Berkowitz and Clay, Initial Conditions and the Evolution of Institutions: Evidence from the American States

Chapter 3: Initial Conditions and State Legislatures

State legislatures were very important political institutions in the nineteenth and twentieth centuries. They made most of the relevant law; shaped the legal system and more specifically the courts; and provided most of the public goods, to name just a few of their areas of responsibility. Even if state legislatures or groups within state legislatures had preferences regarding judicial independence, however, their ability to act on these preferences may have been limited by a number of factors. Some important examples include political competition in the state legislature and voter oversight with respect to the state legislature.

Our goals in this chapter are twofold. Our first goal is to document some initial conditions that have been shown to be important in the United States or in other contexts. Our second goal is to demonstrate that levels of political competition in the state legislature, size, professionalism and voter oversight of the state legislature, and modification of the state constitution were systematically related to several of these initial conditions over the nineteenth and twentieth centuries. Although our measures are conceptually distinct, they can be thought of as different measures of the mythical creature – the state political system. So we expect the measures to exhibit broadly similar patterns with respect to initial conditions. In the next chapter, we describe and document the mechanism through which initial conditions likely acted on state legislatures.

Because this chapter is in some sense a broad overview of 150 years of American state political history, it is useful to address some possible critiques by political historians

of what we do. The first critique is: Don't we know this already? There are two parts to the answer. The first part is that not all readers will be intimately familiar with American political history, so it is useful to present the evidence for their sake. The second part to the answer is that only one piece of the story is already well known to political historians. Most scholars will be aware of the North-South split in politics that occurred around the time of the Civil War. Many studies examine this split.[1] There is less awareness of the effect of the other initial conditions that we examine on the evolution of state legislatures and specifically on state political competition. Therefore, some of our results are likely to be new to many political historians.

A second critique is that the quantitative measures of state politics that we use are too simplistic to capture important features of the political system. They are particularly simple in comparison to the many of the more qualitative case studies of the people, parties, laws, and policy and how these have varied across locations and over time.[2] We believe these studies are important for understanding American political history in all its richness. We have a simple contention, however. Differences in the level of competition within state legislatures will lead to differences in outcomes. We are interested in the fact that initial conditions have considerable power to predict political competition. This suggests that patterns of competition were formed early and have exhibited a great deal of persistence. This should not be taken to mean that political competition is deterministic.

[1] There are many, many studies and they range in their approach. We will mention just a few. The seminal example of Southern state political history is V.O. Key's (1949) Southern Politics in State and Nation. An important example of the study of sectional state politics is Michael Holt's (1983) The Political Crisis of the 1850s. At the national level, an important example would be Keith Poole and Howard Rosenthal's Congress: A Political-Economic History of Roll Call Voting (1997).

[2] For some examples, see Baum (1984), Benson (1961), Bourke and Debats (1995), Formisano (1983), Kleppner (1970), Kruman (1983), Levine (1977), and Maizlish (1983). For overviews of the literature and additional references, see McCormick (1988) and Formisano (1999).

People, parties, laws, and policy all play roles and play different roles at different times, but their roles are constrained to some degree by the system within which they operate.

A third critique is that the measures we use do not capture political competition.[3] Political competition is difficult to measure, and the measures we use are at best noisy and indirect measures of political competition. Our hope is that by using a variety of measures of political competition and showing that the broad patterns are similar across measures that readers will be convinced that we are capturing important aspects of political competition.

A fourth critique is that state political competition at any point in time is determined by culture, religion, class, race or some other aspects of the composition of the populace and not by initial conditions at the time of settlement. [4] This may well be true. In fact, as we will discuss in Chapters 4 and 7, we believe that initial conditions are acting through some of these channels. We are, however, struck by the ability of initial conditions to explain the evolution of state political competition. Further, patterns across the American states bear some striking relationships to the patterns that we observe in the international context. This suggests – and we should stress by no means proves – that what we find is not somehow idiosyncratic to the United States or to the experience of specific states. It seems to be the product of more general forces.

[3] See Holbrook and Van Dunk (1993) and the discussion of the Ranney index.
[4] See the discussion in see McCormick (1988) and Formisano (1999) on the ethno-cultural view of politics and the earlier literature on the elite and class-based politics. See also Patterson and Caldeira (1984) and King (1989), who relate the Ranney index to state level characteristics such education, income, population and other variables.

Initial Conditions

The four initial conditions that we focus on are: legal origin, climate, access to water transportation, and culture. We have described legal origin in the previous chapter; and, we will describe the last three in more detail shortly. We focus on climate, access to water transportation and culture, because they have been shown by the economics literature, political science literature, or both to be systematically related to outcomes.[5] In the United States context, the most relevant papers are Mitchener and McLean (2003) and Rappaport and Sachs (2003). Mitchener and McLean (2003) show that between 1880 and 1980 price adjusted income per worker is systematically related to the average number of cooling degree days, the percentage of population in slavery in 1860, and access to the ocean or the Great Lakes. Our measures of climate and access to water transportation are similar to theirs. We do not use the percentage of population in slavery, because this variable is endogenous. The percentage of population in slavery is, however, fairly highly correlated with climate. Rappaport and Sachs (2003) show that county population and county employment density in 2000, controlling for weather and topography, are positively related to access to the ocean, the great lakes, and navigable rivers. This relationship also holds for changes in population density from 1920 to 1960 and from 1960 to 2000. We will use a similar, but more parsimonious, set of variables, since we will examine states and not counties. In international studies, scholars typically use climate and access to water transportation to explain growth and other economic outcomes.

[5] See, for example, Acemoglu, Johnson and Robinson (2001), Easterly and Levine (2003), Sachs (2003), Beck, Demirguc-Kunt, and Levine (2003).

We will use a single measure of climate to capture a number of different dimensions of the state climatic endowment including average annual temperature, average monthly precipitation, depth of the soil, annual flood frequency, and the months of drought for the states by census region. To avoid focusing on any one of these five measures, we employed principal component analysis, which allows us to build a weighted average based on the correlations among these five climate conditions.[6] The climate variable is higher in states that are hotter, or rainier, or have deeper soil, or have less flooding, or fewer droughts. The values for each state of our initial conditions are listed in Table 3.1. Louisiana has the highest value of climate (8.74), and Montana has the lowest value of climate (-4.81). The state closest to the average (0.00) is Rhode Island (-0.25). The average value for the North is -1.28, while the average value for the South is 4.31.[7]

Table 3.1 here

Although we will defer the issue of mechanism through which climate acts on political institutions to the next chapter, it is useful to touch on two possible mechanisms through which other scholars have proposed that climate acts. The first mechanism is climate as a proxy for agricultural endowment. Engerman and Sokoloff (2001, 2002)

[6] To make these five variables comparable, we converted all of them to standard normal variables, where stn(x) is the standardized normal version of a variable x. Because the average absolute correlation between these five variables is 0.52, the first component accounts for almost two-thirds of the variance between these five variables. Thus, we compute climate using the first component: climate = 0.8445*stn(temperature) + 0.8232*stn(precipitation) – 0.8173*stn(flood frequency) + 0.8262*stn(depth of soil) – 0.5880*stn(months of drought per decade).

[7] Here and in subsequent discussion, the term North refers to states that remained in the Union during the Civil War, while the term South refers to states that were members of the Confederacy during the Civil War.

argue that having a tropical climate led, through slavery and the resulting inequality, to poor political institutions. Our measure of climate is positively correlated with agricultural output and specifically with cotton output and slavery. The second is climate as a proxy for the disease environment. Acemoglu, Johnson and Robinson (2001) argue that a hostile disease environment caused European settlers to put in place extractive institutions.[8] Climate is also strongly positively correlated with antebellum mortality. We will discuss mortality further in the next chapter.

In addition to climate, states differed in their access to water transportation. Access to water transportation affected antebellum trade, because water was still the most economical form of transportation. Important strides had been made in roads, canals, and railroads, but these alternatives had emerged in the 1820s and 1830s and had not yet reached their peak in 1860. In fact, much of the revolution in transportation during the antebellum period was in river and ocean transport, as steam engines began to power boats. Table 3.1 shows the average share of counties in a state with access to at least one form of water transport. The data are taken from Rappaport and Sachs (2002). The variable equals 1 when all counties in the state have access to a navigable river, a lake or the ocean, and the variable equals 0 when all counties are landlocked. Four states on the eastern seaboard – Connecticut, Delaware, New Jersey and Rhode Island – have scores of 1.00. Ten states – Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, Utah, Vermont and Wyoming – have no access to water transport and score 0. Moreover, both Kansas (0.06) and South Dakota (0.02) are almost landlocked. The average for the North is 0.38, and the average for the South is 0.40.

[8] See also Sachs 2003

We examine culture, because the cultural composition of early settlers might be an initial condition in its own right. The set of all possible cultural classifications is large. For the sake of simplicity, we examine Elazar's (1972, second edition) classification of state political culture, which has been widely used in the political-science literature.[9] Using data from the early 1960s, Sharkansky (1969) showed that controlling for state urbanization and income, Elazar's classification has explanatory power for voter participation, the size and other dimensions of the bureaucracy, and measures of government programs. Other competing classifications exist, but as Lieske (1993) noted, only Elazar's classification has been widely used. One drawback of Elazar's classification is that it in principle could change over time. Indeed, he constructed it to explain the political behavior of states in the mid twentieth century. The point, however, was to capture fundamental, persistent differences rooted in culture. So his classification may not have been substantially different earlier. Berman (1988) presents evidence that Elazar's classifications have explanatory power in the Progressive Era.

Elazar calls his variable "political culture", because he is interested in using it to explain differences in political systems. His classification is, however, based on the ethnicity and religion of early settlers as well as later migration streams, and so can be interpreted as measuring culture more broadly. His classifications are quite fine – including eight categories – but they can be consolidated into three main categories. He labels these three respectively as moralistic, individualistic, and traditionalistic. Elazar (1984) describes the three political cultures as follows:

[9] Elazar (1984), p. 117.

> Since individualistic political culture emphasizes the centrality of private concerns, it places a premium on limiting community intervention – whether government or nongovernmental – into private activities to the minimum necessary to keep the marketplace in proper working order. … In the moralistic political culture, individualism is tempered by a general commitment to utilizing communal – preferably nongovernmental, but governmental if necessary – power to intervene into the sphere of "private" activities when it is considered necessary to do so for the public good or the well-being of the community. … Traditionalistic political culture is rooted in an ambivalent attitude toward the marketplace coupled with a paternalistic and elitist conception of the commonwealth. It reflects an older, precommercial attitude that accepts a substantially hierarchical society as part of the ordered nature of things, authorizing and expecting those at the top of the social structure to take a special and dominant role in government.[10]

We will use Sharkansky's (1969) mapping of Elazar's classification into a linear scale, with 1 being the most moralistic (Minnesota) and 9 being the most traditionalistic (Arkansas and Mississippi). The state closest to the average of 4.97 is Nevada with a rating of 5. The average for the North is 3.97, and the average for the South is 8.35.

