The Transmission of Colonial Institutions: Evidence from the 19th Century Caribbean*

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April 18, 2013

Abstract

While there is wide agreement on the colonial origins of comparative development, there is scant empirical evidence on the transmission and divergence of concrete colonial institutions. To explore the origins of colonial institutional divergence, I use variation in representative institutions in a 60-year panel of 17 post-Abolition British Caribbean colonies. In this period, many Caribbean parliaments voluntarily abolished themselves and ceded governmental powers to the Crown. In regressions, these cessions of local elites' traditional de jure powers are explained both by increasing voter turnout of freed slaves and by the resulting increases in electoral turnover. Consistent with models distinguishing de jure and de facto power, elites' cession of de jure powers tilted taxation and public expenditures in their favor, probably because it shielded them from popular pressure while preserving exclusive access to the colonial administration. These constitutional changes therefore contributed to putting the Caribbean on a persistent path of oligarchy, low public good provision and low state capacity.

Keywords: Economic Development, Elite Persistence, Political Inequality, Institutions, Franchise Extension.

*I thank Scott Ashworth, Leah Boustan, Ann Carlos, Gilles Duranton, Stan Engerman, Avner Greif, Morgan Kousser, Naomi Lamoreux, Gary Libecap, Peter Morrow, Gary Richardson, Jean-Laurent Rosenthal, Francesco Trebbi, Dan Trefler, Stephane Wolton and Warren Whattley and seminar participants at Caltech, Stanford, UBC, UCI, Yale and Chicago Harris for valuable discussions and insightful comments.

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1 Introduction

Using historical colonialism as a natural experiment to identify the causal effect of institutions on long run development, several seminal papers have argued that inclusive institutions were set up in the "Neo-Europes" of Australasia and North America because they had low indigenous population densities, moderate levels of settler mortality and a geography suitable for smallholding crops, while extractive institutions were set up in the Caribbean islands because they had large indigenous populations, high European settler mortality and a geography suitable for plantation crops (Acemoglu et al. (2001), Acemoglu et al. (2002), Engerman and Sokoloff (2002)). Plotting present-day incomes against initial conditions in the Neo-European and Caribbean colonies in the core samples of Acemoglu et al. (2001, 2002), Figures 1 and 2 support this narrative in which economic and institutional differences today can be traced back to Europeans setting up different institutions upon their arrival because of different initial conditions. However, we have very little hard data on concrete institutional differences across colonies and on how these evolved over time.[1] The historical record suggests that they were not put in place at the time of initial settlement: Well into the middle of the 19th century, on average 200 years after their founding, representative institutions in the "extractive" British Caribbean colonies were practically identical to those of the Neo-Europes, with both sets of colonies having equally restrictive franchise rules and representative systems in which locally elected parliaments put firm checks and balances on the executive branch of government representing the Crown (Wight (1952)). A divergence in democratic institutions only began about 20 years after the 1834 abolition of slavery, when local parliamentary institutions strengthened in the Neo-Europes but disappeared from most Caribbean colonies.

Of the 17 British Caribbean colonies, the 14 that were founded in the 17th and 18th century all had the described representative system. Between 1854 and 1877, local parliaments in 11 of the 14 voted to either abolish themselves completely or allow a majority of legislators to be appointed by the colonial administration. These constitutional changes, depicted in Figure 3, were supported by local elites although they abolished their traditional vehicle of de jure power relative to the colonial government. This paper investigates these constitutional changes in two steps: First, using data on the expansion of the franchise and on electoral turnover, it tests whether the voluntary dis-

[1] An important exception is Dell (2010). However, she looks at regional differences in one colony's institutions and focuses on persistent effects of these early institutions rather than on their evolution over time.

mantling of representative institutions can be explained by increasing political competition from an expanding post-Abolition electorate of freed slaves. Second, using data on taxation and public expenditure, it asks how policies changed when Caribbean colonies abolished their parliamentary institutions. The evidence suggests that local elites abolished their local parliaments preemptively when faced with the threat of political dominance by freed slaves, which, once established, would have been irreversible. Both the data on outcomes and data on the identity of Crown-appointed administrators after the dismantling of representative institutions suggest that elites' cession of their de jure powers did not erode their de facto influence and even tilted taxation and public expenditure in their favor, probably because it shielded them from popular pressure while preserving their exclusive access to the colonial administration.

Measures of political competition come from the *British Colonial Blue Books*, annual statistical reports issued by each British colony, which included the dates of all elections as well as the number of voters and the names of all members of the local parliaments.[2] It is nor possible to directly measure the share of non-elite or black representatives but the Blue Books data does allow measuring electoral turnover, i.e. the share of parliamentary seats occupied by non-incumbents after each general election.While electoral turnover is an imperfect measure of political competition, it correlates tightly with the entry of new politicians and, across parishes, with the post-Abolition expansion of freeholdings in data for Jamaica, the colony with the most additional data-sources.[3] The Blue Books also report the number of registered voters (i.e. the franchise) but this data starts only in the 1850s, which gives less power to regressions involving the franchise-measure. My favored way to organize the data is to think of the main relationship between constitutional change and electoral turnover as the "second stage" (2S), the relationship between electoral turnover and the number of registered voters as the first stage (FS), and the relationship between constitutional change and the number of registered voters as the reduced form (RF). I view this as an effective way to organize the data because all three relationships are naturally interesting in this context. Since the number of registered voters can only be used as an instrument for electoral turnover if the expanding franchise impacts the likelihood of constitutional change *only* through electoral

[2]The first Blue Books were in the mid-1820s but contained very little data. The main data on local politicians starts in 1836 at the earliest. The Blue Books became a publication in the 1880s. For years before that, only two copies exist of each Blue Book, one in the issuing colony's archives and one the British National Archives in London.

[3]Detailed description of this data in Section 3.

competition *and* since it is not clear that there is an endogeneity problem in regressing constitutional changes on electoral turnover, I do not emphasize IV results and report them only for completeness.

In the second stage, I find that an increase in electoral turnover of 10 percentage points increases the probability of a constitutional change abolishing parliament by about 1 percent in a given year. In the reduced form, a 10 percent increase in the number of registered voters increases this probability by 5 percent. In the first stage, a 10 percent increase in the number of registered voters increases electoral turnover by 5 percentage points.[4] The second stage coefficients are much larger when electoral turnover is instrumented: a 10 percentage point increase in instrumented electoral turnover increases the probability of constitutional change in a given year by 10 percent. A plausible explanation is that electoral turnover is a noisy measure of political competition and therefore suffer from attenuation bias, which is reduced in the IV because the electoral turnover that can be attributed directly to the expanding is a more direct measure of political competition. The main threat to the validity of these results comes from differential pressure for constitutional changes as an omitted variable. I address this issue in three ways: First, I control for network effects by including the number of already transitioned colonies as a control. Second, I control for increased pressure by the colonial administration with a post-1857 indicator that captures the Crown's increased desire for direct control after the Indian Mutiny. Third, I control for a more differentiated increase in pressure by the colonial administration with year and decadal dummies. The results are robust to controlling for all three measures. Lastly, while the second stage can only be studied at the colony level, I can study the first stage in a much larger sample by moving to the parish level with a cross-section of over 100. This also allows me to include electoral cycle fixed effects at the colony level, controlling for any time varying unobservables that shifted the political balance for the colony as a whole. The first stage relationship is strongly confirmed at the parish level, including both parish and electoral cycle fixed effects.

Next, I study the consequences of constitutional changes. Existing literature suggests two predictions: First, the constitutional changes should have led to less constrained spending behavior by the colonial executive because the main source of parliamentary power both in England and

[4]This finding is consistent with the U.S. evidence in Dal Bó et al. (2009, Table.8) that political competition reduces the perpetuation of political dynasties

in the colonies was control over taxation and public finance (North and Weingast (1989), Taylor (2002, p 288)). Second, the constitutional changes could have been expected to shift public spending in favor of the rural poor. This prediction is based on a loosely framed but common sentiment that direct colonial was better for the common people because it cut out local elites (Lange (2004)).[5] When I estimate the effect of constitutional changes on different elements of local public expenditure, I strongly reject both predictions: Constitutional changes significantly reduced overall local tax revenue and spending but reduced educational expenditure, the best proxy for pro-poor spending, significantly more. This suggests that the effects of endogenously evolved institutions can be quite different from those of exogenously imposed ones. A possible explanation is that local elites' cession of de jure powers actually strengthened their de facto control over local politics because they had insider access to the colonial administration but were ostensibly no longer responsible for its political decisions. I provide supporting evidence for this view by looking at the identity of the appointed legislators after the constitutional changes and comparing them to the stock of elected legislators before. I find a very high degree of persistence in the identity of legislators across the constitutional changes: As late as 20 years after the constitutional changes, more than 80 percent of appointed legislators came from families that had been represented in the elected parliaments before.

