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

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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.

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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. In the first part of the empirics, I explain the instance and timing of constitutional change with either measure of political competition - electoral turnover or the expanding franchise. Naturally, I also check the relationship between an expanding franchise and increases in electoral turnover.

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. A 10 percent increase in the number of registered voters increases this probability by 5 percent. A 10 percent increase in the number of registered voters increases electoral turnover by 5 percentage points.[4]

[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.

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

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 constitutional changes can only be studied at the colony level, I can study the relationship between the franchise and electoral turnover 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 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 perpetuation of political dynasties

[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.

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 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]

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

Lastly, this paper speaks to a large literature on Caribbean economic history. Of particular relevance is a recent paper by Henry and Miller (2009) which argues that it is post-independence policies rather than institutional legacies, which determine the contemporary divergence in economic fortunes across former British colonies in the Caribbean. While Henry and Miller (2009) make a compelling case that policy differences indeed explain much of the modern-day differences, this paper suggests that there are important differences in institutional legacies even within the Caribbean which may go some way in explaining later policy differences.

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.

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

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]

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

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-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

[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.

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 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

[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)).

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), 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 shows a weak positive relationship.[13]

In addition, to the panel data from the Blue Books, I have some cross-sectional data for initial conditions as they stood at the end of slavery. These data come from Martin (1839) and are reported in Table **??**. Aside from the variation in when colonies were founded and when they

[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.

[13] Since I only have a single cross-section for Jamaican parishes, I do not report results for this. The coefficient on the expansion of smallholding is marginally insignificant with a t-statistic of 1.58.

switched to Crown rule, there is interesting variation in how things stood at the end of slavery. I'll explore these differences in the results section. The last columns show variation in the timing 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. This structure and short transition period raises the question of why colonies used the the semi-representative system at all. Caribbean historians have argued 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] Because there is so little data in the intermediate stage, my approach is 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 **??** for Antigua's 1853, 1860 and 1867 elections.

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 5 and

[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)).

6, which plot the two measures of political competition in event time leading up to constitutional changes.[15] I therefore regress

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

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 the log of registered voter. Constitutional changes are absorbing so that the data for 1 are set up as duration data: Each colony's time-series consists of a string of 0's followed by a single 1 when the event occurs. For the three colonies that never switch, the outcome is simply a string of 0's.

The main threat to the validity of the results in BWICCeq01 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 constitutional 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).

Since I postulate that the expanding franchise is driving increasing electoral turnover, I also regress electoral turnover on the log of registered voters

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

This regression also has the advantage that both turnover and the franchise vary at the parish level within a colony and within an election. This allows me to rule out confounding colony-time specific factors. While I can only do this for the regression of turnover on the franchise and not for a regression involving constitutional change, it does lead strength to the argument that unobservable colony-specific time-varying factors are not driving the results at any level.

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

In the second part, I study the effect of constitutional changes and therefore do not set up the data as duration data. Instead I consider a balanced panel where for each colony, the time series $\mathbf{CC}_{it}$ is a series of 0's followed by a series of 1's (or in the case of non-switchers, simply a series of 0's). I test for an effect of constitutional change on various aspects of public expenditure

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

I include colony fixed effects and consider three different controls for colony-specific time trends ϕ_t: First I consider a simple linear and quadratic time trend that is common to all colonies. Second, I consider year fixed effect, allowing unobservable determinants of public expenditure to enter in a way that is more flexible but still common to all colonies. Lastly, and most conservatively, I allow for year fixed effect as well as a colony-specific linear time trend.

4 Results

The discussion of the results is very incomplete.

4.1 Main Results

Table **??** provides the first set of results. Columns 1-4 report the results 4 of regressing constitutional change on electoral turnover, column 5 of regressing constitutional change on the franchise and column 6 of regressing electoral turnover on the franchise. Since cross-sectional level differences in the number of registered can be driven by many unobservable factors, columns 5 and 6 include colony fixed effects. While cross-sectional level differences in electoral turnover can also be driven in by many unobservable factors, they are at least comparable since electoral turnover is always between 0 and 1. I therefore report the results involving electoral turnover both without and with colony fixed effects in columns 1-2 and 3-4 respectively. Since the data on the franchise started to be reported in the Blue Books only in 1854, the number of observations for regressions involving the log of registered voters is smaller, 238 instead of 437. As a check on the robustness to sampling-period, I run the regression of constitutional change on electoral turnover both for the full sample (columns 1 and 3) and the sub-sample of 238 (columns 2 and 4).

