Chapter 5: State Courts and Initial Conditions

Our goals for this chapter are straightforward. We wish to show that initial conditions are related to the quality of state courts, and that they appear to act through a variety of inputs into the state judicial system. These inputs include state decisions regarding judicial selection and retention, judicial tenure, whether and when to adopt state intermediate appellate courts, and how much money to allocate to state courts and to judicial salaries. Unfortunately, our measure of the quality of state courts covers only a few years in the early twenty-first century. The good news is that we are able to measure many of these inputs over long periods. And we show that these inputs tend to be highly persistent. If the relationship between the inputs and the quality of state courts is stable over time – something about which we can only speculate – then the quality of state courts is likely to have been persistent over time as well.

State Courts: The Challenge of Measuring Quality

An ideal measure of the quality of state courts would involve experienced judges, preferably at the federal appellate or a higher level, reviewing a large random sample of state court cases and grading the courts on the quality of their legal reasoning in many periods. For expediency, attention could be restricted to state supreme courts, although the work of those courts might not be representative of state courts as a whole. Unfortunately, such a study has never been done. Given the large costs in time and money that such a study would require, it may never be done.

The closest we can come to this ideal is a series of annual surveys by the Institute

for Legal Reform of the U.S. Chamber of Commerce, which measured the quality of state

courts in the years 2002-2007. The Institute surveyed a nationally representative sample

of senior attorneys working for companies with annual revenues of at least $100 million.

These individuals were asked to grade courts in states where they had practiced. Table

5.1 provides summary information on the survey including the number of respondents

and average number of states evaluated by each respondent in each year.

Table 5.1 here

During 2002-2005, each state was ranked in ten categories. These were: 1)

overall treatment of tort and contract litigation, 2) timeliness of summary

judgments/dismissals, 3) discovery, 4) scientific and technical evidence, 5) judges'

impartiality, 6) judges' competence, 7) juries' predictability, 8) juries' fairness, 9)

treatment of class action suits and 10) punitive damages. Attorneys assigned a state court

a grade of "A", "B", "C", "D", or "F". These grades were then rescaled to scores of 100,

80, 60, 40 and 20, respectively.[1] Scores for each state in the ten categories in each year

are highly correlated. Thus, following the procedure used in the surveys, we summarize

court quality in each state in each year during 2002-2005 by averaging the scores for the

ten categories. In 2006 and 2007, two additional categories were added: 11) whether the

courts had and enforced meaningful venue requirements and 12) non-economic damages.

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[1] Several states lack either punitive damages or class action suits. In these cases, the index was computed
on the basis of all of the other criteria except for punitive damages or class actions suits.

As with the earlier years, we average the scores for the twelve categories in each state in each year. The average score during 2002-2007 was 58.4, and ranged from 32.6 in Mississippi to 75.7 in Delaware.

The Institute's survey has a number of pros and cons as a measure of the quality of state courts. We begin with the pros. First, the individuals surveyed were lawyers with actual experience in multiple state courts. As shown in Table 5.1, the average attorney evaluated 5 states in the 2002-2005 surveys and 6 states in the 2006 survey. In an attempt to allow lawyers to be more careful in their assessments, the methodology was changed so that on average each lawyer evaluated 3 states in 2007.[2] Second, the sample was large and grew over time. In 2002, the survey included 824 attorneys. By 2007, it had reached 1,599 attorneys. Third, the respondents were attorneys who had roughly 20 years of relevant legal experience.

Fourth, the rankings suggest that participants' perceptions of the quality of state courts were highly correlated across years. For example, the same states appear repeatedly in the "Worst 5 States" category. Alabama, Louisiana, Mississippi and West Virginia were listed every year. Illinois appeared three times. Texas was listed twice. Several states also appear repeatedly in the "Best 5 States" category. Delaware was listed every year. Nebraska and Iowa appeared five times. Virginia was listed four times. Further, the yearly ratings are highly positively correlated with one another. The lowest correlation is between 2002 and 2007 (0.90), and the highest is between 2004 and 2005 (0.98). Not surprisingly, then, the yearly ratings and the average rating over the period

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[2] In 2001 and 2003, lawyers who evaluated at least four states represented 83 percent and 81 percent of the responses.

2002-2007 have correlations that range from a low of 0.96 in 2007 to a high of 0.99 in 2004 and 2005.

A significant criticism of the survey is that it may be measuring in part the pro-business orientation of state courts. This stems from the individuals surveyed. They were senior attorneys at major corporations with at least $100 million in annual sales, and many were from corporations that had $1 billion or more in sales. With respect to this criticism, two points are in order. First, a pro-business orientation may be beneficial in that pro-business courts may help to promote economic growth, which in turn benefits state residents. Second, holding pro-business orientation constant, attorneys are likely to prefer courts that hear cases more rapidly and have lower variation in the quality of judges and juries. Thus, pro-business orientation may be only one of several factors that the attorneys were responding to when asked to rate the quality of courts.

