

# Tax Collection is a Function of State Building, not Social Diversity: A study of local tax revenues in Benin

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## MOTIVATION

For sub-Saharan Africa, social diversity is a common theme in explanations for the under-provision of public goods. Easterly and Levine's (1997) widely accepted "growth tragedy" theory argues that places with high ethnic fractionalization (a greater number of groups) tend to have lower provision of public goods. Using large-N cross-national regressions, empirical evidence for the relationship is found, but the proposed mechanisms are untested.

The key mechanism centers on the relationship between taxation and inter-group relations: groups cannot agree on what they want government to provide; or perhaps individuals do not want to pay for goods from which members of other groups will benefit. In either case, taxpayers prefer to pay less where ethnic diversity is higher; they would rather self-provision than provide public goods. Evidence for this mechanism is largely derived from game theoretic models and studies of first-world countries.

This project tests the tax mechanism in a poor, ethnically diverse country (Benin). **Is it true that tax revenues are lower where ethnic diversity is higher?**

## CASE SELECTION and DATA

Similar to the studies of US cities on which much of the tax and public goods literature is based, this project looks at variation across local governments in Benin.

- Benin's institutional environment is particularly well-suited for such an inquiry because local governments are **politically, fiscally and administratively autonomous**. The councils' members are all chosen through local elections; these local councils set the tax rates (within some bounds); and the local governments decide how to spend the tax revenues they raise. Local government autonomy is crucial for testing the link between local preferences and local tax revenues.
- The localities also exhibit wide variation in across the measure of ethnic fractionalization, from 0.01 to 0.83 for ethnicity and 0.10 to 0.87 for religion.

**Tax revenues.** Local government revenues are derived from annual local budgets, compiled by the author. Revenue figures are given as averages for the period 2003-2010. The budget categories used in the analysis are:

- Tax Revenues: these include direct and indirect taxes (which the local governments keep), as well as customs duties (which the local governments send to the national government); and
- Total Revenues: these combine tax revenues with income earned from fees-for-service and sales of local government assets.