It is plausible to think of an observation as one electoral cycle in a given colony rather than as a colony year. I treat this specification as my baseline in Panel A, where I collapse all data to the electoral cycle level. This specification does have the shortcoming that it makes controlling for time-varying factors more difficult since electoral cycles cut across any time-specific controls. I therefore run regressions on annualized data when I control for time-variant confounders in Panels B-F. (Moving from Panel A to Panel B shrinks the coefficients since I ask what the probability of a change is in a given year instead of in a given electoral cycle spanning several years.) To account for the fact that electoral turnover does not vary within an electoral cycle, I cluster standard errors in two dimensions in Panels B-F, at electoral cycle as well as at the colony level. Panel C checks for the robustness of the results to network effects, by controlling for the number of already transitioned colonies. Panel D checks for the robustness to added colonial pressure, with an indicator that turns on after the Indian mutiny. Panels E and F check for the robustness to decadal and year fixed effects.

Table **??** 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

4.2 Underlying Cross-Sectional Variation

The results in Table **??** columns 3-6 use only within-colony variation and do not rely on cross-sectional variation. It is of course nonetheless informative to ask what cross-sectional differences correlate with the constitutional changes. The historical background suggests that land redistribution was at the heart of the increases in the franchise and electoral turnover. The single most important factor governing the rate at which freedmen obtained land was its availability. Where population was dense as in Barbados, there was no land available to freedmen.[16] Figure 7 shows that initial 1836 density correlates quite strongly with a colony's average electoral turnover over the period under study. In particular, the two most dense colonies had low levels of electoral

[16] One reason was that there was less fallow land to squat on and unalienated Crown land to purchase. Another was that labor was cheaper in denser places which maintained plantations' profitability and meant that fewer planters sold their land (Dippel and Trefler (2013)).

turnover and - more tellingly - are both among the three colonies that never switched to Crown rule. A second important factor in determining political competition was the degree to which a given number of enfranchised freedmen constituted a threat to the existing order. Where the existing elite was bigger it could withstand more franchise expansion. Figure 8 shows a stark contrast between Bermuda and the Bahamas and the rest of the Caribbean. A much larger share of the population was enfranchised because a much larger share of the population was white.

Importantly, this suggests that Bermuda and the Bahamas were potentially so different from the rest of the Caribbean that they do not constitute a valid comparison group to the other colonies. For this section their inclusion in Table **??** is not important because the reported results are virtually unaffected by dropping these two colonies from the analysis. In the next section however, I drop Bermuda and Bahamas from the analysis because Figure 8 makes it seem very unlikely that the counter-factual time trends in public expenditure of the 11 colonies I focus on would have replicated those of Bermuda and Bahamas. To gain additional controls, I instead include Guyana, St Lucia and Trinidad, the 3 colonies that were always under Crown colony rule. Table **??** shows that for the two initial conditions considered in Figures 7 and 8, these three colonies fell well within the range of values of the 11 colonies that I focus on and are therefore likely to constitute a more valid control group than Bermuda and Bahamas.

4.3 Effect of Constitutional Changes

Table **??** 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 expenditures 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 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

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

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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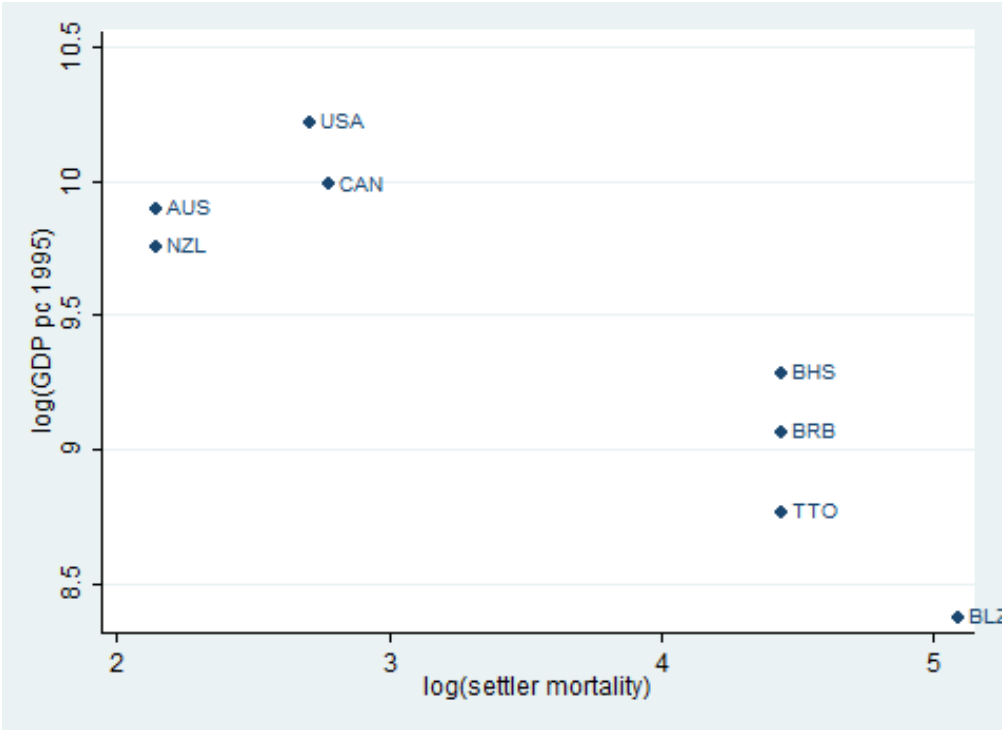