Table 3.2 lists correlations among our initial conditions. In general, the correlations are not exceptionally high. The exceptions to this pattern are among climate, the South, and culture. For those variables, the correlations range from 0.72-0.79. The high correlation between culture and climate of 0.79 makes it difficult to separately identify the effects of these two initial conditions. Because climate is, arguably, more accurately measured than culture, we will focus primarily on climate.

Table 3.2 here

Our focus on these initial conditions does not imply that other factors are unimportant. For example, Mitchener and McLean (2003) include the percentage of

[10] Elazar (1984), pp. 94-99.

workforce in mining in 1880 in their regressions and find that it is related to productivity up to 1940. Other studies have shown that oil is also related to productivity and growth.[11] We exclude these factors for three reasons. The first reason is parsimony, because our data includes just 48 states. The second, and more important, reason is that oil and mining production is endogenous. Clearly the deposition of minerals and oil thousands of years ago was exogenous. Their discovery and development depended, however, on a variety of other variables, which are in part endogenous. These variables include increases in population and the development of uses for minerals and oil, particularly for oil. The third reason is timing. Oil and mineral discoveries would not happen until the second half of the nineteenth century, often later. In many – though not all – states, the state political system was well established prior to the discovery of oil and mineral wealth.

Indeed, parsimony has its costs, because it makes it likely that potentially important variables other than the ones discussed thus far will be omitted from any specification. Thus, the reader should take our later results to be descriptive rather than exhaustive. We are not specifying a unique causal pathway, but rather a general relationship.

One issue, to which we have already alluded, is that after the Civil War, the Southern state legislatures quickly came to be dominated by the Democrats. A lack of inter-party competition does not necessarily imply a lack of intra-party competition. There is some evidence on political competition at the primary level for the South and we will discuss this evidence together with the insights on Southern politics presented in V. O. Key's seminal book, Southern Politics in State and Nation (1949), in the next section.

[11] See for example Sachs and Warner (1999) and Isham, Woolcock, Pritchett, and Busby (2005).

State Political Competition

In this section, we describe our measures of state political competition. In the next section, we examine the empirical relationship between initial conditions and evolution of political competition in the state legislature. In the following two sections, we examine the empirical relationships between initial conditions and voters and between initial conditions and state constitutions.

In Figure 3.1, we represent the relationship among initial conditions, voters, the state constitution, state legislators. We view initial conditions as acting on the state legislature both directly and through voters and constitutions. Voters and constitutions are not the only constraints on the state legislature. For example, the governor and the judiciary also constrain the behavior of the state legislature. We will discuss the governor and the judiciary, and the constraints that they pose, in more detail in Chapter 5.

Figure 3.1 here

Initial conditions could affect state legislatures for two reasons. Initial conditions may shape the preferences of state legislature (as we argue is the case for civil law states), or they may shape the ability of the state legislature to act on its preferences by affecting political competition. What we are interested here is how initial conditions have shaped political competition.

Political competition is of interest to us for both theoretical and empirical reasons. Theoretically, political competition leads to greater redistribution.[12] Empirically greater inter-party political competition is associated in the United States context with higher

[12] See Lindbeck and Weibull 1987, Stromberg 2004, and Roemer 2001.

state income and growth, lower state taxes, more business friendly labor regulation, a larger share of manufacturing, higher quality governors, and higher voter turnout.[13]

Political competition is often measured, at best imperfectly, by examining the division of seats between parties in the state legislature. The division of seats is imperfect for a number of reasons, most obviously because legislators do not always vote along party lines. As we go back further, the problem is compounded by the fact that in the nineteenth century there were a greater number of distinct groups that can be interpreted either as factions within parties or as actual third parties. So there were no longer just Democrats and Republicans or Democrats and Whigs, but also Jackson Democrats, Anti-Lecompton Democrats, Union Conservatives, and Progressive Republicans to name just a few. In addition, in some states that were dominated by a single party, there was significant intra-party competition.

There are several measures related to political competition within the state legislature that account for the power of particular parties, total seats, voter oversight and professionalism of the state legislature. The Ranney index quantifies the extent to which one party dominates the state legislatures. Some versions of the Ranney include the party affiliation of the governor. The measures tend to tell a similar story. We compute an additive version of the Ranney index:

Ranney index = 100% - [abs(Democrats in upper house)% – 50%) +
abs(Democrats in lower house)% – 50%)]

The political environment is, nominally, most competitive when Democrats have 50-percent of the seats in both houses; and, the Ranney index equals 100%. And, the political environment is least competitive when the Democrats and/or some other party

[13] See Besley, Persson, Sturm 2006, and Holbrook and Dunk 1993.

holds 100-percent of the seats in each house and, the Ranney index equals 0% (for herein, we report the Ranney on a scale of 0-100 and suppress the percentage sign). During the 1866-2000, the state with the lowest average level of political competition is Arkansas (12) and the state with the highest average political competition is Illinois (84). The average level of political competition is 56 which is closest to levels in Tennessee and Maine. The averages for the North and the South are 64 and 28, respectively.

One criticism of this Ranney index of political competition is that it only accounts for the *absolute majority* or *absolute minority* position of the Democratic Party and, therefore, ignores whether or not the Democrats have a majority or a minority in a particular house. For example, suppose the Ranney equals = 72. This measure of political competition corresponds to four quite different outcomes including: 1) the Democrats have majorities of 60-percent and 68-percent in the upper and lower houses, 2) the Democrats have minority positions of 40-percent and 32-percent, 3) the Democrats have a 60-percent majority and a 32-percent minority, and 4) the Democrats have a 40-percent minority and a 68-percent majority in the upper and lower houses.

It is possible to compute an alternative Ranney that draws a distinction drawn between whether the Democrats are in the majority or minority:

$$\text{Ranney}^{ALT} = 100\% - \text{abs}[(\text{Democrats in the upper house})\% + (\text{Democrats in the lower house})\% - 100\%]$$

The correlation between our Ranney and this alternative Ranney index is 0.97. Thus, both measures tell similar stories about the role of initial conditions.[14]

Figure 3.2 illustrates the striking differences in the evolution of the average Ranney index of political competition in the North and in the South.[15] Following the end of the Civil War in 1866 and by the eve of the Civil Rights era in the late 1950s, the average level of political competition in the North was 55; and fluctuated between 32 and 68. During 1960-2000, the average level of political competition in the North increased to 76 and fluctuated within the narrower band of 68 and 80. Following the Civil War, the average level of political competition in the South plummeted and virtually vanished during the first half of the twentieth century when the Democratic Party almost completely dominated Southern legislatures. During the 1950s, average political competition in the South was 8, and fluctuated within the narrow band of 4 to 20. After 1960 there average political competition in South began to rapidly grow; and, by the end of the twentieth century, average political competition in the South was close to levels in the North.

Figure 3.2 here

In addition to the Ranney index, we consider several additional measures of state legislatures and state politics that are related to political competition including the size of legislatures (measured by the number of seats), the level of professionalism in state

[14] The same holds for the multiplicative Ranney index proposed by Besley and Case (2003) which can be computed as 1 - abs(share of Democrats in upper house)*abs(share of Democrats in the lower house). The correlation coefficient between this Ranny and our additive Ranney is 0.96.
[15] We limit the sample to even years because these have the most coverage.

legislatures, and political competition measured by citizen voting patterns. Regarding the size of state legislature, the number of seats might at first glance appear peripheral to political competition and outcomes, but it is not. The number of seats will determine, for example, the number of votes that need to be acquired in a close vote. For example, a 55 percent - 45 percent division of seats in a small house may mean the difference of only a few votes, whereas in a larger house it may represent a significantly larger number of votes. Further, Gilligan and Matsusaka (1995) show that during 1960-1990, state government expenditure was positively related to the number of seats in a state's legislature. They suggest that the reason is logrolling. During 1866-2000 Delaware has had the smallest number of seats in the state legislature (48), and New Hampshire has had the largest number of seats (280). Iowa and Maryland are both close to the average of 154 seats. Interestingly, in light of the conventional wisdom regarding the South's dislike of government, Southern states have had slightly larger state legislatures (158 seats) than Northern states (153). In contrast to the Ranney index of political competition, the number of seats in each state legislature does not change much during 1866-2000.

Next we examine a related measure of state political competition that is based on broad-based citizen voting. We do this to examine whether initial conditions have a different influence on political competition in the state legislature and in citizen voting. Our measure is based on data collected by Ansolabehere and Snyder (2002, and updated). These data are election results for a broad set of directly elected state-level officials in the executive branch, including low profile "down-ballot officers" such as the Attorney General and Secretary of State. For these officers, voters to tend make their choices along party lines. Thus, vote shares for a party that are substantially greater than 50 percent in

these elections, and in the down-ballot elections in particular, are indicative of weak political competition.

Following Besley et al (2006), voting based political competition is computed as 100% – 2*abs((votes for Democratic candidates in broad elections)% – 50%)): therefore, 0 is the lowest and 100 is the highest level of political competition. During 1876-2000 the state with the lowest level of competition is Mississippi (50.5), while the state with the highest level is Indiana (94). The state that is closest to the average is North Carolina (81). And, the average for the South is 64 and for the North is 86.

Figure 3.3 illustrates the evolution of voting-based political competition for the average state in the South and North. The evolution of voting-based political competition is somewhat different than the evolution of the Ranney index for several reasons. While the Ranney index gradually increases in the North during 1866-2000 on a path that includes many upward and downward spikes, voting based political competition in the North remains stable and averages roughly 85 throughout 1876-2000 on a path that includes many fewer and many smaller spikes. Second, while both measures of political competition fall in the South after the Civil War, the Ranney index in the South converges to levels in the North at the end of the 1990s, while voting based political competition in the South converges by around 1970. This suggests that climate, as a proxy for the South, has had a more persistent effect on political competition in state legislatures than on popular voting. We return to this point later in this chapter.

Figure 3.3 here

A related measure of state legislatures that is available in the twentieth century is the index of state legislative professionalism developed by Squire (2006a, 2006b). The Squire index compares the average pay, average staff size and average number of days in sessions of a member of a state legislative body with his/her counterpart in the United States Congress for nine years at varying intervals in the twentieth century. "In essence, the measure shows how closely a legislature approximates these characteristics of Congress on a scale where 1.0 represents perfect resemblance and 0.0 represents no resemblance" (Squire 2006b, p.4). When the Squire index is close to 0.0, members of state legislators have relatively low and small staffs and they meet relatively infrequently. This can be associated with a culture where legislators are pressed to find alternative income sources and where they are poorly informed about technical aspects of issues. The state with the lowest average level of legislative professionalism is Wyoming (0.05), while the state with the highest average level of legislative professionalism is Massachusetts (0.42). Rhode Island is closest to sample average (0.16). The average for the South is 0.12 and for the North is 0.17.

