Imperial Governance and the Growth of Legislative Power in America

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Abstract

The power of assemblies in the British new world grew far beyond the bounds intended at their creation. Although the British crown instructed royal governors to use legal powers to restrain assemblies, they were unsuccessful. I develop a formal model to account for this growth. In this model colonial assemblies can challenge the agenda setting powers of colonial governors. “Strong” governors withstand these challenges easily; “weak” ones prefer to capitulate. The crown wishes to retain only strong governors; however, it cannot distinguish between a strong governor holding firm against a tough assembly, and a weak governor capitulating to a moderate one. Weak governors exploit this to avoid revealing their weakness to the crown, while avoiding conflict with the assembly. But the assembly observes bargaining concessions, and challenges weak governors even more in the future. This creates a dynamic path of growing assembly power. The model provides a strategic logic of endogenous institutional change, and one of the most important institutional developments in American history: the growth of legislative power.

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Progressive strengthening of the powers of the assemblies against the governors is the most striking characteristic of colony government, exploding, finally, in the Revolution of 1776.


The growth of legislative power is perhaps the foundational element of political institutions in the United States—indeed, as Finer (1997) suggests, of its very existence as an independent state (cf. Bailyn 1968). Yet political science and political economy have had almost nothing to say about the origins or growth of this power, instead taking the institutional landscape as given and exploring its effects.¹

Legislative power in the United States dates to the British colonial era and was taken as given at the American founding. From modest origins as a consultative check on the actions of colonial corporations (Kammen 1969), legislative power in royal colonies grew to encompass the authority to initiate all legislation, propose unamendable money bills, audit public accounts, name inferior executive officers, disburse funds on the assembly’s own warrant, and even plan specifics of military expeditions (Greene 1963).

How can we account for this growth of legislative power? A natural explanation is that the English “imported” their political institutions with them to the new world (e.g., North 1990). Yet the English Parliament did not claim several of the powers listed above (Finer 1997, p. 1401) and could not serve as a model of them.²

More importantly, colonial institutions were never unproblematically “imported,” but instead were regulated by the English Crown. In royal colonies, legal authority over institutions resided in the crown’s commissions to governors (Keith 1930),³ and imperial authorities never specified such expansive legislative power (Labaree 1930).⁴ Indeed, by the late 1600s imperial authorities attempted to cabin assembly power with institutional checks, such as formal allocation of agenda powers royal governors and royal review of colonial legislation (Russell 1915; cf. Gailmard 2019).

¹Squire (2012) is an important and rare exception, though his analyses focus on institutions internal to colonial legislatures (e.g. committee systems), rather than the place of legislatures in the system of government.
²Outside, at least, of the Protectorate period (1649-1660).
³By the American revolution, almost all future US states were royal colonies.
⁴Gailmard (2017) showed that the crown could benefit from empowering assemblies to control the governor when the crown itself could not, an acute problem in the early empire. However, by 1700 the crown’s control over governors was much greater, and thus it attempted to roll back assembly privileges. The present paper essentially shows why this was strategically impossible.
Despite the crown bringing progressively more colonies within the cordon of royal administration, those steps failed (Labaree 1930, Greene 1963). Governors repeatedly nourished the power of assemblies by capitulating to their demands, notwithstanding threat of royal censure, removal from office, or even a lawsuit for negligence (Greene 1898).

The Crown’s failure to control colonial legislative power implies that it emerged endogenously in America through the contestation between governors and assemblies (Greene 1963). How did this happen? Historians of this development have described assembly power attained once as a “precedent” for assembly power in the future (Labaree 1930, Greene 1963). This explanation is unsatisfying because it assumes assembly power is a one-way ratchet. In bargaining between adversaries, “precedent” simply means that one of the parties can impose its will over time, which is precisely what must be explained. What is required to understand the growth of legislative power in America is an explanation in which this power emerges endogenously through strategic interaction.

In this paper, I develop a formal model to articulate such an explanation. The model turns on strategic interplay between assemblies, colonial governors, and the crown. Governors are endowed with formal agenda power, but assemblies can stage a costly challenge to claim it. The governor is privately informed of its bargaining resolve or “strength,” which is persistent over time. Strong governors face no cost to resist assembly challenges, and therefore hold agenda power firmly. Weak governors find it costly to resist the assembly’s demands, but prefer even more to avoid dismissal from office. The crown prefers to retain only strong governors, so capitulation to the assembly puts the governor’s future pay and perquisites at risk.

After resolving the disposition of agenda power, the assembly and governor engage in policy bargaining. They each observe all proposals and concessions in colonial politics, while the crown only observes the policy outcome. The crown is also uncertain about the ideological position of the assembly, while the governor observes it perfectly. This generates the key to the strategic argument: even when the governor holds agenda power, a wide range of policy outcomes are possible, from policy stasis to the crown’s ideal, depending on the assembly’s leanings. The weak

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5Thus, this is formally a career concerns model (Holmström 1999), in the sense that the agent (governor) cares about the principal’s (crown’s) ex post beliefs of its type. But unlike canonical reputation models in political agency (e.g. Persson and Tabellini 2000), the principal’s only signal of the agent’s “effort” is mediated through policy bargaining with a conflicting third party. In purely formal terms, this innovation to the career concerns framework is the contribution of this model.
governor exploits this, conceding agenda power to the assembly yet always producing results that could also be produced by a strong governor. This induces the crown to retain the governor.

This bargaining process is repeated. At first, when the assembly is uncertain of the governor’s strength, its demands for power are relatively tentative. It challenges the governor’s authority only when the benefits to the assembly of holding power are relatively great. But when a challenge succeeds, the assembly learns the governor is weak, and challenges his agenda power more often in the future. The weak governor, in turn, capitulates to this broader set of challenges to his authority.

The result in equilibrium is the growth of assembly power. The model explains not just that assemblies sometimes extracted transitory concessions due to a temporarily strong bargaining position—it explains how those concessions won once persist into future periods.\(^6\) Moreover, in equilibrium, the actors on the ground in the colony (governor and assembly) are fully aware that the governor has transferred power to the assembly, and this governor may stay in office year after year, but never produce results that reveals this to the crown.

The results of this paper are important on three fronts. First, it accounts for the growth of legislative power in the face of authorities that sought to restrain it. Major theories of legislative power growth focus on mutually beneficial bargaining between a legislature and a sovereign (Beard and Lewis 1932; Levi 1988; Hoffman and Rosenthal 1997), the ability of legislatures to tap public credit (North and Weingast 1989), and geographic structure (Stasavage 2011). My argument focuses on conflict between a legislature and a sovereign who relies on an agent to restrain legislative power. This context is essential to the development of US institutions.\(^7\)

Second, this paper helps account for the institutions of New World empires and their successor states. Powerful analyses reveal the effects of colonial factor endowments on these institutions (Sokoloff and Engerman 2000; Acemoglu, Johnson and Robinson 2002). My analysis shows that we must also look beyond factor endowments and consider strategic problems of governance, in particular agency problems between imperial crowns and their delegates on the ground.

Third, the paper considers the broader issue of modeling change in the allocation of power be-

\(^6\)This is crucial for institutional change and assembly power growth. It is relatively easy to explain why governors would grant short term concessions when facing an acute need for money. In my view, the challenge is instead to explain how those concessions built and stuck over time.

\(^7\)A large literature considers the evolution of legislative procedure within the US (e.g., Sinclair 1990; Gamm and Shepsle 1989; Schickler 2001; Krehbiel 2017) or its colonial predecessors (Squire 2012). However, this literature takes legislative power as given and considers change of its distribution within a chamber.
tween branches of government. To my knowledge, no published models in political economy consider a nontrivial dynamic, endogenous path of this power allocation (cf. Shepsle 2017).\footnote{Howell, Shepsle and Wolton (2019) consider a related problem of executive power growth with respect to an overseeing court. One important difference is that I obtain assembly power growth despite a “zero sum” conflict over institutional power. In their model, the court can restrain executive power, but when it does, the court does not itself hold that power, and the court knows it may prefer the executive to exercise that power in the future. In my model, institutional power lies with one actor or the other, and there is no common interest.}

Endogenous institutional change (cf. Greif and Laitin 2004) was central to legislative power development in the US, and thus also in the model below.\footnote{I conceive of an “institution” as a durable pattern of mutually reinforcing behavior by multiple actors with shared expectations. This squares with the view of institutions as configurations of behavior on the equilibrium path of a game (Calvert 1995). The model below depicts a change in these behaviors and beliefs over time, and in that sense captures institutional change. For analyzing institutional change, this perspective is more useful than the common meaning of “institution” as a fixed extensive form game.}

The rest of the paper proceeds as follows. In the next section I lay out the formal model and discuss its substantive rationale. Then I proceed through analysis to equilibrium and consider the equilibrium growth of assembly power. I then present historical evidence in support of the model’s key assumptions and results.\footnote{I present a brief comparison across British New World colonies in the appendix.}\footnote{I assume $x_A^t$ is independent across $t$.} I conclude with a discussion of the findings and possibilities for future research.

## 1 A Model of Policy Bargaining and Legislative Power

I first present the model formally, then discuss the substantive rationale for it.

### 1.1 Formal Definition

There are three players, crown $C$, assembly $A$, and governor $G$, and two periods, $t = 1, 2$. $C$ and $A$ live for both periods. $G$ lives for one and possibly both periods, if $C$ retains $G$ in office. Before period 1, $G$ privately observes its type $\sigma \in \{0, 1\}$ (“weak” or “strong”); $\Pr[\sigma = 1] = s$ is the common prior. This type is fixed for $G$’s entire tenure in office.

In each period, $A$ and $G$ produce a policy $x^t \in \mathbb{R}$ in an agenda setting process (Romer and Rosenthal 1978). Policy utility in period $t$ is $u_i^t = -|x^t - x_i|$, $i \in \{A, G, C\}$. Ideal points are $x_C = x_G = 1$ and $x_A^t \sim U[0, 1]$, with $x_A^t$ observed by $G$ and $A$ but not $C$.\footnote{No results require $q = 1/2$ but many are simpler with this assumption. A stationary status quo can be microfounded by assuming that the legislature addresses a randomly drawn issue each period.} There is an exogenous, commonly known status quo in each period $q \in \{1/2\}$.\footnote{No results require $q = 1/2$ but many are simpler with this assumption. A stationary status quo can be microfounded by assuming that the legislature addresses a randomly drawn issue each period.}
G begins each period with formal agenda setting power in policy bargaining. A can challenge this power in period \( t \) at commonly known cost \( \gamma_A \).\(^{13}\) G can either capitulate to or resist the challenge. G incurs a cost \((1 - \sigma)\gamma_G\) for resisting, where \( \gamma_G \) is common knowledge. If G capitulates, A dictates \( x^t \).\(^{14}\) If G resists, A’s challenge fails, G proposes a policy, and A can accept or reject.

A and G observe the entire history of the game up to any move. The crown observes only the policy \( x^t \) each period. Following this, C can dismiss G at cost \( \gamma_C \) and replace with an ex ante identical G, with new type \( \sigma \). Alternatively, C can retain G at no cost, and G continues to the next period with its type fixed. G earns wage \( w \) at the start of each period in office.\(^{15}\)

In summary, the game sequence within period \( t \) is:

1. Nature draws \( x_A^t \sim U[0, 1] \) (observed by G and A, not C).
2. A chooses to challenge or not (observed by G and A, not C).
3. G chooses to resist or capitulate (observed by G and A, not C).
4. If G concedes, A implements \( x^t \). If G resists, G makes proposal \( p \).
5. If G makes a proposal, A accepts (so \( x^t = p \)) or rejects it (so \( x^t = q \)).
6. C observes \( x^t \) and decides to retain or dismiss G.

Period 2 is identical except C does not have the option to dismiss G.