Figure 1: The Neo-Europes and the Caribbean in AJR 2001

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

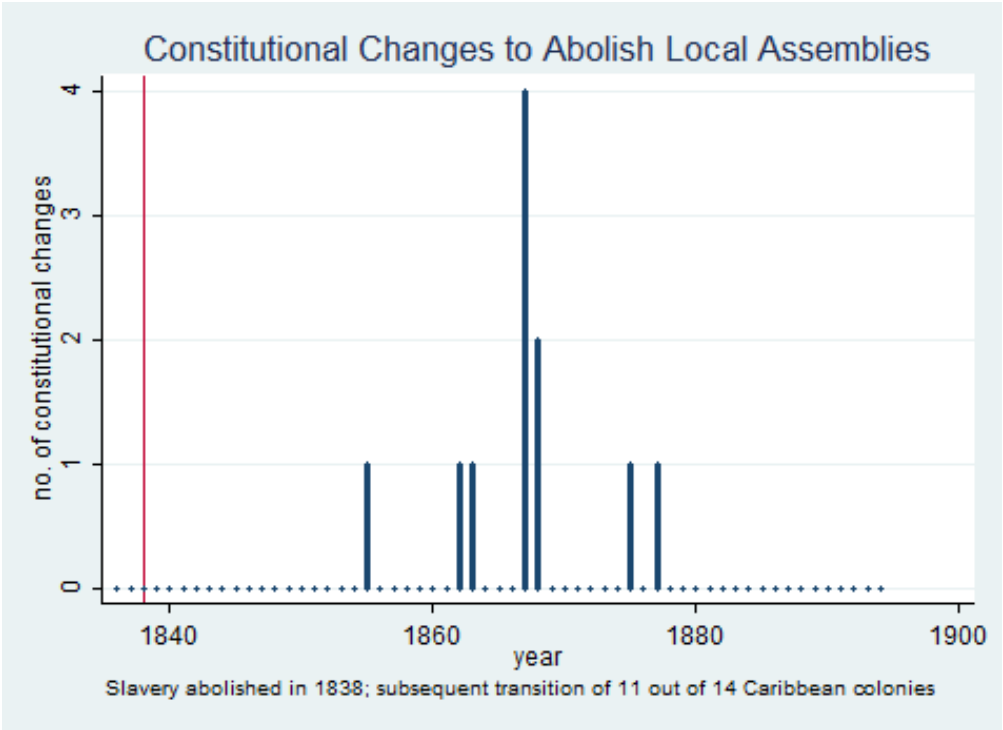

Figure 3: Timing of First Constitutional Changes

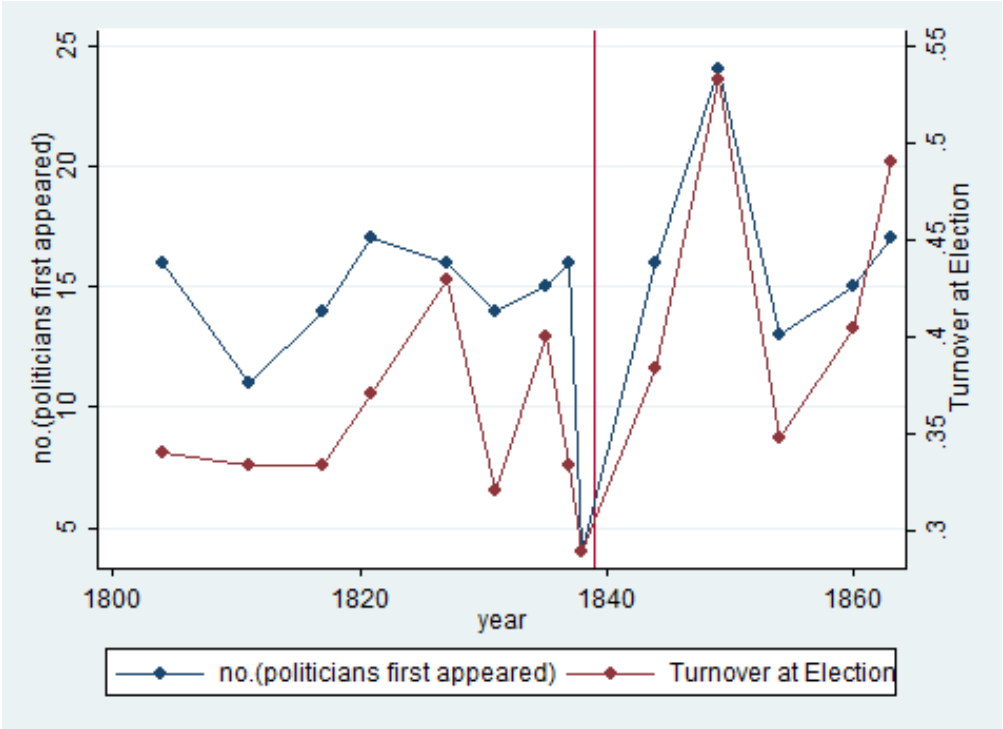

Figure 4: Does Electoral Turnover Measure Political Entry?

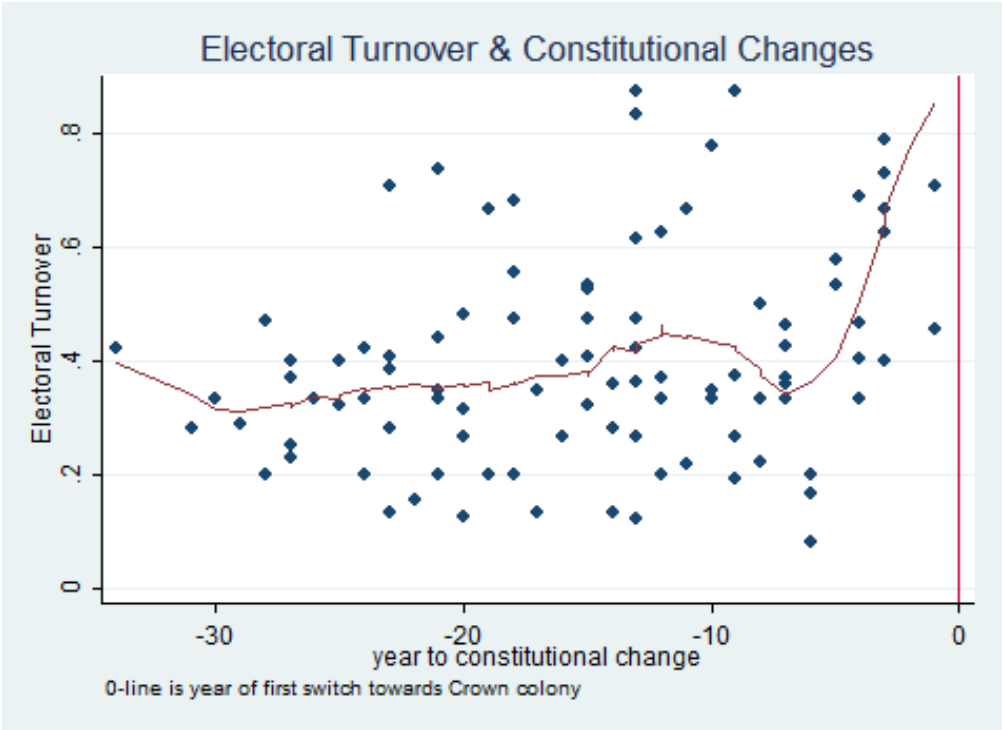

Figure 5: Constitutional Change and Electoral Turnover (Event Time)