This paper adds to the empirical literature on historical colonialism (Acemoglu et al. (2001), Acemoglu et al. (2002), Engerman and Sokoloff (2002)). It does not challenge the view that institutions persist or that initial conditions matter but it does suggest that initial geographic conditions continued to influence institutional development long after settlement through their impact on the local political economy, i.e. the distribution of wealth, power and incentives: The Caribbean's suitability for plantation agriculture created a very unequal distribution of wealth and racial disparities but this did not lead to different de jure institutions until Abolition put the planter elites on the defensive against their former slaves. In this, this paper relates to several recent studies of endogenous institutional change. Acemoglu et al. (2005) document how the 16th century Atlantic trade empowered merchant classes against the monarchy in some European countries which set the stage for important 17th century institutional innovations. Jha (2010) shows how how the rise

[5]Iyer (2010) finds evidence for the opposite using exogenous variation in direct colonial rule in India. She argus that local Mugal princes in India actually had a bigger incentive for good governance than colonial administrators.

of pro-trade economic interests motivated many of the parliamentarians challenging the king's absolutist power in the political struggle that preceded England's Glorious Revolution of 1688. Puga and Trefler (2011) document how Medieval Venice's merchant class allowed traveling merchants entry into their ranks to take advantage of the opportunities from Arab trade but how this initial upward social mobility was self-limiting once the newcomers became entrenched themselves, leading to a period of institutional and economic decline. Perhaps the paper most closely related is Trebbi et al. (2008) who show that municipal governments in black-dominated U.S. cities after the Civil Rights Act systematically changed their electoral rules to mitigate political competition from newly enfranchised black voters.

This paper also speaks to a literature on the expansion of the franchise. It provides a stark contrast to the general trend of 19th century franchise expansion and in a loose sense provides a "falsification test" for explanations of franchise expansion elsewhere. In Bourguignon and Verdier (2000), the franchise is tied to education and elites are willing to extend the franchise if they reap sufficient economic gains from broad-based education. In Acemoglu and Robinson (2000), elites extend the franchise in response to a threat of revolt by the disenfranchised poor. Economic growth increases the cost of revolts which increases the bargaining power of the poor to obtain enfranchisement. In Lizzeri and Persico (2004), the elite is non-monolithic and enfranchisement is initiated by wealthy capitalists sharing common ground with workers against the landed gentry. In the Caribbean, two of these three mechanisms were clearly shut off because elites had no shared economic interests with their former slaves and did not stand to benefit from broad-based education. The threat of revolt, by contrast, did matter and had it not been for the option of Crown Colony rule, it may well have forced Caribbean elites to accept the expansion of the franchise.[6]

Lastly, this paper provides an empirical illustration for a formal literature on the "simultaneous change and persistence in institutions" (Acemoglu and Robinson (2006, 2008)). When Abolition came to the Caribbean in 1838, it freed more than 95 percent of its population from slavery, far more than in the US South. Yet, somehow, "not much changed in these islands from 1838 to 1900" (Galloway (2005, p. 154)) and throughout the 19th century, "each major inquiry [by English Parliament] into the British West Indies noted with amazement that nothing had been changed since the last report" (Craton (1988, p. 165)). This paper provides an explanation for the post-

[6]Section 2 provides evidence that Crown Colony rule mitigated the threat of revolt.

Abolition persistence of the Caribbean equilibrium and illustrates how elites offset the reductions in their de jure power with increased collective action.

In the following, Section 2 provides additional historical background, Section 3 discusses data and presents descriptive statistics, Section 4 presents the research design and results and Section 5 concludes.

2 Background

There were 17 British colonies in the Caribbean, founded in three waves: The early ones - Antigua, the Bahamas, Bermuda, Barbados, Honduras, Jamaica, Montserrat, Nevis, St. Kitts and the Virgin Islands - were formed in the 1600s by European smallhold farmers and obtained a representative system in much the same way as the original American colonies, through local elites demanding representation with the main aim of controlling local taxes (Taylor (2002, p. 246)). The second wave - Dominica, Tobago, St. Vincent and Grenada - were annexed from France at the end of the Seven Year War in 1765. They were mostly settled by planters from other Caribbean islands and from the start were endowed with the same representative institutions (Ragatz (1928, p. 112)). The last three colonies - Trinidad, St Lucia and Guyana - were ceded by Napoleon between 1797 and 1803. By then, the Crown had started to assert more authority over its colonies so that these were formed under Crown Colony rule (Will (1970)). They are therefore not part of this paper. Under the representative system, locally elected assemblies held wide-ranging powers relative to the colonial administrators (Wight (1952)). The "assemblies seriously curtailed the powers of the governors in the colonies" as they controlled taxation and could veto the governor by blocking the budget (Morrell and Parker (1969)).

The franchise in the Caribbean as elsewhere in the British colonies was obtained through either land ownership or income. The legacy of the Caribbean's smallhold origins meant that the amount of land required for the franchise was relatively small, a land holding of 10 acres sufficient for the right to vote in most cases. The introduction of sugar in the mid 1600s meant large-scale sugar plantations had completely displaced the smaller tobacco freeholds by 1700 (Dunn and Parker (1972)). Most common white planters left for the American colonies (Taylor (2002, ch. 11)). As a result of white out-migration and large slave imports throughout the 17th and 18th centuries,

the franchise in the Caribbean had become heavily concentrated by the time of Abolition. "It was distinctly the exception for a member of the legislature to be returned by more than 10 votes" (Wrong (1923)). However, land holdings required to vote typically remained at a low 10 acres to ensure that rural interests' continued dominance in the assemblies over urban merchant interests, whose franchise was typically tied to income qualifications (Wrong (1923)).[7]

With abolition, many freedmen left the plantations and took up smallholding through purchases of Crown land and marginal plantation lands or by squatting on unalienated Crown land or abandoned plantations. With land ownership entailing the right to vote, smallhold expansion meant franchise expansion and the emergence of the freedmen as a new force in Caribbean politics.[8] In Jamaica for example, "Baptist ministers tried to mobilize the dormant black electorate. They encouraged their members to purchase freeholds and register to vote" (Holt (1991)). This created a situation in which the franchise was expanding without any change to the de jure rules that regulated the right to vote. In response, "assemblies brought into law an umbrella of coercive acts with the purpose of creating a landless peasantry" (McLewin (1987, p 189)). "Throughout the Caribbean, there were organized efforts to evict peasants from the land" (Craton (1997, p 392)): "Crown land was priced to encourage labor for wages and was chiefly in remote locations and of poor quality" (Bolland (1981)) and "parochial land taxes pressed hard on small proprietors" (McLewin (1987, p 184)). Nonetheless, Caribbean elites were unable to effectively stop the "spectacular growth in the extent of smallholding after 1838" (Higman (2001)). While post-Abolition Caribbean planter elites were in a similar position to planter elites in the US South after Reconstruction, they were more constrained in their ability to respond to this challenge. They lacked the coercive capacity and manpower of common whites to violently suppress the ambitions of the freedmen. With the black share of the population everywhere above 95 %, there was no equivalent to the US South post-Reconstruction "white terror" or militias like the Ku Klux Klan.[9] There were also obstacles to the ability to manipulate the legal system because they lacked the political clout in the Center that southern planters maintained in post-Reconstruction federal politics. When a local act looked overtly discriminatory, the Crown would overrule it with an order-in-council (Craig-

[7] Franchise rules are reported in the Colonial Blue Books.

[8] Squatting, pervasive throughout the Caribbean, gave legal title after 12 years on private land and 60 years on Crown lands (Craton (1997, p. 390)).

[9] See Kousser (1999) and Naidu (2009) for a discussion of disenfranchisement in the post-Reconstruction US South.

James (2000, p 65)). Lowes (1994, ch. 5) writes that "because of pressures from the Colonial Office, a comfortable translation of pre-emancipation legal distinctions into distinctions of skin color was not possible." Where planters acted too coercively, they also ran the risk of riots and revolt (Morrell and Parker (1969, p 396), Dookhan (1977, p 114)). No systematic data on Caribbean riots exists but it was clearly viewed as a real danger, particularly as the sugar crop that was vulnerable to arson (Craton (1988)).[10]

As a result, "the planters steadily lost their political dominance. As disputatious Assemblies were infiltrated by men of color independent of the plantation economy, the planters recognized their predicament" (Burroughs (1999)). This predicament primarily manifested itself on issues of taxation and public good provision. Elites were largely dis-interested in public good provision, primarily investments in education and sanitation since both could be privately obtained quite easily (Sewell (1861, p 39), Dookhan (1977), Brizan (1984, p 163)).[11] As a result of low interest in public good provision in the elite-dominated assemblies, "per capita taxes in the old representative Caribbean colonies were appreciably less than in Crown colonies" (Rogers (1970, p 96)). In addition to conflict over the amount of taxation and the type of spending, there was conflict over the type of taxation. According to Green (1991, p 186), the main rift "was over import duties on food, [which] enticed freedmen to abandon estate labor in favor of the production and sale of provisions." Elite's preferred alternative was obviously not property taxation. Instead the only feasible preferred alternative was the levying of fees and licences on the urban middle class and on rural peasants. Dominated by export-oriented elites, heavy licences were imposed on local economic activity such as on shops, markets and fees were collected for using rural roads (Rogers (1970, p 97)).

