You Can Vote but You Can’t Run: Suffrage Extension, Eligibility Restrictions and Democracy *

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Abstract

This paper describes a mechanism commonly used by traditional economic elites to extend suffrage without redistributing political power: candidate eligibility restrictions. These often take the form of minimum property or wealth requirements for those who want to access political office. We construct a citizen-candidate model that relates suffrage and eligibility restrictions to implemented policies, and show that an extension of suffrage may be completely offset, in terms of policy outcomes, by a simultaneous increase in eligibility requirements –a change we dub a ‘seesaw reform’– or may be inconsequential when there is a stricter requirement for office holding. We provide historical evidence of the first implication, showing that elites in the Americas –both in the United States and Latin America– in effect used seesaw reforms in the earlier stages of democratization. As for the second implication, we estimate panel fixed effects regressions to test the effects of removing property qualifications for both suffrage and office in the sample of the 13 original colonies of the United States during the period 1776-1900. We find that the extension of the franchise did not affect government spending or the composition of the political class. Yet the subsequent elimination of economic qualifications for political office increased government spending, enriched the class heterogeneity of the legislature and increased political competition.

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1 INTRODUCTION

Democratization has often been perceived as a fundamental stage in political and economic development. Early research focused on extending the right to vote, a reform that, according to theory, ought to have empowered a poorer median voter and led to increased government spending and redistribution (Meltzer and Richard, 1981; Acemoglu and Robinson, 2000). However, recent studies suggest that the characteristics of the electorate may not be the only determinant of economic and political outcomes; the identity of those who hold power may also play a major role (Chattopadhyah and Duflo, 2004; Pande, 2003; Besley et al., 2011). In this context, it is worth noting that at the beginning of the nineteenth century, when democratization took off in many countries, elites controlled the decision-making process by imposing restrictions not only on who could vote, but also on who could run as candidates. Economic qualifications for office were a widespread practice in the United States (Miller, 1900), Europe (Cotta and Best, 2004) and Latin America (Annino, 1995; Posada-Carbo, 1996; Sábató, 1999).

In fact, restrictions on who can hold office have been pervasive throughout the history of democracy. In Ancient Greece, the Athenian lower classes (the _thetes_) were allowed to participate in the assembly (the _Ekklesia_) around 600 BC, but it was not until Pericles – around 460 BC – that the _thetes_ were also allowed to hold office.\(^1\) During the French Revolution, radical deputies such as Robespierre voted against the 1791 constitution because it conceded universal male suffrage but at the same time imposed severe economic restrictions on other political rights such as eligibility to run for office. And in a very recent example, the massive protests in the streets of Hong Kong in 2014 – the “Umbrella Revolution” – were ignited by the Chinese Communist Party’s decision to grant voting rights to Hong Kong’s citizens while keeping control over the pool of candidates that can participate in elections.\(^2\)

This paper studies democratization by bringing together suffrage and candidate eligibility

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\(^1\)We thank David Stasavage for suggesting this example.  
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restrictions. We construct a simple theoretical model to study the interplay between both
types of restrictions. The model establishes that an extension of suffrage may be completely
offset, in terms of policy outcomes, by a simultaneous increase in eligibility requirements, or
may be inconsequential when there are pre-existing stricter requirements for holding office.
Our theory does not minimize the importance of extending the franchise in the process
of democratization, but highlights the fact that universal suffrage is a necessary but not
sufficient condition for redistributing power away from the elite.

More concretely, we build on the citizen-candidate model (Osborne and Slivinski, 1996;
Besley and Coate, 1997) by adding both a suffrage and an eligibility restriction. These
restrictions imply that there exists an income threshold for voting, and a different income
threshold, typically higher, for running for office. As in standard citizen-candidate models,
candidates cannot commit to a policy platform. Hence, the only credible platform is their
own preferred policy. The key player in this polity turns out to be the decisive citizen, which
is either the median of the constituency – when this citizen is eligible – or the minimum-
income citizen who is allowed to run – when the constituency’s median citizen does not meet
the eligibility threshold. We show that there is always an equilibrium at which the decisive
citizen is elected. On the one hand, the constituency median could run undefeated when
allowed to run as a candidate; on the other hand, when the median is not eligible, the closest
to the median among those entitled to run would defeat any other eligible potential opponent.
We show that there are also equilibria at which a citizen sufficiently close to the decisive
citizen could run uncontested, or at which two candidates symmetrically located around the
decisive citizen run for office. A common thread is that all these equilibria gravitate toward
the decisive citizen.

A first implication of this analysis is that eligibility requirements can be used to counteract
any suffrage reform. Even though extending the right to vote would lead to a poorer median
voter, the decisive citizen may not change if the eligibility constraint accordingly moves in
the opposite direction at the same time. Following Acemoglu et al. (2008), we dub this
type of change “seesaw reforms”. This raises the question: did nineteenth-century elites use seesaw reforms to pander to popular demands for change while guaranteeing persistence in their economic and political ascendancy? We provide detailed historical evidence illustrating that seesaw reforms were repeatedly implemented by political elites in the Americas. We examine episodes of constitutional and electoral change in both the United States and Latin America to show that, in many instances, reforms moved in opposite directions along our two dimensions of interest. In particular, several U.S. states extended suffrage by lowering economic requirements for voting, while at the same time putting in place more stringent property requirements for candidates. The opposite occurred in several countries in Latin America: eligibility restrictions were reduced while suffrage was curtailed. In both cases, elites seem to have used seesaw reforms strategically to retain political control.

The second implication of our theory is that when reforms of suffrage and eligibility requirements are sequential, the effect of the first reform on equilibrium policy is ambiguous, yet we should observe a change in policies following the second reform. In particular, when eligibility restrictions bind (i.e., when the constituency’s median citizen is not allowed to run), extending suffrage has no impact on which policies are implemented, as the decisive citizen does not change. However, lifting binding eligibility requirements pushes the decisive citizen to the left, leading to more redistributive policies through the emergence of politicians who are less wealthy. A direct implication is that, in the presence of stringent eligibility restrictions, major increases in redistributive policies may not follow directly after suffrage extensions, but only once the requirements to run as a candidate are softened.

The 13 original colonies of the United States represent an ideal testing ground for our theory. After the American Revolution, state constitutions put in place some form of property requirement for both suffrage and candidate eligibility. Typically, property qualifications for office were much stricter than requirements for voting, in the sense that candidates had to own significantly more property than voters. These restrictions were gradually eliminated during the nineteenth century, as depicted in Figure 1.
The upper line illustrates the extension of the right to vote in the 13 U.S. colonies. Voting enfranchisement enjoyed considerable momentum after the American Revolution. By the end of the 1820s, almost 80 percent of the original states had implemented universal suffrage. However, the removal of eligibility restrictions for running for office, indicated by the bottom line, did not occur until after the Jackson administration in the early 1840s. In fact, 10 out of 13 states abolished suffrage and eligibility restrictions sequentially; the remaining 3 (Pennsylvania, Virginia and Rhode Island) did so simultaneously. As such, the voting franchise was generally extended before strict economic restrictions on running for office were lifted.

We can thus use the 13 original U.S. colonies to test some of the predictions of our model, given the variation in the timing of reforms across states, as well as data availability on various policy and electoral outcomes (which are very hard to find for other countries during this period). We estimate panel data regressions using state-fixed effects and state-specific time trends to test the effect of removing property restrictions on suffrage and candidate eligibility during 1788-1900 on various policy outcomes. First, our results provide evidence of a positive effect of eliminating candidate eligibility requirements on government size, as measured by state expenditure per capita. We show that this result is driven by an increase in the social components of spending, such as welfare and education. By contrast, the effects of suffrage extension on all of these variables are ambiguous.

Next, we use biographical and census data for different samples of state senators to show that eliminating eligibility requirements led to the election of a more diverse – less elite – set of state senators as measured by variables such as education, occupation, real estate wealth and previous relatives in office (dynastic status). We also show that eliminating eligibility requirements led to an increase in political competition as measured by the number of candidates running and the margin of victory in gubernatorial races.
Our empirical results must be interpreted cautiously, as the timing of suffrage and eligibility reforms was not exogenous, and may confound the effect of other time-varying state characteristics. However, all of our empirical evidence is consistent with the basic predictions of our model: where there are strict eligibility requirements, extending the right to vote does not affect policy outcomes unless eligibility restrictions are also removed. Once eligibility restrictions are removed, the decisive citizen (politician) becomes poorer, which leads to the adoption of more redistributive policies – as captured by increased government spending on welfare and education. The fact that we find an effect not only on government spending but also on the elite background of elected politicians and on political competition, gives us further confidence that our estimates capture the effect of eligibility reforms and not of other potential confounding variables.

In the next section we describe the related literature. In Section 3 we present the theory, while in Section 4 we explore the implications of the model. In Section 5 we provide historical evidence on seesaw reforms in the Americas. Sections 6 and 7 provide quantitative evidence of the effect of removing qualifications for office using panel data for the 13 U.S. colonies. Section 8 concludes.

2 RELATED LITERATURE

This paper aims to bridge the literatures on extending suffrage and access to political office (Besley, 2005). A prolific body of work has explored the determinants of the expansion of suffrage in the context of the Downsian paradigm (Meltzer and Richard, 1981; Acemoglu and Robinson, 2000; Bourguignon and Verdier (2000), Llavador and Oxoby (2005) and Gradsterin (2007). According to this approach, electoral competition induces candidates to implement the median voter’s preferred policy (Downs, 1957), even when candidates may themselves be policy motivated (Wittman, 1977; Calvert, 1985). Other authors, including Lizzeri and Persico (2004) and Galor et al. (2009), use alternatives to the median voter model, but their
mechanisms do not address the role of restrictions on running for office. Indeed, most (if not all) of the literature on suffrage democratization assumes that the identity of the politician is irrelevant. As far as we can tell, our work is the first attempt to study democratization as a process that includes both the extension of suffrage and the access to political office.

A separate literature has emphasized the role of candidate selection – and, more specifically, politician characteristics – on implemented policies. For instance, McGuire and Ohsfeldt (1989) provide convincing evidence that the delegates who drafted the U.S. constitution at the Federal Convention of 1787 voted according to their personal economic interests. The recent works by Pande (2003), Chattopadhyah and Duflo (2004) and Besley et al. (2011) study the importance of the race, gender and education of the political class, respectively, on a variety of economic outcomes.

Two recent papers discuss the relationship between extending the right to vote and politicians’ socio-economic backgrounds. Larcinese (2014) studies the political consequences of introducing quasi-universal suffrage in Italy in 1912 and concludes that it did not affect the parliamentary representation of the aristocracy and traditional elites. Likewise, Berlinski et al. (2014), using evidence from the Second Reform Act in the UK in 1867, shows that this reform extended the franchise but it had no causal effect on the political representation of the British aristocracy in parliament. These findings are consistent with the predictions of our model and our empirical evidence on the socio-economic identity of U.S. politicians. However, we extend the analysis to include both suffrage and candidate eligibility reforms to show that the second type of reform mattered for political selection.

Our paper also builds on and contributes to the literature on persistence and institutional change. It is generally acknowledged that nineteenth-century elites maintained their power even in the face of democratic reforms (DalBo et al., 2009; Querubin, 2012; Acemoglu et al., 2013). Acemoglu and Robinson (2008) suggest that ruling elites may have extended their de jure power via institutional reforms, but that they managed to maintain control in practice as a result of their de facto economic dominance. The more recent work by Dippel (2014) and
Bertocchi and Arcangelo (2014) provides evidence to support this argument. In this paper we explore a complementary explanation. By leveraging institutions that regulated candidate eligibility, elites may have extended the suffrage without any real transfer of political power. Following the terminology in Acemoglu and Robinson (2008), elites were able to fully offset one *de jure* reform using another *de jure* reform.

Finally, our work is related to the empirical literature that studies the relationship between extending the franchise and government spending. We note that the results regarding the consequences of suffrage extension are, at the very least, inconclusive. Peltzman (1980) finds no effect for a cross-section of countries. Husted and Kenny (1997) show that extending the franchise in the United States led to a sharp increase in welfare spending but had no effect on other policy items, but Aïdt et al. (2006) finds the opposite result in a cross-section of European countries. In recent works, Naidu (2012) finds significant political and economic effects of the 19th century disenfranchisement of black citizens in the U.S. South, while Falch et al. (2014) find null causal effects for Norwegian municipalities. Our work provides a simple explanation of the lack of consistency in this empirical relationship.