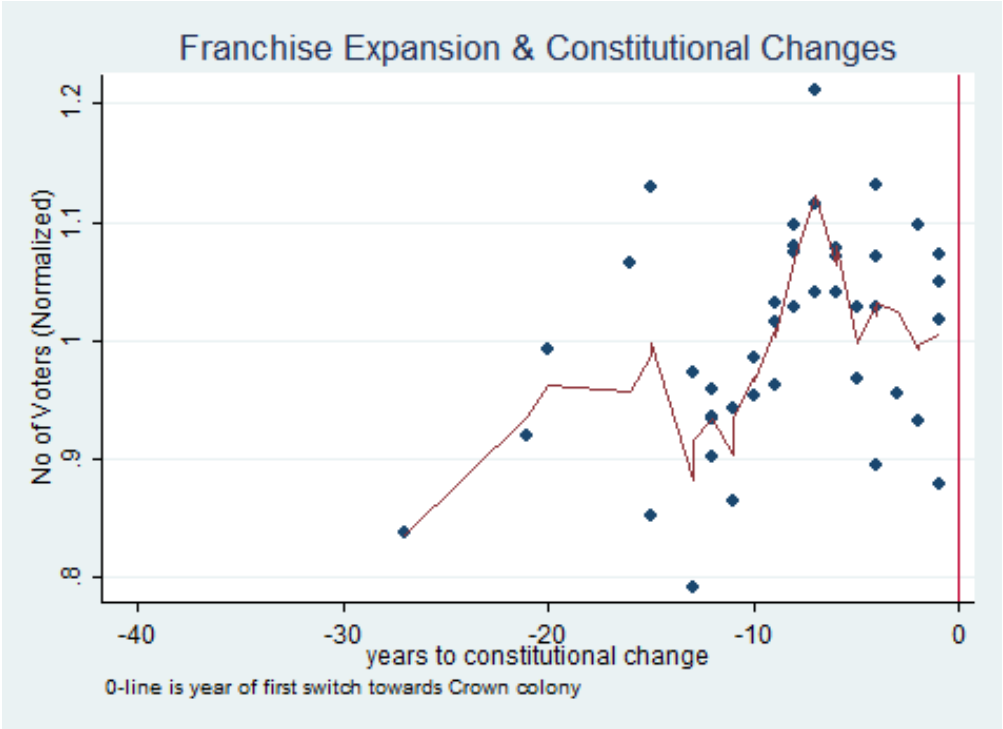

Figure 6: Constitutional Change and Franchise Expansion (Event Time)