One criticism of what we have done so far is that the Ranney index and the related indices fail to capture intra-party competition for the South. To address this, we would ideally like data on intra-party competition for state legislature seats from 1865 to 1965. In fact, the available data are on primary competition for gubernatorial and Senatorial elections from 1920 to 1972. Although the data are not entirely ideal, they are likely to be suggestive of competition for state legislative seats.

Following V. O. Key (1949), we computed the percentage of the total vote that the top two candidates for governor garnered in the first Democratic Primary. We

examined the average from 1920-1959, but our results are very similar to what he found for 1920-1948. In the top panel of Table 3.3, we present our averages for 1920-1959 and his medians for 1920-1948. Key interpreted the share of vote as indicating the extent to which the Democratic Party divided into two party-like factions on one end of the spectrum, where the share garnered was high, and factionalization on the other, where the share garnered was low. Although number of observations is too small to do empirical analysis, in the bottom panel of Table 3.3, we present the correlations between the percentage of the total vote that the top two candidates for governor garnered in the first Democratic Primary during 1920-1959 and our four initial conditions. The results suggest that having two party-like factions is negatively associated with climate (-0.36) and civil law origins (-0.88). This suggests that states within the South that have more rainy, humid and temperate climates have less political competition within the dominant Democratic Party. This pattern is consistent with an observation that we will document in subsequent sections of this chapter, which is that climate is associated with less political competition.

Table 3.3 here.

State Political Competition and Initial Conditions

In this section, we will show that the measures of state political competition we discussed in the previous section are systematically related to the initial conditions. Before proceeding, however, it is useful to discuss how we believe initial conditions will affect the measures. International evidence shows that countries having more tropical climates, whether defined by latitude, disease environment, or other variables, have

weaker political institutions.[16] Although these papers do not explicitly measure political competition, the weakness of the political institutions may well derive in part from lower levels of political competition. In the United States context, any effect of climate on political competition is undoubtedly confounded with the effect of the American Civil War. Following the war and especially after Reconstruction, virtually all politicians in the South were Democrats, which is likely to have weakened political institutions. Because of the correlation between climate and culture, we expect Elazar's culture variable to follow a similar pattern to climate.

In the international context, legal origin has been found to be negatively related to property rights and to a large number of outcome variables such as entry, regulation, and the quality of government, and investor protection to name just a few.[17] Thus, it would not be particularly surprising if legal origin were related to American state political competition.

Access to water transportation has received somewhat less attention in the international context. Easterly and Levine (2002) show that being landlocked is negatively, although not always significantly, related to the quality of political institutions. Thus, access to water transportation may be positively related to political competition.

Having outlined the predicted effects, we begin by examining the Ranney index. While data for the Ranney-based measure is available as far back as the 1830s, this data is available for a larger number of states and years after the Civil War. Thus, we examine

[16] See, for example, Acemoglu, Johnson and Robinson (2001), Easterly and Levine (2003), Sachs (2003), Beck, Demirguc-Kunt, and Levine (2003).
[17] See Levine (2005) and a large number of papers by La Porta and his coauthors beginning with La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998).

the Ranney index during 1866-2000. In the next Chapter we will analyze political competition using available data before 1866.

Table 3.4 reports random effects panel estimates for the influence of initial conditions including climate, civil law, transportation and culture on the Ranney index. In each specification we allow each initial condition to have a constant effect and a constant annual time-varying effect.[18] We use point estimates for the constant effect and annual time-varying to compute the effect of any initial condition in any year during 1866-2000. For example, if the point estimate of the constant effect of climate is -2.5 points, and its annual time-varying effect is -0.05, then in 1900 the effect of climate is -2.5 + (1900-1866)*(-0.05) = -4.2; and its effect in 2000 is -2.5 + (2000-1866)*(-0.05) = -9.2.

Table 3.4 here

In Table 3.4 column 1, we include climate, civil law and access to water transport as the initial conditions; and, in column 2 we also include culture. Figures 3.4 and 3.5 illustrate that in either specification climate always has a large and negative influence on political competition and transportation always has a positive influence on political competition. In both specifications the constant effect of civil law is weakly positive, insignificant and very slowly approaching zero over time.

Figures 3.4 and 3.5 also illustrate the trajectories for the effects of climate and transport during 1866-2000 depend upon whether or not we control for culture. When we ignore culture, the initially negative influence of climate becomes more negative over time, and when we include culture the negative influence of climate gets weaker. In the

[18]Thus, the constant effect of any initial condition is equivalent to its effect in 1866.

case of transportation, when we ignore culture, the positive impact of transport is roughly constant, and when we include culture, the impact of transport weakens over time. As we have previously noted, it is difficult to separately identify the influence of climate and culture. Because climate is measured with more accuracy than culture, we exclude culture in subsequent analysis.

Figures 3.4 and 3.5 here

Because it is likely that major events such as the Civil War and the Civil Rights movement have influenced political competition, it seems unlikely that the annual change in any initial condition is constant over the period 1866-2000. Thus, we next estimate a model where the change in the annual impact of an initial condition can vary in different periods. We split our sample into three periods, including 1866-1895, 1896-1959, and 1960-2000. In the political science literature 1896 is considered to be a critical year where a surge in industrialization had a major influence on state politics. Moreover, 1960 is also considered to be another critical year for state politics, even though federal legislation that expanded voting rights to Blacks was implemented later in 1965.[19]

In Table 3.5, column 1 we report point estimates of the constant and time-varying effects of climate, civil law and transport allowing for structural breaks in 1896 and 1960. Figure 3.6 and 3.8 illustrate that the estimated influence of climate and transport are broadly consistent with our previous finding when we did not allow for structural breaks:

[19] See Nardulli, 1995; and Sundquist, 1983. These authors also include 1932 and 1948 as dates when there were major re-alignments in state politics. Because 1932 and 1948 appear to be less important than 1896 and 1960, we do not include them as potential structural breaks. Including these additional dates would mean we have five different periods. Conducting panel analysis with five periods would drastically weaken the power of our econometric tests.

in the full sample climate has a large negative influence on political competition throughout 1866-2000 and transportation has a substantial positive influence. However, in contrast to our previous results, civil law appears to influence state politics in the twentieth century. Figure 3.7 shows that in the 1860s civil law initially has a positive and insignificant influence; but, its effect becomes larger and more significant during 1866-1895; during 1896-2000 the influence of civil law is almost constant and is associated with roughly a 20 point gain political competition, which is roughly two thirds of a sample standard deviation. We address whether this association is meaningful in subsequent analysis.

Table 3.5 here

Figures 3.6, 3.7 and 3.8 here

To address the criticism that the climate variable is simply picking up is the effect of the Civil War, in columns 2 and 3, we split the sample into Southern (Confederate) states and Northern (Union) states. Figure 3.6 shows climate is, in general, negatively associated with political competition and of comparable magnitude in the full sample, the South and the North throughout 1866-2000.

Figure 3.7, shows civil law has a different impact in the North and the South. While there is roughly 20 points less political competition on average in the civil South compared to the common South in the 1860s, this difference slowly weakens over time and is close to zero during 1960-2000. And, while political competition in the 1860s is only marginally higher in the civil North, this difference rapidly grows during the latter

half of the nineteenth century, reaches roughly 30 points by the end of the nineteenth century, and remains roughly at this level throughout the twentieth century. Thus, the influence of civil law is very different in the North and South, and civil law cannot be considered a significant initial condition for the evolution of political competition.

Figure 3.8 illustrates that influence of water transport access is always positive in the South and the North; however, while the influence of transport grows over time in the North, it falls in the South during 1896-1959 and is small during 1960-2000. The pattern for transport is consistent with the view of access to water having a larger impact in the South prior to the development of mature road, rail, and air infrastructure and relatively less thereafter starting in the 1960s.

In Table 3.6, we examine how initial condition influence the broad voting based measure of political competition. Figures 3.6 and 3.9 illustrates that the influence of climate on voting based political competition is significantly different than its influence on the Ranney index of political competition in state legislatures. In the North, climate has a persistently negative influence on both measures of political competition. In the South, however, the influence of climate on political competition in state legislatures is persistently negative during 1866-2000, while the initially negative influence of climate on voting-based political competition disappears by 1960. Indeed, this suggests that state legislatures are a more important channel than broad public opinion for understanding mechanisms through which initial conditions have had a persistent influence.

Figure 3.7 and 3.10 can be used to compare the influence of civil law on state legislative and voting-based political competition; and, figures 3.8 and 3.11 compare the

influence of transportation. The differences in how these two initial conditions impact these two forms of political competition are marginal.

Table 3.5 here

Figures 3.9, 3.10 and 3.11 here

In Table 3.6 we examine the relationship between initial conditions and the seats during 1866-2000, we examine several time periods. In column 1 we average the number of seats over 1866-2000; in columns 2, 3 and 4 we average over our periods 1866-1895, 1896-1959 and 1960-2000. In each specification we find that climate is positively and significantly associated with the number of seats. Civil law is significant during 1896-1959, and transportation is always insignificant.

Table 3.7 here

In Table 3.8, we analyze the relationship between initial conditions and the Squire index of state legislative professionalism. Because the correlation of legislative professionalism for a state across years is very high, we averaged the value for a state during 1935-2003). In column 1, we average the Squire index over the entire period, in columns 2 and 3 we average the index over the 1935-1960 and 1979-2003. We find that transport is positive and always statistically significant, and climate is negatively associated and statistically significant for the entire period and for 1979-2003. Civil law is insignificant. Thus, on average during the twentieth century, states with greater access

to transportation and colder, less humid and less rainy climates have had more professional legislatures during the twentieth and early twenty-first centuries.

Table 3.8 here

Thus, overall climate and transportation appear to have a persistent on political competition in state legislatures, while civil law appears to be irrelevant.

Voter Control Over State Legislatures

The most obvious way in which voters control state legislatures is through voting for individual state legislators. But there are other ways as well. We will consider two ways in which voters control state legislatures – voter initiatives or referenda and state constitutions. As in the previous section, we are interested in the relationship between these measures of voter control and initial conditions. In this section, we consider voter initiatives; and, state constitutions are examined in the next section.

Voter initiatives allow voters in some states to propose constitutional amendments or legislation or both. The process is most commonly direct – voters craft an initiative that is then voted on by voters. In some instances it is indirect – voters craft an initiative that is sent to the state legislature which may either adopt the initiative or send it to the voters. In comparison to voter initiatives, voter referenda are much weaker, because they only allow voters to accept or reject actions taken by the state legislature. Thus, we will focus on voter initiatives. In this section, we will examine voter initiatives and their use. We will leave explicit discussion of constitutional amendments to the next section.

One question is why voter initiatives are even necessary. Why does the state legislature not just implement the preferences of the voters? As Matsusaka (2004) points out, theories based on the median voter typically do not allow legislatures to behave in a way that is different from the preferences of the median voter. He offers a number of possible explanations for deviations from the preferences of the median voter. They include ignoring the wishes of the electorate, misunderstanding the wishes of the electorate, and gerrymandering. Matsusaka (2004) also shows that the divergences in spending in initiative and non-initiative states appear to vary over time. The intuition is simple – changes in preferences regarding spending are reflected more rapidly in initiative states than in non-initiative states. Non-initiative states eventually do shift however, leading the gap to close.