In considering their options, planters did have one option that was unique to the colonial institutional template: They could abolish their elected parliaments and switch to direct or *Crown Colony* rule, a system of governance under which all functions of government were controlled by the colonial administration, with the governor appointing the local legislature and judiciary. By doing this, planter elites were giving up their main source of de jure powers but could preempt the threat of the freedmen gaining a parliamentary majority. While they had long "jealously

[10]The Morant Bay Rebellion of 1865 was caused by the imprisonment of a squatter on a long-abandoned plantation and apparently led directly to Jamaica's switch towards Crown Colony Rule (Dookhan (1977, p 65)).

[11]The one shared interest between elites and peasants was road infrastructure (Green (1991, p 196)).

guarded their privileges against interference by the colonial adminstration" (Wrong (1923)), they "knew they faced [...] the demand of an increasingly restive nonwhite middle class for a voice in island affairs. In the end, this proved the greater fear and they voted themselves out of office" (Lowes (1994, p. 35)) This trade-off is also apparent in Ashdown (1979, p. 34): "The colonies gave up their elected assemblies voluntarily, for in most cases the white, privileged classes preferred direct imperial government to the government of the colored classes who were slowly obtaining greater representation in the legislative councils." If Crown Colony Rule was seen as the lesser of two evils by planter elites, it raises the question why the nonwhite electorate accepted it if it ended their aspirations towards obtaining an electoral majority. The historical record suggests that the freedmen may have genuinely believed that Crown rule to be preferable to a protruded political conflict and stalemate. This was not unreasonable given that it was the Crown that had imposed Abolition on the Caribbean. Looking towards the three Caribbean colonies that were founded under Crown colony rule seemed to confirm this view: There was a perception that "conditions [there] were much better as planters never enjoyed the same influence over local government" (Laurence (1971, p. 16,23,53)). The provision of public goods was also seen as superior (Dookhan (1977, p. 70)). Further, the colonial administration signalled an intent to improve the lot of the rural poor. Its stated aim was to improve public good provision, for education in particular, and to develop an independent smallholders society (Wrong (1923, p. 78-79)). Pushing for more colonial control to achieve this, Henry Taylor, the colonial office's supervisor of West Indian affairs, publicly said that the local parliaments were "eminently disqualified for the great task of educating and improving a people newly born to freedom" (Wrong (1923)).

Whatever the intentions of the colonial administration, it was vulnerable to capture by local elites. Lewis (2004, p. 104) writes of the governors's incentives: "To join with local white society meant a pleasant tour of duty, to fight them meant political conflict and social ostracism. Inevitably, [the governor] passed smoothly into the union, political and social, of government and vested interests." Craig-James (2000, p. 252) recounts a confrontation between Tobago' governor and its appointed legislators over land tax reform with the legislators forcing a salary cut to the governor instead of higher land taxes. If the threat of revolt played heavily on planters' minds before the constitutional changes, why was there no revolt against elite capture of the appointed legislature after the constitutional changes? While I cannot bring any evidence to bear on this, the

economics and political science literature does suggest that the mere absence of positive action may not provide the necessary focal points to coordinate political mobilization (Schelling (1980), Hacker and Pierson (2011), Acemoglu and Jackson (2011)).

3 Data Sources and Empirical Setup

3.1 Data

The main data source for this paper are the *British Colonial Blue Books*, annual statistical reports issued by each British colony. The first Blue Books were in the mid-1820s but contained very little data. The main data on local politicians starts in 1836 at the earliest. The Blue Books became a publication in the 1880s. For years before that, at most two copies exist of each Blue Book, one in the British National Archives in London and possibly one in the issuing colony's archives. For this project, large parts of the Blue Books had to be photographed and the data then manually processed. The main sections from the Blue Books are the *Comparative Tables of Revenue and Expenditure*, the *Political Franchise*, which reports the number of registered voters starting in 1854, and the *Councils and Assemblies*, which includes the names and election dates of all local politicians, reported by parish.

My measure of political competition is electoral turnover, calculate as the share of parliamentary seats occupied by a non-incumbent after each general election. A preferred measure would be the entry of political newcomers. However, to accurately measure the flow of political newcomers, I need a stock of past politicians, something I cannot get from the Blue Books because this data source only starts in 1838.[12] For Jamaica, Roby (1831) compiled a list of all parliamentarians going back to the 17th century. This allows me to measure a stock of politicians and to calculate the flow of entrants into Jamaica's parliament at every election. Encouragingly, Figure 4 shows that political entry correlates strongly with my measure of political turnover. Additional evidence can be gleaned from secondary sources: For Jamaica, Hall (1959) compiled data on the expansion of smallholding from 1838 to 1848 for 19 Jamaican parishes. Regressing this against my measure of electoral turnover in Jamaica's 1849 election, I find a positive relationship, albeit marginally

[12]Without a stock, a constant rate of electoral turnover will mechanically show up as a higher share of political newcomers in the early years of the data, so long as some politicians rotate in and out of parliament, a prevalent pattern in the data.

insignificant with a t-statistic of only 1.58. This relationship is shown in Figure 5. The distribution of scatter points is driven by the fact that turnover at the parish-level, where only 2 or 3 seats were allocated to each parish, could only take a small set of values.

Table 1 provides an overview of the data. It provides dates for both types of constitutional changes: Of the eleven colonies that switched towards Crown colony rule, only one colony, Jamaica, switched to full Crown colony rule directly. The other ten first switched to a semi-representative system and then, on average 6 years later, to full Crown colonial status.[13] There is very little data in the semi-representative state, making it difficult to exploit it separately. In addition, Caribbean historians have argued pervasively that semi-representative government was seen by elites as an intermediate step meant to secure a majority for the full switch towards Crown Colony rule (Craig-James (2000, p 256), Brizan (1984, p 204)).[14] My approach is therefore to treat the *first* constitutional change as the event of interest.

The main data on constitutional changes is set up as duration data: For Bahamas, Bermuda and Barbados, which never transition, the constitutional change data is a series of zeros only. For the eleven colonies, that do switch, a series of zeros is ended by a single one, with which that colony's data ends. The main panel is set up as annual data because a constitutional change can occur in any year including in between elections. However, the political data on electoral turnover and the number of registered voters only changes with each electoral cycle. When the data is annual, I cluster all standard errors two ways at the electoral-cycle level as well as at the colony level. I also include specifications, in which I compress the data so that an electoral cycle is an observation. Because a constitutional change does not happen suddenly but needs to be proposed and voted on in the parliaments and then still enacted, I consider the main explanatory variables of electoral turnover and the number of voters with a one-period lag. Both of these features of the data are illustrated in Table 2 for Antigua's 1853, 1860 and 1867 elections.

[13]This process was quite heterogenous: four colonies switched to full Crown colony rule within thee years. The six-year average excludes Antigua and Dominica that retained the semi-representative system for several decades and switched after my data ends in 1895.

[14]This is echoed in the colonial records' descriptions. The Colonial Office List's description of Grenada's constitutional history reads: "The constitution was remodeled by an Act on October 7th 1875 and a single legislative chamber was established, [which] consisted of 8 members elected by the people and 9 nominated by the Crown. This Assembly at its first meeting on February 9th 1976 addressed the Queen that it had passed a bill for its own extinction" (Britain (1879, p 188)).

3.2 Identification Strategy

The main hypothesis is that constitutional changes were initiated in response to the threat of increased political competition. This hypothesis is clearly suggested in the raw data in Figures 6 and 7, which plot the two measures of political competition in event time leading up to constitutional changes.[15] In a regression, I run

$$\mathbf{CC}_{it} = \beta \mathbf{PC}_{it} + \varphi_i + \phi_t + \epsilon_{it} \tag{1}$$

where the dependant $\mathbf{CC}_{it}$ is an indicator that takes value 0 in all years except when the constitutional change occurs after which that colony's time series ends and $\mathbf{PC}_{it}$ is a measure of political competition. I can measure $\mathbf{PC}_{it}$ in two ways, with electoral turnover $\mathbf{ET}_{it}$ or with an expanding electorate as measured by the log of registered voters. My preferred way to organize the data is to think of these two regressions as a second stage (2S) and a reduced form (RF) and to also study the first stage (FS) relationship between electoral turnover and the log of registered voters:

$$\mathbf{ET}_{it} = \gamma \text{log(reg. voters)}_{it} + \varphi_i + \phi_t + \epsilon_{it} \tag{2}$$

One reason for this setup is that it is an effective way to organize the data because the expanding electorate should have led to increased political competition though electoral turnover. Under the assumption that the expanding electorate impacted the likelihood of constitutional changes only through increased electoral turnover, this setup also gives rise to an instrumental variable (IV) strategy. IV results will potentially differ from the 2S OLS results because electoral turnover is a noisy measure of political competition as it may capture one elite-backed candidate replacing another, causing attenuation bias. The number of registered voters is also a noisy measure of political competition but if the noise in the two measures is i.i.d., attenuation bias can be mitigated in an IV setting.