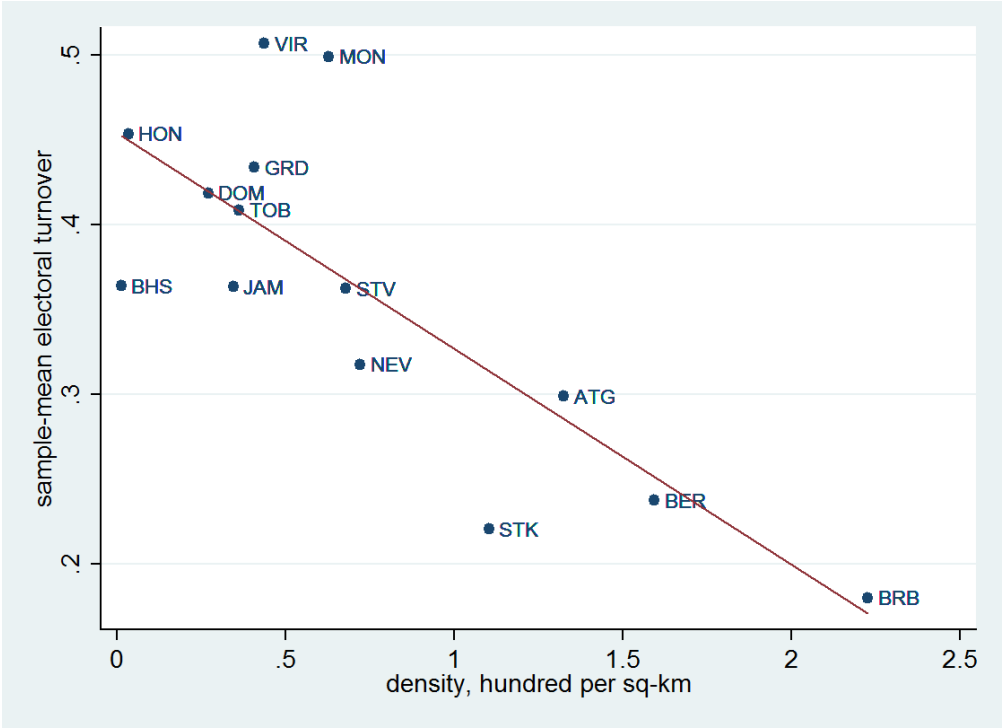

Figure 7: Initial Conditions: Density and Electoral Turnover

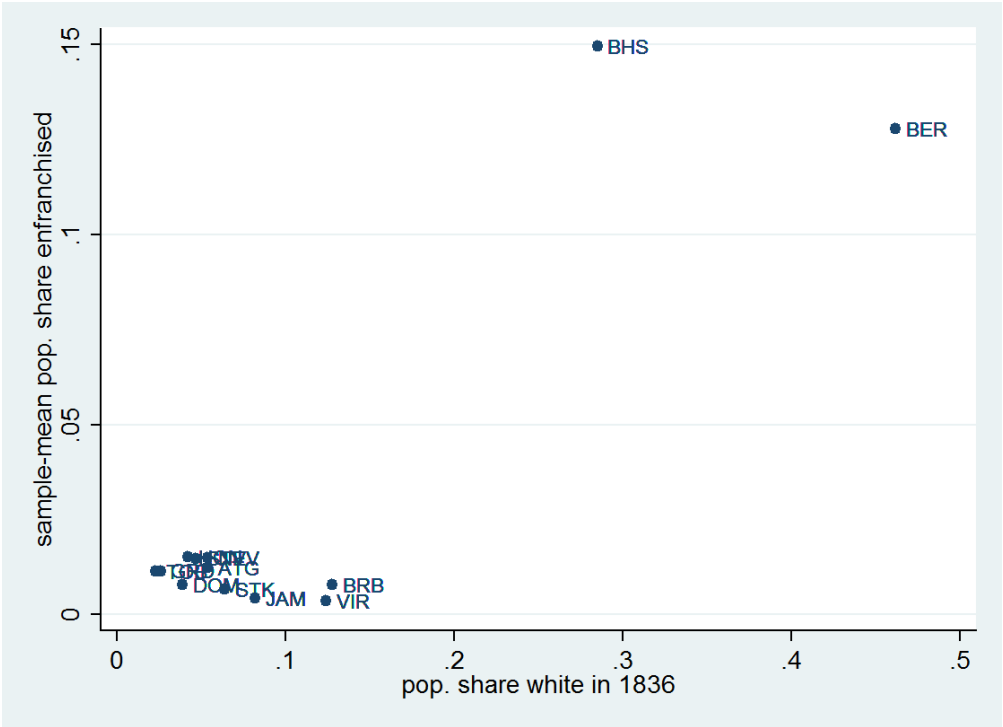

Figure 8: Initial Conditions: Share White and Enfranchisement

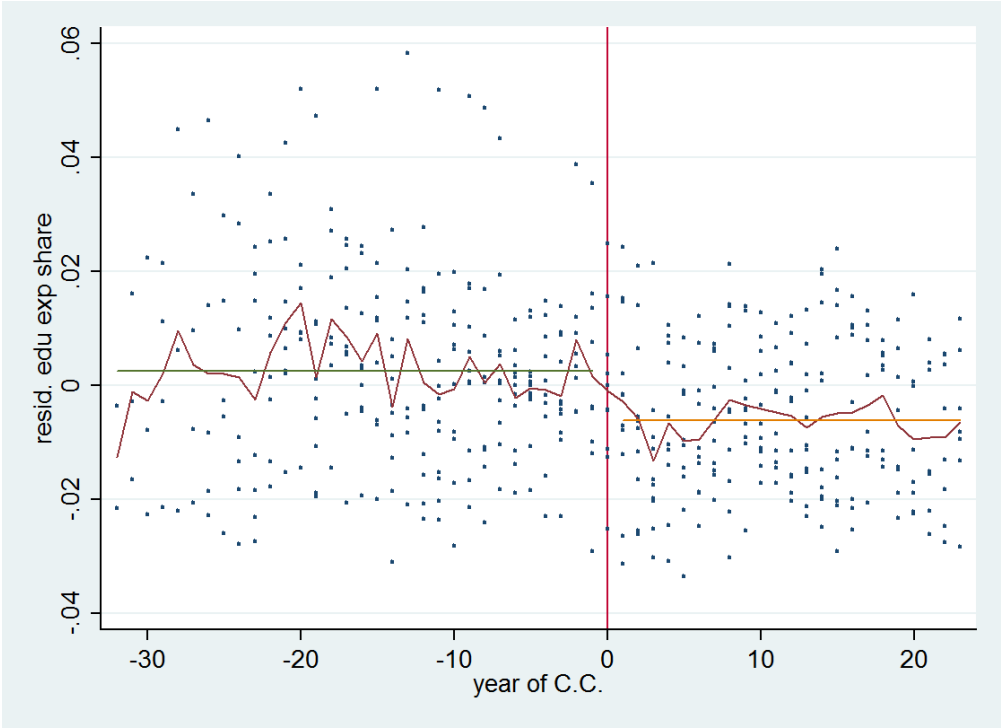

Figure 9: Time-Path of Educational Expenditure (Event Time)