3 THEORY

We build on the “citizen-candidate” model (Osborne and Slivinski, 1996; Besley and Coate, 1997), in which politicians’ identity is key to achieving policy credibility. We analyze the set of policy outcomes that arises as the result of political competition that takes place in the context of a constitutional design that establishes suffrage restrictions and candidate eligibility requirements. We use the model to evaluate the theoretical consequences of removing these constitutional restrictions.
### 3.1 Preferences

The polity consists of a continuum of citizens of mass one endowed with heterogeneous income $y$, which is distributed over the interval $[0, +\infty)$ according to a distribution $F$ with a density $f$. For analytical simplicity, we assume that $F$ is continuous and strictly increasing. Hence, any truncated distribution with density \( f(\cdot) \frac{1}{1-F(y)} \) with support in $[y, +\infty)$, $y > 0$, has a unique median, which we denote by $m(y)$. We let $\mu$ denote the mean income of the population.

The citizenry has to decide on a proportional income tax $\tau \in [-1, 1]$ in order to subsidize a redistributive transfer to individuals.\(^3\) We assume that redistribution entails a deadweight loss of $\mu \tau^2/2$.\(^4\) The resulting indirect utility function of an individual with pre-tax income $y$ given tax $\tau$ is given by:

\[
V(y, \tau) = y \cdot (1 - \tau) + \mu \cdot (\tau - \tau^2/2).
\]

It follows that citizens’ preferences for tax rates are single peaked, with bliss points given by:

\[
\tau(y) = 1 - y/\mu.
\]

A tax $\tau > 0$ has a straightforward interpretation. An amount $\tau y$ is raised from a citizen with income $y$ to finance a lump-sum transfer of $\mu \cdot (\tau - \tau^2/2)$ to each and every citizen. If $\tau < 0$, then each citizen is taxed a lump-sum amount $\tau \mu$ that is used to issue a transfer $\tau y - \mu \tau^2/2$ to an individual with income $y$. Therefore, while positive taxation constitutes a transfer from the rich to the poor, negative taxes would cause the rich to obtain positive net transfers. Hence, all citizens with income below society’s mean prefer positive taxation,

\(^3\)We explain the meaning of a negative tax below, right after introducing individuals’ indirect utility functions. The assumption that taxes may be negative is made to avoid truncations in citizens’ indirect preferences for taxation. All qualitative results carry over to the case where $\tau$ is constrained to be non-negative.

\(^4\)We have chosen this particular specification of the deadweight loss for exposition purposes. All results hold for any increasing and convex function, as long as the deadweight loss for low levels of taxation is sufficiently small.
whereas individuals with a pre-tax income above the mean prefer a negative tax.

3.2 The Constitution: Suffrage and Candidate Eligibility

The polity chooses its representatives through elections. The constitution \( \Omega = (y_S, y_O) \) specifies both suffrage restrictions \( y_S \) and candidate (office) eligibility restrictions \( y_O \). The constituency is formed by citizens with income \( y \geq y_S \), that is, only individuals with income above \( y_S \) have the right to vote. Clearly, universal suffrage corresponds to \( y_S = 0 \). Similarly, the constitution establishes that only citizens with \( y \geq y_O \) are eligible to run for office.

3.3 Political Competition

The political process consists of two strategic stages and a payoff realization stage. At stage 1, any individual who meets the candidate threshold \( y_O \) may run for office. Entering the political race entails a cost \( c > 0 \) for the candidate. At stage 2, citizens with an income \( y \geq y_S \) cast their votes for one of the candidates running for office. Voting is costless, and is assumed to be sincere whenever strategic choices of votes may be relevant. In case voters are indifferent among a given number of candidates, we assume that an equal split of the indifferent voters casts their ballots for each candidate.

After elections have taken place, the candidate with the highest number of votes is proclaimed the winner. If there is a tie, a balanced die is rolled to determine the winner from among the tying candidates. Finally, the winner implements a policy of her choice. As is usual in citizen-candidate set-ups, policy promises are not binding. Consequently, any winning candidate implements her preferred tax rate. In addition, the winning candidate gets a payoff of \( b \geq 0 \) as her spoils of office. At the end of this political competition game, each citizen enjoys their corresponding utility, given their income and the tax rate chosen by the elected candidate. An anarchical society, in which no citizen runs, entails a payoff of \(-\infty\) for each citizen.

If the spoils of office were significantly larger than the cost of running, we would have
several candidates with the same preferences running for election simultaneously. For instance, for $b = nc$, for some integer $n$, and no suffrage restriction or eligibility qualifications, a number $n$ of median-voter citizens running for office constitutes an equilibrium. In order to reduce the number of cases to consider and to simplify our exposition, we impose the following:

Assumption 1.

$$b < 2c.$$ 

3.4 Equilibrium

In this section, we evaluate a scenario in which eligible candidates are members of society with an income $y \geq y_O$. Each citizen can choose whether to run for office. The payoff for a citizen with income $y$, when a candidate with ideal policy $\tau^*$ is elected, is $1_b \cdot b - 1_c \cdot c + V(y, \tau^*)$, where $1_c$ and $1_b$ are indicator functions taking a value of 1 if the citizen runs for office and wins the election, respectively, and a value of 0 otherwise.

The key player in this electoral competition game is the decisive citizen $\hat{y}$, who we define as $\hat{y} \equiv \max \{y_O, m(y_S)\}$. If the median of the constituency $m(y_S)$ meets the eligibility threshold $y_O$ (that is, if $m(y_S) \geq y_O$), then the median would be the decisive citizen, that is $\hat{y} = m(y_S)$. Although electoral competition may lead to non-median policies, the median of the constituency would be decisive, in the sense that she could run for office and defeat any other candidate. If the median did not meet the eligibility threshold, that is if $m(y_S) < y_O$, the decisive citizen would simply be the closest individual to the median among the set of eligible citizens, that is $\hat{y} = y_O$.

For a detailed description of the equilibria for $b \geq 2c$ and no suffrage or eligibility restrictions, see Osborne and Slivinski (1996).
We solve for the Nash equilibria of this game. Propositions 1 and 2 characterize the equilibria involving one and two candidates, respectively. Equilibria in which three or more candidates run for office do not exist.⁶ All the proofs are in the Appendix.

**Proposition 1. (One-candidate equilibria)**

An equilibrium with a candidate $y^*$ running for office exists. Define citizen $y^O_{\text{sup}} \equiv y_O + \sqrt{2\mu (c-b)}$, citizen $m_{\text{sup}}(y_O) \equiv \frac{1}{2} (y_O + y^O_{\text{sup}})$, and denote the income distance between citizens $y^O_{\text{sup}}$ and $m_{\text{sup}}$ as $t^* \equiv m_{\text{sup}}(y_O) - y_O = \frac{1}{2} \sqrt{2\mu (c-b)}$. Then: (i) if $c \leq b$, we have that $y^* = \hat{y}$; (ii) if $c > b$ and $m(y_S) \leq m_{\text{sup}}$, then $y^* \in [y_O, y^O_{\text{sup}}]$; (iii) if $c > b$ and $m(y_S) > m_{\text{sup}}(y_O)$, then $y^* \in [m(y_S) - t^*, m(y_S) + t^*]$.

The following corollary is an immediate consequence of Proposition 1.

**Corollary 1. (Decisive citizen)**

There is always an equilibrium in which the decisive citizen’s preferred policy $\tau(\hat{y})$ is implemented.

In order to get the intuition for Proposition 1, first consider the case in which $c \leq b$. In this case, the perks of office exceed the cost of running as a candidate. Hence, any citizen would be willing to run if he were guaranteed a victory. If $m(y_S) \geq y_O$, then the median voter could run and secure office. If, on the contrary, $m(y_S) < y_O$, the median voter could not run for office. However, a citizen with income $y_O$, the closest to the median within the pool of possible candidates, could run and defeat any opponent. Hence, the only citizen who would run is the decisive citizen $\hat{y}$, whether she is the median of the constituency or the least-income eligible citizen.

Consider now the case where $c > b$, that is, when the cost of running exceeds the benefits of office. We first argue that the decisive citizen $\hat{y}$ running for office constitutes a single-candidate equilibrium. Clearly, the decisive citizen $\hat{y}$ would win an election against any

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⁶The non-existence of many-candidates equilibria is a consequence of Assumption 1.
opponent. Also, leaving the electoral race would entail an infinite loss to the decisive citizen. Hence, \( \hat{y} \) belongs to the set of one-candidate equilibria.

In order to get intuition on the role of eligibility requirements in determining the types of equilibria that may arise, consider a case in which the median voter of the constituency cannot run as a candidate, that is, when \( m(y_S) < y_O \). In this situation, a citizen \( y_O \) could win the election against any other citizen, for this is the closest citizen to the median. Nonetheless, other candidates may also run uncontested. In particular, \( y_O \) would not be willing to enter an electoral race against any candidate with income \( y \in [y_O, y_{\sup}] \), for the policy gains of defeating such a candidate would be lower than the cost of running, even when taking into account the perks of winning office. This is true for all citizens in the set \( [y_O, y_{\sup}] \), as their payoff incentives to run against any other member of the set are strictly lower than those of \( y_O \). Hence, any citizen in the set \( [y_O, y_{\sup}] \) may be a sole candidate in equilibrium. We have defined \( y_{\sup} \) such that \( y_O \) would be willing to compete against any candidate with income \( y > y_{\sup} \), which completes the characterization of the equilibrium set.

Let us move now to the case in which the set of eligible candidates includes the median of the constituency. There is still a role for the eligibility constraint when this requirement is not too loose. Consider the case in which \( y_O \leq m(y_S) \leq m_{\sup}(y_O) \) and observe that \( y_O \) could be defeated by any citizen in the set \( (y_O, 2m(y_S) - y_O) \). By construction of \( m_{\sup}(y_O) \), no such citizen would enjoy a sufficiently high policy gain to run against \( y_O \) or \( y_{\sup} \), since \((y_O, 2m(y_S) - y_O) \subset [y_O, y_{\sup}]\). Hence, even when the median of the constituency could run as a candidate, the set of equilibrium candidates is given by \([y_O, y_{\sup}]\), and hence is completely determined by the eligibility restriction \( y_O \).

The last case to consider is one in which the eligibility requirement plays no role at all. When \( m(y_S) > m_{\sup}(y_O) \), \( y_O \) can no longer be an equilibrium candidate. A citizen with income \( y' = m(y_S) + t^* \) would find it profitable to run against \( y_O \), for the policy gain from defeating such a distant contestant would more than compensate for the net cost of running as a candidate. Moreover, the median of the constituency would prefer \( y' \), as this citizen is
closer to her in the policy space. Hence, the equilibrium set is determined by an interval around the median of the constituency, which is characterized by the fact that the citizens at the extremes of the interval would be willing to stay away from an electoral race in which the citizen at the other extreme was running uncontested, but would be strictly willing to run against any citizen located further away.

We now turn to the analysis of equilibria with more than one candidate. The following proposition characterizes such equilibria.

**Proposition 2. Two-candidate equilibria**

For any \( t > 0 \), define \( y'(t) \) implicitly as the unique value satisfying
\[
F\left( \frac{m(y_S) - t + y'(t)}{2} \right) = 1 - F\left( \frac{m(y_S) + t + y'(t)}{2} \right),
\]
and also define \( \tilde{t} \) implicitly as the unique value satisfying
\[
F\left( \frac{m - \tilde{t} + y'(t)}{2} \right) = \frac{1}{3} = 1 - F\left( \frac{m + \tilde{t} + y'(t)}{2} \right).
\]
In addition, define the threshold \( t^* \equiv \frac{1}{2} \sqrt{2 \mu (2c - b)} \). Then, there exists a two-candidate equilibrium if and only if
\[
F\left( \frac{m - t + y'(t)}{2} \right) \geq \frac{1}{3} \quad \text{and} \quad y_O \leq m(y_S) - t.
\]
A two-candidate equilibrium entails citizens \( y^*_l = m(y_S) - t \) and \( y^*_r = m(y_S) + t \) running for office, for any \( t \in T \). If \( y_O \leq m(y_S) - \tilde{t} \), then \( T \equiv [t, \tilde{t}] \). If \( m(y_S) - \tilde{t} < y_O \), then \( T \equiv [\tilde{t}, m(y_S) - y_O] \).