The main threat to the validity of the results in the 2S, RF and IV specifications comes from unobservable pressure for constitutional changes that is correlated with either measure of political competition. Figure 3 suggests that network effects could be a source of bias if the idea of consti-

[15] the log of registered voters is normalized so that elections can be pooled across colonies.

tutional change simply perculated through the Caribbean. Another possibility is that over time, there was differential pressure for more direct control by the colonial administration. In particular, pressure may have increased after the Indian Mutiny of 1857. Increases in pressure for more direct control by the colonial administration may also have been more differentiated than that and increased in several waves. I control for these possibilities by sequentially including the number of already transitioned colonies, a post-1857 indicator and decadal dummies in the regressions as the control ϕ_t in (1).

When $\mathbf{PC}_{it}$ in (1) is measured by electoral turnover $\mathbf{ET}_{it}$, my preferred specification is to exclude colony fixed effects. One reason for this is that colony fixed effects would completely explain the data for the three colonies without constitutional changes, further reducing the cross-sectional sample from 14 to 11. A second reason is that electoral turnover as a share lies between 0 and 1 and is therefore comparable across colonies: A colony with lower electoral turnover should be less likely to have a constitutional change and this variation should not be discarded. The second regressor of interest is the log of registered voters. Unlike electoral turnover, the log of registered voters is not comparable across colonies and I therefore include colony fixed effects in my preferred RF and FS specifications.

Because constitutional changes are absorbing in that there is no reversal, I can study the effect of constitutional changes simply by testing for an effect of being in the changed regime on various aspects of public expenditure:

$$\text{Policies}_{it} = \beta \mathbf{CC}_{it} + \gamma \mathrm{X}_{it} + \phi_t + \theta_i + \epsilon_{it} \tag{3}$$

Here I include colony fixed effects, some colony-time-varying controls like population size that should impact public expenditure, and time trends or year fixed effects ϕ_t. I focus on two aspects of public expenditure: One, I focus on total public expenditure to test whether relinquishing local control over taxation relaxed the colonial executive's spending . Two, I focus on educational expenditure, controlling for overall expenditure in X_{it}, to test whether pro-poor expenditure increased its budget share after the colonial administration took over.

4 Results

The discussion of the results is very incomplete.

4.1 Main Results

Table 3 provides the main results. Columns 1-4 are the 2nd stage (2S) results. Columns 1-2 have no colony fixed effects, my preferred specification because this does not disregard the three colonies without constitutional changes from the data. Columns 3-4 include colony fixed effects as a robustness check. Column 5 is the reduced form (RF), which has to include fixed effects because the log of registered is not a comparable measure in the cross-section. Column 6 is the first stage (RF), which also has to include fixed effects for the same reason. Unlike the reduced form, in the first stage the inclusion of fixed effects does not discard the three colonies without constitutional changes from the data because the fixed effects do not perfectly explain the variation in electoral turnover for any colonies. Columns 7-8 are the instrumental variable (IV) results. To account for the fact that there is no variation in the data within an electoral cycle, I cluster the standard errors in two dimensions: at the colony and the electoral cycle level. An alternative approach is to treat the electoral cycle as an observation. I do this in Panel B. In Table 4, I check for the robustness of these results to network effects, the number of already transitioned colonies, and to added colonial pressure, with an indicator that turns on after the Indian mutiny. In Table 5, I check for the robustness of these results to decadal, 5-year and year fixed effects.

Table 6 explores the first-stage relationship at the parish-level, in a panel with a cross-section of over 100. This also allows me to include electoral cycle fixed effects at the colony level, controlling for any time varying unobservables that shifted the political balance for the colony as a whole. The first stage relationship is strongly confirmed at the parish level, including both parish and electoral cycle fixed effects.

4.2 Underlying Variation

While the important threat to the validity of above approach is not endogeneity to other local factors but confounding time-series variation in pressure by the colonial administration, it is nonetheless useful to relate variation in the political changes explored above to the underlying

cross-sectional variation displayed in Table 1. I do that in Table 7. In the top panel, I relate electoral turnover and the number of voters to how entrenched a colony was in the sugar-plantation system as well as two measures of the elites' ability to withstand pressure from freeholders - the density of a colony and the share of whites living in a colony in 1836. These cross-sectional measures are based on the logic that increasing the expansion of the franchise occurred through land redistribution, that the major reason for land-redistribution in the Caribbean was plantation bankruptcy due to a depressed sugar price and that these forces were magnified when the density was low (because workers were better able to find freeholds) and when the share of whites in a colony was low (because elites' power base was smaller). These predictions are borne out in the data: Both density and the share of whites reduced electoral turnover in the pooled cross-section. For the log of registered voters, a bigger initial sugar-share reduced the franchise and the share of whites naturally increased it. The main source of exogenous time variation in this process was a secular decline in sugar prices, depicted in Figure 8 in both raw and smoothed form.[16] In column 1 of the bottom panel, the coefficient of -0.003 on sugar-price$_t$ $*$ sugar-share)$_{1836}$ says that a lower sugar-price raised electoral turnover more in places that were more dependent on the sugar-economy (i.e. where it had a bigger impact on land-redistribution) while the coefficient of 0.001 on sugar-price$_t$ $*$ sugar-share$_{1836}$ $*$ density$_{1836}$ says that this was less pronounced when density was higher, i.e. the plantation system more resistant.

4.3 Effect of Constitutional Changes

Table 8 reports results of estimating equation (3). Panel A considers revenue breakdowns, panel B considers expenditure breakdowns. Columns 1-3 in both panels had totals as the dependent. In columns 4-9 of both panels, totals are included as a control. Columns 4-6 and 7-9 consider different outcomes. Each set of 3 columns has three different ways of controlling for time trends, the first has a linear and quadratic time trend common to all, the sec on has year fixed effects, the third has year fixed effects and a colony-specific linear time-trend. All regressions include colony fixed effects. In total, 6 different outcomes are considered: Total revenue, revenues from fees and licences, revenues from import duties, total expenditures, expenditures for education and expen-

[16] Since only a persistently low sugar price led to plantation bankruptcy I use a smoothed MA(10) sugar price series in the empirics.

ditures for public goods not associated with "productive" infrastructure like roads. This latter measure primarily captures expenditures for health and sanitation. Columns 1-3 of Panel A show that, contrary to conventional wisdom on Crown Colony government, the constitutional changes did not increase the amount of taxation in the colonies. Since there were no government bonds, Caribbean governments were forced to run balanced budgets so that there is also no change in total expenditure in columns 1-3 of Panel B. Columns 4-9 of Panel A provide some evidence that the sources of revenue tilted in elite's favor. Planters' primary concern was that high food import duties, drove labor off the estates and into the production of provisions for sale in local markets. They only feasible alternative to import duties was taxing property or the levying of extensive licences and fees which would primarily hit the urban middle class and rural peasants. Column 4-5 shows that import duties significantly reduced after the constitutional change although this result does not survive the most conservative specification in column 6. In columns 7-9 I checked whether revenue from licences and fees increased to offset this reduction in import taxes but the evidence in very weak. Overall, the revenue data is very noisy and clean categorization of revenue sources across colonies and over time is hard. The expenditure data by contrast is much clearer and yielded stronger results. Panel B columns 4-9 show quite clearly that the two big positions of expenditure over which elites and freedmen had competing interests, public education and other non-infrastructure public good provision (mostly on sanitation and medical services), dropped significantly after the constitutional changes.[17] This is contrary to the conventional wisdom that Crown Colony government was more likely to act on the behalf of the poor, and, in combination with the previous results, suggests that elites retained and possibly even strengthened their influence over the political decision making process when they ceded their de jure powers.

5 Discussion and Conclusion

This paper documents a unique series of 19th century constitutional changes in which parliaments voluntary limited or ceded their representative status. This historical episode provides an important counterexample to the broad trends of franchise expansion and increases in parliamentary powers during the 19th century. It provides a unique opportunity to study the political economy

[17] Expenditure on "productive" infrastructure like roads did not change with the constitutional changes; results not reported.

of colonial institutions, often thought to be an important determinant of long run economic development. I endogenize the constitutional changes and explain them as the response by local planter elites to the emergence of a new political class of freed slaves whose objectives ran counter to the plantation economy. I further provide evidence on public expenditure which suggests that local elites were able to continue their influence over policy after they gave up de jure powers. A possible explanation is increased de facto collective action and insider access to the colonial government. I study the identity of all elected and appointed politicians in the elective chambers before and after the constitutional changes to provide direct evidence on elite persistence. In combination, these finding illuminate the economic and political motivations behind a unique and important series of 19th constitutional changes. They illustrate the workings of colonial institutions provide an important illustration of a small minority's ability to use legal means and collective action to control economic and political resources against the remaining 95 percent of the population.