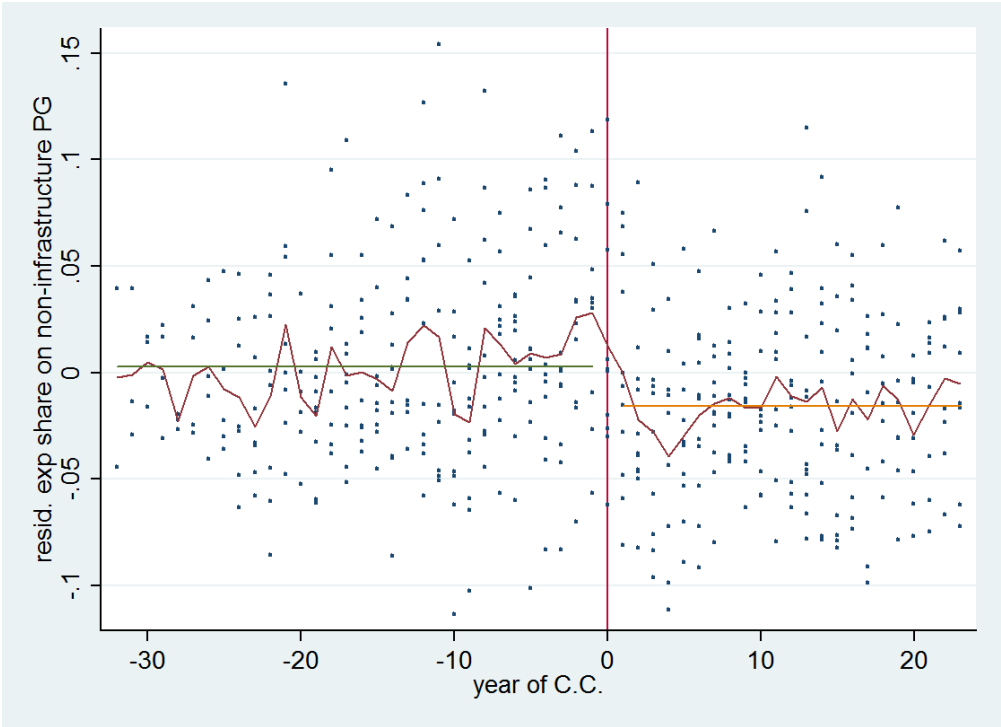

Figure 10: Time-Path of Non-Infrastructure PG Expenditure (Event Time)