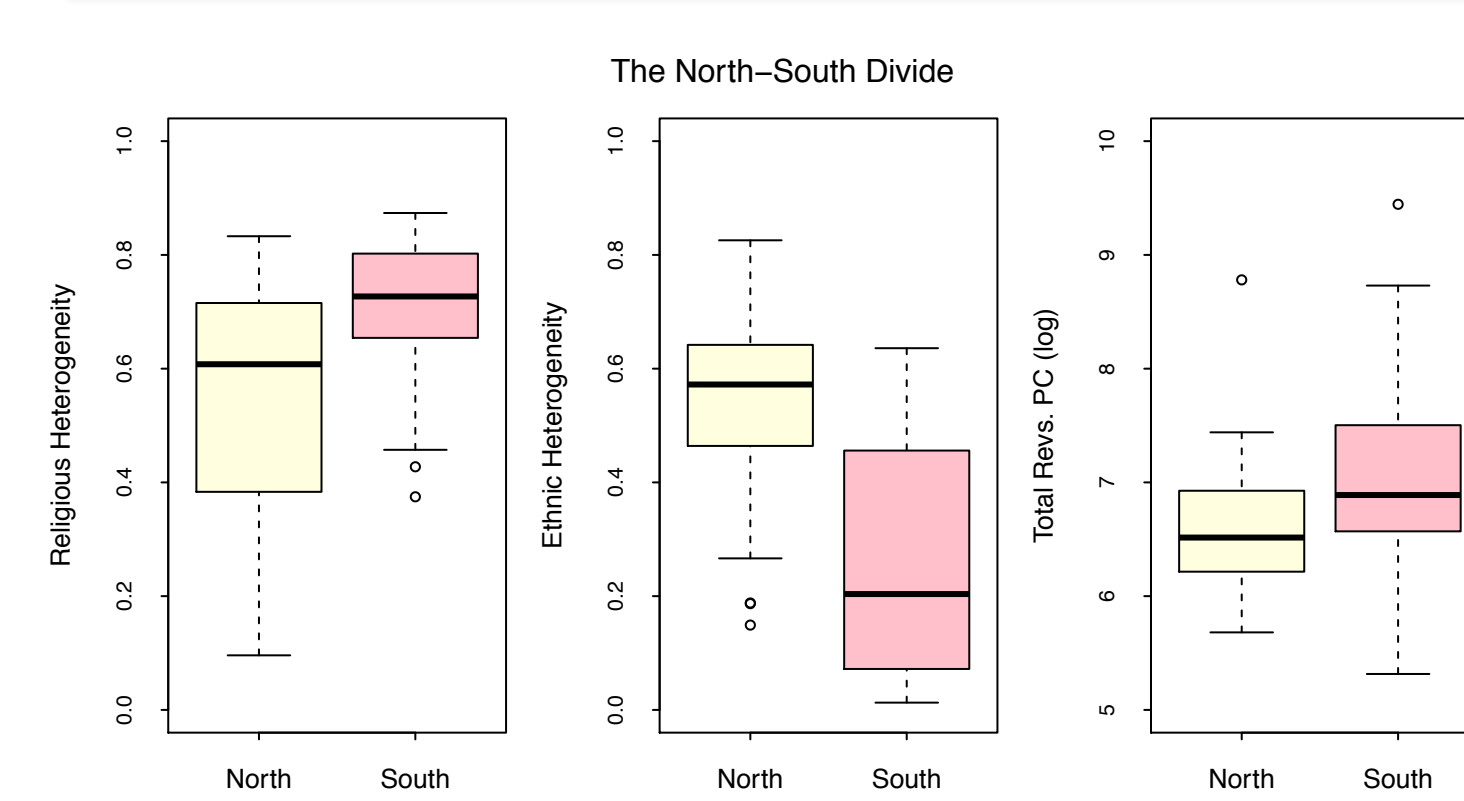
**Ethnic and religious diversity.** Ethnic and religious fractionalization scores are calculated from 2002 census data at both the local government (*commune*) and local government electoral district (*arrondissement*) with the following formula:  $Frac = 1 - \sum_{i=1}^n s_i^2$  where  $i$  is the share of group  $s$  in the local population.

**Wealth.** Household spending data is used to control for differences in per capita income across localities. The data are from locally-representative surveys conducted in 2007 and 2010.

## TAXES and FRACTIONALIZATION

Fractionalization scores are weakly correlated with total revenues per capita when the largest cities are excluded; however the relationship disappears when controlling for population density or the north-south divide.