The effects of voter initiatives on the state legislature can take two forms. The first is a direct effect, wherein the usage of voter initiatives or the threat of their usage constrains the behavior of the state legislature. Matsusaka (2004) provides evidence on spending and taxes that is consistent with this view. The second is the indirect effect on interest groups. Boehmke (2005) shows that initiative states and non-initiative states differ by the number and the composition of their state interest groups. Interest groups in these states also differ in membership, resources, and lobbying tactics.

As of 2000, twenty four-states had direct or indirect voter initiatives for statutes or the constitution or both. The first state to permit voter initiatives was South Dakota in 1898. Twenty years later, nineteen states permitted voter initiatives. A second wave of adoption began in 1956 with Alaska's adoption of voter initiatives and ended with

Mississippi's adoption (for the second time) of voter initiatives in 1992. Table 3.9 lists the dates at which various states introduced voter initiatives.

Table 3.9

States with voter initiatives vary in a variety of ways including the number of signatures necessary to place an initiative on the ballot, how often they are used, and how frequently initiatives pass. For example, North Dakota only requires two percent of voters to sign to put a statutory initiative on the ballot, whereas Wyoming requires fifteen percent of voters to sign.[20] For constitutional initiatives, the numbers range from five percent in North Dakota and Massachusetts to fifteen percent in Illinois and Alaska. The average number of initiatives placed on the ballot between a state's adoption of the legislation and 1994 has ranged from 0.2 per (two year) cycle in Wyoming to 6.0 per cycle in Oregon.[21] The passage rates across all states and initiatives have averaged 36 percent for statutes and 34 percent for constitutional amendments.[22]

In Table 3.10, we investigate the relationship between initial conditions and voter initiatives. Because voter initiatives in any state are introduced at most once, in the first specification we examine the average share of years between 1890 and 2000 that a state had voter initiatives. The share ranges from 0.92 (South Dakota) to 0 (25 states). In specifications (2) and (3) we examine state years during 1890-1959 and 1960-2000. It is not surprising the dependent variables are highly correlated in the range of 0.91-0.98. We

[20] The number of signatures is as a percentage of the vote for governor or secretary of state in recent elections.
[21] Waters (2003).
[22] Ibid.

present the results of a Tobit regression where censor from below for the 25 states that never had initiatives. In each specification the coefficient on climate is negative, significant and large. Thus states with cooler, drier climates were more likely at any given point in time to have adopted legislation that allowed for voter initiatives than states with warmer, wetter climates and common law origins. The effect of climate is consistent with what we found earlier when we examined the relationship between initial conditions and the Ranney Index. Places with warmer, wetter climates had lower levels of political competition and were also less likely to have voter initiatives.

Table 3.10 here

State Constitutions

The second measure of voter control is state constitutions. Voters can shape the constitution by helping to propose an amendment through the voter initiative process, by voting on proposed amendments at the ballot box, and by participating in state constitutional conventions. Constitutional conventions are a more extreme version of constitutional amendments. During a convention, in principle, all parts of the state constitution may be changed. Depending on the changes made in the state constitution, we may observe changes in the state political system. Who participated in the state constitutional convention has varied over time and across states. Legislators and other political elites were more heavily represented in some times and places than others. Constitutional conventions were more common during the nineteenth century than the twentieth century. By the middle of the twentieth century, they had been supplanted to a

significant degree by amendments. We will discuss state constitutions further in the next section.

State constitutions are at least nominally binding on the state legislature, since they require both time and typically money to change, and they may be enforced by the state supreme court. In comparison to the United States Constitution, which includes a relatively small number of amendments to the original document, state constitutions have undergone much more change on average. State constitutions not only have been subject to many more amendments – tens and in some cases hundreds – over their life, but also have in many cases been completely rewritten.[23] As in the previous two sections, we are interested in the ways in which initial conditions have shaped state constitutions.[24]

We will examine five dimensions of state constitutions. The first dimension is the length of the original constitution. The original state constitutions were 11,400 words on average, and ranged from 1,100 words in New Hampshire to 58,200 words in Oklahoma.

The second dimension is the length of the constitution in 1990. The average state constitution was 17,200 words in 1941 and grew to 28,800 words in 1990. In 1990, Vermont had the shortest state constitution at 6,600 words and Alabama had the longest state constitution at 174,000 words.

The third dimension is the number of state constitutions that a state has had since statehood. To account for variations in the timing of entry into the Union, this is computed as a rate per 100 years of statehood as of 1991 (Lutz 1994). The average rate was 0.78 (one every 78 years), and it ranged from 0.16 constitutions in Louisiana to 2.11 constitutions in Massachusetts.

[23] See Lawrence Friedman (1988).
[24] For more details on this point, see Berkowitz and Clay (2005).

The fourth dimension is the number of amendments to the current constitution. As with state constitutions, this will be computed as a rate. The average state amended its current constitution (as of 1991) 1.41 times per year. Vermont has amended its constitution the least frequently, 0.25 times per year, whereas Alabama has amended its constitution the most frequently, 8.07 times per year. Because constitutional amendment is more common in some periods than others, we will also compute the rate for fixed intervals in the twentieth century. Between 1970 and 1990, the average state amended its current constitution 1.98 times per year. Vermont and Alabama remained the least and most frequent amending states with 0.30 and 9.65 amendments per year, respectively.

The fifth dimension is the amount of particularistic content in the current constitution in 1997 as coded by Hammons (1997). State constitutions are composed of two types of provisions – framework provisions and statutory laws. Framework legislation covers governmental principles, processes, and institutions. The statutory laws are in contrast to framework legislation and have been called 'particularistic' legislation by Hammons (1999). These laws have been upgraded to constitutional status and are not observed in the federal constitution. Hammons (1999) offers some examples of particularistic provisions: "All telephone and telegraph lines, operated for hire, shall each respectively, receive and transmit each other's messages without delay or discrimination, and make physical connections with each others lines, under such rules and regulations as shall be prescribed." Oklahoma, Article 9, Section 5, 1907. "The people hereby enact limitations on marine net fishing in Florida waters to protect saltwater finfish, shellfish, and other marine animals from unnecessary killing, overfishing, and waste." Florida, Article 10, Section 16, 1968. Generally speaking,

longer constitutions contain more particularistic content. The share of particularistic content ranged from 0.04 in Vermont to 0.73 in Alabama and averaged 0.31.

In Table 3.11 Panel A, we regress these five variables on climate, civil law and access to water transport. Because of civil law's use of statutes and bright line rules, we expect civil law states to have longer and more particularistic constitutions. It is less clear what the predictions are for the other two initial conditions. The aggregate effect of climate on particularistic content and length might be negative, if Southern states were anti-government. The effect could be positive, however, because of the Civil War. Moreover, the effect of climate on the number of constitutions could be positive because many Southern states rewrote their constitutions after the Civil War. Access to transport might increase length and particularistic content, if, for instance, merchant elites demanded constitutional protections. Or perhaps they preferred shorter more ambiguous constitutions. Because the predicted effect of transport is unclear, we include it as a control and do not interpret its effect.

Table 3.11 Panels and B here

Table 3.11 shows that civil law states tend to have significantly longer initial constitutions and significantly more particularistic content in their contemporary constitutions. Moreover, civil law is associated with longer constitutions in 1990, even though the significance of civil law in this case is marginal. It is also striking that climate is also positively associated with the length of a state's first constitution and positively associated with the total number of constitutions.

In Table 3.11 Panel B, specification (1) we examine the relationship between the length of the initial constitution, and our three initial conditions plus the date of the first constitution. We find that climate remains negative and significant and civil law remains positive, but only marginally significant. Moreover, the year when the first constitution was written is positively associated and significant. Thus, after controlling for the timing of the first constitution, climate remains significant while civil become insignificant.

In columns 2-5, we investigate the relationship between initial conditions plus the length of the first constitution and our four remaining variables. It is striking that including the length of the first constitution and the year when it was introduced dramatically increases the fit compared to Panel A. In column 2 where the dependent variable is the length of the constitution in 1990, only initial length and year of the first constitution are significant. States with longer and relatively older initial constitutions had longer constitutions in 1990. In column 3, where the dependent variable is the total number of constitutions, the year of the first constitution and climate are statistically significant. States with relatively young constitutions located in regions with warm and rainy climates tend to scrap and replace their constitutions more frequently. In column 4, where the dependent variable is the amendment rate as of 1990 and in column 5 where the dependent variable is the particularistic content of constitutions in 1997, only the length of the initial constitution is statistically significant. States that introduced long constitutions tended to amend these constitutions frequently and also had substantial statutory content in these constitutions by the end of the twentieth century.

Taken together, the results in Table 3.11 suggest that the length and timing of initial constitutions are more important than climate, civil law and transport for

explaining the character of state constitutions. However, climate still influences the length of constitutions in 1990, the extent to which these constitutions are amended and the particularistic content of constitutions by the end of the twentieth century, albeit indirectly, through its influence on the length of initial constitutions. Moreover, climate directly influences the extent to which states replace constitutions, even after controlling for the length and timing of initial constitutions.

Conclusion

In this chapter, we documented three state initial conditions – climate, access to water transportation, and culture. We then demonstrated the relationship between these three initial conditions plus civil law legal origin and three other types of variables – political competition in the state legislature, voter control over the state legislature, and the state constitution.

What have we learned? In the United States context, the relationships between climate and political competition and between political culture and political competition have long been well understood by political scientists, so our primary contribution is the quantification of the effect. In contrast to climate, the relationships between legal origins and political competition and between access to water transport and political competition in the United States context are not well understood. We have found that access to water transportation in the nineteenth century is associated political competition within state legislatures and the professionalism of state legislatures in the twentieth century. And, civil law origins are unimportant for state politics.

We have also found that climate is a critical initial condition because it *persistently* influences the Ranney index of political competition in state legislatures, the number of seats in state legislatures, the professionalism of state legislatures, the extent to which states use voter initiatives and the character of state constitutions.[25] All of these measures are related to political competition and voter control over state legislatures. We have also found that climate influences public voting patterns after the Civil War, and this influence vanishes by around 1960. This suggests climate has influenced and continues to influence state politics through state legislatures and not through popular voting.

In the next chapter, we document the mechanism through which climate as well as transport acted on state legislatures by examining the occupational composition and wealth distributions of the richest people within states during the antebellum period. States with a warm, rainy and humid climate tended to be controlled by relatively homogeneous elites during this period, who were able to limit political competition in order to advance their narrow agendas. States with colder and dryer climates were run by more heterogeneous elites, who built political institutions that represented more diverse interests. We argue that the occupational composition of the elite is a likely mechanism through which initial conditions act on the subsequent evolution of political competition.