\(^{13}\)I assume A incurs the cost \( \gamma_A \) whether G resists its challenge or not, but all results hold under the alternate assumption that a challenge is costly to A only if G resists.

\(^{14}\)Assuming A dictates policy when G capitulates, rather than allowing A to propose and G to veto, substantially simplifies the analysis for \( t = 1 \). However, it has no effect on \( x^1 \) in equilibrium: in cases when G capitulates, it would not exercise veto power over the policy that A proposes.

\(^{15}\)Thus, A and G are bargaining before an “audience” C. The model most closely related to mine is Groseclose and McCarty (2001). The main difference is that in their model, the audience knows the institutional bargaining process but not the ideal point of its agent. In my model, C knows the ideal point of its agent G, but not the institutional process.
Given policy $x^t$, ex post utilities in each period $t$ are

$$
u^t_A = \begin{cases} 
-x^t - x^t_A - \gamma_A & \text{if } A \text{ challenges} \\
-x^t - x^t_A & \text{if } A \text{ does not challenge}
\end{cases}$$

$$
u^t_G = \begin{cases} 
w - (1 - x^t) - (1 - \sigma)\gamma_G & \text{if } G \text{ resists challenge} \\
w - (1 - x^t) & \text{if } G \text{ does not resist}
\end{cases}$$

$$
u^t_C = \begin{cases} 
-(1 - x^t) - \gamma_C & \text{if } C \text{ replaces } G \\
-(1 - x^t) & \text{if } C \text{ does not replace.}
\end{cases}$$

Total utilities are simply the sum of utilities across periods. $G$ obtains 0 utility in period 2 if replaced.

The exogenous parameters are $\{\gamma_i\}$, $s$, $w$, and $x_C = x_G = 1$. They are all constant across periods. The random variables are $\sigma$ and $x^t_A$. The endogenous choices are challenge, resistance, and policy for each period $t$, as well as dismissal for period 1. The model has nested incomplete information, in that $G$’s information sets are a partition of $A$’s, and $A$’s are a partition of $C$’s. A natural equilibrium concept to preserve sequential rationality is perfect Bayesian equilibrium (PBE). I focus exclusively on pure strategy PBE.

### 1.2 Substantive Discussion

“Legislative power” refers to agenda setting rights in policy bargaining. The governor is endowed with *formal* agenda power in each period, reflecting the conventional instruction of the crown in royal colonies (Labaree 1930). The disposition of *real* agenda power in each period is resolved by the governor and assembly, and need not correspond to the crown’s instruction. The model focuses on institutional change in the sense of this real agenda power, formalities notwithstanding. This is necessary to analyze colonial institutions: the essential problem was that formal and real authority became increasingly mismatched, and metropolitan authorities were unable to harmonize them (Greene 1986; Bliss 1993).

Conflicts over agenda power took several forms. Most related to taxes and expenditures. The governor’s commission and private instructions from the Crown typically specified that colonial
legislatures should appropriate all tax revenue in the monarch’s name, leaving the governor to
determine its allocation (Labaree 1930). This scheme placed agenda power over spending with
the governor, leaving the assembly to either accept it or shut down the government. For their
part, assemblies sought to make highly detailed appropriations directly in bills for raising revenue.
This would endow the legislature with agenda power over expenditures, leaving the governor either
to accept it or reject the whole revenue. In these conflicts, an assembly “challenge” was simply
an insistence on accepting its approach, and the governor’s “resistance” was a demand to follow
his instructions. The cost of a challenge to the assembly represents the disruption of the normal
political process and harmonious relations with the governor that a challenge would introduce. The
cost can be thought of as both political, in that harmonious relations were a means to other ends
the assembly might have, and social.

Thinking of $x^t$ as a budget or public spending (levees, port maintenance, militia, etc.), $x_A < x_C$
reflects the typical situation in colonial politics. Legislators (and their constituents) internalized
the tax cost of greater budgets for colonial spending. The crown did not, nor did governors since
they were not elected (or taxed) in royal and proprietary colonies. This naturally implies that
legislators prefer lower spending than governors and the crown. The assumption that $x_G = x_C$
implies that $G$ is a perfect agent of $C$ in policy terms. This is simply to isolate the effect of $G$’s
reputation concerns on the agency loss faced by $C$, since it cannot arise from policy disagreement.

Modeling $A$’s ideal point as a random variable reflects that colonial assembly composition
changed significantly between sessions. Assembly careers were not “institutionalized” in the same
sense as, for example, the US Congress, and most assembly members served for a short duration.
Thus it was not unusual for the assembly’s leanings to change substantially between sessions (Greene
1898, p. 152-153).

A key element of the model is the governor’s bargaining strength, which plays the same role here
that “resolve” plays in models of crisis bargaining (e.g. Fearon 1994). Kertzer (2016) argues that an
actor’s resolve has both a situational component, which can change over time, and a dispositional
component, which arises from an actor’s traits (conflict orientation, honor orientation, etc.) and is
more durable over time. By focusing on persistent bargaining strength, I am essentially focusing
on dispositional resolve in the sense of crisis bargaining.\footnote{It is plausible that situational factors also played a role in the governor’s bargaining strength, and may have}
Bargaining strength varies across (potential) governors. The crown had numerous considerations in selecting colonial governors: repaying favors, loyalty to the crown, administrative efficiency, military fitness, etc. (Greene 1898, pp. 46-47). With multiple considerations in selection, it is to be expected that not all governors were experts at political bargaining. This variation is manifest in the historical record. For instance, in New York, Governor Robert Hunter (in office 1710-1720) was adroit in convincing the assembly to pass revenue bills of (relatively) long duration and allowing the governor to control expenditures. On the other hand, Governor George Clinton (in office 1743-1753), a royal navy officer who served in America to evade creditors in Britain, capitulated completely to assembly demands for total control over expenditures (Labaree 1930, p. 286).\footnote{The case of New York is treated more fully below, after analysis of the model.}

The central problem for the Crown in this model is to ascertain the governor’s strength from a sparse set of observable outcomes. Unlike the rich information on the ground in the colony, the Crown’s information was delayed, partial, and stilted in the favor of the reporting party (Pownall 1777, ch. 2; Johnson 1981, p. 23; Bliss 1993, p. 179).\footnote{The Crown often received petitions from colonists or assemblies on colonial conditions (Hulsebosch 2014; Carpenter and Brossard 2019). For petitions from assemblies, one problem for the Crown is that they came from an interested party and could not necessarily be taken at face value. For instance, an assembly facing a strong governor would have every reason to represent him negatively to the Crown. Nevertheless, petitions played an important role in directing the Crown’s scarce attention. In the model I assume that the Crown is fully informed about colonial enactments, but it would be fruitful in future research to analyze how attention to these matters arises endogenously due to petitions.} Governors took full advantage of this to get along well enough with the assembly to make colonial government function, while presenting a heavily curated picture to the home authorities (Greene 1898).

The crown’s most potent tool of accountability for governors was the threat to fire them (Greene 1898). Governors’ commissions typically included threats of dismissal for failing to defend the Crown’s prerogative in colonial government, which the Crown understood to include appropriation of colonial revenues. Dismissal resulted in a loss of the governor’s pay (usually around £1000-2000, a very significant sum at the time) from future periods, and perhaps equally important for some governors, a loss of status in the governor’s personal and professional network.\footnote{It was unusual for the Crown to dismiss a governor outright for failure to uphold the prerogative. In one sense, the point of this paper is that this sanction was off the equilibrium path, which explains its rarity. When the Crown...} Governors in royal
colonies served at the pleasure of the crown, and were charged with acting as the crown’s primary agent in colonial governance and liaison with imperial authorities (Keith 1930). Firing governors was typically disruptive to the colonial government and economy (McCusker and Menard 1985) and carried an opportunity cost of tapping a limited talent pool (Dewan and Myatt 2010). These factors are represented as a cost $\gamma_C$ that the crown incurs for dismissal.

2 Analysis

Throughout the analysis I assume that each player’s cost (of challenge, resistance, or dismissal) lies in an “intermediate” range. This leads to a substantively straightforward PBE in pure strategies.

Assumption 1 $\gamma_A \in (0, \frac{1-s}{6})$. This ensures that $A$ challenges with positive probability in period 2 even when uninformed of $G$’s strength.

Assumption 2 $\gamma_G \in \left(\frac{1}{2}, w - \frac{1}{2}\right)$ and $w > \frac{1}{2}$. This ensures that $G$ resists when necessary to be retained in office.

Assumption 3 $\gamma_C \in \left(\gamma_A, \gamma_G\right) \equiv \left(\frac{3s(1-2s(1+2\gamma_A)+s^2)}{8(1-s)(2-s)}, \frac{3s}{16} - \frac{3s}{2} \left(\frac{\gamma_A}{1-s}\right)^2\right)$. This ensures that $C$ dismisses when certain $G$ is weak, but not for policies generated by a governor who resists.

2.1 Period 2

I begin the analysis in period 2, which is simpler than period 1 because there are no signaling incentives. As a preliminary, clearly $x^2 = x^2_A$ if $A$ claims power.

Lemma 1 Assume $\gamma_G > \frac{1}{2}$. Then in period 2, the strong governor resists any challenge from $A$. The weak governor capitulates to any challenge from $A$.

$G$ produces better policy when it holds agenda power, and the strong governor faces no cost of resistance, so strong governors never capitulate to a challenge from $A$. But the weak governor faces a higher cost of resistance than any possible policy benefit of agenda control, and so capitulates to all challenges.

believed that a governor was no longer effective in a particular colony, a more common step was to reassign that governor to a different colony—typically a smaller one with less opportunity to extract various fees. Even this can be considered a loss of status, and also probably a loss of income.
The governor’s resistance determines the assembly’s optimal challenge, given a posterior belief \( \tilde{s}_A \) that the governor is strong based on period 1. The assembly incurs cost \( \gamma_A \) for a challenge, but with probability \( 1 - \tilde{s}_A \) it produces policy \( x^2 = x^2_A \). If the challenge fails or is not attempted, the governor holds agenda power and extracts policy concessions from A. When \( x^2_A \) is close to \( q \) or to \( x_C = 1 \), these concessions are not very costly to A, so a challenge to claim agenda power is not worth the cost. A’s expected benefit of a challenge is greatest when \( x^2_A \) is relatively far from both \( q \) and 1, so this is where A’s challenges are concentrated.

**Lemma 2** Assume \( \gamma_G > \frac{1}{2} \) and \( \gamma_A \in (0, \frac{1-s}{6}) \). Then in period 2, the assembly challenges if and only if \( x^2_A \in \left[ 0, \frac{1}{2} - \frac{\gamma_A}{1-\tilde{s}_A} \right] \cup \left[ \frac{1}{2} + \frac{\gamma_A}{1-\tilde{s}_A}, 1 - \frac{\gamma_A}{1-\tilde{s}_A} \right] = A^2(\tilde{s}_A) \).

The set \( A^2(\tilde{s}_A) \) is the “challenge zone,” which contains the ideal points for which A challenges G’s agenda power. The challenge zone grows both as the cost \( \gamma_A \) decreases, and as A’s assessment of G’s strength \( \tilde{s}_A \) decreases. For \( \gamma_A < \frac{1-s}{6} \), A challenges with positive probability in \( t = 2 \) given belief \( \tilde{s}_A \leq s \), but does not challenge at all when certain G is strong.

Period 2 behavior is depicted in figure 1. The horizontal axis displays the assembly ideal point and the vertical axis displays the policy outcome. For assembly ideal points in \( A^2(s) \), the strong and weak governors generate different policies. Outside of this zone, they generate the same policy. The challenge zone is concentrated in the range of ideal points where A stands to lose the most when G holds agenda power.

Given A’s challenge strategy, period 2 policy \( x^2 \) depends on both G’s type \( \sigma \) and A’s belief about G’s type \( \tilde{s}_A \).