In contrast to the Downsian paradigm, any two-candidate equilibrium entails some policy divergence among candidates.\(^7\) This equilibrium property can be noticed at a glance in the expression for any two contesting candidates \( y^*_l \) and \( y^*_r \), who must be \( t \) units to the left and right of the median of the constituency, respectively. Notice that, by constructing the equilibrium, we have that \( t \geq \tilde{t} > 0 \). The reason for this divergence can be best understood by comparing the expected benefit of running against a candidate who has the same bliss policy as oneself. Since both candidates would implement the same policy if they won, the expected gain from defeating an opponent would simply be \( \frac{b}{2} - c \), since running as a candidate would entail a cost of \( c \) and a benefit of \( b \) in the \( \frac{1}{2} \)-chance event that she wins.

\(^7\)This insight was set forth by Osborne and Slivinski (1996).
The same logic applies to candidates who are very close to each other. Hence, in any two-candidate equilibrium, the contestant citizens must be sufficiently far away from each other. The threshold $t$ guarantees that the expected policy gain from running against a certain candidate is large enough to justify the cost of running. Notice that $t$ is increasing in $c$ and decreasing in $b$: the more costly it is to run as a candidate, and the less profitable the perks of office, the larger the minimum necessary distance between candidates.

Also, candidates must be symmetrically located around the median of the constituency in equilibrium. We show in the Appendix that any citizen $y$ would be indifferent between the policies that would be implemented by any two candidates $y_l$ and $y_r$ if and only if $y = \frac{y_l + y_r}{2}$. Hence, any two candidates must be symmetrically located around the median of the constituency, as otherwise the one closest to the median would win for certain. Notice that, since the cost of running $c$ is strictly positive, any citizen running as a candidate must have an \textit{ex ante} positive probability of winning.

Candidates cannot be too distant, either. If they were further apart than $\bar{t}$ from the median of the constituency, a citizen with an income between $y_l^*$ and $y_r^*$ would have an incentive to enter the race and implement his favorite policy.

The constitutional qualifications for office $y_O$ set an additional limit on the largest possible distance between any two candidates. The minimum income that a candidate may have is precisely $y_O$, so the maximum distance between the median and any candidate is additionally bounded by $m(y_S) - y_O$ when the eligibility constraint binds.

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8This property greatly simplifies the analysis, as we can indistinctly work on the space of income or on the policy space. This particular characteristic is inherited from the preference structure that we assume, and does not hold in general. However, all qualitative results would hold for any single-peaked preferences, although different specifications would lead to more cumbersome characterizations of thresholds.
4 THEORETICAL IMPLICATIONS

The model offers several implications regarding the effects of extending suffrage and relaxing candidate eligibility requirements. Figure 2 presents the space of constitutions as pairs \( \Omega = (y_S, y_O) \) in the Euclidean plane.

*** FIGURE 2 HERE ****

The constituency median-voter mapping, \( m(y_S) \), is a strictly increasing function of \( y_S \), with an intercept at \( m \), the unrestricted median. This mapping divides the constitutional space into two exhaustive and mutually exclusive sets.

We label the upper contour set of \( m(y_S) \) the eligibility-restriction set. By construction, for any given constitution \( \Omega' = (y'_S, y'_O) \) in the eligibility-restriction set, the decisive citizen \( \hat{y}' = \max \{y'_O, m(y'_S)\} \) is determined by the eligibility restriction, that is, \( \hat{y}' = y'_O \). Similarly, we label the lower contour set of \( m(y_S) \) the suffrage-restriction set. For any constitution \( \Omega'' = (y''_S, y''_O) \) in the suffrage-restriction set, the decisive citizen is determined by the suffrage restriction, namely \( \hat{y}'' = m(y''_S) \).

We draw an isodecisive line as the loci of constitutions with the same decisive citizen \( \hat{y} \). To draw an isodecisive line, one can start from any constitution \( \Omega = (y_S, y_O) \) on the constituency median-voter mapping \( m(y_S) \). By construction, the decisive citizen is given by \( \hat{y} = y_O = m(y_S) \). On the one hand, the horizontal line on the eligibility-restriction set passing through \( \Omega \) corresponds to the set of constitutions \( \Omega' = (y'_S, y_O) \) with the same eligibility restriction \( y_O \) as \( \Omega \). Hence, all these constitutions have the same decisive citizen \( \hat{y} = y_O \) as \( \Omega \), and are on the same isodecisive line. Conversely, any constitution in the

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9The model delivers multiplicity of equilibria, which makes it impossible to make determinate predictions about policy without selecting one equilibrium from among the set of equilibria. While we make no attempt to single out any particular equilibrium, in this section we focus on the decisive citizen \( \hat{y} \) as a focal point in the sense of Schelling (1980) and analyze the implications of a change in the restrictions by assessing its effect on determining this decisive citizen. Notice that the decisive citizen is the unique equilibrium when \( c \leq b \), and that the set of equilibria when \( c > b \) is determined by the decisive citizen as the citizens who are so close to her that she is not willing to run against them. Moreover, the expected policy in any two-candidate equilibria is the decisive citizen’s bliss policy.
eligibility-restriction set with \( y'_O \neq y_O \) is such that the decisive citizen \( \hat{y} = y'_O \) is different, so that it must belong to another isodcisive line. On the other hand, the vertical line on the suffrage-restriction set passing through \( \Omega \) corresponds to the set of constitutions \( \Omega'' = (y_S, y''_O) \) with the same suffrage restriction \( y_S \) as in \( \Omega \), and therefore lie on the same isodcisive line. Clearly, any other constitution in the suffrage-restriction set belongs to another isodcisive line. Hence, the isodcisive line map is given by inverted L-shaped lines intersected by the constituency median voter mapping.

4.1 Seesaw Reforms

The nineteenth century was characterized worldwide by a substantial number of constitutional reforms that modified both the suffrage requirement and the eligibility restrictions. Our model addresses the question of whether these changes influenced policies. Of particular interest are reforms that altered requirements in opposite directions. In order to illustrate this idea, consider a constitution \( \Omega'' = (y''_S, y''_O) \) in the suffrage-restriction set, as depicted in Figure 2, so that the decisive citizen is given by \( \hat{y}'' = m(y''_S) \). Now, suppose that social pressure to lift suffrage restrictions makes a constitutional reform including universal enfranchisement desirable. The constitutional order may be changed to \( \Omega''' = (y'''_S = 0, y'''_O = m(y''_S)) \), enlarging the electorate to include the entire population, yet leaving the decisive citizen unchanged. Following Acemoglu et al. (2008), we define seesaw reforms as constitutional changes in which \( y_S \) and \( y_O \) move in opposite directions. Such reforms provide institutional change and policy persistence at the same time. For instance, larger portions of the population may be enfranchised at the same time that stricter requirements to run for office are introduced. Alternatively, the removal of eligibility restrictions could be entirely offset by a simultaneous curtailment of voting rights.

Did nineteenth-century elites use seesaw reforms to accede to institutional reform without threatening their political and economic ascendancy? We turn to this question in Section 5, where we examine episodes of constitutional and electoral change in both the United States
and Latin America and show that, in many instances, reforms moved in opposite directions along the two dimensions of interest: suffrage and candidate eligibility requirements.

4.2 Sequential Elimination of Suffrage and Eligibility Requirements

Restrictions on political enfranchisement and eligibility were ultimately lifted by the end of the nineteenth century in the United States, as illustrated in Figure 1. That said, the sequencing of these reforms may have mattered. Constitutional reforms were typically sequential, beginning with extensions of the franchise and only later followed up by the elimination of eligibility requirements.

Returning to Figure 2, observe that for any constitution in the eligibility-restriction set, eligibility restrictions are binding (and thus determine the decisive citizen). Hence, relaxing eligibility requirements would result in a less wealthy decisive citizen. Yet starting from a constitution in the eligibility-restriction set, extending the suffrage would be inconsequential, because median voter policies would be precluded from implementation by restrictions on the set of potential candidates. A result of our model, given a sequential implementation of reforms, is that removing suffrage restrictions may be irrelevant for policy, while relaxing eligibility requirements should lead to more redistributive policies through the emergence of politicians who are less wealthy.

*** FIGURE 3 HERE ****

To illustrate this, consider a sequential reform of the constitution $\Omega^0 = (y_S^0, y_O^0)$, depicted in the eligibility-restriction set in Figure 3. We assume that $\Omega^0$ is located within the eligibility-restriction set because the majority of nineteenth century U.S. state constitutions had much more stringent restrictions on who could run for office than on who could vote.
In the first stage, a constitutional reform would consist of removing all restrictions on voting, that is, $\Omega^1 = (y^1_S = 0, y^1_O = y^0_O)$. Eligibility restrictions would then be lifted in the second stage, so that $\Omega^2 = (y^2_S = 0, y^2_O = 0)$. While the second-stage reform changes the constituency median from $m(y_S)$ to $m$, the move from $\Omega^0$ to $\Omega^1$, which lies on the same isodecisive line, leaves the decisive citizen unchanged: $\hat{y}^1 = \hat{y}^0 = y^0_O$. Only when restrictions on eligibility are lifted does the median voter of the society as a whole become the decisive citizen.

The United States is an ideal setting in which to test these implications. As depicted in Figure 1, 10 out of 13 states abolished suffrage and eligibility restrictions sequentially, while 3 (Pennsylvania, Virginia and Rhode Island) did so simultaneously. In Sections 6 and 7 we provide empirical evidence of the effect of sequential reforms on both the identity of the legislators and economic policies.

Our model also has implications for the extent of electoral competition. A two-candidate equilibrium only arises when eligibility restrictions are not binding. Hence, one should expect that relaxing qualifications for office may have caused fewer elections to be decided by races in which only one candidate ran. Moreover, eliminating these restrictions opens the door for a more polarized contested election between two candidates $\{y^*_l, y^*_r\}$, to the left and right of the median of the constituency, as described in Proposition 2.

In Subsection 7.3, we test the effect of suffrage and eligibility reforms on political competition, namely the number of candidates and the margin of victory, for our sample of U.S. states.

5 HISTORICAL EVIDENCE

Polities in the Americas, including all the states in the United States, implemented a variety of qualifications for both office and suffrage after independence. The restrictions included requirements on property, income, residence, race, religion, education and gender.
We focus here on property and wealth requirements for white adult males.

5.1 Seesaw Reforms in the United States

From 1691 onwards, every colony stipulated property requirements for both voting and running for office. At first, the requirement for both suffrage and eligibility was a simple freehold. More specific requirements regarding the value and location of the freehold were later prescribed. The most common restriction in the late seventeenth century was a freehold valued at £40 or yielding an income of 40 shillings per year. Only three colonies had a marked difference in the amounts required to run for office vs. vote. South Carolina and New Jersey required £1,000 for members of the assembly, while New Hampshire required £300. These provisions were upheld in all of the colonies until the revolution.

The American Revolution brought a modest improvement in the right to vote, although in more than one-third of the states, colonial restrictions on suffrage remained in force. Overall, the proportion of adult white men that could vote in 1787 was higher than it had been in 1767. On the other hand, qualifications for office became more stringent. The first state constitutions, adopted between 1776 and 1790, specified detailed candidate eligibility restrictions. Property requirements were typically increased and extended to other public offices that had not been restricted under colonial rule.

The first American state constitutions can therefore be seen as examples of so-called seesaw reforms, which modified suffrage and eligibility restrictions in opposite directions. The birth of the nation was a moment of great uncertainty, and it seems reasonable that the elite, in spite of their democratic aspirations, maintained some strategic control over political power. According to Charles and Mary Beard, “special qualifications, laid down in several

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10The more complete description of suffrage rules is from Keyssar (2000). Other relevant works include Porter (1918), McGovney (1949) and Williamson (1960). The main source of information on candidate eligibility requirements is Miller (1900).
11Miller (1900) p 97.
12Miller (1900) p 96.
13Keyssar (2000)
14Miller (1900) p 105.
constitutions, for governors, senators, and representatives, indicated that the revolutionary leaders were not prepared for any radical experiments in democracy”.  

J.R. Pole writes that the ruling class was “prepared to extend the suffrage when it suited their interest to do so, in the 1760’s, but refused to take the same step when it would have opened the question of political power, a generation later”.