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Figure 1: The Neo-Europes and the Caribbean in AJR 2001

Figure 2: The Neo-Europes and the Caribbean in AJR 2002

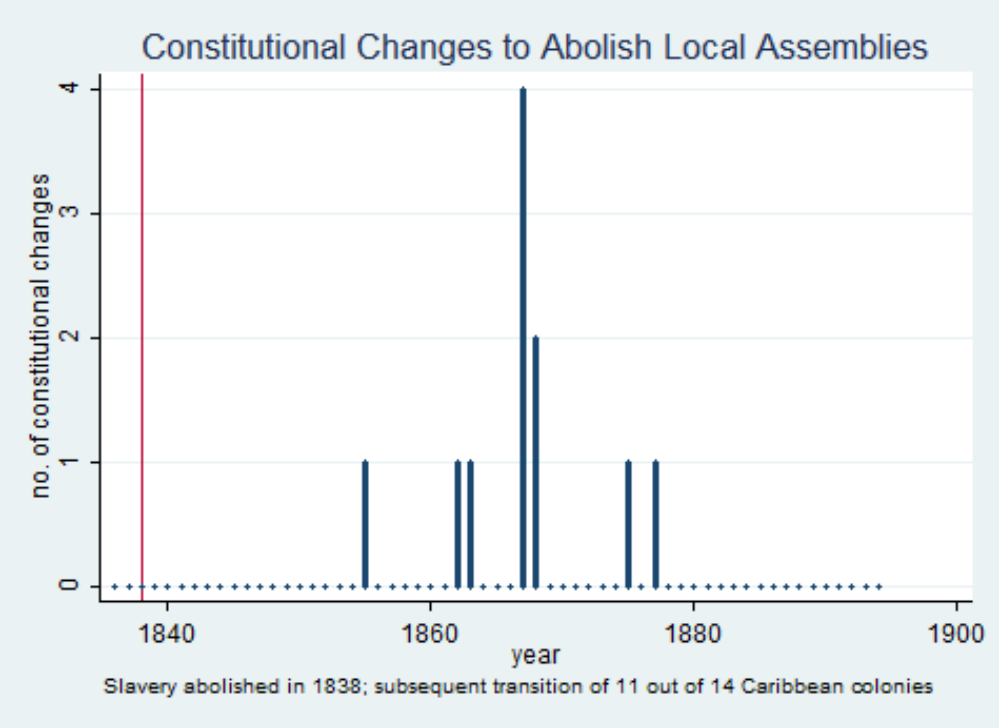

Figure 3: Timing of First Constitutional Changes

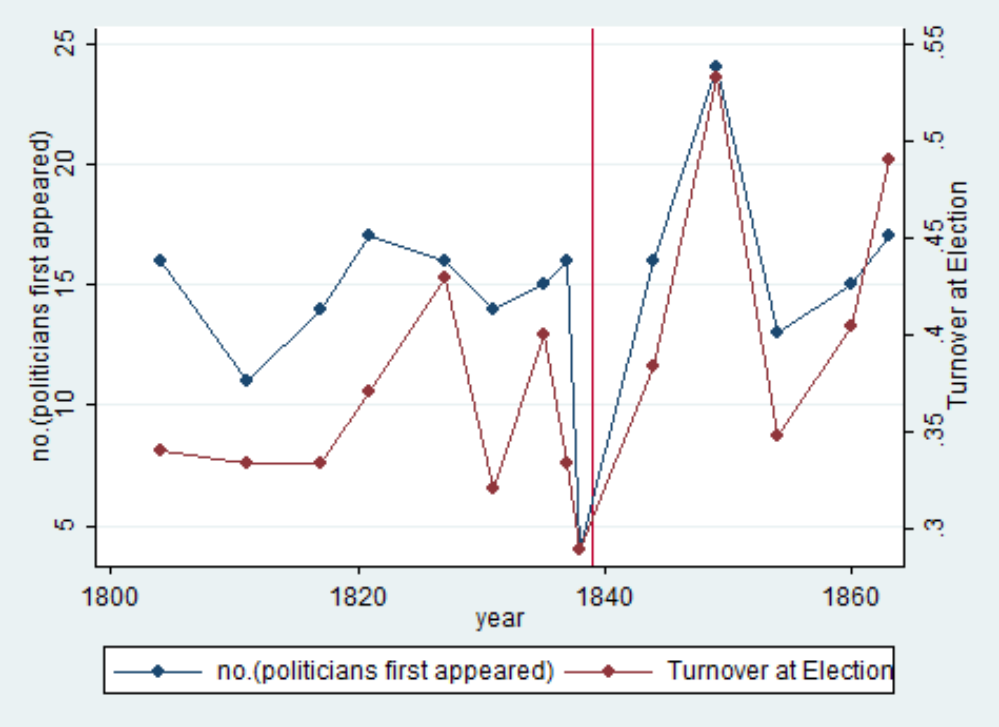

Figure 4: Does Electoral Turnover Measure Political Entry?

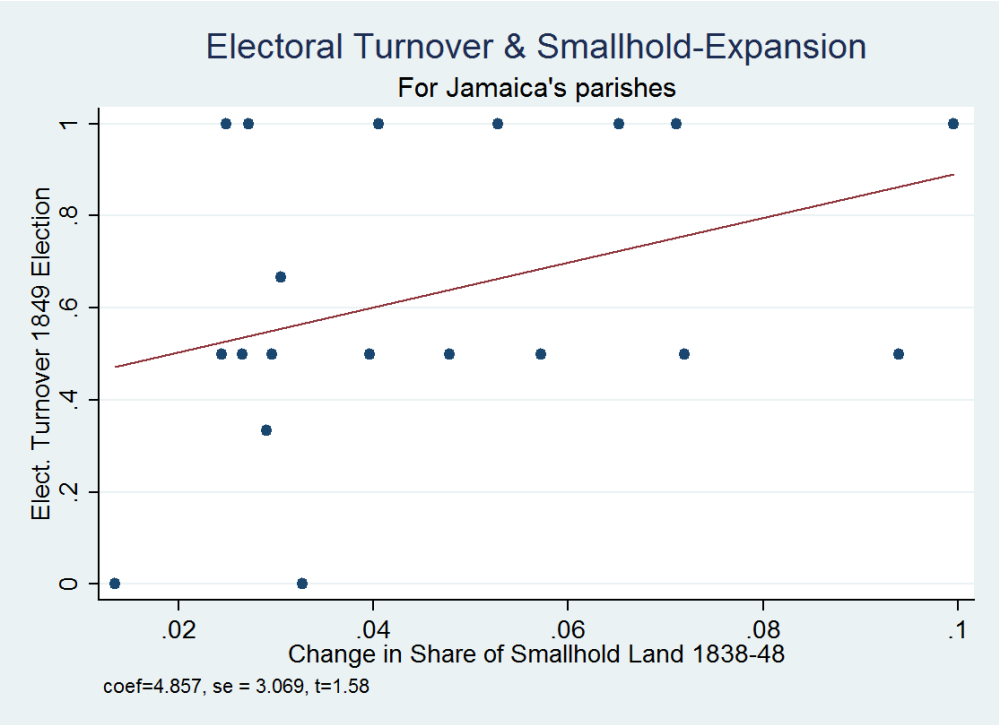

Figure 5: Is Electoral Turnover Correlated with Freehold Expansion?

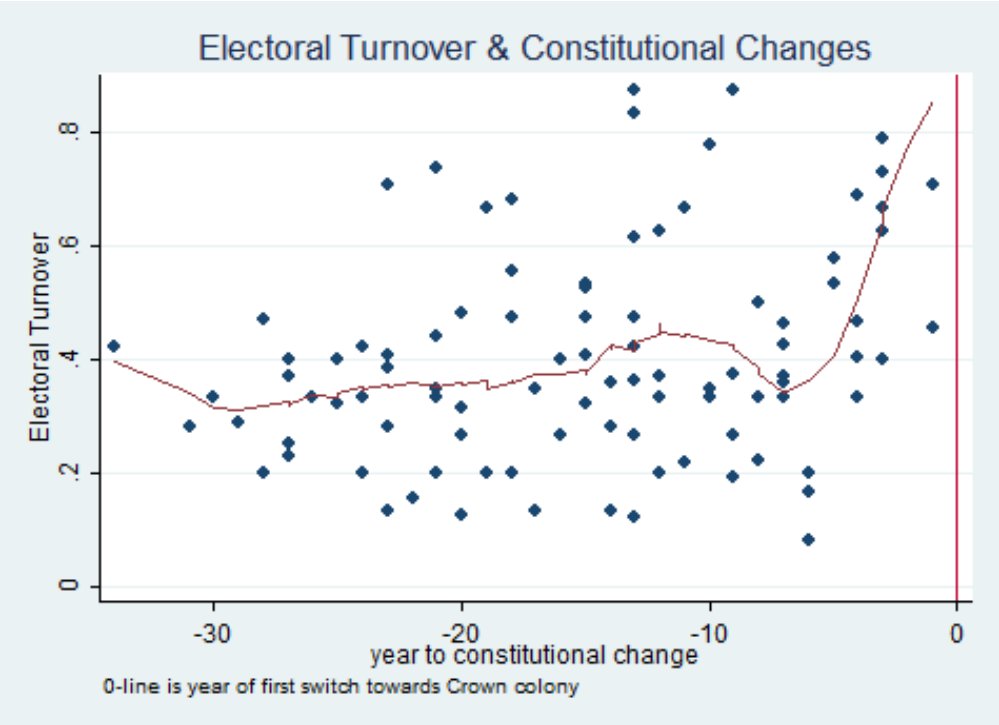

Figure 6: Constitutional Change and Electoral Turnover (Event Time)