**Lemma 3** Assume \( \gamma_G > \frac{1}{2} \) and \( \gamma_A \in (0, \frac{1-s}{6}) \).

- If \( \sigma = 1 \), expected policy in period 2 is \( E(x^2|\sigma = 1) = \frac{11}{16} \).
- If \( \sigma = 0 \) and A knows it (\( \tilde{s}_A = 0 \)), expected policy in period 2 is \( E(x^2|\sigma = 0, \tilde{s}_A = 0) = \frac{1}{2} + \frac{3\gamma_A^2}{2} \).
- If \( \sigma = 0 \) and A does not know it (\( \tilde{s}_A = s \)), expected policy in period 2 is \( E(x^2|\sigma = 0, \tilde{s}_A = s) = \frac{1}{2} + \frac{3}{2} \left( \frac{\gamma_A}{1-s} \right)^2 \).

Thus, a strong governor generates greater expected policy than a weak governor, and a governor that the assembly knows to be weak generates the smallest expected policy.
2.2 Period 1

Now consider $t = 1$. The question for the Crown is this: observing only the first-period policy outcome $x^1$ and status quo $q = \frac{1}{2}$, is it possible to determine whether the governor was the agenda setter in a Romer-Rosenthal bargaining game? And is it therefore possible to discipline the governor through threat of dismissal to hold agenda power? That is the central governance problem for the Crown in this model.

The crown retains if and only if $U_C(\text{retain}) \geq U_C(\text{dismiss}) - \gamma_C$, where $U_C(\cdot)$ is the expected period 2 policy utility given beliefs. This raises an important issue: the crown’s utility from retention depends not just on its belief about the governor’s type, but on its belief about the assembly’s belief about the governor’s type. The former belief determines the governor’s expected response to a challenge; the latter determines the probability the governor is challenged. When choosing a bargaining agent, the adversary’s information matters as well as the principal’s. Models of bargaining through agents usually assume these information sets are the same. But when the principal observes only outcomes, while the adversary observes the full history of concessions, they are not.
In particular, let \( \tilde{s}_C(x^1) \) denote the crown’s posterior probability that the governor is strong \((\sigma = 1)\). Let \( \tilde{s}_{CA} \) denote the crown’s belief that the assembly knows \( \sigma \) with certainty, given that \( \sigma = 0 \). Then the crown’s expected policy utility from each decision is

\[
U_C(\text{retain}) = -(1 - \tilde{s}_C)E(x^2|\sigma = 1) - (1 - \tilde{s}_C)(1 - \tilde{s}_{CA})E(x^2|\sigma = 0, \tilde{s}_A = s)
\]

\[
- (1 - \tilde{s}_C)\tilde{s}_{CA}E(x^2|\sigma = 0, \tilde{s}_A = 0)
\]

\[
U_C(\text{dismiss}) = -(1 - sE(x^2|\sigma = 1) - (1 - s)E(x^2|\sigma = 0, \tilde{s}_A = s))
\]

For any crown beliefs \( \tilde{s}_C \) and \( \tilde{s}_{CA} \), there is a unique \( \gamma^*_C \) such that the crown retains if and only if \( \gamma_C \geq \gamma^*_C \). This threshold is increasing in \( \tilde{s}_C \) and decreasing in \( \tilde{s}_{CA} \). The worst case for retention is when \( C \) knows \( G \) is weak; because \( A \)’s information set is a partition of \( C \)’s, this implies \( A \) knows it too, so \( \tilde{s}_C = 0 \) and \( \tilde{s}_{CA} = 1 \). In this case \( \gamma^*_C = \frac{3s}{16} - \frac{3s}{2} \left( \frac{\gamma_A}{1-\gamma} \right)^2 \equiv \gamma^*_C \). I assume \( \gamma_C < \gamma^*_C \) throughout to rule out the trivial case where the crown retains no matter what it believes. Further, if both the crown and assembly learn nothing about the governor from \( x^1 \), then \( \tilde{s}_C = s \) and \( \tilde{s}_{CA} = 0, \gamma^*_C = 0 \), and \( G \) is retained.

**Lemma 4** Assume \( \gamma_G > \frac{1}{2} \) and \( \gamma_A \in (0, \frac{1-\gamma}{\gamma}) \). Given the crown’s beliefs \( \tilde{s}_C \) and \( \tilde{s}_{CA} \), there is a unique cost of dismissal \( \gamma^*_C \geq 0 \) such that the crown retains if and only if \( \gamma_C \geq \gamma^*_C \). If \( \gamma_C < \gamma^*_C \), then the crown dismisses when certain the governor is weak.

The crown’s dismissal threat determines the governor’s response to the assembly. I assume \( \gamma_C > \gamma^*_C \) which ensures retention whenever the governor generates policies that occur under resistance, but not otherwise. I explicitly derive this bound below after fully specifying posterior beliefs.

Facing this retention strategy, the strong governor resists any assembly challenge in period 1. Resisting is costless, and generates better results both for retention and period 1 policy. However, the weak governor will resist an assembly power challenge only if necessary to be retained.

Suppose then that \( A \)’s ideal point is below the status quo \((x_A^1 < q)\). The strong governor holds agenda power but is gridlocked with \( A \) in this region, so produces policy \( x^1 = q \). Therefore \( C \) would know upon observing \( x^1 < q \) that \( G \) must be weak, and \( G \) would be dismissed. Consequently, the weak governor resists challenges in this region too. For any governor, \( x^1 = q \) for all \( x_A^1 < q \).

Suppose instead \( x_A^1 \geq q \). When the governor holds agenda power against any such assembly,
policy is

\[
x^1 = \begin{cases} 
2x_A^1 - q & \text{for } x_A^1 \in \left[ q, \frac{q+1}{2} \right] \\
1 & \text{for } x_A^1 \in \left( \frac{q+1}{2}, 1 \right].
\end{cases}
\]

Therefore when G always holds agenda power, every \( x^1 \in [q,1] \) occurs for some assembly ideal point \( x_A^1 \geq q \). Of course, capitulating to an assembly that implements its ideal policy \( x_A^1 \geq q \) also produces \( x^1 \in [q,1] \). Thus, from observation of \( x^1 \geq q \), C cannot be sure whether it was produced by resistance or capitulation. For policy in this range C cannot distinguish between a strong governor facing an unfavorable assembly, and a weak governor capitulating to a moderate one. This uncertainty allows the weak governor to capitulate to any assembly \( x_A^1 \geq q \).

**Lemma 5** Assume \( \gamma_C \in \left( \gamma_C^*, \overline{\gamma}_C \right) \), \( \gamma_G \in \left( \frac{1}{2}, w - \frac{1}{2} \right) \), and \( \gamma_A \in (0, \frac{1-s}{6}) \). Then in period 1, the strong governor resists any challenge from A. The weak governor generates \( x^1 = q \) for \( x_A^1 < q \) but capitulates for \( x_A^1 \geq q \) even if A implements its ideal point.

The governor’s resistance determines the assembly’s challenge. However, challenge incentives are more complex in period 1. A challenge in period 1 not only affects policy \( x^1 \), but generates information about the governor’s strength that is useful in period 2. For example, if a period 1 challenge reveals the governor is strong, the assembly can avoid wasting the cost of a challenge \( \gamma_A \) in period 2. Denoting the value of information as \( v(s) \), it is shown in the appendix (remark 1) that \( v(s) < s\gamma_A \). Intuitively, the greatest value of information in period 2 about G’s strength is to save the cost of a challenge \( \gamma_A \) when it would be worthless (probability \( s \)). Further, one can equivalently think of \( v(s) \) as a benefit in period 2, or a reduction in the cost of a challenge in period 1.\(^{20}\) Thus A’s “effective” cost of challenge in period 1 is \( \tilde{\gamma}_A = \gamma_A - v(s) > (1-s)\gamma_A \). Because the value of information is less than the cost of a challenge, A will never challenge in \( t = 1 \) unless it affects policy.

Given this, A never challenges for \( x_A^1 < q \), because challenge cannot affect policy in this case. But for \( x_A^1 \geq q \), a challenge succeeds against a weak governor, and the assembly implements its

\(^{20}\)This assumes the period 1 assembly internalizes benefits of its actions for the period 2 assembly. If this is not true, for example because of non-overlap in assembly membership, the analysis here falls to the special case where \( v(s) = 0 \) but is still characterized by the results below.
Figure 2. Period 1 policy $x^1$ as a function of assembly ideal $x_A$.

ideal policy. The assembly balances the policy and informational gains of a challenge against the cost, and optimally challenges as follows.

**Lemma 6** Assume $\gamma_A \in \left(0, \frac{1-s}{6}\right)$ and the weak governor capitulates to any challenge from $x_A^1 \geq q$. Then in period 1, A challenges if and only if $x_A^1 \in \left[q + \frac{s_A}{1-s}, 1 - \frac{s_A}{1-s}\right] \equiv \chi^1(s)$.

The challenge zone $\chi^1(s)$ is centered around $\frac{q+1}{2}$. A only challenges if it expects relatively large loss in policy utility when $G$ holds agenda power. A is more inclined to challenge in period 1 as the cost of challenge declines and as the probability of a successful challenge increases.

Period 1 behavior is illustrated in figure 2. The horizontal axis displays the assembly ideal point and the vertical axis displays the policy outcome. The Crown’s problem is to assess $G$’s strength based on observing a point on the vertical axis.

The crown’s beliefs about $\sigma$ are somewhat complicated. They are fully specified in the appendix but the key points are as follows. First, recall that $x^1 < q$ is off the path of play. In any PBE, $C$ must hold beliefs that cause dismissal (e.g. $\hat{s}_C = 0$) following such an event. Optimistic beliefs would lead $G$ to capitulate in this range for $\sigma = 0$, but then $C$’s optimistic belief would be inconsistent with
G’s strategy. Second, all $x^1 \geq q$ occur in equilibrium under either type of governor, thus none is definitive evidence that G conceded agenda power. Third, the worst news about G’s strength comes from policies $x^1 \in [q + \frac{\gamma_A}{1-s}, q + \frac{2\gamma_A}{1-s}]$, which result from a weak governor who capitulated, or a weak or strong governor who was unchallenged. Moreover, the capitulating governor is twice as likely to generate these policies as an unchallenged one. Weighting these cases by the prior $s$ yields $\tilde{s}_C = \frac{s}{3-2s}$.

The crown’s beliefs about the assembly’s beliefs are as follows. Only capitulation can produce $x^1 < q$, so $\tilde{s}_{CA} = 1$. For $x^1 \geq q$ outside of $X^1(s)$, C knows $A$ did not challenge or $G$ resisted, so $\tilde{s}_{CA} = 0$. For $x^1 \in [q + \frac{\gamma_A}{1-s}, q + \frac{2\gamma_A}{1-s}]$, $\tilde{s}_{CA} = 3/\gamma$. For $x^1 \in [q + \frac{\gamma_A}{1-s}, 1 - \frac{\gamma_A}{1-s}]$, $\tilde{s}_{CA} = 1$.

On the path of play, the crown’s utility from retention is lowest when $x^1 \in [q + \frac{\gamma_A}{1-s}, q + \frac{2\gamma_A}{1-s}]$. In this case $\tilde{s}_C = \frac{s}{3-2s}$ and $\tilde{s}_{CA} = 3/\gamma$. If C is willing to retain here, it is willing to retain for any other policy $x^1 \geq q$. In this case $U_C(\text{dismiss}) - U_C(\text{retain}) = \frac{3s(1-2s)(1+2\gamma_A)+s}{8(1-s)(2-s)} = \gamma_C$.

**Lemma 7** Assume $\gamma_C \in (\frac{1}{2}, \gamma_C)$, $\gamma_G \in (\frac{1}{2}, w - \frac{1}{2})$, and $\gamma_A \in (0, \frac{1-s}{6})$. Then C believes G is strong with probability $\tilde{s}_C \geq \frac{s}{3-2s}$ for $x^1 \geq q$, and $\tilde{s}_C = 0$ for $x^1 < q$. If $\gamma_C \geq \gamma_C$, then C retains $G$ for any $x^1 \geq q$.