The three leading states in abolishing property requirements for the franchise in the late nineteenth century – New Hampshire, Delaware and Georgia – better illustrate the workings of seesaw reforms. In 1776, New Hampshire’s first constitution imposed a freehold requirement for both suffrage and legislative offices (senator and representative). In 1784 it revised its original constitution, which had only been an outline, and changed restrictions in a seesaw fashion. The rather high property requirement for suffrage was abolished and replaced with a poll tax requirement. At the same time, property requirements were imposed for senators and representatives, with a minimum of £200 and £100, respectively. A higher property of £500 was required for governors, delegates to the congress and counselors. In 1792 New Hampshire eliminated the poll tax, but property restrictions for representatives prevailed until the middle of the next century.

Delaware, in 1776, required a freehold of 50 acres of land for suffrage and legislative offices. It revised its original constitution in 1792, abolishing the property requirement for suffrage while increasing the property qualification for senators to 500 acres or £1,000. For representatives, the requirement remained the same.

In 1777, Georgia’s first constitution indicated that suffrage rights were reserved for citizens who “possessed in his own right of 10 pounds value, and liable to pay tax in this state, or being of any mechanic trade,” while citizens running for representative required 250 acres or £250 in wealth. In 1789, Georgia revised its constitution. First, property requirements for suffrage were abolished and replaced with a poll tax that remained in place until

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15Beard and Beard (1921) p 110.
16Pole (1962) p 637
17Keyssar (2000), p 306
1798. Second, the new constitution imposed eligibility restrictions for governor (500 acres and £1,000) and senator (equal to 250 acres or £250).

Were these restrictions binding? A gross estimate for all the colonies is that about 50 per cent of the adult white male population was voting.\(^{18}\) Hence eligibility restrictions needed to exclude everyone except the 25 per cent of the richer adult male population in order to be binding. Data on the distribution of property after independence indicate that 30 per cent of the white male population had £500 or more.\(^{19}\) Given that the typical requirement for senators and governors was higher than that,\(^{20}\) we can infer that eligibility restrictions were indeed binding, so that access to these offices was limited to the very rich. For representatives, it seems that the qualifications were less stringent.

As for the consequences of these restrictions, we observe that reforms put in place soon after the revolution had a varying impact on the average wealth of those in office. Before the revolution, state representatives were fairly rich. About 80 per cent of the representatives were significantly wealthy (with property worth over £2,000), and indeed 40 per cent of the total were considered very rich (more than £5,000).\(^{21}\) The revolution reduced these percentages – to 55 and 20 per cent, respectively which means that it democratized access to office, at least at the level of state representatives. This was not necessarily the case for higher offices such as governors or state senators. For some states, most notably Maryland and South Carolina, the Senate was completely in the hands of the rich.\(^{22}\) Overall, it seems that imposing candidate eligibility requirements in the United States was a preemptive strategy that had a limited disenfranchisement effect.

\(^{18}\)According to Keyssar (2000), in 1790 between 60 and 70 percent of adult white males had the right to vote, but this calculation includes the frontier states, which had higher rates. Engerman and Sokoloff (2005) compute an average of 60 percent for the most concurred election before 1824, see Table 2.

\(^{19}\)Main (1965)

\(^{20}\)We present data for all states in the next section.

\(^{21}\)These figures are for 6 states: New Hampshire, New York, New Jersey, Maryland, Virginia and South Carolina. Main (1966), Table I, p 405

\(^{22}\)Main (1967).
5.2 Seesaw Reforms in Latin America

In Latin America, by contrast, democratization was a non-linear process of incorporation and exclusion.\textsuperscript{23} Immediately after independence, most countries in the region extended the right to vote to all free, non-dependent adult males, including those who belonged to the Indian population.\textsuperscript{24} The first national constitutions in Latin America provided few restrictions on the male franchise, and these were not based on property or literacy requirements. These restrictions were gradually toughened over the following decades, as elites attributed the difficulties faced in consolidating a stable political order to the liberal extension of suffrage after independence.

Universal suffrage was implemented early in Latin America relative to other regions. Argentina approved universal male suffrage in 1853, Colombia in 1853, Mexico in 1847 and Venezuela in 1858. By 1900, 17 countries around the world had enfranchised all males; eight of these were Latin American countries.\textsuperscript{25} Moreover, participation was very broad during some periods, with several major countries – including Argentina, Brazil, Colombia, Mexico and Perú – holding elections in the nineteenth century with almost universal electorates.\textsuperscript{26} Yet in general within the region, electorates were relatively reduced. The overall average for turnout was around 2 percent, and it was nearly always below 5 percent of the total population.\textsuperscript{27} Voting rights were extended, but elections were so tightly controlled by the elites that participation seemed superfluous.\textsuperscript{28} For instance, political participation in Argentina is not associated with universal suffrage in 1853 but rather with the Ley Sáenz Peña in 1912,

\begin{itemize}
\item[\textsuperscript{23}]See Annino (1995), Posada-Carbo (1996) and Sábato (1999).
\item[\textsuperscript{24}]Sabato (2001).
\item[\textsuperscript{25}]Przeworski (2009); our calculation using Przeworski’s dataset.
\item[\textsuperscript{26}]Ternavasio (1995) documents massive elections in Buenos Aires following independence; Graham (1999) indicates that Brazil had a turnout of 1 million in the 1870s, which represented 10 percent of the total population and 50 percent of the enfranchised population; in Colombia, the presidential election of 1856 mobilized more than half of the male population according to Bushnell (1971); in Mexico, about 1 million voters turned out for the 1851 congressional election, representing about half of the adult male population Carmagnani and Hernandez (1999); and Paniagua (2003) described suffrage in Perú during the liberal period as almost universal.
\item[\textsuperscript{27}]Sábato (1999), p 1302.
\item[\textsuperscript{28}]Sábato (1999), p 1303.
\end{itemize}
which ended electoral fraud and vote buying by introducing the secret ballot. Thus while we agree with Engerman and Sokoloff (2005) that Latin American electoral processes were far from representative in the nineteenth century, we argue that the mechanism that curtailed participation was not the restriction of the franchise.

Latin American elites exerted *de facto* power over the political arena, either through the use of violence and electoral disruption or via fraud and vote buying. Yet more relevant to the issue at hand is the *de jure* mechanism that elites used to control who could run for office: the hierarchical indirect system. According to this system, the electorate voted for electors, who in turn selected politicians or voted for higher-degree electors. There were four levels of elections. At each level, more constituents were represented. The indirect system allowed for an increasing restriction on candidate eligibility: universal suffrage was granted only for the first-degree election, with each higher phase requiring more stringent property and income qualifications for candidates. In practice, “the voting public of elite and popular-sector men participated in primaries to select candidates, after which the rules called for the elites to sit with their peers and make the real decisions about public representation”.

Electors were selected from among the richest citizens, and served to legitimate both the political and hierarchical orders. This institutional device, which combined massive suffrage with strict control over access to office, was a creation of the French Revolution. According to the drafters of the 1791 French constitution, the idea was to coordinate “the numbers” (large electorate) with “the reason” (candidate restrictions). The idea was imported by the liberal Spaniards who drafted the very influential Cadiz Constitution, which was the blueprint for the first wave of constitution making in Latin America. The Cadiz Constitution introduced (almost) universal male suffrage, with only domestic servants excluded, while illiterates were

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30 The four degrees were parroquias (parishes), partidos (districts), provincias (provinces) and diputados (deputies).
32 Incidentally, the distinction between active citizens (who had political rights) and passive citizens (who only had voting rights) was intolerable for radical deputies such as Robespierre.
33 Not only Spanish-American countries were influenced; Portugal adopted the Cadiz Constitution in 1820, and thus it also exerted influence over the Imperial Constitution of 1824 in Brazil.
excluded in 1830. Hence, the first Latin American constitutions imposed restrictions on running for office under extended suffrage. As our main concern in this section is to look for seesaw reforms in the American continent, we explore whether the indirect system was reformed at the same time the electorate was reduced.

The end of the Cadiz Constitution provides a first approximation of our answer. In Spain, the Royal Statute of 1834 and the constitution of 1837 approved the direct election of deputies, but at the same time imposed several qualifications for suffrage, significantly reducing the proportion of the population that was eligible to vote.

Examples of seesaw reforms in the Americas include the abolition of the indirect system in Perú and Brazil. In Brazil, the 1824 constitution and the subsequent 1846 electoral law specified a small yearly rent required for voting. No other restrictions, such as literacy or education, were imposed. Due to inflation, the income requirement gradually became negligible, so that by the middle of the century suffrage was almost universal.\textsuperscript{34} In 1872, for example, the electorate consisted of over 1 million adult males, which represented about 50 percent of the adult male population. The extended franchise, however, was combined with an indirect system of representation that stipulated property or literacy qualifications in the second and third stages of voting.\textsuperscript{35} The Brazilian electoral law of 1881 changed the electoral process in two opposing directions. While it introduced direct elections, it also established literacy qualifications that greatly limited the franchise. After the passage of the law, the number of eligible voters dropped to almost one-tenth of those previously eligible, to 100,000 or 0.8 percent of the total population. These figures experienced no significant increase with the establishment of a republican government in 1889 or with the approval of the 1891 electoral bill.\textsuperscript{36}

In Perú, the 1823 constitution indicated that only taxpayers could vote, but as taxes were mandatory, this extended suffrage considerably. The same constitution imposed a literacy

\textsuperscript{34}Graham (1999)
\textsuperscript{35}In particular, the constitution required electors to have twice as much income as that required for voters, and they needed to have “recognized” occupations (Graham (1990); p 113)
\textsuperscript{36}Sabato (2001).
requirement, but it was postponed until 1840 and was ultimately not enforced. Indirect elections were justified by arguing that representatives could not be the result of “pure instinct.” The 1828 constitution imposed property requirements on electors of second or higher degrees, while deputies were required to be literate, pay taxes and have considerable property holdings. The system was characterized by indirect elections, (almost) universal suffrage and control of the electoral institutions by the notables.

The Peruvian electoral law of 1896 is another example of a seesaw reform. On the one hand, it abolished the indirect system and replaced it with direct elections with less severe qualifications for office. Yet on the other hand, it granted the right to vote to all literate and taxpaying Peruvian males over 21. The literacy requirement excluded most of the indigenous population as well as many of the non-indigenous poor.

To summarize these two experiences, we quote Drake (2009) in his recent history of democracy in Latin America: “Like Peru, Brazil provided an example late in the nineteenth century (1881) of converting from indirect to direct legislative elections and of eliminating illiterate voters, combining a step forward with a step backward.”

6 EMPIRICAL EVIDENCE

In this section we present the data and our empirical strategy to test the theoretical implications of our model. We focus on the sample of the 13 original U.S. colonies from 1776-1900. We chose this sample and period for several reasons. First, at the beginning of the period all 13 colonies, with the exception of Pennsylvania, had in place some form of property requirements, for both the right to vote and the right to run for office. During this period these requirements were abolished at different points in time by the different colonies, giving us both cross-sectional and time-series variation to estimate the effect of eliminating these requirements on political and economic outcomes.

38 Drake (2009), p 147, emphasis added.
Second, we have access to data on various economic and political outcomes. While other countries also enacted electoral reforms during this period, the within-country variation and data availability make the United States a unique setting to study the sequential introduction of democratization reforms.

6.1 Data

Our main explanatory variables are suffrage and eligibility requirements. We code the presence of property requirements for the right to vote and the right to run for office in each state at different points in time. To do this we rely on multiple sources, in particular Keyssar (2000) for suffrage and Miller (1900) for office, to identify the magnitude of these requirements and (most importantly) the specific years in which each state eliminated them.

*** TABLE 1 HERE ***

Table 1 describes voting and office qualifications for state senators, state legislators and governors, as stated in the original constitutions. The table also indicates the year when such qualifications or other property restrictions were modified or abolished. Note that all states eliminated property requirements for voting at the same time as (or prior to) eliminating property requirements for office. This implies that we cannot estimate the effect of eliminating eligibility requirements by holding constraints on suffrage constant. However, we can estimate the marginal effect of eliminating requirements for suffrage given restrictions on office as well as the marginal effect of eliminating restrictions on office given no restrictions on suffrage.