basic model:  $y_i = \alpha + \beta_1 Frac_i + \beta_2 SpendPC_i + \epsilon_i$

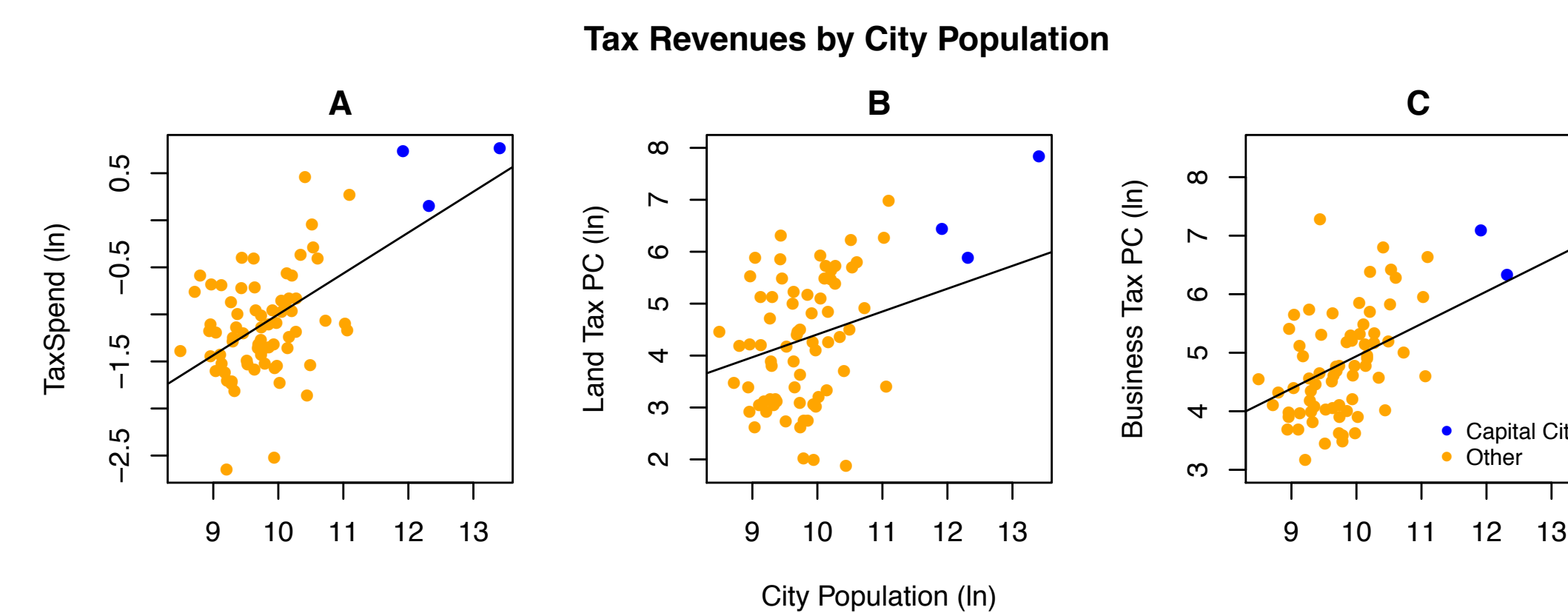


DV = Revenues PC (ln)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ethnic Frac	-0.43 (0.30)	-0.56* (0.28)	0.29 (0.36)	0.26 (0.38)				
Relig. Frac					0.68* (0.35)	0.74* (0.32)	0.25 (0.34)	0.31 (0.34)
South			0.53* (0.16)				0.40* (0.13)	
Pop Density (ln)				0.21* (0.07)				0.15* (0.05)
Spending PC (ln)	1.58* (0.21)	1.27* (0.22)	1.02* (0.22)	0.87* (0.25)	1.43* (0.19)	1.07* (0.21)	1.08* (0.20)	0.97* (0.20)
Intercept	-12.1* (2.46)	-8.31* (2.62)	-5.88* (2.55)	-4.82* (2.74)	-10.9* (2.30)	-6.62* (2.48)	-6.65* (2.34)	-5.82* (2.38)
Main Cities	Y	N	N	N	N	Y	N	N
	N	77	74	74	74	77	74	74

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

## TAXES and CITY POPULATION

A common correlate of state-building – urbanization – proves a much better predictor of local government taxes and total revenues than social diversity. Variation in the population size of the locality's main city is also strongly correlated with two key sub-categories of tax revenues that are relatively difficult to collect: taxes on property and taxes on business.