The assembly’s beliefs about the governor’s strength are simple. If $A$ does not challenge in period 1, then $A$ learns nothing about $G$’s strength and $\tilde{s}_A = s$. If $A$ does challenge, then it learns $G$ strength perfectly so that the assembly’s belief is $\tilde{s}_A = \sigma \in \{0, 1\}$. Given retention, this feeds into period 2 strategies via lemma 2.

### 3 Equilibrium and Dynamics of Assembly Power

A substantively natural form of equilibrium is a threshold equilibrium, where the Crown declares that it will retain the governor if and only if policy exceeds some threshold, or $x^1 \geq x^*$. This form is theoretically intuitive because C always prefers larger policies, and it matches the historical practice of the Crown pressuring governors to secure increases in assembly spending (Labaree 1930), so I focus on it.\(^{22}\)

\(^{21}\)Note therefore that no refinement of PBE is necessary to establish that C must hold pessimistic beliefs and dismiss following $x^1 < q$.

\(^{22}\)Any non-threshold equilibrium has the pathological property that $G$ must sometimes lower $x^1$ below the maximum policy $A$ will accept when $G$ holds agenda power.
Proposition 1  Assume $\gamma_C \in \left(\gamma_C, \bar{\gamma}_C\right), \gamma_G \in \left(\frac{1}{2}, w - \frac{1}{2}\right)$, and $\gamma_A \in (0, \frac{1-s}{6})$. Then there is a unique threshold equilibrium. In this equilibrium, $C$ retains if and only if $x^1 \geq q$. The strong governor always resists assembly challenge, while the weak governor capitulates for $x^1_A \geq q$. The assembly claims power for ideal points in a subset of $[q, 1]$, and enacts its ideal policy $x^1_A$ when it does. The policy is $x^1 \geq q$ and $G$ is always retained.

To be a PBE, the policy threshold $x^*$ must be credible; that is, $\gamma_C \geq U_C(\text{dismiss}) - U_C(\text{retain})$ if and only if $x^1 \geq x^*$. The unique threshold equilibrium exists at $x^* = q$ and is characterized in lemmas 1-7. There is no threshold equilibrium with $x^* > q$ because then there would be policies $x^1 < x^*$ generated only by the strong governor, in which case the crown would retain.

Proposition 1 implies that the crown’s oversight does discipline the governor to prevent lowering policy below the status quo, which the weak governor would do without this oversight. But as long as the assembly prefers to raise policy above $q$, the crown cannot distinguish a strong governor facing a tough assembly from a weak governor capitulating to a moderate one. Weak governors concede power to these assemblies, and the crown retains them in office anyway.

This pattern of concession and retention leads to another key result. Formally, let $A_t \in \{0, 1\}$ be a random variable denoting whether $A$ does or does not hold agenda power in period $t$.

Proposition 2 (Growth of Assembly Power)  Assume $\gamma_C \in \left(\gamma_C, \bar{\gamma}_C\right), \gamma_G \in \left(\frac{1}{2}, w - \frac{1}{2}\right)$, and $\gamma_A \in (0, \frac{1-s}{6})$. In the threshold equilibrium, successfully claiming legislative power in period 1 causes an increase in legislative power in period 2: $E(A_2|A_1 = 1) > E(A_1)$ and $E(A_2|A_1 = 1) > E(A_2|A_1 = 0)$.

This result is based on two effects. First, $A$ challenges for more values of $x_A$ in period 2 after a successful first period challenge, than in period 1. Second, the challenge is successful with probability 1 over this larger range in period 2, as opposed to probability $(1 - s)$ over a smaller range in period 1.

Intuitively, the result depends on two components in the model. First is the crown’s ignorance of colonial affairs, which allows weak governors to make concessions to the assembly and yet be
retained in equilibrium. Second is the persistence of the governor’s strength. After a successful challenge for institutional power, the assembly was more confident that future challenges would succeed, and inclined to stage those attacks more often. Therefore, assembly success in claiming agenda power leads directly to increased demands, and an increased chance of assembly success, in the future. In this sense, the model captures progressive growth of assembly power.24

4 Historical Evidence: Crown Instructions, Governor Concessions, and Assembly Power

In this section I present historical evidence to make two points: first, the assumptions of the model are reasonable interpretations of significant conflicts in American colonial politics. Second, the model explains important developments in assembly power during the colonial period.25

Despite the Crown’s recognition of assembly rights in North America, it attempted to restrain assembly power beginning in the late 1600s (Bliss 1993). Agenda power was crucial to the Crown’s vision of institutional control, and the Crown relied on governors to hold it. Agenda power took several forms, usually on fiscal matters. One was control of colonial tax revenue. The Crown instructed royal governors to obtain revenues as a lump sum grant under the unrestricted discretion of the governor and council. The governor’s disposition of revenue would then amount to a take-it-or-leave-it offer, a hallmark of agenda control. The assembly’s control would be reduced to funding the government as a whole. Another form was allocating the sole right to audit colonial accounts to the governor and council. British colonies spent on credit for one year and raised taxes to cover the total in the next (Greene 1963). If the governor had sole control over accounts, only he would have information about the tax revenue required to cover them, and thus power to set the agenda on aggregate revenue as well as its disposition.

A typical example appears in George II’s instructions to Gov. Francis Bernard (New Jersey):

You are to take Care, that in all Acts and Orders to be passed within that Our said

24 Partial persistence of G’s strength would mitigate assembly power growth in equilibrium but not eliminate it. Partial persistence could be modeled by assuming \( \sigma_t = \alpha \sigma_{t-1} + (1 - \alpha) \phi_t \) where \( \alpha \in [0, 1] \) is an autoregressive parameter and \( \phi_t \) is an i.i.d. Bernoulli random variable; my model is the special case with \( \alpha = 1 \). Even with \( \alpha < 1 \), \( \Pr[\sigma_2 = 0|A_1 = 1] > \Pr[\sigma_1 = 1] \) and \( \chi^2 \) expands when \( A_1 = 1 \), so the proof of proposition 2 holds.

25 In the supplemental appendix I consider the application of the theory to later British colonies elsewhere in the world.
Province, in any Case for levying Money or imposing Fines and Penalties, express mention be made, that the same is granted or reserved to Us, Our Heirs or Successors for the Publick uses of that Our Province and the support of the Government thereof...You are not to suffer any publick Money whatsoever to be issued or disposed of, otherwise than by Warrant under Your hand...You are not to permit any clause whatsoever to be inserted in any Law for the Levying of Money whereby the same shall not be made lyable to be accounted for unto Us...It is Our express Will and Pleasure...that Laws for the supply and support of the Government shall be indefinite and without Limitation...

To Crown officials, the strategic implications of agenda control were obvious:

If every bill dealing with money had to be accepted or rejected by the supporters of the prerogative in exactly the form proposed by the elective house, the only possible result would be a weakening of the authority of the Crown...Consequently the Board of Trade and Privy Council brought all their influence to bear in support of the prerogative. (Labaree 1930, pp. 296-297).

For their part, assemblies throughout the colonies pushed against these bounds by challenging the governor’s agenda control, especially in fiscal matters:

[T]he representative assemblies...tried to strengthen their hold on the taxing power by claiming the sole right to frame money bills. Seeking to limit the power of the governors and councils to either accepting or rejecting such measures in their entirety, they demanded an exclusive right to initiate all revenue bills and denied the power of the upper house to propose amendments to them (Greene 1963, 51).

These demands correspond to assembly challenges in the model. Challenges took somewhat different forms depending on the specific power in dispute. On revenues, many assemblies constituted temporary, select committees to prepare revenue needs and estimates and then draft a tax bill. If the governor prevented the assembly from auditing accounts to assess revenue needs itself, many assemblies simply refused to pass any tax bill (Greene 1963, 82-83). When governors did concede auditing power to assemblies, governors often insisted that the Council participate in a joint select committee to draft a tax bill. In this case assembly challenge might consist of “forgetting” to
invite the Council to participate, sending a finished bill to the governor, and refusing to reconsider when the exclusion of the Council was noted—a tack taken by the South Carolina Assembly in 1737 (Greene 1963, 54). On expenditures, the Assembly’s challenge usually consisted of writing minutely detailed appropriations into revenue laws that could be made only by a specific individual named by the assembly as treasurer, and refusing to consider any alterations. This scheme, which was adopted throughout the colonies (Burns 1923, Greene 1963), placed agenda power over disbursements in the assembly’s hands. Instead of controlling the allocation of a lump sum revenue, the governor was limited to either accepting the assembly’s allocation or rejecting the entire revenue and risking government collapse.

In this dynamic, the assembly’s strategic advantage was formidable:

Whenever disputes arose, the members of the lower house...could refuse to concur in the council’s amendments and could return the bill to the upper house in its original form. The latter body was then faced with the alternatives of passing the measure without amendment or of accepting responsibility for its failure. If the supply were not to be lost entirely, the council would have to give way... Thus the members of the lower house gained a control over financial arrangements which could not be thwarted and, by the use of ‘riders’ in their money bills, were able to force the adoption of many other proposals which the council and governor would otherwise have rejected (Labaree 1930, p. 299).

The Crown understood this strategic dilemma facing governors and therefore, as reflected in the model, put countervailing pressure on them. Governors’ commissions—the formal, public documents that the Crown considered the chief legal basis for colonial institutions—were littered with threats to governors for violating their terms: “pain of Our Highest Displeasure,” “Our Highest Displeasure and of being recalled from that Our government,” and “Our Highest Displeasure and forfeiture of that year’s salary” were commonly stated sanctions (Greene 1898, Labaree 1930).

Moreover, the Crown understood that the governor’s political skill, a key ingredient of the model, was an important factor in securing obedience to royal instructions. For instance, the Board of Trade wrote to Massachusetts Governor William Burnet in 1727, “His Majesty depends upon your Skill and prudence, in order to dispose the Assembly to pay a due Obedience to His Majesty’s commands”
Another example comes from the choice of Burnet’s successor. When Burnet suddenly died in 1729, Jonathan Belcher, a Massachusetts native and former Assembly member, made “the most flattering promises to the Board of Trade that if appointed [as governor] he would find means of enforcing the very instructions” that he had previously opposed. “Persuaded that a popular citizen of Boston...might be able to secure compliance with instructions, the ministry arranged the appointment” (Burns 1923, 95).

The Crown not only depended on the governor’s skill in maintaining agenda power, it also assessed governors in terms of their ability to hold it. For example, in 1725 the Secretary of State for the Southern Department, the Duke of Newcastle, personally wrote to William Dummers, acting governor of Massachusetts, “His Majesty was very much concerned to find that the charge against the House of Representatives [of challenges to the governor’s authority] was so well founded as it appears to be, and therefore I must earnestly recommend it to you to use your endeavors, that a due obedience be paid to His Majesty’s Prerogative and Authority in all respects in the future” (quoted in Burns 1923, 71). And when the Crown reviewed Massachusetts Governor Burnet’s dealings with its assembly in a “hearing of the case before the Privy Council, Burnet’s conduct was highly approved” (Burns 1923, 86).

Governors understood that the Crown was assessing their ability to hold agenda power. For example, in Massachusetts, 1731-1733, the Assembly attempted to wrest control over public expenditures from the governor. At the start of the dispute, Governor Belcher reassured the Secretary of State about his resolve: “I must say for myself, that I never will betray the trust the King has reposed in me by prostrating the power and honour he has cloth’d me with to gratifye the pride of an inferiour officer who continually endeavours to insult me.” In 1732, Belcher could report no success, but blamed it on a recalcitrant assembly while citing his strenuous resistance: “The Assembly, after sitting nine weeks, wou’d come into no measures for supplying the Treasury, agreeable to His Majesty’s instructions to me, altho’ I prest it upon them in the strongest manner I possibly

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26 The Crown’s recognition of the importance of the governor’s political skill does not imply this was the only factor in their selection. Patronage and political connections of candidates for office with senior ministers played a large role, which some historians blame for the Crown’s declining institutional control in the colonies (Greene 1898).