[25] It is also worth pointing out the somewhat obvious – that the effects of initial conditions on political competition and voter control over the state legislature have varied over time. Mitchener and McLean (2003) have made a similar point in the United States context with respect to worker productivity.

Table 3.1: Initial Conditions

State	Climate	South	Civil	Water Transport	Culture
Alabama	4.55	1	1	0.42	8.57
Arizona	-1.43	0	1	0.00	5.66
Arkansas	3.78	1	1	0.32	9
California	-0.83	0	1	0.41	3.55
Colorado	-3.8 5	0	0	0.00	1.8
Connecticut	-0.37	0	0	1.00	3
Delaware	2.82	0	0	1.00	7
Florida	4.95	1	1	0.93	7.8
Georgia	4.67	1	0	0.19	8.8
Idaho	-4.18	0	0	0.00	2.5
Illinois	0.63	0	1	0.53	4.72
Indiana	0.69	0	1	0.30	6.33
Iowa	-0.40	0	0	0.18	2
Kansas	-1.03	0	0	0.06	3.66
Kentucky	0.81	0	0	0.48	7.4
Louisiana	8.74	1	1	0.59	8
Maine	-0.83	0	0	0.63	2.33
Maryland	1.57	0	0	0.87	7
Massachusetts	-0.47	0	0	0.71	3.66
Michigan	-1.59	0	1	0.86	2
Minnesota	-3.26	0	0	0.16	1
Mississippi	6.18	1	1	0.29	9
Missouri	1.95	0	1	0.37	7.66
Montana	-4.81	0	0	0.00	3
Nebraska	-2.00	0	0	0.12	3.66
Nevada	-3.99	0	0	0.00	5
New Hampshire	-0.51	0	0	0.50	2.33
New Jersey	2.05	0	0	1.00	4
New Mexico	-1.87	0	1	0.00	7
New York	-1.60	0	0	0.71	3.62
North Carolina	4.02	1	0	0.32	8.5
North Dakota	-4.09	0	0	0.00	2
Ohio	-0.40	0	0	0.51	5.16
Oklahoma	1.32	0	0	0.12	8.25
Oregon	-3.77	0	0	0.44	2
Pennsylvania	-1.28	0	0	0.34	4.28
Rhode Island	-0.25	0	0	1.00	3
South Carolina	4.26	1	0	0.26	8.75
South Dakota	-3.56	0	0	0.02	3
Tennessee	2.94	1	0	0.49	8.5
Texas	2.33	1	1	0.12	7.11
Utah	-3.52	0	0	0.00	2
Vermont	-1.23	0	0	0.00	2.33
Virginia	1.02	1	0	0.43	7.86

Table 3:1: continued					
Washington	-1.85	0	0	0.59	1.66
West Virginia	-0.72	0	0	0.42	7.33
Wisconsin	-1.74	0	0	0.51	2
Wyoming	-3.85	0	0	0.00	4

Table 3.2: Correlations Among Initial Conditions

	Climate	South	Civil	Water	Culture
Climate	1.00				
South	0.77	1.00			
Civil	0.43	0.34	1.00		
Water	0.39	0.03	0.04	1.00	
Culture	0.79	0.72	0.40	0.07	1.00

Table 3.3: Intra-party Political Competition in the South

Vote Share of Top Two Candidates for Governor in Southern Democratic Primaries

State	Key's Median, 1920-1948	Average, 1920-1959
Tennessee	98.7	91.3
Virginia	98.3	96.0
Georgia	91.6	84.4
North Carolina	77.4	81.7
Alabama	75.2	68.7
Louisiana	69.1	74.3
Arkansas	64.2	62.5
South Carolina	63.2	79.1
Texas	63.2	61.5
Mississippi	62.9	64.7
Florida	57.0	58.8

Table 3.4: Initial Conditions and Political Competition: 1866-2000

Specification	(1) – Baseline	(2) – Control for Culture
Climate	-9.99*** (3.30)	-26.71*** (6.15)
Δ Climate per year	-0.077*** (0.015)	0.089*** (0.027)
Civil	5.90 (6.99)	3.57 (7.10)
Δ Civil per year	-0.030 (0.028)	-0.012 (0.028)
Transport	7.91** (3.14)	13.60*** (3.57)
Δ Transport per year	-0.002 (0.013)	-0.058*** (0.016)
Culture		18.62*** (5.38)
Δ Culture per year		-0.185*** (0.024)
Additional Controls	National-Level Yearly Time Effects and State-level Random Effects	
Observations	2751	2751
R-squared	0.352	0.377

Notes: Each cell corresponding to the independent variables contains point estimates for random effects GLS estimates, and robust standard errors are in parentheses. The dependent variable is normalized to lie on a scale of 0 to 100. The variables climate, culture and transport are converted to standardized variables with mean 0 and standard deviation 1. Thus, the point estimates for climate, transport and culture estimate "quantitative significance", i.e. the influence of a one-standard deviation increase in this initial condition on political competition. The civil law variable is a dummy variable, so that its associated point estimates capture the influence of civil versus common law origins on political competition. The notation ***, ** and * denotes significance at the 1 percent, 5 percent and 10 percent levels. Constant is estimated but not reported. These conventions also apply in subsequent tables.

Table 3.5: Initial Conditions and Political Competition: 1866-2000

Specification	(1) – Full Sample	(2) – The South	(3) – The North
Climate	-14.97*** (2.69)	-9.71*** (3.65)	-0.774 (5.65)
Δ Climate per year; 1866-1895	0.161* (0.093)	0.057 (0.28)	-0.304 (0.220)
Δ Climate per year; 1896-1959	-0.150*** (0.028)	-0.0762 (0.10)	-0.146** (0.062)
Δ Climate per year; 1960-2000	0.069 (0.053)	-0.248* (0.150)	-0.142 (0.098)
Civil	1.92 (5.42)	-16.50*** (2.88)	6.87 (6.80)
Δ Civil per year; 1866-1895	0.584*** (0.180)	0.223 (0.260)	0.881*** (0.240)
Δ Civil per year; 1896-1959	-0.060 (0.058)	0.0629 (0.071)	-0.061 (0.073)
Δ Civil per year; 1960-2000	0.100 (0.098)	0.0585 (0.16)	0.165 (0.11)
Transport	5.53** (2.40)	14.98*** (2.93)	-0.124 (3.12)
Δ Transport per year; 1866-1895	0.211** (0.083)	0.067 (0.310)	0.404*** (0.11)
Δ Transport per year; 1896-1959	0.154*** (0.027)	-0.163** (0.070)	0.174*** (0.034)
Δ Transport per year; 1960-2000	-0.047 (0.047)	0.019 (0.12)	0.020 (0.055)
Additional Controls	National-Level Yearly Time Effects and State-level Random Effects		
Observations	2751	593	2158
R-squared	0.367	0.694	0.253

Table 3.6: Initial Conditions and Voting
Based Political Competition

Specification	(1) – Full Sample	(2) – The South	(3) – The North
Climate	-9.18*** (2.64)	-13.70*** (3.37)	2.82 (2.41)
Δ Climate per year; 1876-1895	-0.078 (0.064)	0.011 (0.23)	-0.244*** (0.084)
Δ Climate per year; 1896-1959	-0.162*** (0.026)	0.073 (0.093)	-0.073** (0.029)
Δ Climate per year; 1960-2000	0.281*** (0.038)	0.403*** (0.13)	-0.109** (0.051)
Civil	-3.59 (4.50)	-18.91*** (3.69)	1.89 (3.00)
Δ Civil per year; 1876-1895	0.178* (0.10)	0.170 (0.31)	0.172* (0.091)
Δ Civil per year; 1896-1959	0.013 (0.039)	0.020 (0.100)	-0.032 (0.032)
Δ Civil per year; 1960-2000	0.219*** (0.065)	0.570*** (0.15)	0.119** (0.054)
Transport	4.06** (1.85)	9.49*** (2.59)	-0.549 (1.44)
Δ Transport per year; 1876-1895	0.151*** (0.044)	0.221 (0.27)	0.216*** (0.047)
Δ Transport per year; 1896-1959	0.107*** (0.017)	0.125* (0.064)	0.066*** (0.017)
Δ Transport per year; 1960-2000	-0.141*** (0.028)	-0.283*** (0.105)	0.005 (0.030)
Additional Controls	National-Level Yearly Time Effects and State-level Random Effects		
Observations	2596	523	2073
Number of code	48	11	37
R-squared	0.376	0.662	0.157

Table 3.7: Initial Conditions and Total Seats in State Legislatures

Dependent Variable is Total Seats in State Legislature

Period for averaging	1866-2000	1866-1895	1896-1959	1960-2000
Climate	12.94*	14.91*	14.35*	12.18*
	(6.80)	(7.80)	(7.48)	(6.63)
Civil	-25.04	-27.34	-33.02*	-18.01
	(16.6)	(19.9)	(18.5)	(15.5)
Transport	5.285	9.080	5.544	6.446
	(9.81)	(12.0)	(11.9)	(7.70)
Constant	157.8***	140.3***	162.2***	159.4***
	(11.8)	(12.8)	(13.2)	(11.3)
Observations	48	48	48	48
R-squared	0.07	0.09	0.07	0.07

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.8: Initial Conditions and Legislative Professionalism

Dependent Variable is the Squire Index of Legislative Professionalism

Period for averaging	1935-2003	1935-1960	1979-2003
Climate	-0.028** (0.013)	-0.012 (0.009)	-0.043** (0.018)
Civil Law	0.043 (0.029)	0.003 (0.019)	0.084* (0.046)
Transport	0.048*** (0.014)	0.034*** (0.011)	0.061*** (0.018)
Constant	0.147*** (0.013)	0.120*** (0.011)	0.174*** (0.017)
Observations	48	48	48
R-squared	0.26	0.22	0.27

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.9: States with Voter Initiatives

States (in chronological order)	Year of reform
South Dakota	1898
Utah	1900
Oregon	1902
Montana	1906
Oklahoma	1907
Maine	1908
Michigan	1908
Missouri	1908
Arkansas	1910
Colorado	1910
Arizona	1911
California	1911
Ohio	1912
Nebraska	1912
Idaho	1912
Nevada	1912
Washington	1912
North Dakota	1914
Massachusetts	1918
Alaska	1956
Florida	1968
Wyoming	1968
Illinois	1970
Mississippi	1992

Table 3.10: Initial Conditions and Voter Initiatives
Tobit Estimates

Dependent Variable is the Share of State Years
With Voter Initiatives

Specification	(1)	(2)	(3)
Period of time	1890-2000	1890-1959	1960-2000
Climate	-0.422***	-0.495***	-0.517***
	(0.14)	(0.18)	(0.17)
Civil	0.584**	0.431	0.790**
	(0.26)	(0.29)	(0.33)
Transport	-0.063	-0.072	-0.060
	(0.11)	(0.13)	(0.14)
Constant	-0.106	-0.248	-0.124
	(0.15)	(0.19)	(0.19)
Observations	48	48	48
Pseudo R-squared	0.166	0.179	0.146

Standard errors in parentheses; and, *** p<0.01, ** p<0.05, * p<0.1 Estimates are truncated below at 0 for the 25 states that never had voter initiatives.