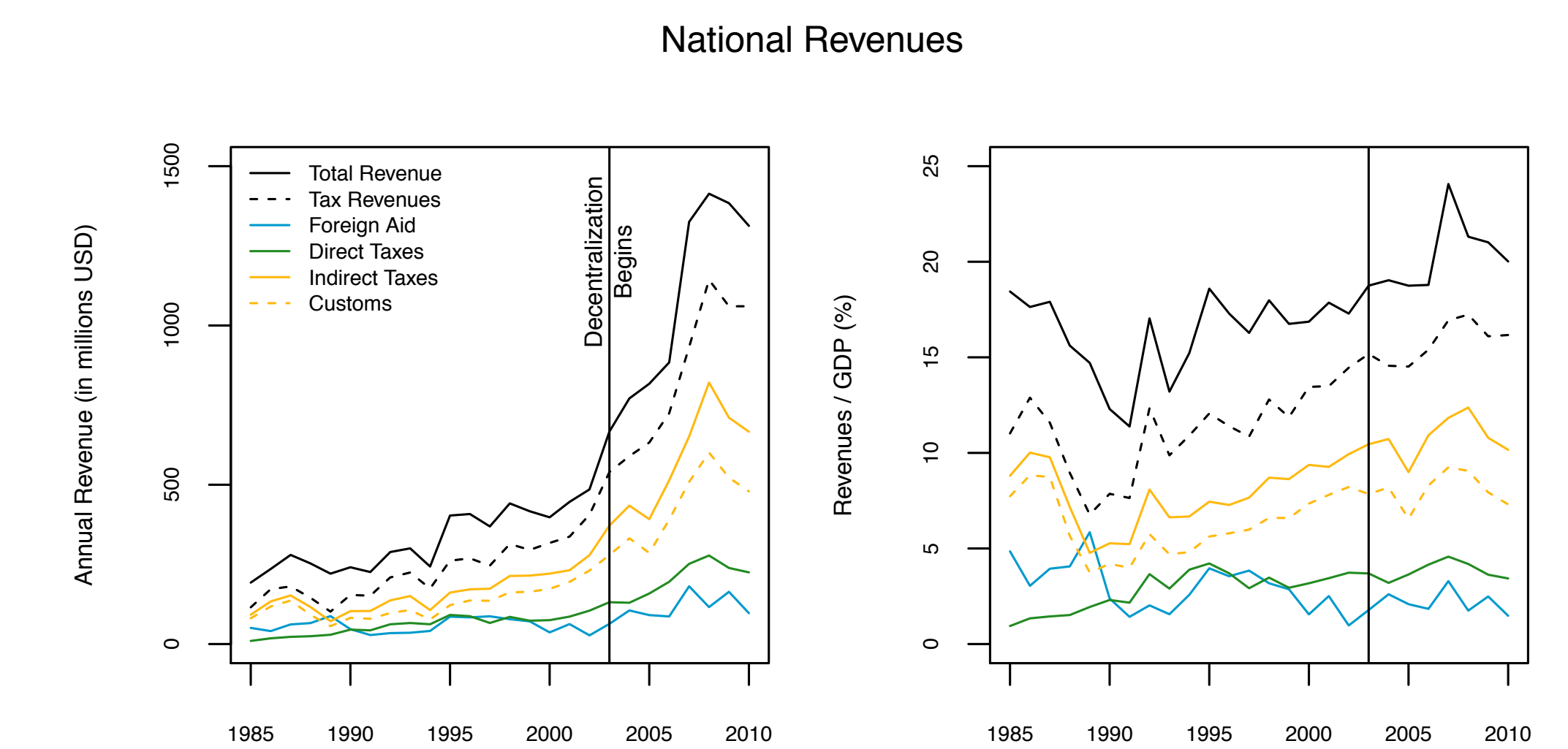
## CONCLUSIONS

- Tax revenues in Benin are not determined by social diversity, but rather by a common correlate of state-building: urbanization. This suggests that tax collection in poor countries is a function of state capacity rather than societal preferences.
- Low tax capacity implies that public goods are provided in large part by resources that taxpayers do not control: foreign aid and customs duties.
- Public goods provision in rich countries is not a comparable process to that in poor countries. In rich countries, public goods provision is a redistributive process: resources flow from society to state and back again. In poor countries, it is a distributive process: resources flow downwards from the state (or foreign donors).
- If public goods provision in poor countries is a distributive process, citizens' attitudes towards their compatriots cannot affect the level of state revenues. 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 ethnic groups.