27 Notably this letter was written during the ministry of Sir Robert Walpole, the height of “wise and salutary neglect” toward the colonies. The letter implies that policy did not constitute Crown indifference about institutional arrangements in the colonies.

co’d, in duty to His Majesty...”

Belcher finally broke the Assembly’s challenge in 1733, securing lump sum revenue in the king’s name and under his discretion. Belcher triumphantly bragged to the Secretary of State:

I have labour’d by patience and all other ways I was master of to bring this Assembly to a sense of their duty to his Majesty, and they have at last comply’d with the King’s royal orders respecting the supply of the Treasury...I have, my Lord Duke, had an inconceivable deal of trouble from my arrival in the governm’t to this time by the violent opposition (I may say obstinacy) of the several Assemblies to his Majesty’s just and reasonable orders, and have been often threatn’d by some leading men that I shou’d not have any support, unless I wou’d sign a bill for supplying the Treasury contrary to the King’s royal instructions...I am glad after all that I have been able to accomplish the several articles I have mention’d, because it does honour to his Majesty.

Belcher was keenly attuned to the effect of his resistance on evaluation by the Crown. He wrote to his brother-in-law, “I believe that...where I so much asserted the King’s honour & stuck so close to his instructions will be of good service to me among the King’s ministers.”

The model implies that once a governor successfully resisted a challenge, the assembly learned his resolve and would not challenge further. The Belcher case illustrates this as well: the assembly did not challenge him again about disbursement of revenue to the end of his tenure in 1739 (Burns 1923, 110).

Conversely, the model indicates that a key to assembly power growth was that governors capitulated precisely in those situations where the Crown would not discover it. Consequently, the assembly continued and expanded its power claims, while the governor dissembled to the Crown and (in equilibrium) evaded its sanctions. This occurred many times across numerous colonies.

South Carolina presents a case spanning multiple decades and governors. In the 1730s, the South Carolina Commons House of Assembly had begun attaching line items in its annual tax bills specifying

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29 Belcher papers Volume VI, p. 100.
30 Belcher sent a similar letter to the Board of Trade and the Privy Council to make sure all his superiors knew of his success.
31 Belcher papers Volume VI, pp. 407-408.
the exact purpose for which that sum was to be spent, thereby preventing the executive from applying it to any other use...This practice enabled the Commons to order money from the treasury by its single authority, which the governor and Council could prevent only by rejecting the entire tax bill...That action would have left the colony in severe financial straits and provoked a serious political dispute. Both royal governors and the Council wisely chose to let the matter pass without comment (Greene 1963, 96).

In private instructions, the Board of Trade specifically ordered Governor James Glen (in office 1743-1756) to obtain tax laws with unrestricted governor control over lump sum revenues. But “Neither [Glen] nor his successors ever attempted to obey the Board’s order” because “the Commons simply refused to vote [for expenditures] unless it knew precisely what they were going to be used for” (Greene 1963, 88-89). Meanwhile, the governors successfully concealed their capitulation from Whitehall for over 35 years, and none were sanctioned for capitulating to the assembly. “Not until after 1770, when the Commons blatantly displayed its power by voting funds to the English radical John Wilkes, did Crown officials discover that the Commons had acquired it” (Greene 1963, 96). By this action, which could not be squared with any say by the governor in the matter, “the Board of Trade suddenly discovered that the governors...had ‘improvidently acquiesced’ in a method of authorizing expenditures which deprived the executive of any voice in the matter” (Labaree 1930, 306). This pattern conforms closely to the model’s equilibrium in which weak governors capitulate, assembly power grows, and the Crown, though trying to prevent this, is unaware of it. The Crown’s surprise in 1770 implies that it was unaware of colonial developments; its consternation at that time, and explicit instructions over the years, imply that it was interested to prevent this result.

New York presents another illustrative case. George Clinton, appointed governor in 1743, was a well-connected officer in the British navy who sought office in America to avoid creditors in England, but “was totally unfitted either by temperament or previous experience to cope with the situation” in New York (Labaree 1930, p. 286). Clinton revealed his “utter lack of political foresight or skill” (ibid.) immediately by conceding to all the Assembly’s demands for power in hopes of establishing trust with it. The Assembly capitalized on the situation by consolidating power with the standard techniques of passing one-year revenue bills, refusing amendments to its bills, making highly detailed appropriations to the care of a specifically named treasurer instead of the governor, and allowing

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33 This George Clinton was a distant cousin of the future US Vice President of the same name.
disbursement only upon passing a bill calling for it. Due to Clinton’s capitulation, the Assembly claimed “practically complete control over the the most important branches” of government (*ibid.* p. 287).

Even this governor who immediately and totally capitulated to assembly challenge maintained to the Crown that he upheld its interests, and simply faced an unusually recalcitrant legislature. As Clinton wrote the Secretary of State, “I have to my utmost done every thing for His Majesty’s service & benefitt of this and all the Northern Colonies, and this under such difficultyes and obstructions as no Governour ever underwent from a most malicious opposition.”

Within a few years, Clinton attempted to reclaim control. He enlisted the advice of the Massachusetts governor, who wrote to Clinton, “The Assembly seems to have left scarcely any part of His Majesty’s prerogative untouched, and they have gone to great lengths toward getting the government, military as well as civil, in their hands.” Clinton’s colleague advised him to demand 5-year revenue bills, and “insist in general to have His Majesty’s government restored to its former state.” This was as useless as it was well intentioned, for it was advising a weak governor to be a strong one. Clinton made all the recommended demands, and the Assembly duly rejected them (Burns 1923). It already knew Clinton’s resolve.

For five more years, Gov. Clinton labored in abject submission to the lower house. In 1753, the governor realized the situation in New York was hopeless. He confessed his capitulation to the Crown, and facing an ignominious removal, he resigned. Labaree (1930) summarizes:

One can hardly fail to sympathize with Clinton, incompetent though he was. The home authorities...were ready to censure and even to remove him if he failed to assert and maintain the prerogative... The Board [of Trade] criticized Clinton for having submitted to the assembly on money matters at his first arrival... They declared that such a retreat would only confirm the assembly in its opposition... In the opinion of the Board, the constitution of the province could be restored to its proper balance only through the appointment of a new governor who would not be hampered by the personal animosity that Clinton had aroused (Labaree 1930, 290-291).

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Thus, Crown authorities recognized that, having revealed his weakness through capitulation, the governor consigned himself to further challenge and capitulation in the future. The Board’s only remedy was appointment of a (hopefully) stronger successor.

That successor was James Delancey, a longtime assembly member, appointed governor in 1753. The Assembly immediately informed Delancey that it would never surrender the control over disbursements it had won from Clinton. After one year of defending the prerogative and stalemate with the Assembly, Delancey conceded. “From this time down to the arrival of the next governor, the Assembly Journal shows no evidence of open conflict” because “Delancey was careful never to bring matters to an issue.” Yet “his correspondence with the home government...was usually so worded as to lead the ministry into the supposition that he was trying with all his ‘endeavors’ to enforce his instructions” (Burns 1923, 351-352).

A similar mechanism of assembly challenge and governor capitulation took hold in Massachusetts. Governor William Shirley, who took office in 1741, enjoyed quiescent and even positive relations with the Assembly—a feat he accomplished through capitulation to its demands for power: “Governor Shirley’s success in keeping peace with the Assembly [came] chiefly by avoiding encounter...While the governor was enjoying peace, [the representatives] were strengthening their independent principles and practices” (Burns 1923, 135-136). Nevertheless, Shirley communicated no capitulations to the Crown, incurred no sanctions for his capitulation, and held office for 15 years.36

In summary, the historical record illustrates several key assumptions of the model, and the model explains several key developments in the historical record. We have numerous cases of conflict over agenda power between governors and assemblies, and the Crown’s threat of sanctions to influence governors in these conflicts. We see the Crown recognizing the role of the governor’s political skill in securing institutional power and assessing governors based on their ability to hold it. We see governors articulating their cognizance of this assessment. We see cases of governors settling their hold on power through successful resistance of a challenge. We see numerous cases of governors capitulating to assembly challenges yet retaining office for years, the Crown’s unawareness of these capitulations, and the governor’s inability to restrain assembly power after capitulation. At a micro-level, this was how legislative power grew in the American colonies.

36Shirley’s eventual removal arose from patronage politics among senior English ministers and not his capitulation to the assembly.
5 Conclusion

American legislative power predates the founding of the US and arose in the imperial era. The crown was unable to restrain this power, despite concerted attempts and potent formal tools. The challenge of this paper is to interpret the strategic foundations of this growth.

The interpretation posited above supposes that the agenda power of the crown’s governor can be contested by an assembly. The agent’s “effort” in this contest is signaled by the outcome of a policy bargaining process, and the governor’s “strength” in holding institutional power is useful to the crown because it leads to better outcomes in that process.

The key strategic point is that even strong governors who firmly hold institutional power can create a wide range of policy outcomes, depending on the assembly’s disposition. This allows weak governors to concede to assembly demands for power, yet still appear substantially similar to strong governors in the eyes of the crown. But knowing the governor’s weakness makes the assembly more confident that its future demands for power would succeed, and therefore more inclined to make them. In this way, the governor’s desire to avoid assembly conflict while concealing weakness from the crown leads to the dynamic growth of assembly power.

The findings leave open many questions for future research, of which I name two. First, it would be useful to explore how increased assembly powers transferred across gubernatorial regimes. Merging this model with that of Dewan and Myatt (2010) on the declining talent pool of government could provide an intriguing answer. A second direction relates to strategic aspects of colonial petitioning throughout the 18th century, which tended to improve the crown’s information about colonial politics (Carpenter and Brossard 2019). Yet petitions, like “fire alarm” oversight, are partly cheap talk; thus there informativeness is not obvious. It would be interesting to analyze strategic dimensions of submitting petitions, from the colonial point of view, and of learning from or strategically discounting them, from the imperial.

These questions notwithstanding, the model of this paper does reveal a central problem of English imperial administration. Given information asymmetries about governors’ actions and colonial politics, institutional arrangements could diverge quite sharply from those the crown prescribed. This divergence led, ultimately, to the growth of legislative power in America—one of the most important institutional developments in its history.
References


Supporting Information: Formal Proofs and Additional Historical Discussion

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Lemma 1  Assume $\gamma_G > \frac{1}{2}$. Then in period 2, the strong governor resists any challenge from $A$. The weak governor capitulates to any challenge from $A$.

Proof: Capitulation generates $x^2 = x_A^2$. Resistance generates

$$x^2 = \begin{cases} 
q & \text{for } x_A^2 < q \\
2x_A^2 - q & \text{for } x_A^2 \in (q, \frac{q+1}{2}) \\
1 & \text{for } x_A^2 \geq \frac{q+1}{2}.
\end{cases}$$

Therefore $x^2$ is always at least as large under resistance and sometimes strictly larger. For type $\sigma = 1$, there is no cost of resistance, so resistance is a weakly dominant strategy. For type $\sigma = 0$, the maximum gain in expected policy utility from resistance is $\frac{1}{2}$, and occurs when $x_A^2 = 0$. Thus $\sigma = 0$ capitulates to any $x_A^2$ provided $\gamma_G > \frac{1}{2}$.

Lemma 2  Assume $\gamma_G > \frac{1}{2}$ and $\gamma_A \in (0, \frac{1-\tilde{s}}{6})$. Then in period 2, the assembly challenges if and only if

$$x_A^2 \in \left[0, q - \frac{\gamma_A}{1 - \tilde{s}_A}\right] \cup \left[q + \frac{\gamma_A}{1 - \tilde{s}_A}, 1 - \frac{\gamma_A}{1 - \tilde{s}_A}\right]$$

$$= X^2(\tilde{s}_A).$$

Proof: Let $\chi^2 \in \{0, 1\}$ denote assembly challenge in $t = 2$.