We observe that there is substantial variation across states not only in the year in which suffrage requirements were eliminated, but also in the lag with which qualifications for office

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39 All 13 colonies enacted constitutions after 1776 except Connecticut and Rhode Island, where colonial charters remained in force.
40 While states with no restrictions for governors are an exception to this rule, in all those states, governors were indirectly elected by the legislature and thus in practice were as constrained as legislators.
were eliminated. For example, Delaware was the first state to eliminate property requirements for voting in 1792, but it only eliminated requirements for office more than a century later in 1897. Rhode Island, on the other hand, only eliminated property requirements for voters in 1888 but eliminated qualifications for office in that same year.

Our outcome variables can be divided into three groups. First, we consider economic policy variables, in particular the aggregate level and composition of state government expenditures. We use the Inter-university Consortium for Political and Social Research (ICPSR’s) “Sources and uses of funds in state and local governments, 1790-1915,”\(^{41}\) which contains information pertaining to the financial records of state governments, for different categories of expenditures. We use total state expenditures per capita as our main dependent variable. Our resulting panel is unbalanced, since data are available for different sub-periods for different states.\(^{42}\) Additionally, political reforms may affect the overall level as well as the composition of expenditure. In their studies of the consequences of the extension of suffrage, Husted and Kenny (1997) and Falch et al. (2014) found effects on several budget sub-items. Data for specific sub-categories tend to be available for a smaller sub-set of years, but we still have enough information to perform our analysis at a disaggregated level. We provide separate estimations for the following items: education, social spending and welfare, government administration and public safety.

Our second group of outcome variables focuses on the socio-economic background of legislators. We use ICPSR’s “Biographical characteristics of members of the United States Congress, 1789-1978,”\(^{43}\) which compiles biographical information on U.S. Congress members.


\(^{42}\)State data on population are from the decennial U.S. censuses. For each year, we use total population from the closest census available. For example, all years 1866-1875 are assigned the population from the 1870 census.

While the members of Congress are not the main focus of our study, given that they were not subject to the eligibility requirements stipulated in each state’s electoral rules, the biographical file reports whether a U.S. congressman held a state office prior to first entering Congress (but not the specific years in which he did so). For U.S. Congressmen who previously served in their respective state’s Senate, we coded the exact year of entry to this office, using the “Biographical Directory of the U.S. Congress.”

We focus on state senators, as this was the office for which eligibility requirements were the most binding. The final dataset includes the biographical characteristics of all state senators who subsequently occupied a seat in the U.S. Congress. While this may not be a representative sample of all state senators, we do not believe that sample selection in this case is a major concern for our purposes. Our analysis does not rely on comparing state senators who served in the U.S. Congress to those who did not. Rather, among the state senators in this selected sample, we want to compare the socio-economic characteristics of those elected before and after suffrage and eligibility requirements were eliminated in their respective states. Moreover, if only the wealthiest and most elite members of the state senate subsequently served in the U.S. Congress, this may, if anything, bias our results against finding that the elimination of eligibility requirements decreased the elite background of state senators.

The biographical data for our sample of state senators does not include wealth, but we can use several other variables as proxies for the elite background of the politicians. First, we have data on education that are interlinked with social class. We construct dummy variables for whether the state senator attended a private high school or had a college degree. Second, we have information on whether the state senator had other relatives in Congress. We consider two measures of membership of a political dynasty: the total number of relatives in Congress and the number of relatives belonging to the previous or the same

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44http://bioguide.congress.gov/biosearch/biosearch.asp
45See for example, Querubin and Snyder (2013) for a brief description of congressional careers during this period. The composition of the U.S. Congress illustrates the link between education and class. For the Senate, which is generally considered the wealthier chamber, 48.9% and 63.1% of its members attended private schools and obtained a college education, respectively, during the nineteenth century. In the House of Representatives, these figures fall to 36.8% and 48.5%, respectively.
Finally, we have data on occupation. We use a dummy for lawyers, which according to Querubin and Snyder (2013) was an elitist profession during the nineteenth century, and a dummy for whether the state senator was a businessman in agriculture (landlord) or a banker.

While education, membership of a political dynasty and occupation are proxies for the elite status of state senators, a more direct approach would be to look directly at their property or wealth. To do this, we use the complete count dataset of the 1850 U.S. Population Census put together by the Minnesota Population Center. This dataset reports the demographic and socio-economic characteristics of every individual enumerated in the 1850 Population Census. Most important for our purposes, the 1850 census was the first to collect information on the value of real estate owned by every individual, a measure of wealth tightly connected to the eligibility requirements of the time. Querubin and Snyder (2013) provide evidence of the reliability of census wealth figures from the 1850 census.

In order to test the effect of democratizing suffrage and office on the wealth of elected state senators, we chose the sample of seven states that eliminated eligibility requirements for office shortly before or after 1850: Connecticut, New Hampshire, New Jersey, New York, North Carolina, South Carolina and Virginia (see Table 1). Based on multiple sources, we put together a comprehensive list of elected senate senators in these states in the 30-year window around the year when eligibility requirements were eliminated (15 years before and

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46 To have a relative in a previous generation means to be either a son, daughter, grandson, granddaughter, nephew, niece or son-in-law (and so on) of a member of Congress. To have a relative in the same generation means to be either a brother, sister, cousin, husband, wife or brother-/sister-in-law of a member of Congress.


48 The 1860 and 1870 censuses collected information on real estate wealth as well as personal wealth. However, these censuses have not yet been fully digitized, and thus a machine-readable file with the full population count does not exist. While there exists a full count and machine-readable file for the 1880 U.S. census, it did not collect any information on wealth.

49 We chose Connecticut, New Hampshire, New Jersey, New York and Virginia because they eliminated eligibility requirements within 10 years of 1850, the census year. We also included North Carolina and South Carolina, which eliminated eligibility requirements much later (in 1868 and 1865, respectively) in order to include in our sample state senators elected while office qualifications were in place, and for which 1850 corresponds to a baseline (pre-election) wealth.
15 years after).\textsuperscript{50}

We then performed a fuzzy merge to match each state senator to the 1850 census file to find the value of his real estate wealth in 1850. We merged by full name, first name, last name and state. A \textit{perfect match} is a complete coincidence of the full name and state, while a \textit{fuzzy match} allows for minor spelling differences or typos in an individual’s name in either source.\textsuperscript{51} After this first round of merging, we dropped all matches to individuals in the census who would have been younger than 20 when the state senator was first elected to the senate, or older than 85 when he was last elected in our 30-year window, as well as matches to women. Whenever we ended up with a unique match for a state senator following this process of elimination, we preserved the match and coded the state senator’s wealth based on this uniquely matched record. For state senators with common names, there were often multiple matches even after the process of elimination in the first round. In these cases, whenever one of the multiple matches resided in one of the counties in the district represented by the state senator, we kept this as the correct match. Whenever it was impossible to narrow multiple matches of a state senator to a unique match, to be conservative we simply dropped these politicians from our sample. In the end we were able to match 60.68\% of state senators to a unique individual in the census, a success rate similar to previous work using the 1850 census.\textsuperscript{52} Moreover, the success rate was relatively uniform across states.\textsuperscript{53} We do not believe that the failure to match several state senators to the census file is a major concern for our empirical analysis. First, in previous work Steckel (1988) and Ferrie (1996) find that having a common name (which in our case may result in multiple matches and thus being dropped

\textsuperscript{50} The time periods considered for every state are Connecticut: 1830-1860; New Hampshire: 1835-1865; New Jersey: 1830-1860; New York: 1830-1860; North Carolina: 1840-1883; South Carolina: 1850-1880; Virginia: 1835-1865.

\textsuperscript{51} More precisely, we used Stata’s \textit{reclink} command, and we define a perfect merge as a matching score of 1.0 and a fuzzy merge as a matching score greater than or equal to 0.97.

\textsuperscript{52} For example, Steckel (1988) reports a 59\% success rate when trying to match over 1,800 household heads from 300 different counties in the 1850 census.

\textsuperscript{53} The success rate was 71\% for Connecticut, 65\% for New Hampshire, 60\% for New Jersey, 73\% for New York, 41\% for North Carolina, 45\% for South Carolina and 68\% for Virginia. The lower success rates for North and South Carolina are understandable, since many of the state senators in these states served many years after 1850 and thus may have been too young in 1850, or may have been living in a different state at the time of the census.
from the sample) is not correlated with an individual’s wealth. Querubin and Snyder (2013) find that the probability of matching a member of Congress to the 1860-1870 population censuses is not correlated with reported wealth in the 1850 census. Moreover, our analysis relies on comparing the wealth of matched state senators who were first elected before and after eligibility requirements were eliminated. For selection bias to affect our results, it would need to happen differentially across rich and poor politicians, and for those elected before and after eligibility requirements were eliminated, which seems unlikely.

Our last set of outcome variables focuses on political participation and political competition. The “Candidate and Constituency Statistics of Elections in the U.S.” database compiled by the ICPSR54 provides information on nearly every election to the U.S. Congress, presidency and state governorship in the United States from 1788 to 1900. We focus on gubernatorial elections, since congressional and presidential elections were not regulated by state legislation but rather by the U.S. constitution.55 Gubernatorial elections were very frequent, and term length was between one and three years. From Table 1, we observe that candidates for governor were also restricted in terms of property. Moreover, the elimination of these restrictions varied over time and across states. In all states except Georgia, property qualifications for governors were abolished simultaneously with qualifications for legislators.

We also observe that minimum wealth requirements for gubernatorial candidates were typically much higher than for the legislature. In several states the first gubernatorial elections were indirect and decided by the legislature, but our dataset only includes direct elections. The data contain the number of votes cast for every candidate in every race. The theoretical implications of the model suggest that abolishing eligibility requirements may have led to a lower number of unopposed races (decided by acclamation of a single candidate).

55Unfortunately we do not have access to systematic data on elections for state senators and state legislators.
To test this prediction, we look at the number of candidates. The raw number of candidates is a very noisy measure of competition, since races in our dataset often have irrelevant candidates who get a negligible number of votes. There are 105 out of 591 gubernatorial elections in which more than five candidates ran, and in many of them all candidates except the winner and the runner-up received a negligible number of votes. To circumvent this issue, we construct a measure of the effective number of candidates, in which candidates are weighted by their vote shares. We use the standard index of effective number of candidates, described by Laakso and Taagepera (1979) as:

$$N = \frac{1}{\sum_{i=1}^{n} s_i^2}$$

where $n$ is the number of candidates and $s_i$ is the share of votes of candidate $i$.

As this measure has received some criticism in the case that the most successful candidate exceeds 50 percent of the total number of votes, which is usually the case for gubernatorial elections in the United States, we also construct the effective number of candidates as defined by Golosov (2010).\textsuperscript{56} We show the robustness of our results by using these two measures as dependent variables.

We also construct a measure of political competition. We compute the margin of victory in every race as the difference in the vote share of the winner, $s_1$, and the runner-up, $s_2$:\textsuperscript{57}

$$M = |s_1 - s_2|$$

In sum, we have several measures of economic outcomes, politicians’ identity and political outcomes that we will use as the dependent variables of our estimations. Table (2) displays

\textsuperscript{56}The index by Golosov (2010) is defined as $N = \sum_{i=1}^{n} s_i / (s_i + s_1^2 - s_1^2)$, where $s_1$ is the vote share of the candidate with the largest number of votes.

\textsuperscript{57}For uncontested races, this measure takes a value of 100.
all of these variables, their descriptive statistics and a brief reference of the source for each.

*** TABLE 2 HERE ***

6.2 Empirical Strategy

Since we are interested in estimating the effect of removing property requirements on suffrage and office, our independent variables capture the extent to which a given state has already eliminated these requirements at any point in time. Thus, $S_{it}$ is a dummy variable that takes a value of 1 if state $i$ has eliminated requirements for suffrage prior to year $t$ and 0 otherwise. Similarly, $E_{it}$ is a dummy variable that equals 1 if state $i$ in year $t$ has removed candidate eligibility restrictions prior to year $t$ and 0 otherwise. Take Connecticut, for example: for both legislators and governors, $S_{it}$ takes a value of 1 for every year after 1818 and 0 otherwise, while $E_{it}$ takes a value of 1 for every year after 1845 and 0 otherwise. To estimate the effect of removing property requirements for voting or running for office, we use the following specification:

$$y_{it} = \alpha y_{it-1} + \beta_1 S_{it} + \beta_2 E_{it} + \delta_i + \gamma_i t + \varepsilon_{it},$$

(1)

where $y_{it}$ corresponds to the outcome variable in state $i$ in year $t$, $S_{it}$ and $E_{it}$ are our main explanatory variables of interest, and $\delta_i$ is a full set of state fixed effects. In order to allow for heterogeneity in the trends of our outcome variables across states, we include in every regression a full set of state-specific linear time trends $\gamma_i t$. For outcomes on politician characteristics reported in Tables 5 and 6, the unit of analysis is the politician and not the state. In some specifications we also include additional control variables that we describe in more detail below. Our sample consists of an annual panel for the 13 original states covering the period 1776 to 1900 (when available) unless otherwise stated.