Table 3.11: State Constitutions and Initial Conditions

Panel A

Specification	(1)	(2)	(3)	(4)	(5)
Dependent Variable	Log length of first const.	Log length of const. in 1990	Number of consts. as of 1990	Amendment rate as of 1990	Particularistic content as of 1997
Climate	0.180**	0.113	1.82***	0.182	0.035
	(0.075)	(0.094)	(0.43)	(0.14)	(0.025)
Civil	0.322*	0.358	-0.047	0.161	0.106**
	(0.17)	(0.22)	(0.64)	(0.35)	(0.048)
Transport	-0.117	-0.019	-0.079	0.007	-0.044**
	(0.074)	(0.095)	(0.27)	(0.11)	(0.018)
Constant	2.74***	3.03***	2.99***	-0.004	0.277***
	(0.086)	(0.10)	(0.32)	(0.13)	(0.020)
Observations	48	48	48	48	48
R-squared	0.26	0.13	0.61	0.09	0.25

Panel B: Additional Controls

Specification	(1)	(2)	(3)	(4)	(5)
Dependent Variable	Log length of first const.	Log length of const. in 1990	Number of consts.	Annual amendment rate	Particular-istic content
Climate	0.145*	-0.070	1.61***	0.038	-0.001
	(0.079)	(0.043)	(0.37)	(0.14)	(0.018)
Civil	0.259	0.032	-0.427	-0.096	0.042
	(0.17)	(0.088)	(0.62)	(0.31)	(0.039)
Transport	-0.120	0.134***	-0.064	0.103	-0.024
	(0.073)	(0.049)	(0.26)	(0.11)	(0.016)
Year when first const. is written	0.003**	-0.004***	0.015***	-0.000	0.000
	(0.001)	(0.0009)	(0.005)	(0.002)	(0.000)
Log length of first const		1.27***	0.232	0.820***	0.176***
		(0.10)	(0.69)	(0.24)	(0.036)
Constant	-3.050	7.21***	-25.79***	-1.69	-0.900**
	(2.67)	(1.60)	(8.62)	(3.35)	(0.44)
Obs	48	48	48	48	48
R-squared	0.35	0.84	0.71	0.32	0.59

Robust standard errors in parentheses; and *** p<0.01, ** p<0.05, * p<0.1

Figure 3.1

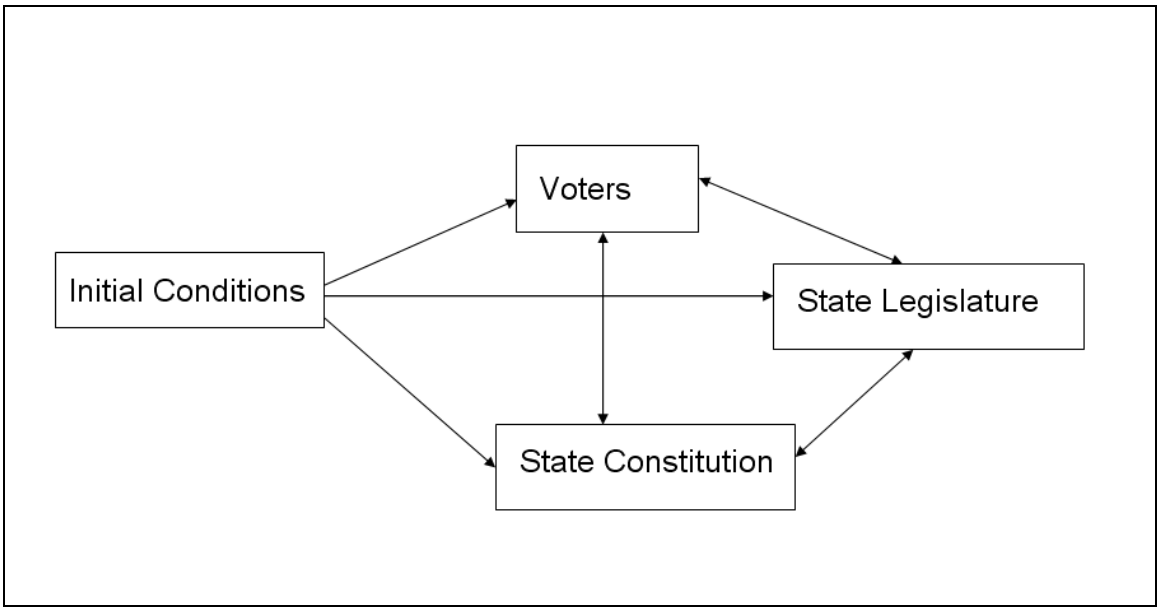

Voters
Initial Conditions
State Legislature
State Constitution

Figure 3.2: Evolution of Political Competition in the North and South

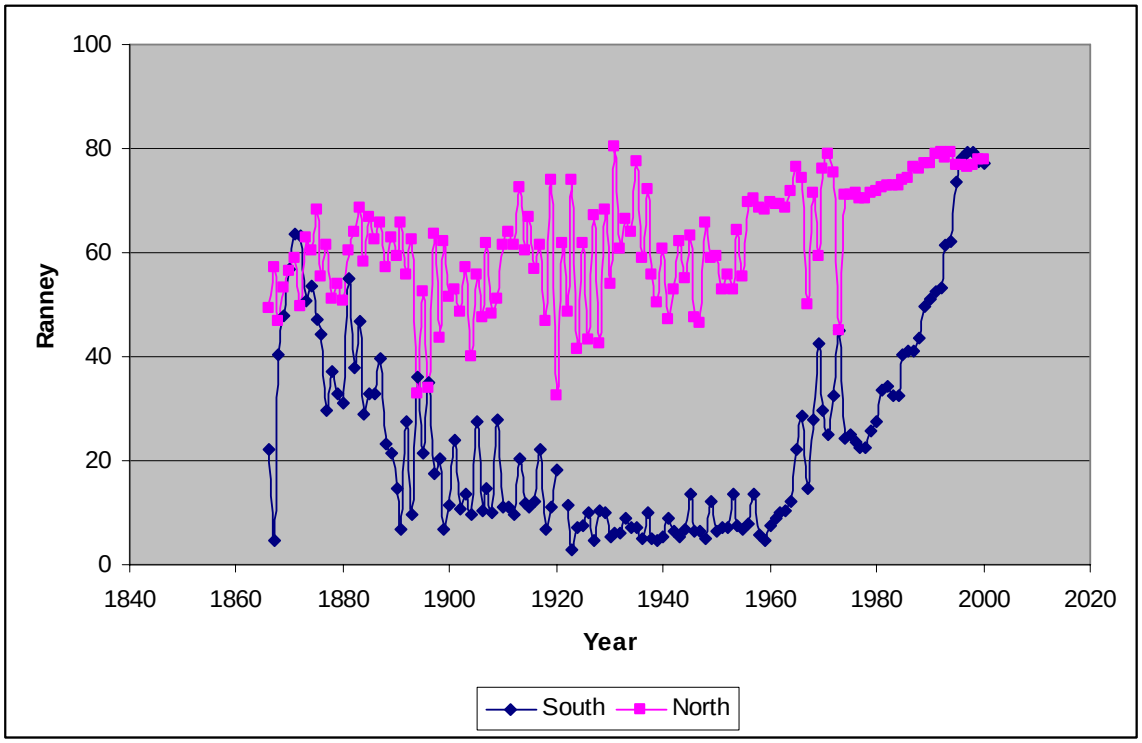


Figure 3.3: Evolution of Voting Based Political Competition in the North and South