If $x_A^2 \leq \frac{(1+q)}{2}$ and $G$ holds agenda power, policy is $x^2 = \max\{2x_A^2 - q, q\}$ which both lead to policy utility $u_A(q)$. Thus, $A$ compares

$$EU_{\chi^2=1} = \tilde{s}_A u_A(q) + (1 - \tilde{s}_A)u_A(x_A^2) - \gamma_A$$
$$EU_{\chi^2=0} = u_A(q).$$

$A$ will challenge if and only if

$$\gamma_A \leq -u_A(q)(1 - \tilde{s}_A)$$
or equivalently

\[ x_A^2 \in \left[ 0, q - \frac{\gamma_A}{1 - \tilde{s}_A} \right] \cup \left[ q + \frac{\gamma_A}{1 - \tilde{s}_A}, \frac{1 + q}{2} \right]. \]  

(2)

If instead \( x_A^2 > \frac{(1+q)}{2} \) and \( G \) holds agenda power, \( x^2 = x_C = 1 \). Thus, \( A \) compares

\[ EU_{x^2=1} = \tilde{s}_A u_A(1) + (1 - \tilde{s}_A)u_A(x_A^2) - \gamma_A \]

\[ EU_{x^2=0} = u_A(1). \]

\( A \) will challenge if and only if

\[ \gamma_A \leq -u_A(1)(1 - \tilde{s}_A) \]

or equivalently

\[ x_A^2 \in \left[ \frac{1 + q}{2}, 1 - \frac{\gamma_A}{1 - \tilde{s}_A} \right]. \]  

(3)

Putting together equations (2) and (3) yields the assembly’s optimal challenge strategy in period 2.

Note when \( A \) is certain of \( G \)’s strength, \(|A^2(1)| = 0 \) and \(|A^2(0)| = 1 - 3\gamma_A > 0 \). When \( \tilde{s}_A = s, |A^2(s)| = 1 - \frac{3\gamma_A}{1-s} \). Thus \( \gamma_A < \frac{1-s}{6} \) ensures that \( A \) challenges with positive probability.

Lemma 3 Assume \( \gamma_G > 1/2 \) and \( \gamma_A \in (0, \frac{1-s}{6}) \).

- If \( \sigma = 1 \), expected policy in period 2 is \( E(x^2|\sigma = 1) = \frac{11}{16} \).
- If \( \sigma = 0 \) and \( A \) knows it (\( \tilde{s}_A = 0 \)), expected policy in period 2 is \( E(x^2|\sigma = 0, \tilde{s}_A = 0) = \frac{1}{2} + \frac{3\gamma_A}{2} \).
- If \( \sigma = 0 \) and \( A \) does not know it (\( \tilde{s}_A = s \)), expected policy in period 2 is \( E(x^2|\sigma = 0, \tilde{s}_A = s) = \frac{1}{2} + \frac{3}{2} \left( \frac{\gamma_A}{1-s} \right)^2 \).
Proof:

\[ E(x^2|\sigma = 1) = \gamma(q) + \left(1 - \frac{q}{2}\right) \left(E\left[2x_A - q | x_A \leq q + \frac{1}{2}\right]\right) + \left(\frac{1 - q}{2}\right) \]

\[ \gamma = \frac{1}{4} + \left(\frac{1}{4}\right) \left(\frac{3}{4}\right) + \frac{1}{16}; \]

\[ E(x^2|\sigma = 0, s_A = 0) = (q - \gamma_A) \left(E\left[x_A^2 | x_A \leq q - \gamma_A\right]\right) + \gamma_A q \]

\[ + \gamma_A \left(E\left[2x_A - q | x_A \leq q + \gamma_A\right]\right) \]

\[ + (1 - q - 2\gamma_A) \left(E\left[x_A | q + \gamma_A < x_A < 1 - \gamma_A\right]\right) + \gamma_A \]

\[ = \frac{1}{2} + \frac{3\gamma_A}{2}; \]

\[ E(x^2|\sigma = 0, \tilde{s}_A = s) = \left(q - \frac{\gamma_A}{1 - s}\right) \left(E\left[x_A^2 | x_A \leq q - \frac{\gamma_A}{1 - s}\right]\right) + \left(\frac{\gamma_A}{1 - s}\right) q \]

\[ + \left(\frac{\gamma_A}{1 - s}\right) \left(E\left[2x_A - q | x_A \leq q + \frac{\gamma_A}{1 - s}\right]\right) \]

\[ + (1 - q - 2\gamma_A) \left(E\left[x_A | q + \frac{\gamma_A}{1 - s} < x_A < 1 - \frac{\gamma_A}{1 - s}\right]\right) + \left(\frac{\gamma_A}{1 - s}\right) \]

\[ = \frac{1}{2} + \frac{3}{2} \left(\frac{\gamma_A}{1 - s}\right)^2. \]

Lemma 4 Assume \( \gamma_G > \frac{1}{2} \) and \( \gamma_A \in (0, \frac{1 - s}{6}) \). Given the crown’s beliefs \( \tilde{s}_C \) and \( \tilde{s}_CA \), there is a unique cost of dismissal \( \gamma_C^* \geq 0 \) such that the crown retains if and only if \( \gamma_C \geq \gamma_C^* \). If \( \gamma_C < \gamma_C \), then the crown dismisses when certain the governor is weak.

Proof: \( C \) retains if and only if \( \gamma_C \geq U_C(\text{dismiss}) - U_C(\text{retain}) = \gamma_C^* \). \( U_C(\text{dismiss}) \) is not a function of \( \tilde{s}_C \) or \( \tilde{s}_CA \). \( U_C(\text{retain}) \) is strictly increasing in \( \tilde{s}_C \) and strictly decreasing in \( \tilde{s}_CA \). Therefore, fixing each of these beliefs, \( \gamma_C^* \) must be unique. For \( \tilde{s}_C < s \), \( U_C(\text{dismiss}) > U_C(\text{retain}) \) so \( \gamma_C^* > 0 \). The minimum of \( U_C(\text{retain}) \) occurs at \( \tilde{s}_C = 0 \) and \( \tilde{s}_CA = 1 \), in which case \( \gamma_C^* = \frac{3s}{16} - \frac{3s}{2} \left(\frac{\gamma_A}{1 - s}\right)^2 = \gamma_C \). Therefore \( C \) dismisses a known weak \( G \) when \( \gamma_C < \gamma_C^* \). For any other beliefs, \( \gamma_C^* < \gamma_C \).

Lemma 5 Assume \( \gamma_G \in \left(\gamma_C, \gamma_C^*\right) \), \( \gamma_A \in \left(\frac{1}{2}, w - \frac{1}{2}\right) \), and \( \gamma_A \in (0, \frac{1 - s}{6}) \). Then in period 1, the strong governor resists any challenge from \( A \). The weak governor generates \( x^1 = q \) for \( x_A^1 < q \) but capitulates for \( x_A^1 \geq q \) even if \( A \) implements its ideal point.
Proof: Let \( u^2_G(\sigma) \) denote \( G \)'s expected policy utility in period 2 as a function of \( \sigma \), if \( G \) is retained. Let \( x^1, x^1_A \) denote the period 1 policy as a function of \( G \)'s resistance decision \( r \in \{0, 1\} \) and \( A \)'s ideal point. Note if \( r = 1 \), \( x^1 = \max\{q, \min\{2x^1_A - q, 1\}\} \). Let \( \rho(x^1) \) denote the probability that \( G \) is retained when generating policy \( x^1 \). Let \( \tilde{\rho}(r, x^1_A) \equiv \rho(x^*(r, x^1_A)) \) denote the retention probability as a function of resistance and the assembly ideal point when the player holding agenda power chooses \( x^* \) to maximize its policy utility. The equilibrium is identified assuming \( \tilde{\rho}(1, x^1_A) = 1 \). It is verified in lemma 7 that this is consistent with \( C \)'s strategy.

For any assembly \( x^1_A \), the utility of resistance \( r \) to type \( \sigma \) is

\[
u^1(r = 1, x^1_A, \sigma) = -(1 - x^1(1, x^1_A)) + \tilde{\rho}(1, x^1_A) \left( w + u^2_G(\sigma) \right) - \gamma_G(1 - \sigma) \tag{4}
\]

\[
u^1(r = 0, x^1_A, \sigma) = -(1 - x^1(0, x^1_A)) + \tilde{\rho}(0, x^1_A) \left( w + u^2_G(\sigma) \right) \tag{5}
\]

Because \( \tilde{\rho}(1, x^1_A) \geq \tilde{\rho}(0, x^1_A) \), type \( \sigma = 1 \) never capitulates in \( t = 1 \). Resistance is costless, generates weakly greater first period policy \( x^1(r, x^1_A) \), and generates a weakly greater chance of retention.

For type \( \sigma = 0 \), first consider \( x^1_A < q \). Suppose that \( A \) enacts \( x^1 = x' < q \) after capitulation. In equilibrium, \( G \) knows this strategy. Then capitulation implies \( \rho(x') = 0 \), and resistance implies \( \rho(q) = 1 \). Further, resistance implies \( \tilde{s}_A = s \) so \( u^2_G(0) = -\frac{1}{2} \left( 1 - 3 \left( \frac{\gamma_A}{1 - s} \right)^2 \right) \). Type \( \sigma = 0 \) resists if and only if

\[
w - (1 - q) - \frac{1}{2} \left( 1 - 3 \left( \frac{\gamma_A}{1 - s} \right)^2 \right) - \gamma_G \geq -(1 - x')
\]

which holds for every \( x' < q \), \( \gamma_A \in \left(0, \frac{1 - s}{6}\right)\), and \( s \in (0, 1) \) provided \( \gamma_G \leq w - 1/2 \).

Suppose instead that \( x^1_A < q \) enacts \( x^1 = q \) after capitulation. Then \( \tilde{\rho}(1, x^1_A) = \tilde{\rho}(0, x^1_A) = 1 \). Capitulation implies \( \tilde{s}_A = 0 \) so \( u^2_G(0) = -\frac{1}{2} \left( 1 - 3 \gamma^2_A \right) \). Type \( \sigma = 0 \) capitulates if and only if

\[
-\frac{1}{2} \left( 1 - 3 \left( \frac{\gamma_A}{1 - s} \right)^2 \right) - \gamma_G < -\frac{1}{2} \left( 1 - 3 \gamma^2_A \right)
\]

or \( \gamma_G > \left( \frac{3s(2 - s)}{2} \right) \left( \frac{\gamma_A}{1 - s} \right)^2 \). Given \( \gamma_A < \frac{1 - s}{6} \), this holds provided \( \gamma_G > 1/24 \).

Next consider \( x^1_A \geq q \). Suppose \( A \) enacts its ideal point in this range if \( G \) capitulates, which is \( A \)'s best response unless it induces \( G \) to resist. Then given resistance by \( \sigma = 1 \) in this range,
\[ \tilde{\rho}(0, x_A^1) = 1. \] Therefore \( \sigma = 0 \) capitulates if and only if

\[ -(1 - (2x_A^1 - q)) - \frac{1}{2} \left( 1 - 3 \left( \frac{\gamma_A}{1 - s} \right)^2 \right) - \gamma_G < -(1 - x_A^1) - \frac{1}{2} (1 - 3\gamma_A^2). \]

Note \( q = \frac{1}{2} \) implies \( (1 - x_A^1) - (1 - (2x_A - q)) < \frac{1}{4} \) (which occurs for \( x_A^1 = \frac{3}{4} \)), and \( \gamma_A < \frac{1 - s}{6} \) implies \( \left( \frac{3s(2-s)}{2} \right) \left( \frac{\gamma_A}{1-s} \right)^2 < \frac{1}{24} \). Therefore, given that the assembly implements its ideal point when challenge succeeds, \( \sigma = 0 \) capitulates to every ideal point \( x_A^1 \geq q \) provided \( \gamma_G > \frac{7}{24} \).