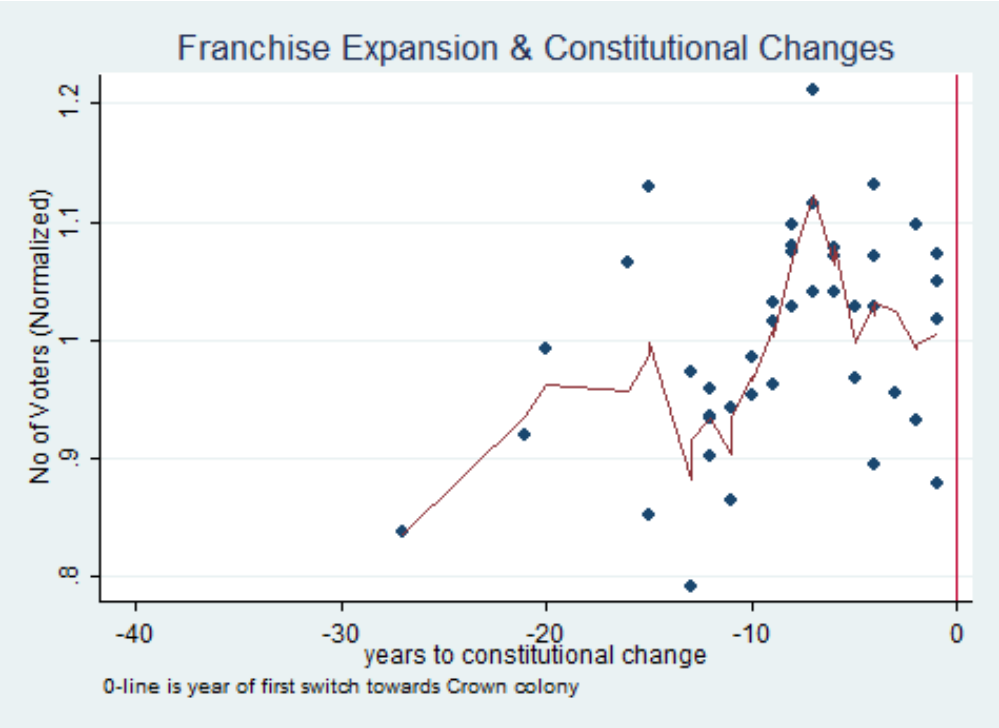

Figure 7: Constitutional Change and Franchise Expansion (Event Time)

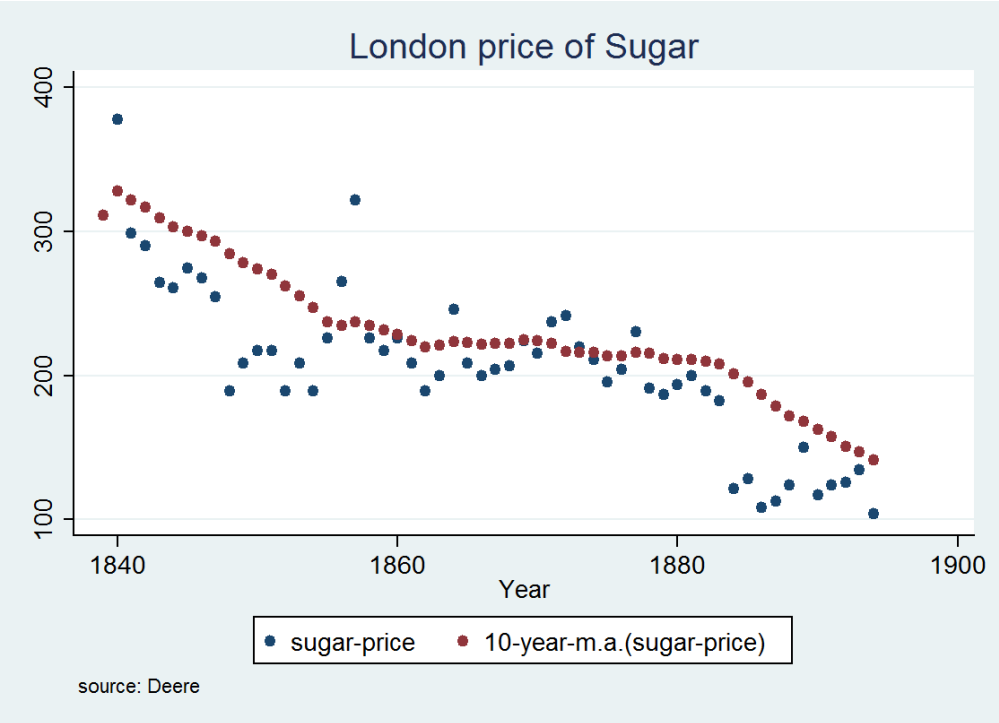

Figure 8: Sugar Price Variation as a Source of Exogenous TS Variation

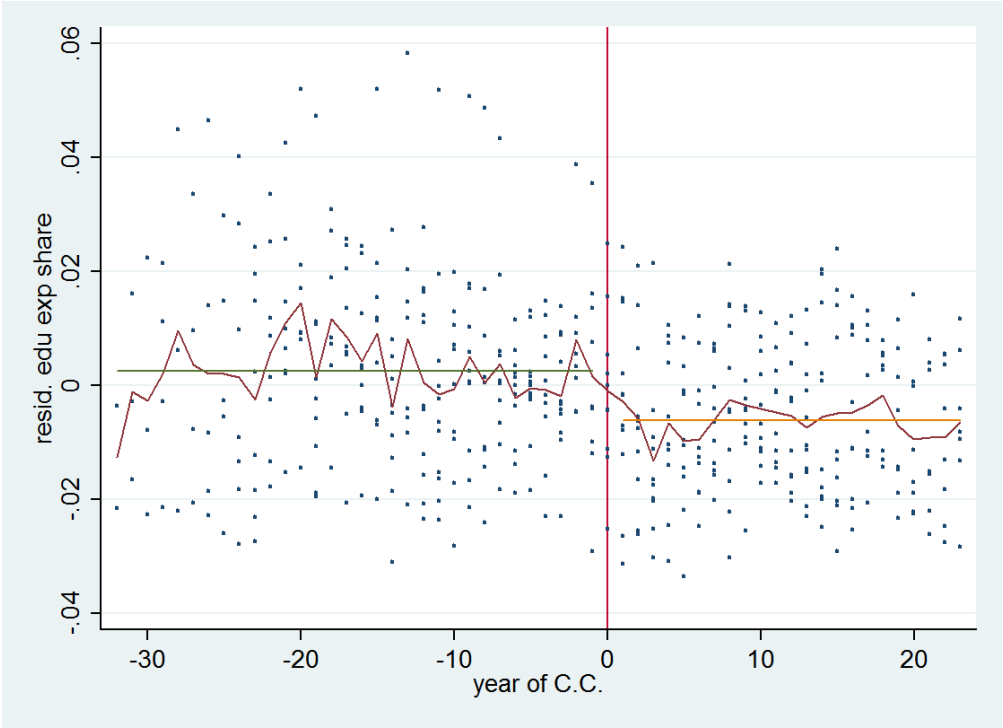

Figure 9: Time-Path of Educational Expenditure (Event Time)

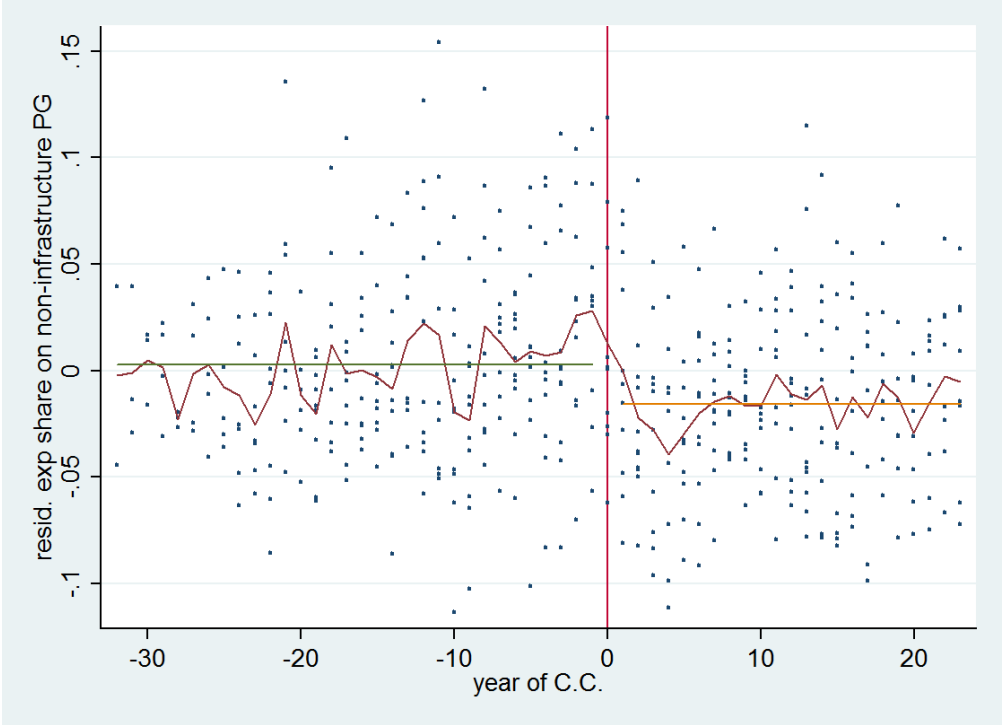

Figure 10: Time-Path of Non-Infrastructure PG Expenditure (Event Time)

