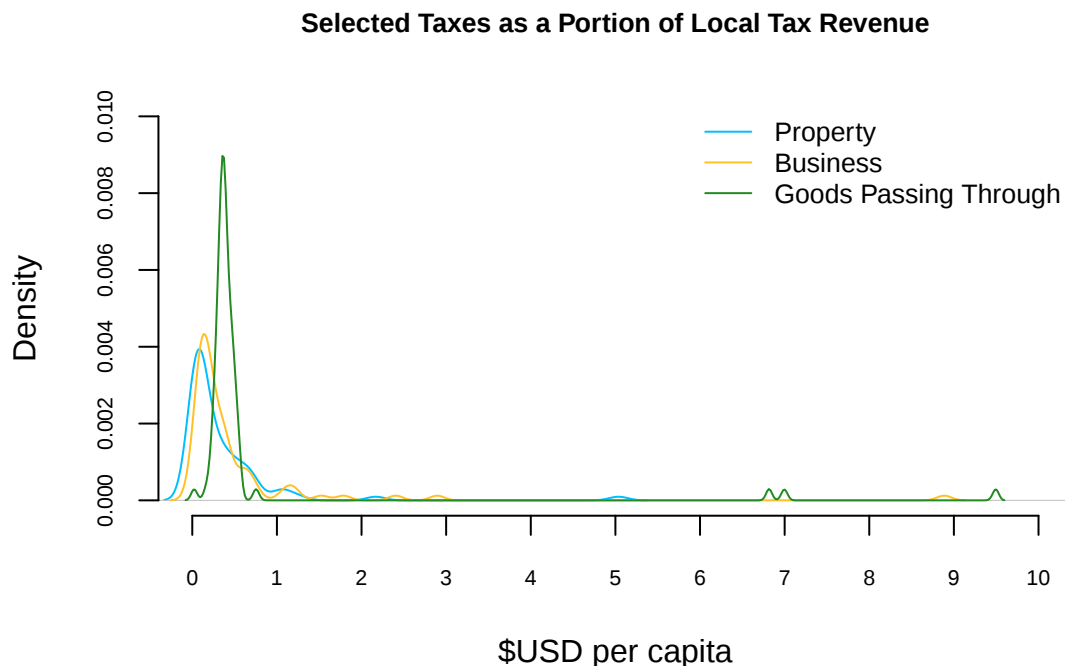
comprises a bit over one-quarter of national tax revenues during the period 1985-2010,¹⁷ while the latter constitutes over two-thirds of the total. Relying on levies on goods and services rather than direct payments from individuals and corporations is the first indicator of state weakness. The second is the composition of the indirect taxes themselves. It is notable that Benin does not collect much revenue directly from consumers in the form of value added tax. VATs are popular even in strong states because they take the sting out of tax payment by widely distributing the costs and hiding the total amount paid (Wilensky, 2002). But this type of tax collection still requires significant state capacity to effect. In Benin, the emphasis is instead on customs duties, which make up about 75% of indirect taxes and about 50% of total tax revenue over the period 1985-2010. Customs duties are collected at choke points such as the port in Cotonou, or along the few paved roads that channel large trucks through the country. In other words, tax collection is most intense where very little state capacity is

¹⁷Democratization occurred in 1990. The old regime collapsed, and its leader Mathieu Kerekou was forced from power.

needed for extraction.

The local tax data reflect similar patterns. Figure 4 shows the distribution of selected average annual portion of selected taxes in tax revenues by locality, over the period 2003-2010.

Figure 4



Note that taxes collected on goods passing through the locality (*taxe de voirie*, TV, and value added tax, TVA) are greater than taxes collected on both businesses and property. This is particularly striking because the localities are not even allowed to keep the TV and TVA revenues they collect on the roads, the *cordon douanier*. These revenues are sent to the national government, which then redistributes them across the localities based on the amount of road traffic they receive. Taxes on property and business, which the localities do keep and spend themselves, tend to make up smaller portions of total revenue. This would be a bizarre distribution of local government effort were we to consider only self-interest and not local state capacity. But maintaining a record of property holdings, evaluating business revenues, and tracking down their respective owners is of course much more difficult than setting up check points on the main roads. Lack of capacity therefore goes a long way in explaining the

composition of local tax revenues.