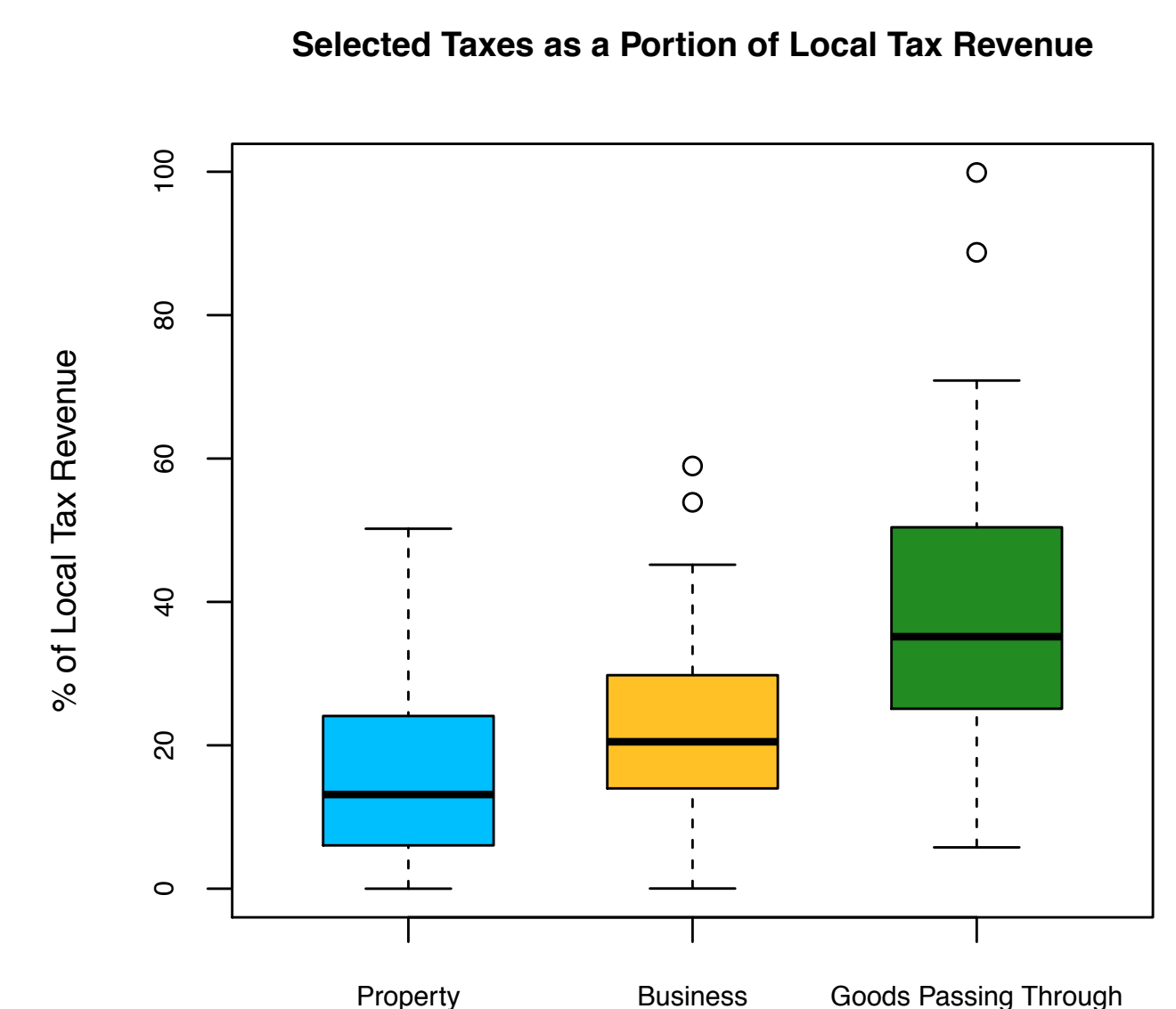
## TAX REVENUES: LOW IN GENERAL

Moving beyond relative differences in local government revenues, we find that, overall, tax collection is quite low at both the national and local levels.