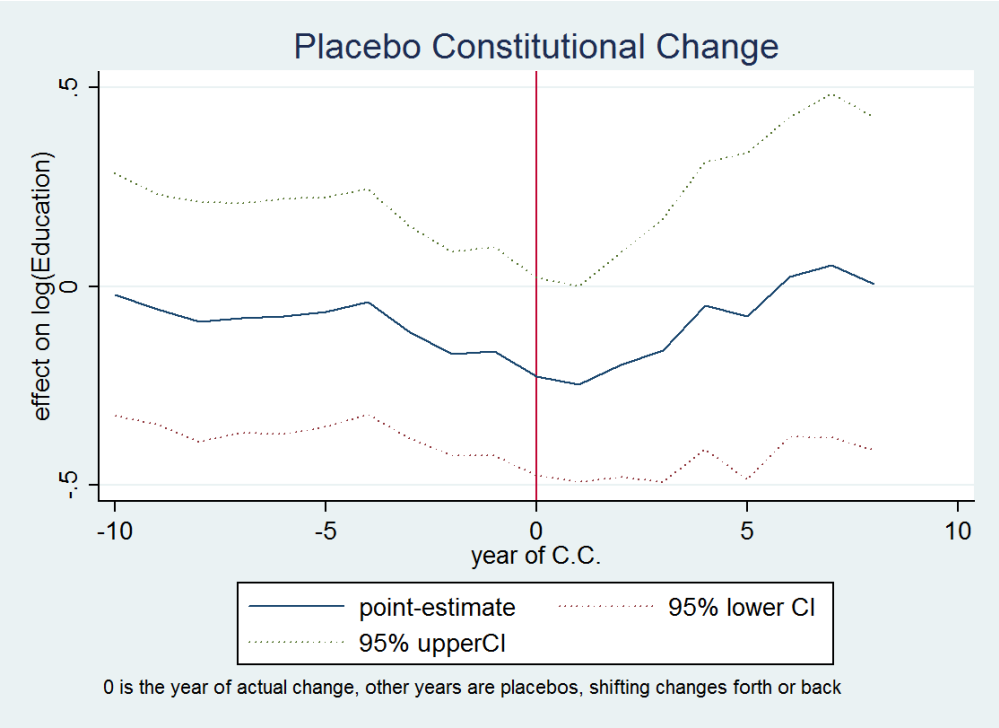

Figure 11: Education-Coefficients for Placebo Constitutional Changes

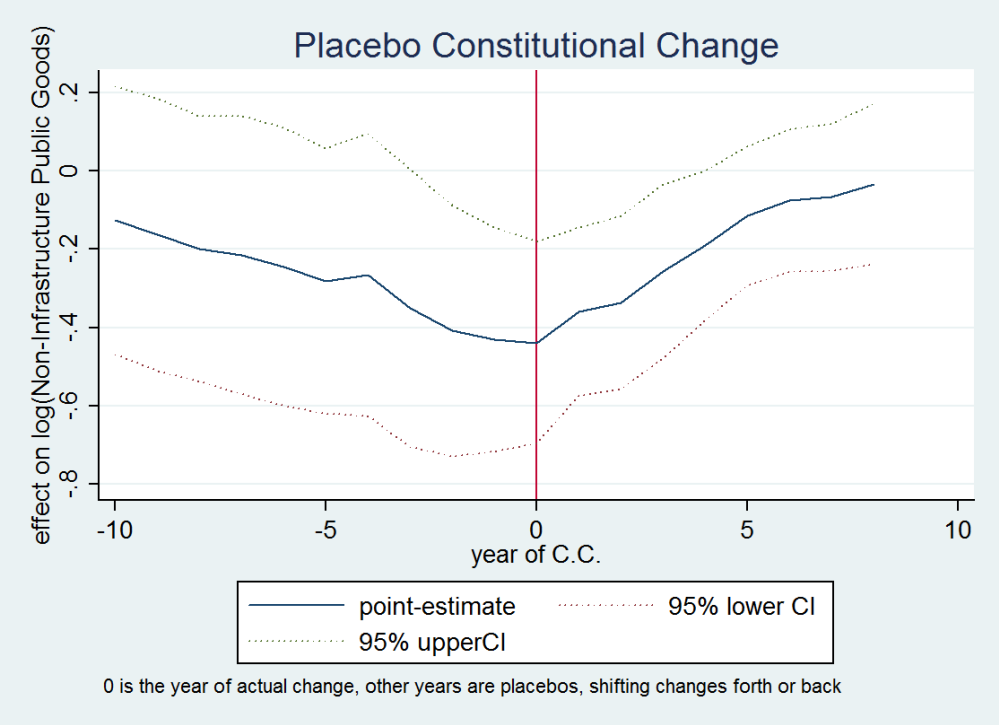

Figure 12: PG-Coefficients for Placebo Constitutional Changes

Table 1: Comparison Table

Colony	Year Founded	Year Semi-representative	Year since Crown Colony	Year First Change	1836 Population	Area (sqkm)	1836 Density	1836 Sugar % of Exports	1836 Pop-Share White
Antigua	1632	1868	1898	1868	35188	281	125	93	5.4
Bermuda	1612				8862	53	167	0	46.2
Bahamas	1650				20203	13461	2	10	28.5
Barbados	1629				105812	431	246	94	12.8
Dominica	1763	1867	1898	1867	16207	754	21	81	3.9
Grenada	1763	1877	1879	1877	17751	344	52	96	2.6
Br Guyana	1803		1803		66561	10750	6	80	0.7
Honduras	1638	1862	1871	1862	8235	2296	4	0	4.2
Jamaica	1655		1867	1867	381951	11100	34	74	8.2
Montserrat	1634	1863	1868	1863	6647	102	65	96	4.3
Nevis	1623	1867	1879	1867	7434	93	80	95	5.4
St Lucia	1803		1803		17005	620	27	79	11.3
St Kitts	1628	1867	1879	1867	21578	191	113	99	6.4
St Vincent	1763	1868	1876	1868	26659	389	69	96	4.7
Tobago	1763	1875	1878	1875	11456	300	38	100	2.3
Trinidad	1797		1797		34650	4787	7	88	8
Virgin Islands	1672	1855	1868	1855	7471	153	49	95	12.4

The 3 initial Crown colonies Br Guyana, St Lucia and Trinidad play no role in the empirics in the first part of the paper, which explains constitutional changes. Data Sources: *Wrong (1923)* and *Martin (1839)* The two mainland colonies, Br Honduras (Belize) and Br Guyana, had huge hinterlands that were completely outside of the colony's de facto area. To roughly approximate these colonies de facto boundaries, I report 10% of actual area for Honduras and 5% for Guyana.

Table 2: Illustrating Panel-Construction

Colony	Year	Const. Change	CC	Election	Electoral Turnover	ln(voters)	Electoral Turnover	ln(voters)
Antigua	1852		0				0.25	.
Antigua	1853		0	Yes	0.3	6.109	0.3	6.109
Antigua	1854		0				0.3	6.109
Antigua	1855		0				0.3	6.109
Antigua	1856		0				0.3	6.109
Antigua	1857		0				0.3	6.109
Antigua	1858		0				0.3	6.109
Antigua	1859		0				0.3	6.109
Antigua	1860		0	Yes	0.35	6.238	0.35	6.238
Antigua	1861		0				0.35	6.238
Antigua	1862		0				0.35	6.238
Antigua	1863		0				0.35	6.238
Antigua	1864		0				0.35	6.238
Antigua	1865		0				0.35	6.238
Antigua	1866		0				0.35	6.238
Antigua	1867	Yes	1	Yes	0.43	6.386	0.43	6.386

Table 3: Explaining Constitutional Changes

	Panel A: Annual Data							
	2nd Stage				RF	FS	IV	
Dependent:	CC	CC	CC	CC	CC	Elect. Turnover	CC	CC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Elect. Turnover	0.143***	0.312***	0.175**	0.319**			0.323***	1.099***
	(3.218)	(2.962)	(2.382)	(2.121)			(4.201)	(2.823)
log(registered voters)					0.097**	0.098***		
					(1.989)	(4.236)		
N	437	238	437	238	238	238	238	238
R^2	0.025	0.059	0.038	0.123	0.119	0.442		
	Panel B: N = Electoral Cycles							
Elect. Turnover	0.356***	0.907***	0.427**	0.721***			1.089***	0.787
	(2.928)	(5.119)	(2.374)	(2.862)			(5.375)	(1.105)
log(registered voters)					0.087	0.111***		
					(0.867)	(2.853)		
N	168	86	168	86	86	86	86	86
R^2	0.077	0.221	0.141	0.313	0.247	0.516		
colony-fe 2nd Stage			fe	fe				fe
colony fe 1st Stage					fe	fe	fe	fe
Sample	Full		Full					

N = 437 is the data-set for which I observe Electoral Turnover. N = 238 is the data for which I observe the number of registered voters In Panel A, s.e. are two-way clustered at colony and electoral-cycle level. In Panel B, s.e. are clustered at colony level. Columns (7)-(8) correspond to columns (2) and (4) of the OLS.