6 Low Tax Capacity and Public Goods Provision

Though the governments of poor countries like Benin may struggle with low tax capacity, they are not without revenues to spend. A key difference between countries with high and low tax capacity is the source of those revenues. As discussed above, the large part of local and national tax revenues in Benin are derived from customs duties, which are collected at checkpoints as goods enter and travel through the country. Local residents pay very little directly to the state. In wealthy countries, by contrast, a large portion of their tax revenue is collected directly from residents, through taxes on income, profits and capital gains, sales taxes and value-added tax.

An even more evident difference between rich and poor countries is the extent to which foreign aid is used to finance public goods. Though foreign donors do not give much money directly to the government of Benin (see Figure 3, above), total spending by foreign donors has averaged 93% of national tax receipts over the period 1985-2010 (see Figure 5).

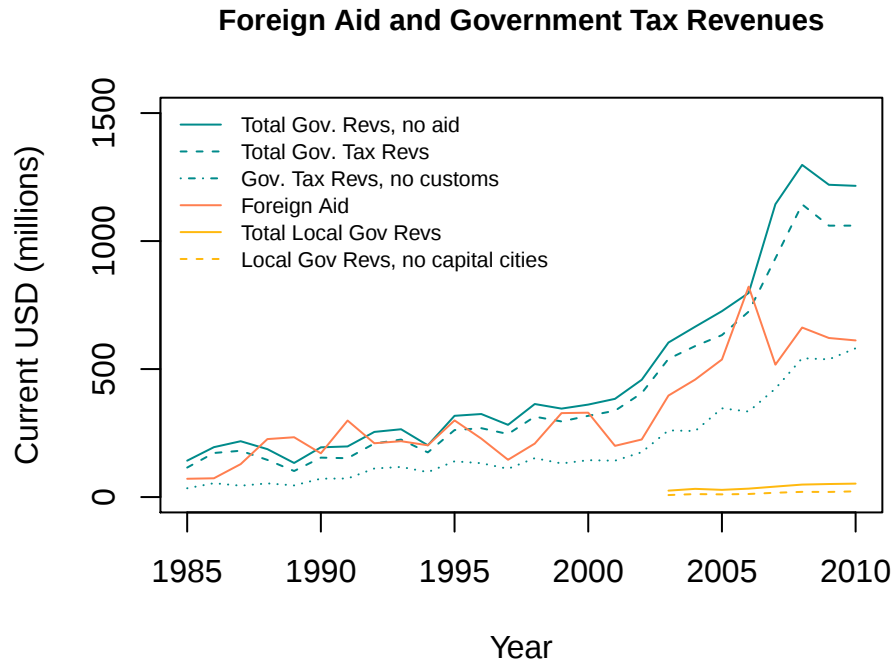
In 2006, foreign aid totaled slightly more than total tax revenues. Since then, tax revenues have continued their upward trend while foreign aid spending has declined, but foreign aid still averages about 60% of national tax revenue.¹⁸ At the local level, tax revenues are so low that, even though the local governments are supposed to be self-sustaining, state and foreign aid subsidies comprise at least 165% of the revenues earned through fees-for-service, sales and tax collection.¹⁹

In sum, public goods in low-capacity Benin are financed mainly with funds outside the control of the citizens. And tax capacity in Benin is no weaker than other similarly poor countries. The average tax burden in sub-Saharan Africa is similar in size to that of Benin (about 17.2% of GDP); and aid dependence in poor countries has been well-documented (Brautigam and Knack, 2004). This means that the provision of public goods in poor countries is more a process of distribution - i.e., public goods are financed by others - than it is a process of

¹⁸Foreign aid data are from AidData.org. All foreign aid spending to Benin is included except spending whose purpose was either related to debt relief or the administrative costs of donors.

¹⁹This figure is calculated from the local revenue data.

Figure 5



re-distribution (where, as in wealthy countries, citizens foot the bill).

The logic of these two processes, distribution and redistribution, is different. In situations where state revenues can be withheld by the citizens - where citizens can refuse to pay - the logic of redistribution applies. Tilly Tilly, 1990 and Ross Ross, 2004 have argued that direct taxation can serve as a democratizing force: rulers that want revenue must often trade in the authority to govern how those revenues are spent. For the purposes of this study, the takeaway point is that in the situation where governments rely on “voluntary” taxpayer contributions to fund public goods, governments must be responsive to public opinion. They must provide the types of goods and services that taxpayers want delivered, from war and protection to universal health care - or not! The logic of redistribution is what drives differences in welfare provision in more and less ethnically homogenous first-world countries (Alesina and Glaeser, 2004). Public opinion determines tax and spending decisions, and therefore the attitudes of voters towards their compatriots - do they want to help pay for others’ health insurance, or would they rather self-provision? - matters a great deal.