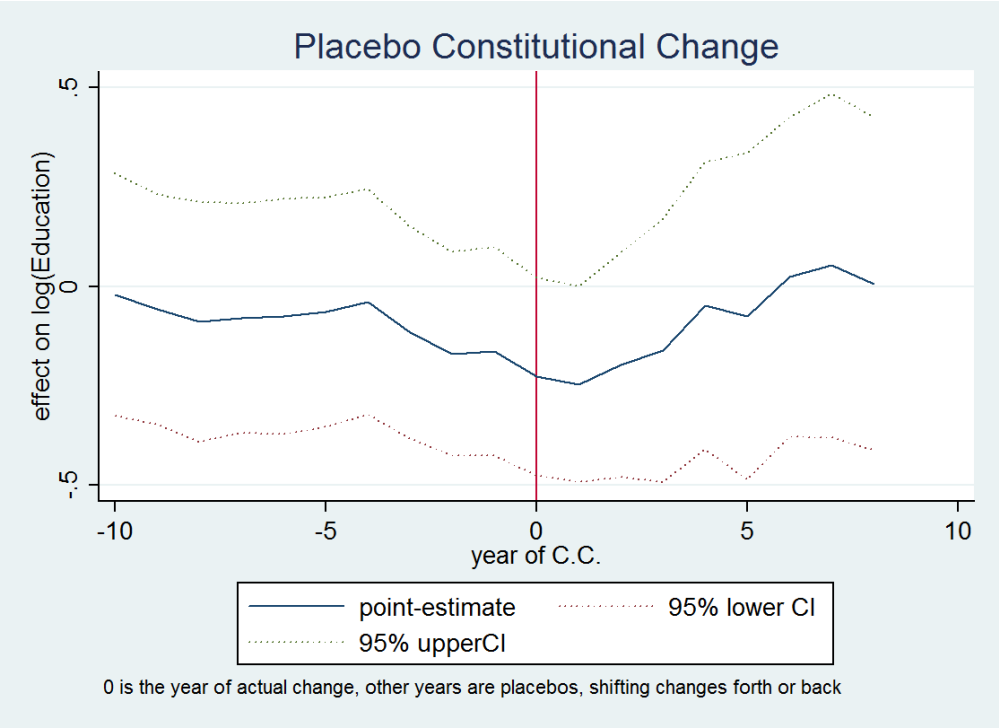

Figure 11: Education-Coefficients for Placebo Constitutional Changes

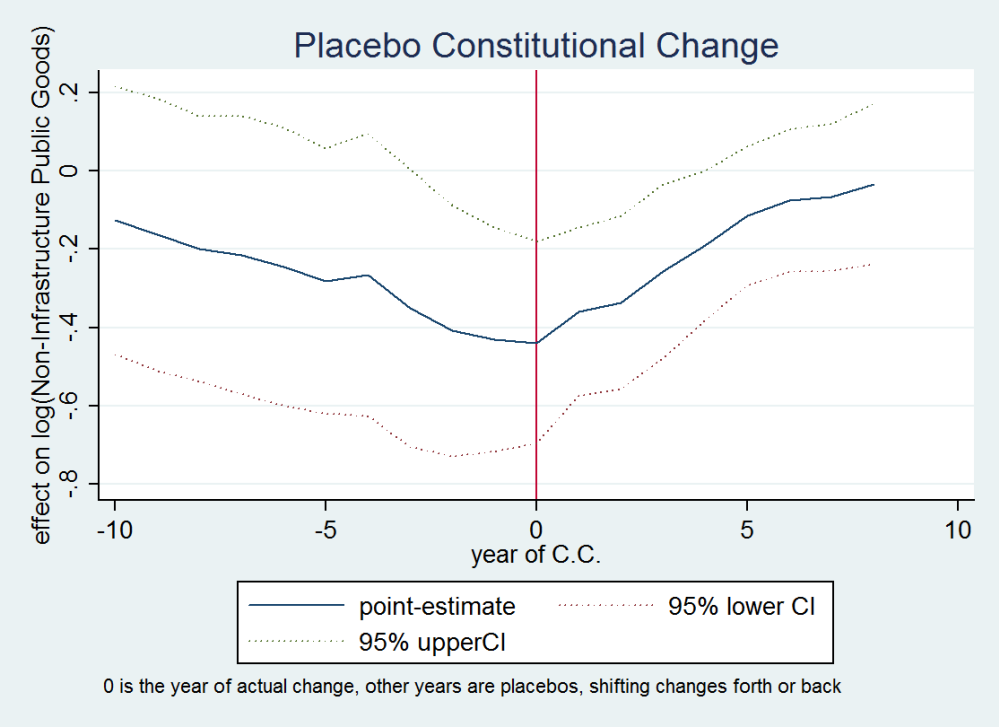

Figure 12: PG-Coefficients for Placebo Constitutional Changes

Table 1: Comparison Table

Colony	Year Founded	Year First Change	1838 Population	Area (sqkm)	1838 Density	1838 Sugar % of Exports	1836 Pop-Share Year White Semi-representative	Year since Crown Colony
Antigua	1632	1868	35188	281	125	93	5.4 1868	1898
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	16207	754	21	81	3.9 1867	1898
Grenada	1763	1877	17751	344	52	96	2.6 1877	1879
Br Guyana	1803		66561	10750	6	80	0.7 1803	
Honduras	1638	1862	8235	2296	4	0	4.2 1862	1871
Jamaica	1655	1867	381951	11100	34	74	8.2	1867
Montserrat	1634	1863	6647	102	65	96	4.3 1863	1868
Nevis	1623	1867	7434	93	80	95	5.4 1867	1879
St Lucia	1803		17005	620	27	79	11.3	1803
St Kitts	1628	1867	21578	191	113	99	6.4 1867	1879
St Vincent	1763	1868	26659	389	69	96	4.7 1868	1876
Tobago	1763	1875	11456	300	38	100	2.3 1875	1878
Trinidad	1797		34650	4787	7	88	8	1797
Virgin Islands	1672	1855	7471	153	49	95	12.4 1855	1868

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

Dependent:	CC	CC	CC	CC	CC	Elect. Turnover
	(1)	(2)	(3)	(4)	(5)	(6)
			Panel A: N = Electoral Cycles			
Elect. Turnover	0.356***	0.907***	0.427**	0.721***		
	(2.928)	(5.119)	(2.374)	(2.862)		
log(registered voters)					0.087	0.111***
					(0.867)	(2.853)
R^2	0.077	0.221	0.141	0.313	0.247	0.516
			Panel B: Annual Data			
Elect. Turnover	0.143***	0.312***	0.175**	0.319**		