Table 4: Explaining Constitutional Changes

	Panel A: Controlling for Network Effects							
	2nd Stage				RF	FS	IV	
Dependent:	CC	CC	CC	CC	CC	Elect. Turnover	CC	CC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Elect. Turnover	0.173***	0.355***	0.202***	0.294*			0.385***	0.527
	(3.276)	(2.970)	(2.579)	(1.816)			(3.099)	(0.858)
log(registered voters)					0.056	0.108***		
					(0.824)	(5.148)		
#(Colonies Transitioned)	0.005*	0.004	0.008**	0.012**	0.010	-0.003	0.004	0.012**
	(1.767)	(1.399)	(2.274)	(2.374)	(1.340)	(-0.526)	(1.280)	(1.975)
N	437	238	437	238	238	238	238	238
R^2	0.039	0.068	0.069	0.158	0.134	0.445		
	Panel B: Controlling for Added Colonial Pressure							
Elect. Turnover	0.176***	0.320***	0.188***	0.283*			0.341***	1.131
	(3.961)	(3.080)	(2.662)	(1.787)			(4.588)	(1.314)
log(registered voters)					0.076	0.078***		
					(1.124)	(3.523)		
post-1857	0.054***	0.053***	0.066***	0.073**	0.044	0.040	0.050**	-0.006
	(3.675)	(2.791)	(4.079)	(2.185)	(0.781)	(1.442)	(2.505)	(-0.057)
N	437	238	437	238	238	238	238	238
R^2	0.054	0.070	0.076	0.137	0.122	0.448		
colony-fe 2nd Stage			fe	fe				fe
colony fe 1st Stage					fe	fe	fe	fe
Sample	Full		Full					

N = 437 is the data-set for which I observe Electoral Turnover. N = 238 is the data for which I observe the number of registered voters s.e. are two-way clustered at colony and electoral-cycle level. Columns (7)-(8) correspond to columns (2) and (4) of the OLS.

Table 5: Explaining Constitutional Changes

	Panel A: Decade-FE							
	2nd Stage				RF	FS	IV	
Dependent:	CC	CC	CC	CC	CC	Elect. Turnover	CC	CC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Elect. Turnover	0.182***	0.361***	0.207**	0.313*			0.358***	0.494
	(3.526)	(2.838)	(2.503)	(1.712)			(4.250)	(0.549)
log(registered voters)					0.043	0.092***		
					(0.530)	(3.953)		
R^2	0.078	0.106	0.103	0.183	0.154	0.474	0.030	0.089
	Panel B: 5-year Interval FE							
Elect. Turnover	0.186***	0.372***	0.216**	0.300			0.367***	0.065
	(3.493)	(2.927)	(2.495)	(1.538)			(3.415)	(0.043)
log(registered voters)					0.004	0.059**		
					(0.043)	(2.370)		
R^2	0.082	0.110	0.108	0.194	0.167	0.516	0.035	0.166
	Panel C: Year FE							
Elect. Turnover	0.177***	0.358***	0.203***	0.285*			0.366***	-0.050
	(4.370)	(3.303)	(3.072)	(1.759)			(3.675)	(-0.032)
log(registered voters)					-0.003	0.058*		
					(-0.030)	(1.899)		
R^2	0.179	0.218	0.202	0.278	0.257	0.587	0.151	0.257
N	437	238	437	238	238	238	238	238
colony-fe 2nd Stage			fe	fe				fe
colony fe 1st Stage					fe	fe	fe	fe
Sample	Full		Full					

N = 437 is the data-set for which I observe Electoral Turnover. N = 238 is the data for which I observe the number of registered voters s.e. are two-way clustered at colony and electoral-cycle level. Columns (7)-(8) correspond to columns (2) and (4) of the OLS.

Table 6: First Stage at Parish-Level

Dependent:	Electoral Turnover			
	Annual Data		N = Electoral Cycle	
	(1)	(2)	(3)	(4)
log(registered voters)	0.096***	0.107**	0.058**	0.072**
	(3.604)	(2.229)	(2.128)	(2.015)
parish-FE	Y	Y	Y	Y
election-colony-FE		Y		Y
Observations	2,230	2,230	1,075	1,075
R^2	0.369	0.469	0.346	0.524

Standard errors are two-way clustered at parish and colony-electoral-cycle level.

Table 7: XS-Variation

Dependent:	Elect. Turnover				log(registered voters)	
	(1)	(2)	(3)	(4)	(5)	(6)
sugar-share$_{1836}$	0.097	-0.073	0.051	-0.087	-2.332***	-0.798
	(1.489)	(-0.769)	(1.059)	(-1.275)	(-3.109)	(-1.325)
density$_{1836}$	-0.076***		-0.101***		0.107	
	(-16.349)		(-7.069)		(0.211)	
sugar-share$_{1836}$ $*$ density$_{1836}$	-0.053		0.014		-0.118	
	(-1.506)		(0.594)		(-0.160)	
popshare-white$_{1836}$		-0.373**		-0.609***		4.290**
		(-2.279)		(-5.151)		(2.699)
sugar-share$_{1836}$ $*$ popshare-white$_{1836}$		-0.131		-0.797		-9.881*
		(-0.085)		(-1.580)		(-1.902)
N	437	437	238	238	243	243
R^2	0.217	0.039	0.249	0.226	0.769	0.831
sugar-price$_t$	0.002***	0.002	0.001	0.002	0.008*	0.005
	(6.570)	(1.111)	(1.672)	(0.550)	(2.003)	(1.091)
sugar-price$_t$ $*$ sugar-share$_{1836}$	-0.003***	-0.003	-0.003***	-0.004	-0.009	-0.008
	(-4.212)	(-1.578)	(-3.923)	(-1.000)	(-1.583)	(-0.880)
sugar-price$_t$ $*$ density$_{1836}$	-0.001***		-0.002***		-0.002*	
	(-3.277)		(-5.288)		(-1.949)	
sugar-price$_t$ $*$ sugar-share$_{1836}$ $*$ density$_{1836}$	0.001***		0.003***		0.004	
	(3.098)		(6.128)		(1.412)	
sugar-price$_t$ $*$ popshare-white$_{1836}$		-0.002		-0.007		0.003
		(-0.472)		(-0.725)		(0.199)
sugar-price$_t$ $*$ sugar-share$_{1836}$ $*$ popshare-white$_{1836}$		0.010		0.016		0.040
		(1.136)		(1.495)		(0.721)
N	437	437	238	238	243	243
R^2	0.509	0.503	0.442	0.423	0.953	0.953

s.e. are two-way clustered at colony level. As in the tables explaining constitutional changes with electoral turnover, the electoral turnover results are reported for both the full sample and the sub-sample for which registered voter numbers are available. Descriptives on the cross-sectional interaction terms are listed in Table 1

Table 8: Public Good Provision Around Constitutional Changes

	PANEL A: REVENUES								
	Dep: log(Total Rev.)			Dep: log(Import-Taxes)			Dep: log(Fees&Licences)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
D(Changed Constitution)	-0.007	-0.062	0.118	-0.146**	-0.144**	0.011	0.105	0.051	-0.047
	(-0.052)	(-0.383)	(1.528)	(-2.543)	(-2.456)	(0.147)	(1.070)	(0.455)	(-0.385)
Observations	909	909	909	888	888	888	889	889	889
R-squared	0.963	0.967	0.982	0.967	0.970	0.973	0.937	0.942	0.953
	PANEL B: EXPENDITURES								
	Dep: log(Total Exp.)			Dep: log(Edu Expenditure)			Dep: log(Non-infr. PG)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
D(Changed Constitution)	0.029	0.005	0.113	-0.476***	-0.499**	-0.227*	-0.367**	-0.440***	-0.439***
	(0.263)	(0.041)	(1.725)	(-2.968)	(-2.679)	(-1.932)	(-2.525)	(-3.047)	(-3.612)
Observations	918	918	918	729	729	729	827	827	827
R-squared	0.969	0.971	0.984	0.920	0.930	0.950	0.941	0.948	0.959
year + year-sq	Y			Y			Y		
year-fe		Y	Y		Y	Y		Y	Y
year-fe + col*year			Y			Y			Y
control: logtotal				Y	Y	Y	Y	Y	Y

Panel A considers revenue breakdowns, panel B considers expenditure breakdowns. Columns 1-3 in both panels had totals as the dependent. In columns 4-9 of both panels, totals are included as a control. Within each set of three columns, different ways of controlling for time trends are used. The number of observations as varies because clean categorizations of the revenue and expenditure tables were not possible in every year. The panel covers the time period 1838 to 1900.