**Remark 1 (The value of information to \( A \) in \( t = 2 \))**

If \( \sigma = 1 \), the value of information to \( A \) in \( t = 2 \) is \( \gamma_A|\mathcal{X}^2(s)| \). In this case, when \( A \) believes \( \tilde{s}_A = s \), it challenges with probability \( \mathcal{X}^2(s) \) in \( t = 2 \), and this costs \( \gamma_A \) with no benefit.

If \( \sigma = 0 \), the value of information is

\[ (u_A^2(x_A^2) - u_A^2(x^2|A_2 = 1, x_A^2 \in \mathcal{X}^2(0) \setminus \mathcal{X}^2(s))) - \gamma_A|\mathcal{X}^2(0) - \mathcal{X}^2(s)| \]

where \( A_2 = 1 \) denotes that \( A \) holds agenda power in \( t = 2 \). In this case, information affects \( x^2 \) in the zone where \( A \) would not challenge with beliefs \( \tilde{s}_A = s \), but would challenge when \( \tilde{s}_A = 0 \). This set is \( \mathcal{X}^2(0) \setminus \mathcal{X}^2(s) \). Outside of this set, either \( A \) does not challenge for either belief, or \( A \) challenges for both, in which case the information is not useful. Also, given \( u(x_A^2) = 0 \) and \( x^2 \geq x_A^2 \) when \( G \) proposes, the value of information in this case can be rewritten as

\[ E \left[ x^2 - x_A^2 | A_2 = 1, x_A^2 \in \mathcal{X}^2(0) \setminus \mathcal{X}^2(s) \right] - \gamma_A|\mathcal{X}^2(0) - \mathcal{X}^2(s)|. \]

Weighting these cases by \( s \) and \( 1 - s \) and invoking \( \gamma_A < \frac{1 - s}{6} \) gives

\[ v(s) = s\gamma_A|\mathcal{X}^2(s)| + (1-s) \left( E \left[ x^2 - x_A^2 | A_2 = 0, x_A^2 \in \mathcal{X}^2(0) \setminus \mathcal{X}^2(s) \right] - \gamma_A|\mathcal{X}^2(0) - \mathcal{X}^2(s)| \right) \]

\[ = s\gamma_A \left( \frac{2 - 3\gamma_A(2-s) - 2s}{2(1-s)} \right). \]

Note \( 0 < v(s) < s\gamma_A \) for \( 0 < s < 1 \), but \( v(1) = v(0) = 0 \). Further, for any \( s \), \( v(s) \to 0 \) as \( \gamma_A \to 0 \) because \( \mathcal{X}^2(s) \to \mathcal{X}^2(0) = 1 \) in this case.

The value \( v(s) \) factors into \( A \)'s first period decision as an additive benefit in case of a challenge. Therefore, the cost of challenge in \( t = 1 \) is effectively \( \gamma_A \equiv \gamma_A - v(s) > (1-s)\gamma_A \).
Lemma 6  Assume $\gamma_A \in (0, \frac{1-s}{6})$ and the weak governor capitulates to any challenge from $x_A^1 \geq q$. Let $\tilde{\gamma}_A \equiv \gamma_A - v(s)$ where $v(s)$ is the value of information about $\sigma$. Then in period 1, $A$ challenges if and only if

$$x_A^1 \in \left[q + \frac{\tilde{\gamma}_A}{1-s}, 1 - \frac{\tilde{\gamma}_A}{1-s}\right]$$

$$= \mathcal{A}^1(s)$$

and implements its ideal point whenever its challenge succeeds.

Proof: First consider $x^1 < q$. If $A$ challenges, lemma 5 implies that either both types of $G$ resist, or $A$ implements $x^1 = q$ if successful. If $A$ does not challenge, $x^1 = q$. Therefore $A$ compares

$$EU_{\chi^1=1} = u_A(q) - \gamma_A + v(s)$$

$$EU_{\chi^1=0} = u_A(q).$$

Because $v(s) < \gamma_A$, $A$ does not challenge in this range.

Second consider $q < x_A^1 < \frac{1+q}{2}$. When $G$ holds agenda power, $x^1 = 2x_A^1 - q$. Thus, $A$ compares

$$EU_{\chi^1=1} = su_A(2x_A^1 - q) + (1-s)u_A(x_A^1) - \tilde{\gamma}_A$$

$$EU_{\chi^1=0} = u_A(2x_A^1 - q).$$

$A$ will challenge if and only if $\tilde{\gamma}_A \leq (x_A^1 - q)(1-s)$ or equivalently

$$x_A^1 \in \left[q + \frac{\tilde{\gamma}_A}{1-s}, \frac{q + 1}{2}\right].$$

Third consider $\frac{q+1}{2} < x_A^1$. When $G$ holds agenda power, $x^1 = x_C = 1$. Thus, $A$ compares

$$EU_{\chi^1=1} = su_A(1) + (1-s)u_A(x_A^1) - \tilde{\gamma}_A$$

$$EU_{\chi^1=0} = u_A(1).$$
A will challenge if and only if
\[ \tilde{\gamma}_A \leq (1 - s)(1 - x^1_A) \]

or equivalently
\[ x^1_A \in \left[ \frac{1 + q}{2}, 1 - \frac{\tilde{\gamma}_A}{1 - s} \right]. \tag{8} \]

Putting together equations (7) and (8) yields the assembly’s optimal challenge strategy in lemma 6.

**Lemma 7** Assume \( \gamma_C \in \left( \bar{\gamma}_C, \overline{\gamma}_C \right) \), \( \gamma_G \in \left( \frac{1}{2}, w - \frac{1}{2} \right) \), and \( \gamma_A \in (0, \frac{1-s}{6}) \). Then C’s posterior beliefs about G’s strength and the probability A knows \( \sigma = 0 \) are

\[
\bar{s}_C = \begin{cases} 
0 & \text{if } x^1 < q \\
 s & \text{if } x^1 \in \left[ q, q + \frac{\gamma_A}{1-s} \right) \\
 \frac{s}{3-2s} & \text{if } x^1 \in \left[ q + \frac{\gamma_A}{1-s}, q + \frac{2\gamma_A}{1-s} \right) \\
 \frac{s}{2-s} & \text{if } x^1 \in \left[ q + \frac{2\gamma_A}{1-s}, 1 - \frac{\gamma_A}{1-s} \right] \\
 1 & \text{if } x^1 \in \left( 1 - \frac{\gamma_A}{1-s}, 1 \right) \\
 s' \geq s & \text{if } x^1 = 1 \end{cases}
\]

\[
\bar{s}_{CA} = \begin{cases} 
1 & \text{if } x^1 < q \\
0 & \text{if } x^1 \in \left[ q, q + \frac{\gamma_A}{1-s} \right) \\
 \frac{2}{3} & \text{if } x^1 \in \left[ q + \frac{\gamma_A}{1-s}, q + \frac{2\gamma_A}{1-s} \right) \\
 1 & \text{if } x^1 \in \left[ q + \frac{2\gamma_A}{1-s}, 1 - \frac{\gamma_A}{1-s} \right] \\
 \text{undef.} & \text{if } x^1 \in \left( 1 - \frac{\gamma_A}{1-s}, 1 \right) \\
 0 & \text{if } x^1 = 1. \end{cases}
\]

If \( \gamma_C \geq \bar{\gamma}_C \), then C retains G for any \( x^1 \geq q \).

**Proof:** To derive \( \bar{s}_C \), it is necessary to derive the distributions over \( x^1 \) for each type \( \sigma \). Given lemmas 5 and 6, policy as a function of \( x^1_A \) is

\[ x^1_A \in \left[ \frac{1 + q}{2}, 1 - \frac{\tilde{\gamma}_A}{1 - s} \right]. \]
\[ x^1(\sigma = 0) = \begin{cases} 
q & \text{if } x^1_A < q \\
2x^1_A - q & \text{if } x^1_A \in \left[ q, q + \frac{7A}{1-s} \right) \\
x^1_A & \text{if } x^1_A \in \left[ q + \frac{7A}{1-s}, 1 - \frac{7A}{1-s} \right] \\
1 & \text{if } x^1_A \in \left( 1 - \frac{7A}{1-s}, 1 \right]
\end{cases} \]

\[ x^1(\sigma = 1) = \begin{cases} 
q & \text{if } x^1_A < q \\
2x^1_A - q & \text{if } x^1_A \in \left[ q, q + \frac{q+1}{2} \right) \\
1 & \text{if } x^1_A \in \left( \frac{q+1}{2}, 1 \right].
\end{cases} \]

Given \( x^1_A \sim U[0,1] \), this induces the following CDFs over policy conditional on type:

\[ F(x^1|\sigma = 0) = \begin{cases} 
0 & \text{for } x^1 < q \\
\frac{x^1+q}{2} & \text{for } x^1 \in \left[ q, q + \frac{7A}{1-s} \right) \\
\frac{3x^1-q - \frac{7A}{1-s}}{2} & \text{for } x^1 \in \left[ q + \frac{7A}{1-s}, q + \frac{2\gamma A}{1-s} \right] \\
x^1 & \text{for } x^1 \in \left( q + \frac{2\gamma A}{1-s}, 1 - \frac{7A}{1-s} \right] \\
1 - \frac{7A}{1-s} & \text{for } x^1 \in \left( 1 - \frac{7A}{1-s}, 1 \right) \\
1 & \text{for } x^1 = 1.
\end{cases} \]

\[ F(x^1|\sigma = 1) = \begin{cases} 
0 & \text{for } x^1 < q \\
\frac{x^1+q}{2} & \text{for } x^1 \in \left[ q,\frac{q+1}{2} \right) \\
1 & \text{for } x^1 = 1.
\end{cases} \]

First consider \( F(x^1|\sigma = 0) \). Policy \( x^1 < q \) never occurs on the path of play, so \( F(x^1) = 0 \). Policy \( x^1 \in \left[ q, q + \frac{7A}{1-s} \right) \) can only occur when \( \sigma = 0 \) is not challenged, so generates \( x^1 = 2x^1_A - q \). Thus the density function of \( x^1 \) is \( f(x^1_A) \left( \frac{\partial x^1}{\partial x^1_A} \right)^{-1} = 1/2 \). Policy \( x^1 \in \left[ q + \frac{7A}{1-s}, q + \frac{2\gamma A}{1-s} \right] \) occurs for two values of \( x^1_A \) when \( \sigma = 0 \): once when \( A \) does not challenge, so \( x^1 = 2x^1_A - q \) and the density over policy is \( f(x^1) = 1/2 \); and once when \( A \) does challenge and \( G \) capitulates, so \( x^1 = x^1_A \), and the density over policy is \( f(x^1) = f(x^1_A) = 1 \). These points are equally likely, so have equal weight in the total density of \( x^1 \) in this region, which is \( f(x^1) = 3/2 \). Policy \( x^1 \in \left( q + \frac{2\gamma A}{1-s}, 1 - \frac{7A}{1-s} \right] \) occurs only when \( \sigma = 0 \) capitulates, so \( x^1 = x^1_A \) and \( f(x^1) = f(x^1_A) = 1 \). Policies \( x^1 \in \left( 1 - \frac{7A}{1-s}, 1 \right) \) never occur for \( \sigma = 0 \), and \( x^1 = 1 \) occurs whenever \( x^1_A > 1 - \frac{7A}{1-s} \).