The specification described in equation (1) is best suited for cases in which the dependent variable has serial correlation, as is the case with our economic policy outcomes. For a long
dynamic panel, the standard assumption is that the error term is first-order autoregressive: 
\[ \varepsilon_{it} = \rho \varepsilon_{i,t-1} + z_{it}, \]
where \( |\rho| < 1 \) and \( z_{it} \) is i.i.d. with a mean of 0.\(^{58}\) Thus, in our baseline specification described by equation (1) we include one lag of the dependent variable, but we perform robustness checks with additional numbers of lags. More generally, equation (1) also encompasses cases in which the dependent variable is not correlated over time, which is more appropriate for specifications with politician characteristics and political competition as outcome variables. In this case, we set \( \alpha = 0 \) and assume that errors are clustered at the state level.

Since every state eliminated restrictions on suffrage earlier, or at the same time, as restrictions on running for office, the coefficient \( \beta_1 \) measures the independent effect of removing restrictions on suffrage, while \( \beta_2 \) measures the effect of removing restrictions on office, conditional on having already eliminated restrictions for voting. The effect of eliminating restrictions on both voting and running for office is then equal to \( \beta_1 + \beta_2 \).

Our empirical results must be interpreted cautiously, as the timing of suffrage and eligibility reforms is not exogenous and may confound the effect other time-varying state characteristics. State fixed effects account for any time-invariant differences across states, while state-specific time trends account for any overall trend in the different outcome variables over time in each state. Our estimates of \( \beta_1 \) and \( \beta_2 \) cannot be given a causal interpretation, but are nonetheless informative as to whether the within-state variation in our outcome variables of interest, before and after suffrage and eligibility requirements were eliminated, are consistent with the predictions of our theory. Also, we provide estimates for a broad set of outcome variables including government spending, elite background of elected politicians and political competition, which gives us further confidence that our estimates capture the effect of eligibility reforms and not of other potential confounding variables.

\(^{58}\)See Baltagi and Wu (1999).
7 RESULTS

7.1 Economics Outcomes

We first focus on the relationship between suffrage and eligibility reforms and government size. Table 3 displays our results for the log of state expenditure per capita as the dependent variable. As state expenditures experienced a major spike during the Civil War, we add in all regressions a dummy equal to 1 for the period 1861-1865 as an additional control.

*** TABLE 3 HERE ***

Columns (1) and (2) in Table 3 report the results for suffrage and eligibility reforms separately, while Column (3) combines the two reforms. These three columns use our baseline specification given by (1), which includes state fixed effects, state-specific time trends and the Civil War dummy (the coefficient on this dummy is not reported to save space, but is positive and significant at the 1\% level in all regressions). Our main finding is that the coefficient for eligibility is positive and significant. On the contrary, the suffrage dummy has no effect, even if the extension of the franchise is considered separately. The magnitude for eligibility is about 0.15, which implies a 16\% increase in local government spending once office qualifications are eliminated. The long-run effect, computed as $\beta/(1 - \alpha)$, is about four times higher, which implies a substantial increase in government size due to the eligibility reform.

In Columns (4) to (8) we perform several robustness checks on our baseline specification. In Column (4) we move from fixed to random effects and eliminate the time trend, while in Column (5) we drop the state time trend and the Civil War dummy but keep the fixed-effects specification. In Column (6) we replace the state-specific time trend with a unique time trend at the national level. The last two columns include 3- and 5-year lags of the dependent variable, respectively; we do not report the coefficient on the additional lags, but note that the magnitude of the coefficient on the first lag falls. The positive and significant
effect of candidate eligibility reform is robust to all of these alternative specifications, while the coefficient on the suffrage dummy remains insignificant in all of them. In what follows, we report the results for our preferred specification (Columns 1-3).

Now we move to disaggregated expenditures. Table 4 summarizes the results for different measures of expenditure: education, social welfare, government administration and public safety. The first four columns report the results for total expenditure on those sub-items, measured as log expenditure per capita in each case. The next four columns capture the composition (percentage) of total expenditure represented by each item.

*** TABLE 4 HERE ***

We observe that the two redistributive components of state expenditures, education and social services and welfare, are uncorrelated with suffrage but depend positively and significantly on eligibility. Their total increase was about 7% after the reform, and their increase in the total budget was about 3 and 2 percentage points for education and social welfare, respectively. The spending on government administration increases, but its share of the total expenditure actually falls after the reform. The coefficient for public safety is statistically insignificant.\(^{59}\)

Overall, our results are consistent with the theoretical implications of our model. We find that simply removing restrictions on voting has no significant effect on the size of government. However, once requirements for office are also eliminated, there is evidence of a noticeable effect on government spending per capita. Moreover, we observe similar results for the composition of expenditure. Changes in policy variables do not result simply from a change in the identity or socio-economic background of the median voter. Extending access to office to individuals from more diverse (and perhaps poorer, less elite) backgrounds seems like a necessary condition for the preferences of a newly enfranchised poor majority to be reflected in government policies.

\(^{59}\)The number of states falls from 13 to 12 in Table 4 since we have no disaggregated information for Georgia.
7.2 Elite Background of Politicians

Next, we test whether the reforms to suffrage and eligibility changed the elite background of politicians in office. The results of Table 5 report estimates on the education, dynasty and occupation variables constructed from the congressional biographical dataset for state senators who went on to serve in the U.S. House of Representatives. In order to code the \( S_{it} \) and \( E_{it} \) dummies for each individual senator, we use the year when the politician first entered the state senate. In all regressions we control for the age and age squared of the politician in the year in which he first entered the state senate, since age is a potential confounder of several measures of status.

*** TABLE 5 HERE ***

In Table 5, the dependent variables are dummies that indicate whether the politician shares various characteristics associated with an elite status. We report marginal effects from Probit regressions but our results are qualitatively similar if we use linear probability models. For the probability of attending a private school, reported in Column (1), the effect on the eligibility dummy reform is small and statistically insignificant. On the contrary, in Column (2) we find that after eligibility requirements were eliminated, the probability that a state senator had a college degree decreased by 17 percentage points. Column 3 shows that universal eligibility decreased the probability of belonging to a political dynasty by about 10 percentage points. This holds for both the measure of dynasty based on total relatives as well as that based on relatives who are in a previous or contemporary generation. Finally, we also find that after requirements for candidacy were abolished, some traditionally elitist occupations decreased their political representation. The number of lawyers diminished by about 16 percentage points after the eligibility reform. As for wealthy businessmen, defined as either agricultural businessmen (landowners) or bankers, the reduction was about 8 percentage points.\(^{60}\) Finally, notice that the coefficient on the suffrage dummy is usually

\(^{60}\) The sample size is slightly reduced in Column (6) since we have no information about landowners or bankers in Rhode Island.
statistically insignificant, or if anything, positive. The overall picture that emerges from Table 5 is that the elimination of eligibility requirements led to a democratization of the states’ upper chamber.

Next we test directly whether suffrage or eligibility reforms led to the election of state senators with lower real estate wealth (as measured in the 1850 census). In Columns (1)-(3) of Table 6 we limit our analysis to state senators for whom we found a perfect match in the 1850 census. In Columns (4)-(6) we increase our sample to allow a fuzzy match (though still unique) with the 1850 census. Again, in order to code the $S_i$ and $E_i$ dummies, we use the year when the politician first entered the state senate (in our 30-year window around the year of eligibility reform). In this analysis it is particularly important to control flexibly for the state senator’s age. Those elected after suffrage or eligibility reforms were enacted will tend to be younger in 1850 (when we observe their wealth) than those elected before such reforms took place. Thus, in every specification we control for a state senator’s age and age squared in 1850. The dependent variable in all specifications is the log of real estate wealth.

*** TABLE 6 HERE ***

The estimates reported in Table 6 are reassuring regarding the change in the elite status of state senators when qualifications for office ended. In Columns (1) and (4) we consider the full sample of state senators elected in the 30-year window around the eligibility reform year. The coefficient for the eligibility dummy is negative and statistically significant in Column 1. The point estimate implies that eliminating qualifications for office led to a reduction in the average real estate wealth of state senators of about 40%.

We perform several robustness checks on this analysis. One potential concern is that for many state senators first elected to the state Senate prior to 1850, their measured wealth is post-Senate, and thus the wealth figures may confound the effect of the eligibility constraints with the economic effect of serving in the state Senate. Using census data for the same period, Querubin and Snyder (2013) find no causal effect of serving in the U.S. Congress on an individual’s wealth, but the patterns for state offices may be different. This issue
becomes more problematic the larger the window of years that we consider for each state. For example, for New York, wealth is measured 20 years after first entering the Senate for those elected in 1830, and 10 years prior to entering the Senate for those first elected in 1860. In order to address these potential concerns, we use two separate approaches. First, in Columns 2 and 5, we consider a narrower window of 20 years around the eligibility reform date (those elected 10 years before and 10 years after). Second, in Columns (3) and (6) we simply drop all state senators first elected before 1850, in which case we are certain that the value of real state attributed to each state senator cannot confound the effect of serving in this office. The results broadly confirm that eligibility reforms led to a decrease in elected state senators’ wealth. The coefficients in Columns (2)-(3) and (5)-(6) remain negative and statistically significant, and in fact become larger in absolute value. The coefficients on the suffrage reform dummy, on the other hand, are less stable and usually smaller (or positive) than those for the eligibility dummy (the one exception is the coefficients in Column 2, where the effect of suffrage is negative and larger in absolute value than the effect of eligibility).

The ambiguous, or often insignificant, effect of suffrage reform documented in Tables 5 and 6 complements the findings by Larcinese (2014) for Italy and Berlinski et al. (2014) for England, suggesting that extending the franchise had no effect on the elite background of legislators. The elite maintained their political power, at least in terms of their political positions, after the democratization of political participation.

### 7.3 Elections: Number of Candidates and Competition

Now we move on to the study of political competition. A theoretical implication of our model is that removing restrictions on running for office would increase the number of candidates (or parties) and lead to more competition. Table 7 exhibits estimations for both the effective number of candidates \( N \) and the margin of victory \( M \). As the number of candidates may be correlated with the population size of the state, we control for logged population in all columns.
Columns (2) and (3) in Table 7 show that the removal of qualifications for office indeed led to an increase in the effective number of candidates, with a coefficient of 0.25. Given that the mean number of candidates is 2.0 with standard deviation 0.4, the magnitude of the coefficient implies an increase in about one-half of a standard deviation. Column (4) exhibits a similar result for an alternative measure for the effective number of candidates.

Columns (5) to (7) show similar results for margin of victory. The margin of victory is related to the effective number of candidates, but their correlation is far from perfect and thus we include it as an alternative dependent variable. Abolishing requirements for candidate eligibility decreases the margin of victory by about 10 percentage points, which is about one-half of the standard deviation, as shown in Table 2. The estimates for the suffrage dummy, on the other hand, are unstable and usually statistically insignificant.

8 CONCLUSIONS

We have studied democratization as the interplay between two different dimensions: the extension of the franchise and the abolition of eligibility restrictions. Our analysis stems from the fact that elites at the beginning of the nineteenth century used these two mechanisms to impose their control over the decision making process. We have presented a model in which the implemented policy depends not only on the constraints on who is entitled to vote, but also on who is allowed to run as a candidate. Our analysis provides several predictions that are confronted with some historical evidence and tested empirically. First, it provides a rationale for the implementation of seesaw reforms, namely reforms that move the franchise and eligibility restrictions in opposite directions. Second, the model shows that when suffrage is extended prior to the elimination of eligibility restrictions, the expected redistributive effects of democratization should only be observed once the two reforms have been implemented. As for the first prediction, we present a detailed historical account of seesaw reforms in the
Americas; for the second, we study the empirical relationship between suffrage and eligibility reforms in the 13 original U.S. states and several outcomes of interest. All our results point to the importance of eligibility restrictions in the process of democratization.