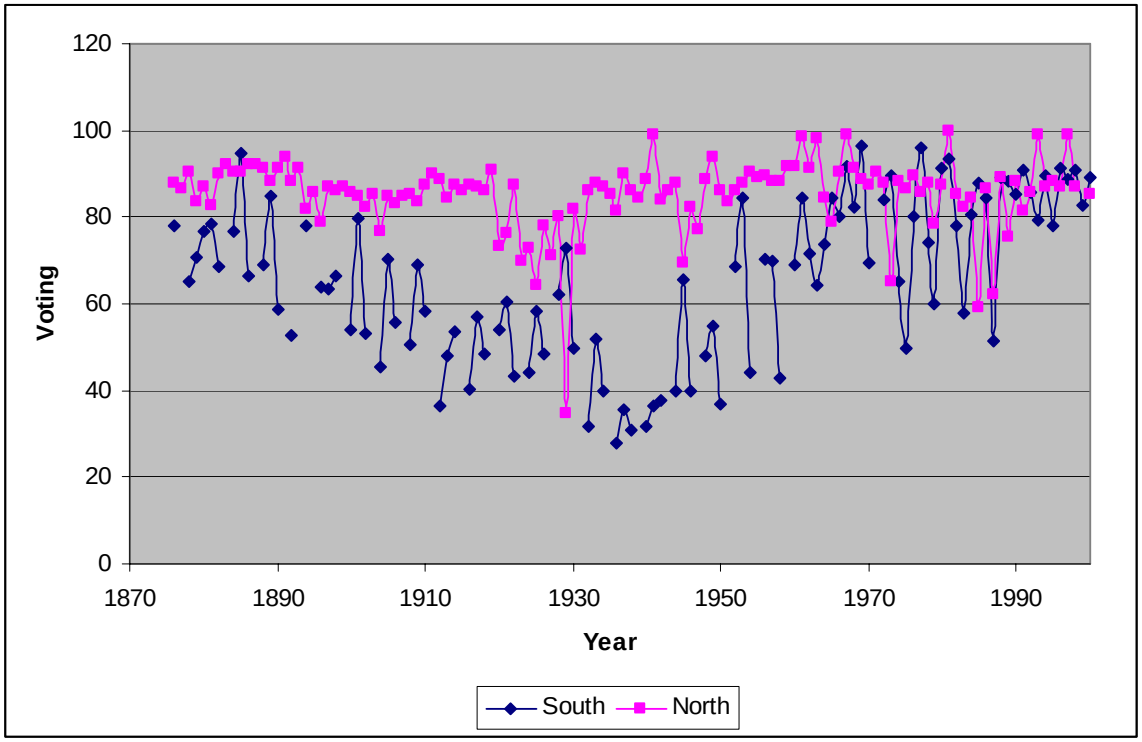


Figure 3.4: Climate and Political Competition with no Structural Breaks

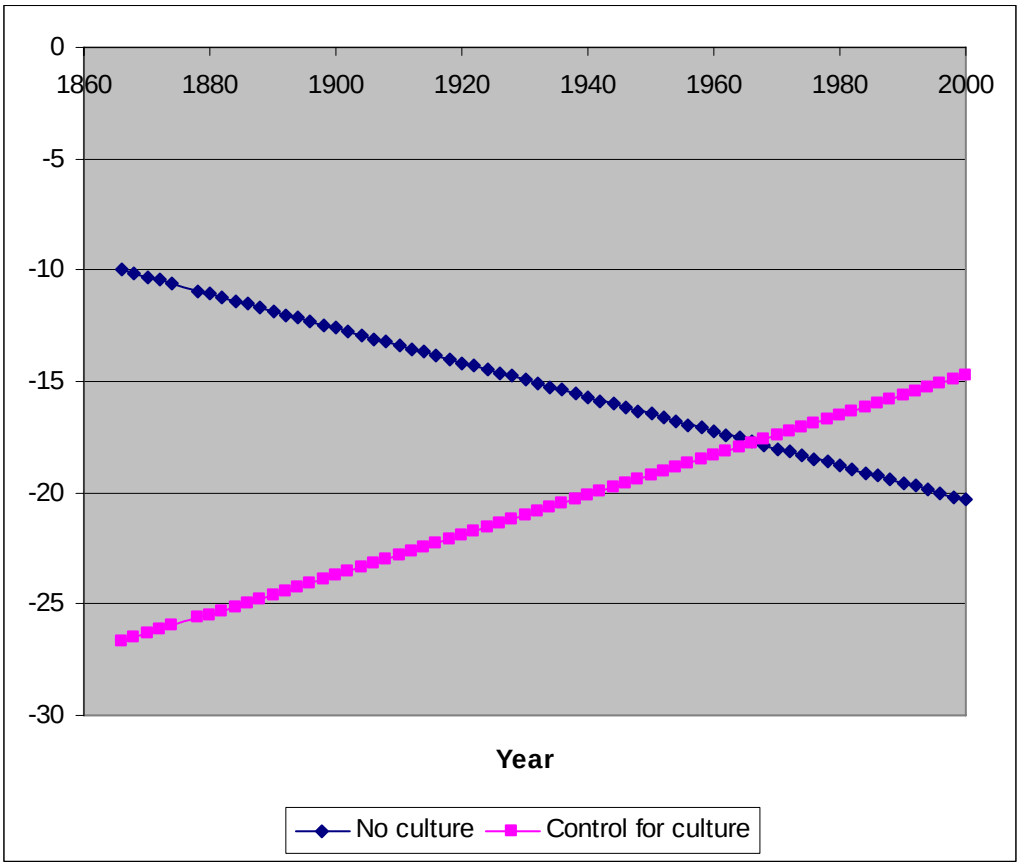


Figure 3.5: Transport and Political Competition with no Structural Breaks

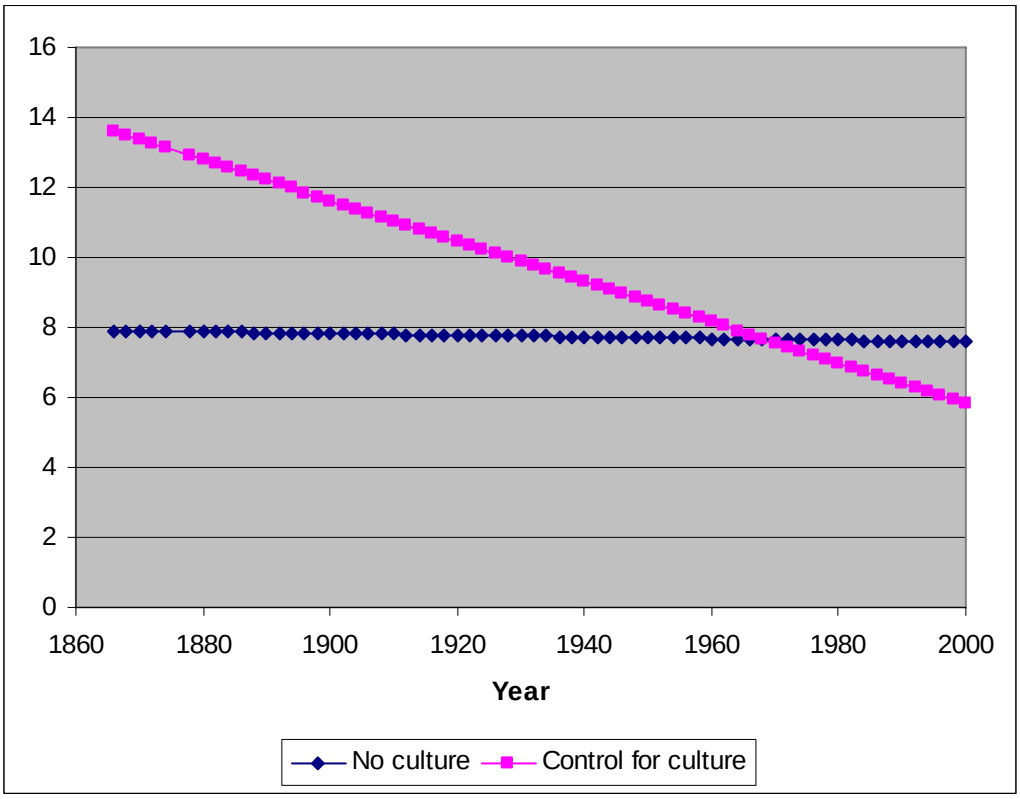


Figure 3.6: Climate and Political Competition

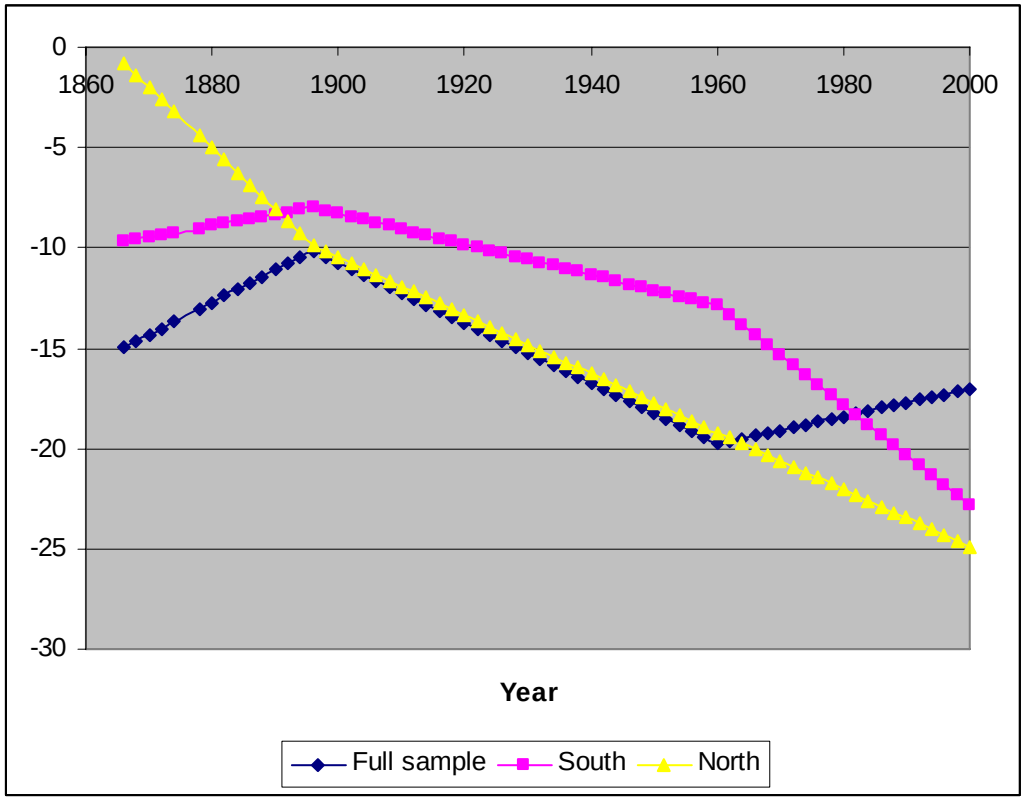


Figure 3.7: Civil Law and Political Competition

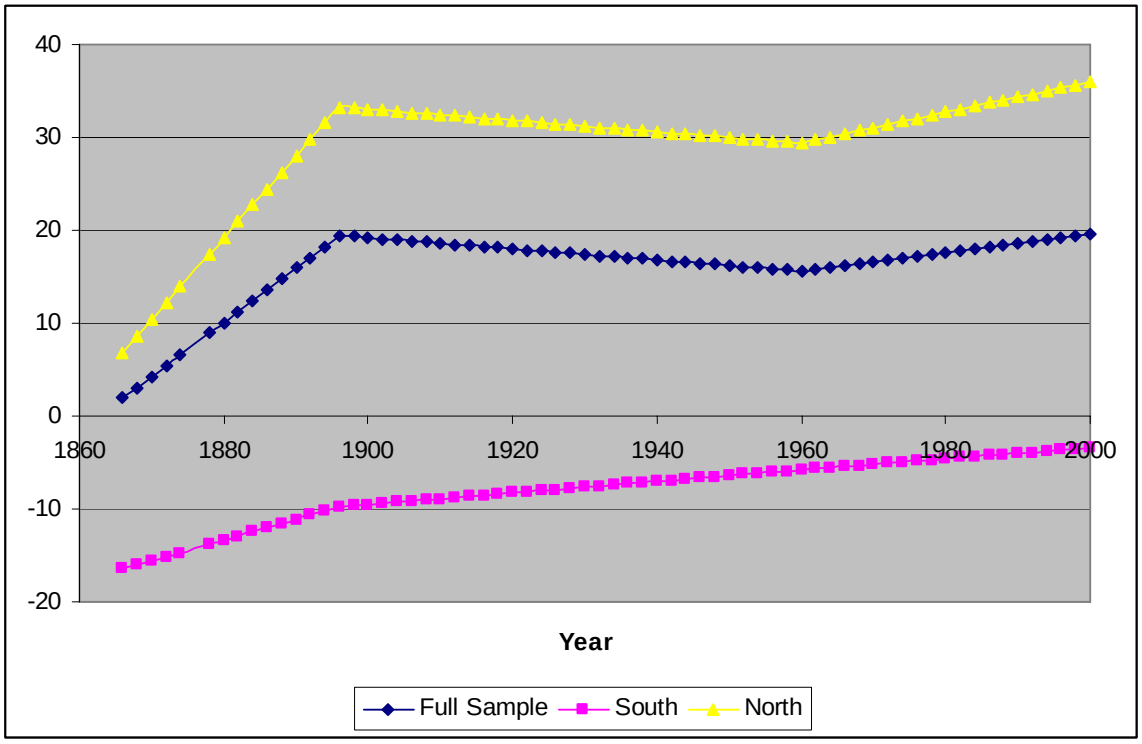