\( F(x^1|\sigma = 1) \) is analogous but simpler. It is identical for \( x^1 < q \). For \( x^1 \in \left[ q, \frac{q+1}{2} \right), \sigma = 1 \) resisted or was unchallenged, so \( x^1 = 2x^1_A - q \) and \( f(x^1) = f(x^1_A) \left( \frac{\partial x^1}{\partial x^1_A} \right)^{-1} = 1/2 \). Finally, \( x^1 = 1 \), whenever \( x^1_A \geq \frac{q+1}{2} \).
Taking the densities from these distributions, Bayes’s theorem yields $\tilde{s}_C$ as follows:

1. For $x^1 < q$: This can only occur if $x^1_A < q$, $A$ challenges, and $G$ capitulates. This is off the PBE path in proposition 1. Therefore, $C$ must hold beliefs that lead to dismissal. Beliefs leading to retention can never be sustained at this information set because it never occurs with $\sigma = 1$.

2. For $x^1 \in [q, q + \frac{7\gamma_A}{1-s}]$: $\tilde{s}_C = \frac{s^{1/2}}{s^{1/2} + \frac{17\gamma_A}{2}} = s$.

3. For $x^1 \in \left[ q + \frac{7\gamma_A}{1-s}, q + \frac{2\gamma_A}{1-s} \right]$: $\tilde{s}_C = \frac{s^{1/2}}{s^{1/2} + \frac{17\gamma_A}{2} + (1-s)} = \frac{s}{3-2s} < s$.

4. For $x^1 \in \left( q + \frac{2\gamma_A}{1-s}, 1 - \frac{7\gamma_A}{1-s} \right)$: $\tilde{s}_C = \frac{s^{1/2}}{s^{1/2} + (1-s)} = \frac{s}{2-s} < s$.

5. For $x^1 \in \left( 1 - \frac{7\gamma_A}{1-s}, 1 \right)$: $\tilde{s}_C = \frac{s^{1/2}}{s^{1/2} + (1-s)} = 1$.

6. For $x^1 = 1$: $\tilde{s}_C = \frac{s^{1/2}}{s^{1/2} + (1-s)} > s$ because $1-q > \frac{7\gamma_A}{1-s}$.

To derive $\tilde{s}_{CA} = \Pr[\text{challenge}|x^1, \sigma = 0]$, note that $x^1 < q$ can only occur after capitulation, so $C$ knows that $A$ must know $\sigma = 0$ and $\tilde{s}_{CA} = 1$. For $x^1 \in \left( q, q + \frac{7\gamma_A}{1-s} \right)$, $C$ knows $A$ did not challenge, so does not know $\sigma$; thus $\tilde{s}_{CA} = 0$. Policies $x^1 \in \left[ q + \frac{7\gamma_A}{1-s}, q + \frac{2\gamma_A}{1-s} \right]$ occur under $\sigma = 0$ for one $x^1_A$ such that $A$ challenges, and one such that $A$ does not. $\tilde{s}_{CA} = \Pr[\text{challenge}|x^1, \sigma = 0] = \frac{f(x^1_A)}{f(x^1_A) + f(x^1)} = \frac{1}{3}$.

Policies $x^1 \in \left( q + \frac{2\gamma_A}{1-s}, 1 - \frac{7\gamma_A}{1-s} \right)$ occur under $\sigma = 0$ only after challenge, so $\tilde{s}_{CA} = 1$. Policies $x^1 \in \left( 1 - \frac{7\gamma_A}{1-s}, 1 \right)$ never occur under $\sigma = 0$, so $\tilde{s}_{CA}$ is undefined. Finally, $x^1 = 1$ never occurs after challenge for $\sigma = 0$, so $\tilde{s}_{CA} = 0$.

Finally, consider retention in light of these beliefs. $U_C(\text{retain})$ is smallest when $\tilde{s}_C = \frac{s}{3-2s}$ and $\tilde{s}_{CA} = \frac{1}{3}$. (While $\tilde{s}_{CA} = 1$ does occur on the path of play, $\tilde{s}_C = \frac{s}{2-s} > \frac{s}{3-2s}$ in this case, and $\tilde{s}_C$ has a bigger effect on $U_C(\text{retain})$ than $\tilde{s}_{CA}$.) Inserting these weights into $U_C(\text{retain})$ gives

$$U_C(\text{dismiss}) - U_C(\text{retain}) = \frac{3s(1-2s(1+2\gamma_A)+s^2)}{8(1-s)(2-s)} = \gamma_C$$

Because $U_C(\text{retain})$ is always greater for other beliefs on the path of play than for $\tilde{s}_C = \frac{s}{3-2s}$, it follows that the critical value $\gamma_C^* > \gamma_C$ in other cases. Therefore for $\gamma_C < \gamma_C$, $C$ dismisses when $\tilde{s}_C = 0$, but for $\gamma_C > \gamma_C$, never for any policy that is generated under resistance. This provides the bound used to derive $G$’s strategy in lemma 5.
**Proposition 1** Assume \( \gamma_C \in \left( \gamma_C, 1 \right) \), \( \gamma_G \in \left( \frac{1}{2}, \frac{1}{2} - \frac{1}{6} \right) \), and \( \gamma_A \in (0, \frac{1-s}{6}) \). Then in the unique threshold equilibrium, the crown retains if and only if \( x^1 \geq q \). The strong governor always resists assembly challenge, while the weak governor capitulates for \( x^1_A \geq q \). The assembly claims power for ideal points in a subset of \([q, 1]\), and enacts its ideal policy \( x^1_A \) when it does. The policy is \( x^1 \geq q \) and the governor is always retained.

**Proof:** First note that lemmas 1-6 prescribe sequentially rational pure strategies at every information set with the specified behaviors under the specified parameters, and lemma 7 identifies beliefs consistent with those strategies. Further, \( C \) retains \( G \) if and only if \( x^1 \geq q \). Thus, this is a pure strategy PBE with threshold \( x^* = q \).

Consider a threshold \( x^* < q \). Then because \( G \)'s probability of retention is non-decreasing in \( x^1 \), \( \sigma = 1 \) still resists for \( x^1_A < q \) and is retained. But then for \( x^1 < q \), \( \tilde{s}_C = 0 \) and \( G \) is dismissed. Thus, there is no threshold equilibrium with \( x^* < q \).

Consider a threshold \( x^* > q \). Define \( x^*_A \) by \( 2x_A^* - q = x_A^* \); note \( x^* > x_A^* \). Given \( \gamma_G \in \left( \frac{1}{2}, \frac{1}{2} - \frac{1}{6} \right) \), for \( x^1_A \geq x^*_A \) both types of \( G \) generate \( x^1 \geq x^* \) and are retained. But for \( q < x^1_A < x^*_A \), it is impossible to generate \( x^1 \geq x^* \). Thus type \( \sigma = 1 \) resists all challenges, generating \( x^1 = 2x^1_A - q \), while \( \sigma = 0 \) capitulates, generating \( x^1 = x^1_A \). Then for \( x^*_A < x^1 < x^* \), \( C \) believes \( \tilde{s}_C(x^1) = 1 \) and \( G \) is retained. But then it is not a PBE to dismiss for \( x^1 < x^* \). Thus, there is no threshold equilibrium with \( x^* > q \).

**Proposition 2 (Growth of Assembly Power)** Assume \( \gamma_C \in \left( \gamma_C, 1 \right) \), \( \gamma_G \in \left( \frac{1}{2}, \frac{1}{2} - \frac{1}{6} \right) \), and \( \gamma_A \in (0, \frac{1-s}{6}) \). In the threshold equilibrium, successfully claiming legislative power in period 1 causes an increase in legislative power in period 2: \( E(A_2|A_1 = 1) > E(A_1) \) and \( E(A_2|A_1 = 1) > E(A_2|A_1 = 0) \).

**Proof:** First, \( E(A_2|A_1 = 1) > E(A_1) \). Note

\[
E(A_2|A_1 = 1) = |X^2(0)| = 1 - 3\gamma_A,
\]

\[
E(A_1) = (1-s)|X^1(s)| = (1-s) \left( \frac{1}{2} - \frac{2\gamma_A}{1-s} \right)
\]

\[
< (1-s) \left( \frac{1}{2} - \frac{2(1-s)\gamma_A}{1-s} \right)
\]
so \( E(A_2|A_1 = 1) > E(A_1) \) provided \( \gamma_A < 1/2 \), which is implied by \( \gamma_A < \frac{1-s}{6} \).

Second, \( E(A_2|A_1 = 1) > E(A_2|A_1 = 0) \). Note

\[
E(A_2|A_1 = 0) = \frac{(1-s)||1 - X^1(s)||X^2(s)||}{(1-s)||1 - X^1(s)|| + s}.
\]

Thus the result holds if and only if

\[
(1-s)||1 - X^1(s)||\left(||X^2(0)|| - ||X^2(s)||\right) + s||X^2(0)|| > 0
\]

which holds for \( \gamma_A \in (0, \frac{1-s}{6}) \) because \( ||X^2(0)|| > ||X^2(s)|| > 0 \) and \( ||X^1(s)|| < 1 \).

**Historical Evidence: Other British Colonies** The initial condition necessary for assembly power growth in this model is some assembly participation in colonial policy making, especially taxation and budgeting. This condition was present in the first British empire in the New World, but not in Britain’s governance of subsequently acquired colonies. This difference explains the divergence in legislative power observed in the future US vs. other British colonies.

In the early North American colonies, the crown turned to assemblies to control governors it could not control itself (Gailmard 2017). Growth in English state capacity allowed it to select, monitor, and instruct governors much more carefully in the early 18th century, and at that time it attempted to restrain assembly powers (Bliss 1993). But it was trying to reform institutions in which assemblies already had a significant formal role.

Based on its American experience, its increased central state capacity, and crystallizing racist-nationalist ideology, Britain controlled legislative power much more tightly, and ruled through executive agencies more fully, in subsequent colonization (Bayly 1989, pp. 100-132). For instance, British India was not granted any assembly recognition until 1861, and even then, local assemblies were stacked with Britons and franchise was highly restricted. The most important comparison for my model is British Canada, where local assemblies were recognized and legislative power certainly (eventually) grew, but under a very different mechanism than highlighted in this paper, and comparatively late in its colonial history.

From 1760-1791, Canada had no assembly at all (formalized in the Quebec Act of 1774). In 1791 and for most of its subsequent colonial history, Canada was governed under the Constitution
Act, which did recognize assemblies. In Upper Canada, populated primarily by British subjects, authorities kept formal power carefully controlled in a Legislative Council, selected in consultation with the lieutenant governor. Assembly resolutions could not affect the Legislative Council’s agenda, and thus were essentially expressive. Moreover, by design, most key state institutions such as the judiciary, the executive council, the legal profession, and the Bank of Canada were not subject to legislative control at all. By these instruments, a small group of elite Upper Canadian families wielded nearly complete political power, such that legislative challenge to the lieutenant governor was beside the point (Bourinot 1901, pp. 139-155). The assembly in Upper Canada had little formal power on which to build, and legislation affected too little of the government for it to matter. Thus, institutional conservatism and British loyalism characterized the posture of political elites for decades.37

The Upper Canadian case illustrates that diffusing power outside the legislature, suppressing the legislature’s role in policy making, and de facto power sharing with local elites could forestall colonial opposition to imperial authority and obviate the challenges that underpin institutional change in the future US.38 Overall, the difference in initial conditions of the future US vs. other British colonies helps to explain the divergence in growth of legislative power in these cases.

37Property owners shut out of the family compact certainly had their grievances with it, and thus a series of major rebellions occurred in 1836-37. But the conflict was between elite families in control of all major social institutions and others broadly shut out of this control; correspondingly, the rebellions were broader and more diffuse than the question of legislative power or crown vs. colonial autonomy.

38French or Lower Canada presents an interesting contrast: here the elite dominance of society and fusion with the lieutenant governor was not as great, and assembly challenges to the lieutenant governor were more pronounced. Moreover, they unfolded on much the same lines as in the US colonies (Bourinot 1901, pp. 124-138).