We emphasize again that we do not see our thesis as alternative to the extension of suffrage. The enfranchisement of the entire population is a fundamental stage in the democratization process. Rather, we assert that suffrage is a necessary but not a sufficient condition. In a model in which commitment to policies is imperfect, if people can vote but cannot run, then democratic reforms will fall short of empowering broader segments of the population. Both theories, suffrage and eligibility, should be seen as complementary explanations of the process of incorporating the masses into the political system.
APPENDIX

Proof of Proposition 1.

The proof of existence is trivial, for the decisive citizen \( \hat{y} \) running as a sole candidate constitutes an equilibrium. No citizen with a different income level would have incentives to run against her, as he would incur a positive cost \( c > 0 \) and lose the election for certain. A citizen with the same income \( \hat{y} \) would not have incentives to contest a single candidate, for the net gains of entering this electoral race would be \( \frac{b}{2} - c < 0 \). The decisive citizen would not have incentives to renege on her candidacy, for that would entail a payoff of \(-\infty\).

(i) Let \( c \leq b \). We have shown that \( y^* = \hat{y} \) constitutes an equilibrium. It remains to show that this equilibrium is unique. Since the perks of winning office \( b \) exceed the cost \( c \) of running as a candidate, any citizen who was guaranteed an electoral victory would contest any standing candidate. Hence, the only citizen who could run uncontested is the decisive citizen \( \hat{y} \).

(ii) and (iii) Let \( c > b \). As argued above, the decisive citizen \( \hat{y} \) running as a sole candidate constitutes an equilibrium. We now show that the set of equilibria is larger. Consider \( y' \neq \hat{y} \). Define the set \( y'_{\succ} \equiv \{ y \geq y_O : V(\hat{y}, \tau (y)) \geq V(\hat{y}, \tau (y')) \} \) of all eligible candidates \( y \) who could run against \( y' \) and defeat him with positive probability. Clearly, \( y'_{\succ} \) is non-empty, for it includes the decisive citizen herself. Also, define the set \( y'_{c-b} \equiv \{ y \geq y_O : V(y, \tau (y)) - V(y, \tau (y')) \leq c - b \} \) of all eligible candidates \( y \) who would not be willing to run against a citizen \( y' \) (and, consequently, incur the loss \( c - b \)), even if they were guaranteed to win against him and therefore implement their own bliss policy. Then, \( y' \) running as a sole candidate constitutes an equilibrium of the electoral game if and only if for all \( y'_{\succ} \subseteq y'_{c-b} \), that is, if each and every citizen who could run against \( y' \) and defeat him with positive probability would not be willing to do so.

In order to construct the set of equilibria, it is convenient to notice the following property,
which can be shown by tedious but straightforward algebra:

\[ V(y, \tau(y)) - V(y, \tau(y')) = \frac{1}{2\mu} (y - y')^2. \]

This property implies:

(a) \( V(y, \tau(y)) - V(y, \tau(y')) = V(y', \tau(y')) - V(y', \tau(y)) \), that is, that the policy gains for citizen \( y \) of defeating candidate \( y' \) are the same as the policy gains for citizen \( y' \) of defeating candidate \( y \).

(b) If \(|y_1 - y_2| < |y_1 - y_3|\) then \( V(y_1, \tau(y_1)) - V(y_1, \tau(y_2)) < V(y_1, \tau(y_1)) - V(y_1, \tau(y_3)) \), that is, that the policy gains of winning against another citizen are larger the further away the candidate is in the income space.

(c) \( V(y, \tau(y - t)) = V(y, \tau(y + t)) \) for any \( t > 0 \), that is, that preferences are symmetric in the space of income.

Equipped with this property, we can now construct the set of equilibria. We have defined above citizen \( y_O^{sup} \) as:

\[ y_O^{sup} \equiv \sqrt{2\mu (c - b)} + y_O, \]

citizen \( m^{sup} \) as:

\[ m^{sup} \equiv \frac{1}{2} (y_O + y_O^{sup}), \]

and, finally, the income distance between citizens \( y_O^{sup} \) and \( m^{sup} \):

\[ t^* \equiv m^{sup} - y_O = \frac{1}{2} \sqrt{2\mu (c - b)}. \]

First, observe that citizen \( y_O \) would not be willing to run against any candidate with income \( y \in [y_O, y_O^{sup}] \). Conversely, from observation (a), no candidate with income \( y \in [y_O, y_O^{sup}] \) would be willing to run against \( y_O \). Moreover, from observation (b), it follows that
if citizen $y_O$ is not willing to contest any candidate in the set $[y_O, y_O^{\text{sup}}]$, no other citizen in $[y_O, y_O^{\text{sup}}]$ would have an incentive to enter the electoral race against any candidate in that set either.

Now, observe that we have drawn from observation (c) to construct citizen $m^{\text{sup}}$ as the one who is indifferent between $y_O$ and $y_O^{\text{sup}}$. Again, from observation (b), it follows that citizen $m^{\text{sup}}$ would strictly prefer candidate $y_O$ over any candidate $y > y_O^{\text{sup}}$. Similarly, any citizen to the left of $m^{\text{sup}}$ would prefer $y_O$ against any candidate $y > y_O^{\text{sup}}$. Hence, we have that if $m(y_s) \leq m^{\text{sup}}$, then the set of equilibria is given by $[y_O, y_O^{\text{sup}}]$.

Now consider the set of citizens $[m(y_s) - t^*, m(y_s) + t^*]$, who are around the median of the constituency. By construction, a citizen with income $y = m(y_s) - t^*$, that is, the citizen on the left extreme of this set, would be willing to run against any candidate $y'$ with a higher income than himself if and only if this candidate is outside this set, that is, if and only if $y' > m(y_s) + t^*$. Conversely, by observation (a), a citizen with income $y = m(y_s) + t^*$ would only have incentives to contest a candidate with lower income if and only if this candidate did not belong to this set. By observation (b), no citizen in the set $[m(y_s) - t^*, m(y_s) + t^*]$ would be willing to electorally contest any other member of this set. Moreover, observe that any member of this set would defeat any member outside this set. Hence, for $m(y_s) > m^{\text{sup}}$, the set of equilibria is given by $[m(y_s) - t^*, m(y_s) + t^*]$.

**Proof of Proposition 2.**

Suppose that there exists an equilibrium with two candidates, $y_l^*$ and $y_r^*$, with $y_l^* \leq y_r^*$, running for office. Clearly, since running entails a cost $c > 0$, it must be that both candidates win with positive probability in equilibrium. Hence, they must be symmetrically located around the median of the constituency. Hence, for some $t > 0$, we can write $y_l^* = m(y_s) - t$ and $y_r^* = m(y_s) + t$.

A necessary condition for a two-candidate equilibrium to exist is that no candidate is better off not running. The expected non-policy payoff of running is $\frac{1}{2}b - c < 0$. Hence, it must be that $\frac{1}{2} \left[ V(y_l^*, \tau(y_l^*)) + V(y_l^*, \tau(y_r^*)) \right] + \frac{1}{2}b - c \geq V(y_l^*, \tau(y_r^*))$. The left-hand side of
this expression is citizen $y_l^*$’s payoff from running, while the right-hand side is his payoff if he
were not running (from observation (c) above, the condition for $y_r^*$ is the same). We can write
this expression as $\frac{1}{2} [V (y_l^*, \tau (y_l^*)) - V (y_r^*, \tau (y_r^*))] \geq c - \frac{1}{2} b$ or $y_r^* - y_l^* \geq \sqrt{2\mu (2c - b)} > 0.$
Hence, defining $t \equiv \frac{1}{2} \sqrt{2\mu (2c - b)} > 0,$ we have that $t \geq t.$

Another necessary condition for an equilibrium with two candidates to exist is that a
third candidate is not willing to enter the race. Clearly, since $y_r^* - y_l^* > 0,$ a third citizen $y'$
entering the electoral race could only defeat the candidates if $y_l^* < y' < y_r^*, as otherwise his
share of the votes would be strictly below one-half, whereas one of the other candidates would
exactly obtain one-half of the votes. For any $t$ characterizing the distance from candidates
to the median of the constituency, we can define the best-contender citizen $y'(t)$ as the one
who could leave both $y_l^*$ and $y_r^*$ with the same share of the vote, that is, $F \left( \frac{y_l^* + y'(t)}{2} \right) = 1 - F \left( \frac{y_r^* + y'(t)}{2} \right).$ Clearly, $y'(t)$ is unique. Let $S(t)$ be the share of the votes that the best-
contender citizen $y'(t)$ could obtain by entering the race. We have that $S(t)$ is a continuous
strictly increasing function with $S(0) = 0$ and $S(m(y_S)) > \frac{1}{2}.$ Hence, there exists a unique
$\bar{t}$ such that $S(\bar{t}) = \frac{1}{3}.$ Notice that $\bar{t}$ is defined by $F \left( \frac{m - t + y'(\bar{t})}{2} \right) = \frac{1}{3} = 1 - F \left( \frac{m + t + y'(\bar{t})}{2} \right).$
Hence, we have that $t \leq \bar{t},$ as otherwise a third citizen could enter the race and defeat the
candidates.

Hence, when eligibility is unrestricted, an equilibrium with two candidates exists as long
as $t \leq \bar{t}.$ A necessary and sufficient condition for that is that $F \left( \frac{m - t + y'(\bar{t})}{2} \right) \geq \frac{1}{3}.$

We can characterize an equilibrium with eligibility restrictions by recognizing that if
$y_O \leq m(y_S) - \bar{t},$ then the set of equilibria is unaffected by the eligibility restriction. If
$m(y_S) - \bar{t} \leq y_O \leq m(y_S) - t,$ then there cannot be equilibria such that $y_l^* < y_O,$ so the set
of equilibria is restricted by $t \in [t, m - y_O].$ If $m(y_S) - \bar{t} \leq y_O,$ then $y_l^*$ should be closer to
$m(y_S)$ than $t,$ so that there does not exist a two-candidate equilibrium.
References