In countries where citizens themselves are not the main source of government revenue, the logic of distribution applies. Even in a competitive democracy such as Benin, where government officials face the usual pressures to please their constituents, there is no bargaining process in which constituents influence policy by setting the level of tax payment. Government revenues do not depend on their contributions. The policy debate is therefore not about what should be done with “their” - the citizens’ - money; but what should be done with the state’s money. And to the extent that the provision of public goods is determined by foreign donors, there is no domestic policy debate at all, just a scramble among domestic leaders to claim credit at the ribbon-cutting ceremony.

This means, first, that rich countries and poor countries should probably not be considered comparable cases in a cross-national analysis of public goods provision. The political process underlying provision is different, as is the capacity to provide. The second implication is that public goods provision in poor countries is not a direct function of how co-nationals feel about each other. Distributive spending decisions entail a downward flow of resources, rather than a circular path from society to state and back again. As in studies of national resource and foreign aid “rents” (see Morrison (2012) for a good review) the key to understanding how the rents are spent - for repression or development, or for the development of some things and not others - is to understand the incentives of state leaders, which are created by the political institutions in place.

Posner (2004) aims to link ethnic groups and political incentives with an index of “political relevant ethnic groups,” but why not skip the groups and go straight to the institutions? Understanding the organization of society is undoubtedly important for an accurate characterization of political incentives, but counting ethnic groups (if an objective measure even exists) is too blunt an instrument for this purpose. Ethnic fractionalization scores do not offer an adequate summary of cross-national differences in political and state institutions.

7 Conclusion

This paper tests whether ethnic heterogeneity is linked to taxation, a key mechanism proposed but rarely explored by studies that demonstrate a connection between ethnic heterogeneity and

low public goods provision. As hypothesized by Alesina, Baqir and Easterly Alesina, Baqir and Easterly (1999), the idea is that people in more diverse places would rather self-provision than pay for public goods. But after analyzing census and local government tax data from Benin, this study finds only a weak correlation between tax revenues per capita and fractionalization scores, and the correlation disappears when controlling for population density. Pressing the population density finding further, this paper finds that the size of the main city within each locality is strongly correlated with tax revenues in per capita terms and as a portion of annual individual spending. Urbanization is a classic correlate of state development, and so the finding suggests that tax revenues in very poor countries are more a function of state capacity - and in particular, the capacity to collect taxes - than social diversity and citizens' feelings towards their countrymen. Furthermore, the types of tax revenues that require more capacity to collect - taxes on property and business holdings - are found to be higher in localities with larger cities, offering further evidence in support of the state strength argument.

However, setting relative differences aside, tax revenues in Benin are quite small in absolute terms. In the median locality by tax revenue earnings, average annual payment is just \$1.27 per person. Even in Cotonou, the country's financial capital and highest per capita revenue collector, average per capita payment equals less than 2% of annual individual spending. At the national level, Benin's revenue capacity is also relatively weak: in 2010, the tax burden was about 16% of GDP - a figure similar to the average for sub-Saharan Africa (17.2%) but much lower than in the older states of the Western world. (Even Greece, notorious for its tax troubles, collects revenues equal to over 30% of GDP.) This suggests that public goods provision in Benin is low not because it is socially diverse (though it is certainly that), but because it does not have the state capacity to raise the revenues needed to provide goods and services.

The final point made in this paper is that, for all its revenue problems, Benin does provide public goods - just not with taxpayer dollars. A disaggregation of tax revenues at both the national and local levels shows that customs duties rather than direct taxes on income, profits, sales, etc. comprise the largest share of government revenue. Furthermore, foreign aid spending (even excluding debt relief) is quite substantial relative to total government revenues. Foreign aid consistently exceeds non-customs tax revenues and has averaged about 60% of total tax

revenue since 2006 (and much more before then). In sum, to the extent that the state provides public goods, it does so through a distributive process in which resources do not travel from society to state and back again, but instead flow downwards from the top. In this situation, citizens' attitudes towards their compatriots cannot affect the level of state revenues, and therefore the proposed tax mechanism cannot be operative. Patterns of public goods provision may still have some relationship to ethnic cleavages, but this would be a function of political institutions rather than a direct product of the number of groups.

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