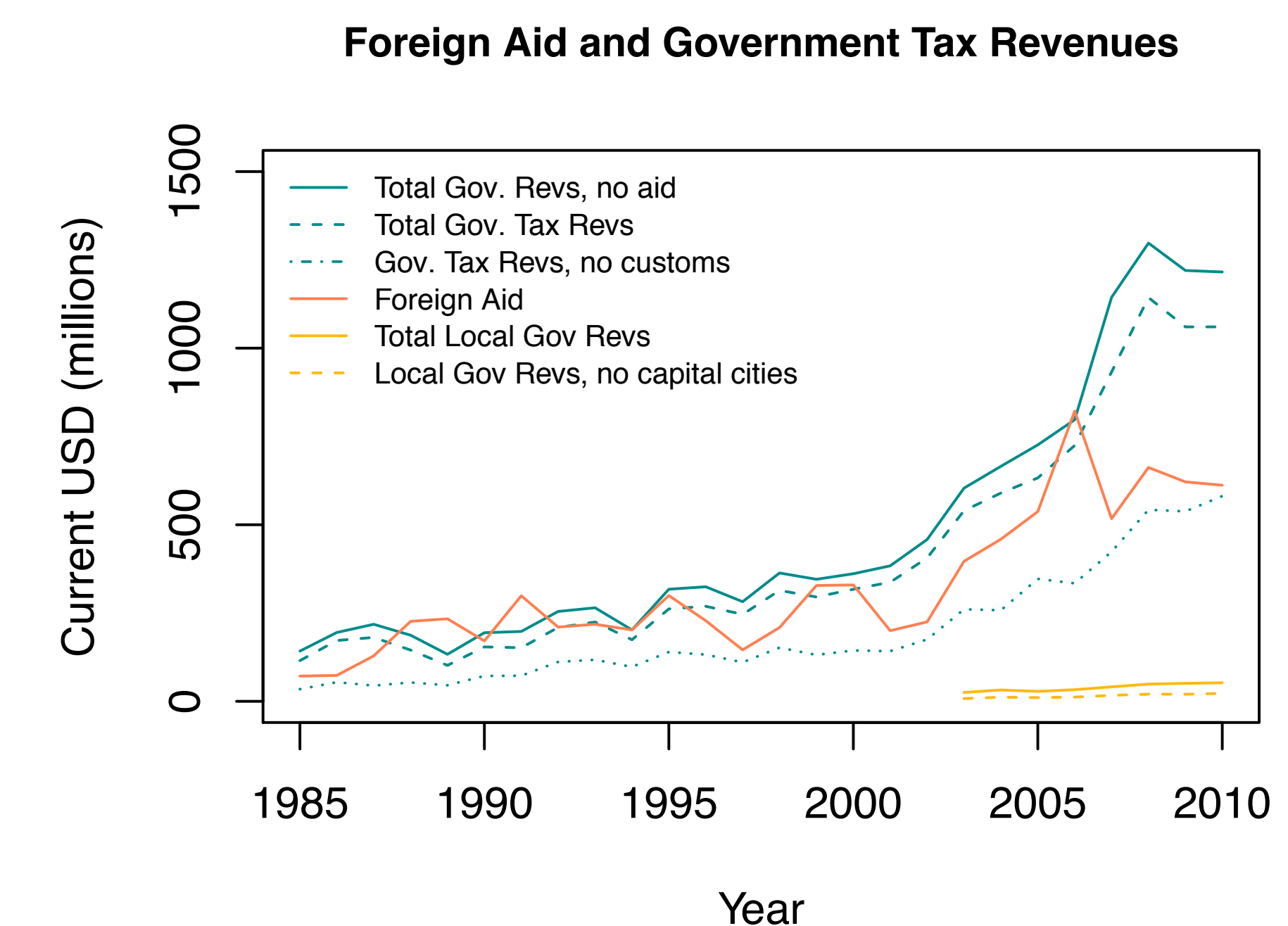
- In terms of total revenue, the median locality collected, on average, \$1.66 per capita annually. The top locality for total revenues (Cotonou) collected payments equal to just under 3% of average individual spending.
- At the national level, the tax burden was equal to 16% of GDP in 2010, roughly even with the average for SSA as a whole (17.2%).



- The largest revenue category at both the local and national levels is customs duties – taxes that require little state capacity to collect.



## FOREIGN AID SPENDING: HIGH



- Benin, like many countries in SSA, receives a very large amount of aid relative to the amount of tax revenue it collects on its own.
- Most aid spending does not go to government directly, but it does provide a key source of funding for public goods provision.
- Aid figures exclude debt relief and the funds that donors spend on themselves (administration costs).