	(3.218)	(2.962)	(2.382)	(2.121)		
log(registered voters)					0.097**	0.098***
					(1.989)	(4.236)
R^2	0.025	0.059	0.038	0.123	0.119	0.442
			Panel C: Controlling for Network Effects			
Elect. Turnover	0.173***	0.355***	0.202***	0.294*		
	(3.276)	(2.970)	(2.579)	(1.816)		
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
	(1.767)	(1.399)	(2.274)	(2.374)	(1.340)	(-0.526)
R^2	0.039	0.068	0.069	0.158	0.134	0.445
			Panel D: Controlling for Added Colonial Pressure			
Elect. Turnover	0.176***	0.320***	0.188***	0.283*		
	(3.961)	(3.080)	(2.662)	(1.787)		
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
	(3.675)	(2.791)	(4.079)	(2.185)	(0.781)	(1.442)
R^2	0.054	0.070	0.076	0.137	0.122	0.448
			Panel E: Decade-FE			
Elect. Turnover	0.182***	0.361***	0.207**	0.313*		
	(3.526)	(2.838)	(2.503)	(1.712)		
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
			Panel F: Year FE			
Elect. Turnover	0.177***	0.358***	0.203***	0.285*		
	(4.370)	(3.303)	(3.072)	(1.759)		
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
N	437	238	437	238	238	238
colony-fe			Y	Y	Y	Y

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, data is collapsed at the level of the electoral cycle. Sample sizes are 168 and 86 instead of 437 and 238. In all panels except A, s.e. are two-way clustered at colony and electoral-cycle level. In panel A, they are clustered at the colony level only since data is collapsed to the electoral cycle level.

Table 4: 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 5: 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.