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Figure 1: States without Restrictions for Voting and Running for Office
Figure 2: Isopolies in the Constitutional Space
Figure 3: Sequential Extensions of Suffrage and Office Qualifications
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</tr>
<tr>
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<td>FH:250D-500D</td>
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</tr>
<tr>
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<td>FH:250D-500D</td>
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<td>FH:100L-200L</td>
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<td>FH</td>
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<td>FH: 500L</td>
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<td>None</td>
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</tr>
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<td>FH</td>
</tr>
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<td>Constitution</td>
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<td>FH</td>
<td>None</td>
<td>FH</td>
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<td>300A</td>
<td>100A</td>
<td>FH</td>
</tr>
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<td>Amendment</td>
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<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>1776</td>
<td>Charter</td>
<td>FH: 40L</td>
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<td>Elector</td>
<td>Elector</td>
</tr>
<tr>
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<td>1843</td>
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<td>FH: 134D</td>
<td>Elector</td>
<td>Elector</td>
<td>Elector</td>
</tr>
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<td>Amendment</td>
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<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>South Carolina</td>
<td>1778</td>
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<td>Elector</td>
<td>10,000L; Leg.</td>
</tr>
<tr>
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<td>300L</td>
<td>500A-150L</td>
<td>1,500L; Leg.</td>
</tr>
<tr>
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<td>300L</td>
<td>500A-150L</td>
<td>1,500L; Leg.</td>
</tr>
<tr>
<td>South Carolina</td>
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<td>Constitution</td>
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<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Virginia</td>
<td>1776</td>
<td>Constitution</td>
<td>FH: 50A</td>
<td>FH</td>
<td>FH</td>
<td>None; Leg.</td>
</tr>
<tr>
<td>Virginia</td>
<td>1830</td>
<td>Constitution</td>
<td>FH: 50A</td>
<td>FH</td>
<td>FH</td>
<td>None; Leg.</td>
</tr>
<tr>
<td>Virginia</td>
<td>1851</td>
<td>Constitution</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Notes: Sources are Keyssar (2000) for Suffrage and Miller (1900) for Senator, Representative and Governor. FH is for Freehold; A, L and D are Acres, Pounds and Dollars, respectively. For Governor, Leg. means that the election was indirect and depended on the Legislature.
<table>
<thead>
<tr>
<th>Dependent Variables: Descriptive Statistics and Sources</th>
<th>Obs.</th>
<th>Mean</th>
<th>S.D.</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Expenditure per capita</td>
<td>956</td>
<td>0.103</td>
<td>1.086</td>
<td>Sylla, Legler and Wallis (1993)</td>
</tr>
<tr>
<td>Spending on Education</td>
<td>742</td>
<td>0.201</td>
<td>0.241</td>
<td>Sylla, Legler and Wallis (1993)</td>
</tr>
<tr>
<td>Spending on Social Services</td>
<td>760</td>
<td>0.161</td>
<td>0.250</td>
<td>Sylla, Legler and Wallis (1993)</td>
</tr>
<tr>
<td>Spending on Social Services (%)</td>
<td>760</td>
<td>7.607</td>
<td>7.551</td>
<td>Sylla, Legler and Wallis (1993)</td>
</tr>
<tr>
<td>Spending on Gov.Adm.</td>
<td>926</td>
<td>0.301</td>
<td>0.253</td>
<td>Sylla, Legler and Wallis (1993)</td>
</tr>
<tr>
<td>Spending on Public Safety</td>
<td>851</td>
<td>0.366</td>
<td>1.836</td>
<td>Sylla, Legler and Wallis (1993)</td>
</tr>
<tr>
<td>Private School</td>
<td>737</td>
<td>0.411</td>
<td>0.492</td>
<td>McKibbin (1992), Congressional Biographical Directory</td>
</tr>
<tr>
<td>College</td>
<td>737</td>
<td>0.512</td>
<td>0.500</td>
<td>McKibbin (1992), Congressional Biographical Directory</td>
</tr>
<tr>
<td>Relatives</td>
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<td>0.405</td>
<td>McKibbin (1992), Congressional Biographical Directory</td>
</tr>
<tr>
<td>Relatives Previous</td>
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<td>0.140</td>
<td>0.347</td>
<td>McKibbin (1992), Congressional Biographical Directory</td>
</tr>
<tr>
<td>Lawyer</td>
<td>737</td>
<td>0.570</td>
<td>0.495</td>
<td>McKibbin (1992), Congressional Biographical Directory</td>
</tr>
<tr>
<td>Landlords and Bankers</td>
<td>737</td>
<td>0.136</td>
<td>0.343</td>
<td>McKibbin (1992), Congressional Biographical Directory</td>
</tr>
<tr>
<td>Real State Wealth; All Sample; Perfect Match (Score=1.0)</td>
<td>687</td>
<td>8.494</td>
<td>1.317</td>
<td>Roster of State Senators collected by the authors Minnesota Population Center (2015)</td>
</tr>
<tr>
<td>Real State Wealth; All Sample; Fuzzy Match (Score=0.97)</td>
<td>946</td>
<td>8.389</td>
<td>1.360</td>
<td>Roster of State Senators collected by the authors Minnesota Population Center (2015)</td>
</tr>
<tr>
<td>Effective Number of Parties</td>
<td>591</td>
<td>2.007</td>
<td>0.406</td>
<td>ICPRS (1995)</td>
</tr>
<tr>
<td>Effective Number of Parties (Golosov)</td>
<td>591</td>
<td>1.832</td>
<td>0.370</td>
<td>ICPRS (1995)</td>
</tr>
</tbody>
</table>

*Notes: All sources are described in the text. In the variables that use McKibbin (1992), we also relied on the Biographical Directory of the U.S. Congress.*

Table 3: Total State Expenditure Per Capita

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dep.Var. (t-1)</td>
<td>0.780***</td>
<td>0.764***</td>
<td>0.764***</td>
<td>0.834***</td>
<td>0.812***</td>
<td>0.788***</td>
<td>0.290***</td>
<td>0.319***</td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.020)</td>
<td>(0.020)</td>
<td>(0.017)</td>
<td>(0.019)</td>
<td>(0.019)</td>
<td>(0.032)</td>
<td>(0.035)</td>
</tr>
<tr>
<td>Suffrage</td>
<td>0.0291</td>
<td>-0.0836</td>
<td>-0.065</td>
<td>-0.0319</td>
<td>-0.0526</td>
<td>-0.0871</td>
<td>-0.0375</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.064)</td>
<td>(0.073)</td>
<td>(0.051)</td>
<td>(0.069)</td>
<td>(0.069)</td>
<td>(0.088)</td>
<td>(0.086)</td>
<td></td>
</tr>
<tr>
<td>Eligibility</td>
<td>0.155***</td>
<td>0.189***</td>
<td>0.220***</td>
<td>0.235***</td>
<td>0.223***</td>
<td>0.203***</td>
<td>0.179***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.052)</td>
<td>(0.060)</td>
<td>(0.047)</td>
<td>(0.057)</td>
<td>(0.057)</td>
<td>(0.072)</td>
<td>(0.069)</td>
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</tr>
<tr>
<td>State FE</td>
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<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>State TT</td>
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<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Obs.</td>
<td>943</td>
<td>943</td>
<td>943</td>
<td>956</td>
<td>943</td>
<td>943</td>
<td>861</td>
<td>793</td>
</tr>
<tr>
<td>States</td>
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<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>

Notes: All regressions assume that the error term is first order auto-regressive. We include state fixed effects in all specifications except in column (4) where we assume random effects. State-specific linear time trends and a dummy for the Civil War years (1861-1865) are included in all specifications except in columns (4) and (5). Specifications in columns (7) and (8) include 3 and 5 lags, respectively, of the dependent variable (coefficient on lags 2-5 not reported). *, **, *** significance at the 10%, 5% and 1% level, respectively.
<table>
<thead>
<tr>
<th></th>
<th>Education</th>
<th>Social Serv. and Welfare</th>
<th>Government Adm.</th>
<th>Public Safety</th>
<th>Education</th>
<th>Social Serv. and Welfare</th>
<th>Government Adm.</th>
<th>Public Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
<td>(8)</td>
</tr>
<tr>
<td>Dep.Var. (t-1)</td>
<td>0.768***</td>
<td>0.610***</td>
<td>0.364***</td>
<td>0.508***</td>
<td>0.681***</td>
<td>0.678***</td>
<td>0.542***</td>
<td>-0.008</td>
</tr>
<tr>
<td></td>
<td>(0.025)</td>
<td>(0.029)</td>
<td>(0.031)</td>
<td>(0.028)</td>
<td>(0.027)</td>
<td>(0.027)</td>
<td>(0.028)</td>
<td>(0.033)</td>
</tr>
<tr>
<td>Suffrage</td>
<td>-0.002</td>
<td>0.01</td>
<td>-0.032</td>
<td>-0.081</td>
<td>-1.084</td>
<td>-0.862</td>
<td>3.47</td>
<td>-5.179*</td>
</tr>
<tr>
<td></td>
<td>(0.025)</td>
<td>(0.030)</td>
<td>(0.033)</td>
<td>(0.216)</td>
<td>(1.397)</td>
<td>(0.741)</td>
<td>(2.184)</td>
<td>(3.023)</td>
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<tr>
<td>Eligibility</td>
<td>0.061***</td>
<td>0.077***</td>
<td>0.116***</td>
<td>-0.109</td>
<td>2.893**</td>
<td>2.077***</td>
<td>-9.141***</td>
<td>0.952</td>
</tr>
<tr>
<td></td>
<td>(0.021)</td>
<td>(0.023)</td>
<td>(0.026)</td>
<td>(0.171)</td>
<td>(1.186)</td>
<td>(0.612)</td>
<td>(1.796)</td>
<td>(2.375)</td>
</tr>
<tr>
<td>Obs.</td>
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<td>748</td>
<td>914</td>
<td>839</td>
<td>730</td>
<td>748</td>
<td>914</td>
<td>839</td>
</tr>
<tr>
<td>States</td>
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<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Notes: The dependent variables in columns (1)-(4) correspond to the log of total expenditure per capita of the different components. Dependent variables in columns (5)-(8) correspond to the share of each component as a percentage of total expenditure. All regressions assume that the error is first order autoregressive and include one lag of the dependent variable. All specifications include state fixed effects, state specific time trends and a civil war dummy. *, **, *** significance at the 10%, 5% and 1% level, respectively.
Table 5: Biographical Characteristic of State Senators

<table>
<thead>
<tr>
<th></th>
<th>Private School</th>
<th>College</th>
<th>Relatives (previous)</th>
<th>Lawyers</th>
<th>Land Owners and Bankers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffrage</td>
<td>0.113***</td>
<td>-0.023</td>
<td>0.045</td>
<td>0.007</td>
<td>-0.054</td>
</tr>
<tr>
<td></td>
<td>(0.041)</td>
<td>(0.101)</td>
<td>(0.052)</td>
<td>(0.061)</td>
<td>(0.088)</td>
</tr>
<tr>
<td>Eligibility</td>
<td>0.006</td>
<td>-0.178**</td>
<td>-0.112**</td>
<td>-0.082*</td>
<td>-0.161*</td>
</tr>
<tr>
<td></td>
<td>(0.055)</td>
<td>(0.076)</td>
<td>(0.050)</td>
<td>(0.046)</td>
<td>(0.092)</td>
</tr>
<tr>
<td>Obs.</td>
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<td>737</td>
<td>737</td>
<td>737</td>
<td>737</td>
</tr>
<tr>
<td>State</td>
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<td>13</td>
<td>13</td>
</tr>
<tr>
<td>PR-sq.</td>
<td>0.071</td>
<td>0.144</td>
<td>0.059</td>
<td>0.038</td>
<td>0.137</td>
</tr>
</tbody>
</table>

Notes: Dependent variables are dummy variables for whether the state senator has that attribute. All estimates come from Probit regressions and coefficients reported correspond to marginal effects. All specifications include state fixed effects, state specific time trends and controls for age and age squared of the state senator in the year in which it first entered the state senate. Standard errors are clustered at the state level. *, **, *** significance at the 10%, 5% and 1% level, respectively.
<table>
<thead>
<tr>
<th></th>
<th>Dependent Variable is Log (Real State Wealth)</th>
<th>Fuzzy Match</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Perfect Match</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S1</td>
<td>S2</td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suffrage</td>
<td>-0.171</td>
<td>-1.376***</td>
</tr>
<tr>
<td></td>
<td>(0.182)</td>
<td>(0.173)</td>
</tr>
<tr>
<td>Eligibility</td>
<td>-0.506*</td>
<td>-0.496**</td>
</tr>
<tr>
<td></td>
<td>(0.232)</td>
<td>(0.180)</td>
</tr>
<tr>
<td>Obs.</td>
<td>687</td>
<td>401</td>
</tr>
<tr>
<td>States</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>R-sq.</td>
<td>0.137</td>
<td>0.211</td>
</tr>
</tbody>
</table>

Notes: In columns 1-3 we limit the analysis to state senators for which we could find a perfect match in the 1850 census. In columns 4-6 we allow for a fuzzy match between the state senators roster and the 1850 census file (but still restrict the score of Stata’s `reclink` command to be at least 0.97. Columns (1) and (4) use the entire sample of state senators elected in a window of 15 years around the year of elimination of eligibility requirements; columns (2) and (5) use the sample with state senators elected in a window of 10 years around the date of eligibility reform; columns (3) and (6) restrict the sample to state senators elected after 1850. All specifications include state fixed effects, state specific time trends and control for age and age squared (not reported). Standard errors are clustered at the state level. *, **, *** significant at the 10%, 5% and 1% level, respectively.
### Table 7: Number of Candidates and Margin of Victory in Gubernatorial Elections

<table>
<thead>
<tr>
<th></th>
<th>Effective Number of Candidates</th>
<th>Margin of Victory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Suffrage</td>
<td>-0.04</td>
<td>-0.091</td>
</tr>
<tr>
<td></td>
<td>(0.111)</td>
<td>(0.068)</td>
</tr>
<tr>
<td>Eligibility</td>
<td>0.232***</td>
<td>0.245***</td>
</tr>
<tr>
<td></td>
<td>(0.061)</td>
<td>(0.059)</td>
</tr>
<tr>
<td>Obs.</td>
<td>591</td>
<td>591</td>
</tr>
<tr>
<td>States</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>R-sq.</td>
<td>0.215</td>
<td>0.234</td>
</tr>
</tbody>
</table>

Notes: Effective number of candidates from Laakso and Taagepera (1979) in columns (1) to (3) and from Golosov (2010) in column (4). Margin of victory is measured as a percentage. All specifications include state fixed effects, state specific time trends and control for the log of population. Standard errors are clustered at the state level. *, **, *** significance at the 10%, 5% and 1% level, respectively.