Figure 3.8: Transport and Political Competition

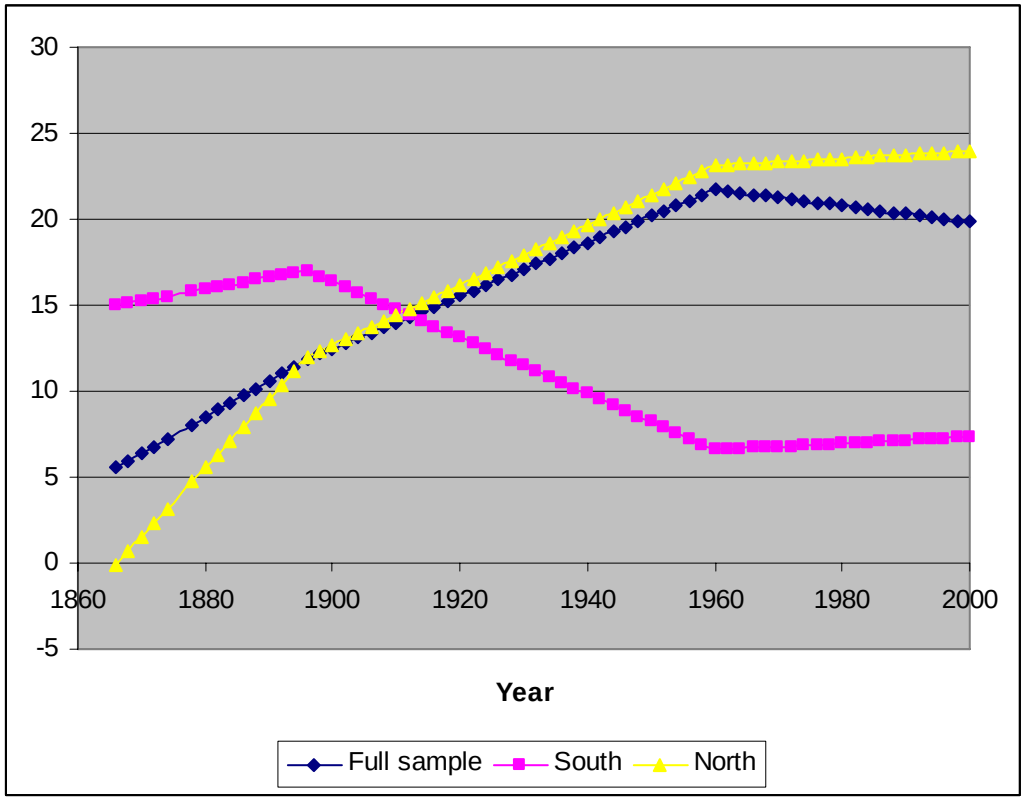


Figure 3.9: Climate and Voting Based Political Competition

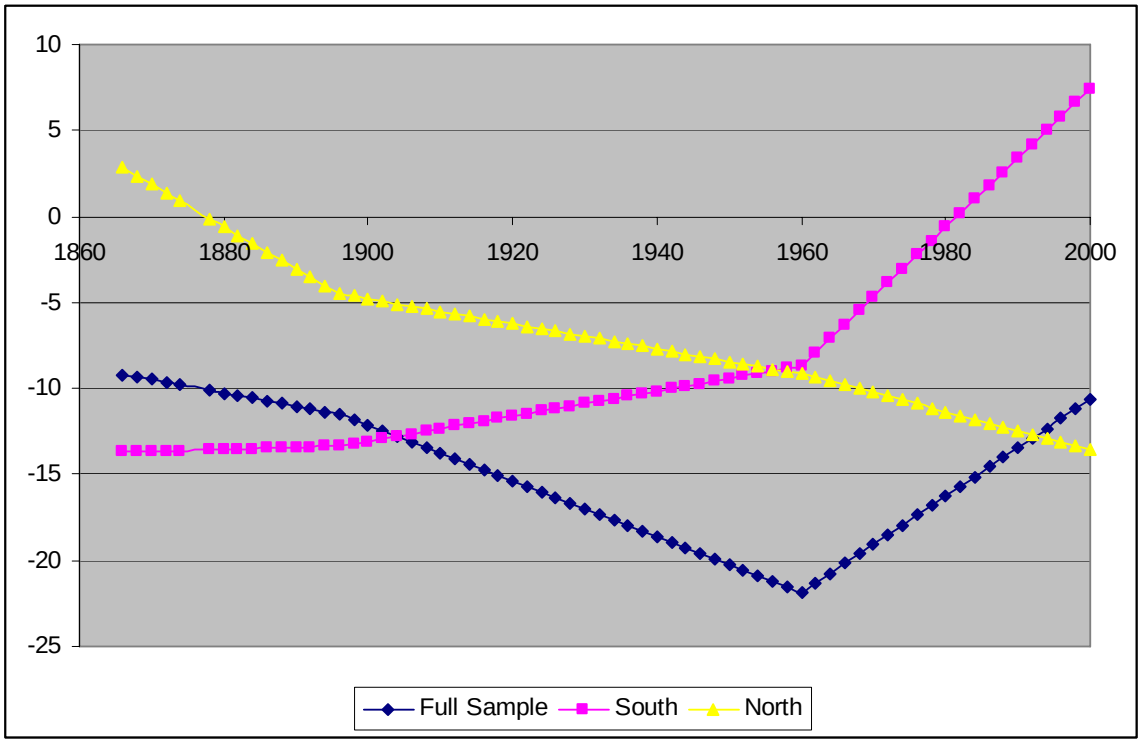


Figure 3.10: Civil Law and Voting Based Political Competition

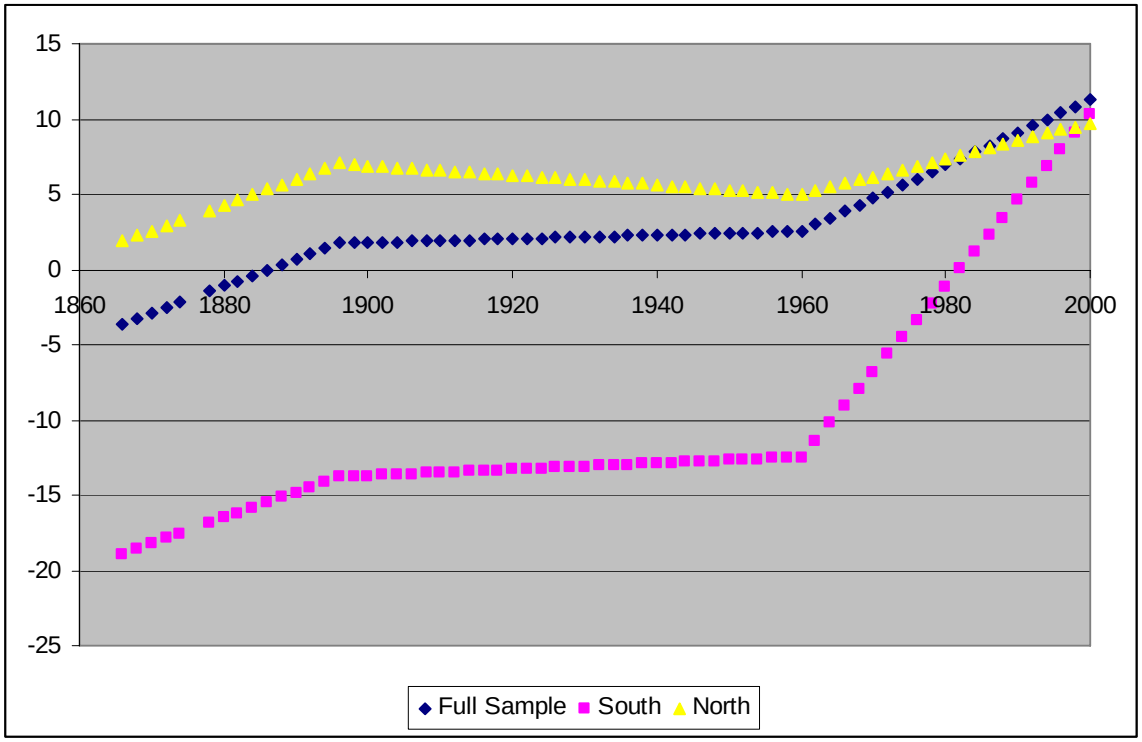
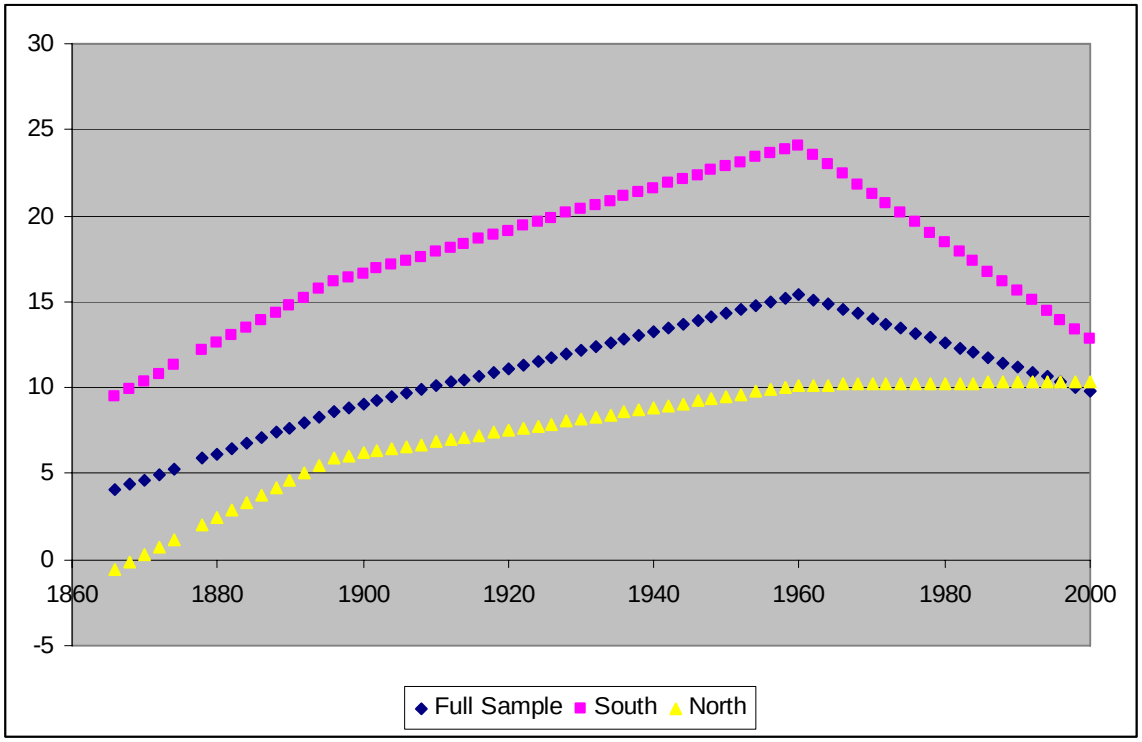


Figure 3.11: Transport and Voting Based Political Competition



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