Our confidence in the survey increased when we found that the results correlated with other measures of the quality of state courts and state government. These correlations are summarized in Table 5.2. Our measure of the quality of state courts is negatively correlated with three measures of corruption in state government. The first two are average federal public corruption convictions per 100,000 of population. During 1992-2001, convictions averaged 2.73 per year and ranged from a low of 0.41 in Colorado to a high of 7.1 in Mississippi. During 1982-1991, convictions averaged 3.32 per year and ranged from a low of 0.79 in the state of Washington to a high of 7.84 in Tennessee. The correlations between these measures of corruption and the quality of state courts are -0.47 for 1992-2001 and -0.40 for 1982-1991. One concern is that federal convictions measure not only corruption but also federal efforts to prosecute corrupt state

officials. Boylan and Long (2003) surveyed state house reporters' perceptions of

corruption in 45 state legislatures in 1999. House reporters perceived South Dakota's

legislature to be the least corrupt and New Mexico's to be the most corrupt. The

correlation between perceived corruption and the quality of state courts is -0.40. This

suggests that, at least in part, federal convictions may reflect actual corruption.

      Table 5.2 here

      The correlations are not limited to corruption, although those are the strongest.

The quality of state courts is negatively correlated (-0.32) with judicial activism in the

mid 1980s. By judicial activism, we mean the willingness of judges in the state court of

last resort to nullify state legislation because it is contrary to the state constitution. We

use data from Beavers and Emmert (2000) which include all 3,024 constitutional

challenges for civil and criminal cases heard by state supreme courts between 1981 and

1985. In 550 of the cases, state court of last resort judges ruled that state legislation was,

at least in part, unconstitutional. Judicial activism is measured as the share of cases

during 1981-85 in which state courts ruled against their legislatures. Such activism may

be positive when it involves overturning unconstitutional laws. However, it can also be

negative if judges push their political agendas or activism makes legal outcomes less

predictable.

      The quality of state courts is also positively correlated (0.28) with legal

professionalism in the early 1970s. The Glick and Vines (1973) index of legal

professionalism is a composite score of five major characteristics of state-court systems.

It includes methods of selection for judges in all courts, state court organization, whether states had a professional administrator with a sufficiently large and competent staff, tenure in office for judges on major trial and appellate courts, and levels of basic salary for judges of major trial and appellate courts excluding fees and local payments. Each state's score was based on how closely judicial features in the state in the early 1970s mirrored the American Bar Association (ABA) model. Scores were then used to rank states from 1 (worst) to 48 (best). The five worst states were Mississippi, Arkansas, Alabama, West Virginia, and Indiana. The five best states were California, New Jersey, Illinois, Massachusetts, and New York.

The quality of state courts exhibited more modest correlations of the appropriate sign with judicial removals per capita (-0.22), the political attitude of state supreme court judges during 1960-93 (-0.22), and the citation of a state's supreme court as of 1975 (0.10). Judicial removal captures both the quality of judges and the extent to which judges can be easily bullied by state legislatures, politicians and administrators.[3] Not surprisingly, states with more removals also had lower quality courts. The political attitude of state supreme court judges, 1960-93, is a measure of the ideology of these judges.[4] States with more liberal state supreme courts were viewed as having lower quality courts. The reputation of a state supreme court in 1975 is based upon the number of citations of that court's opinions by other supreme courts in 1975.[5] States with more citations had slightly higher quality courts.

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[3] Gray (2002).

[4] Ideology was computed for 900 judges at the time of appointment or election. See Brace, Langer, and Hall (2000) for a detailed explanation of this variable. Our measure is the ideology of the median judge in each state.

[5] Caldeira (1983).

In sum, although the survey is not ideal, it appears to be informative with respect to the quality of state courts. The survey's measure of the quality of state courts is correlated with several related measures, which adds to its credibility. In addition to being a credible measure, the survey is the only measure. There are no other direct measures of the quality of state courts.

Initial Conditions and the Quality of State Courts

In this section, we demonstrate that state initial conditions appear to be systematically related to the average quality of state courts in 2002-2007. We use climate, civil law, transport and culture as initial conditions. We also consider the influence of the occupational composition of the state elite and the state median, the wealth share of the state elite, and soldier mortality, since these variables arguably influence state courts as well as state legislatures.

The important and somewhat unanswered question is why initial conditions at time of settlement have an effect on state courts at the beginning of the twenty-first century. We address this question in the next chapter. In the remainder of this chapter, we focus on documenting two things. First, we establish that initial conditions are strongly associated with the quality of state courts. Second, we show that initial conditions are strongly associated with inputs for state courts.

In Table 5.3, we investigate the relationship between initial conditions and the quality of state courts. For ease of interpretation, we standardize court quality and our continuous explanatory variables to have means of zero and standard deviations of one. In column (1) where we include climate, civil law, transportation and culture, only the

coefficient on civil law is statistically significant. However, as we have already argued in

Chapters 3 and 4, it is difficult to identify separately the influence of climate and culture

in a cross-section with only 48 states. Thus, in columns (2) and (3) we exclude culture

and then climate. Climate and culture, when included individually, are each statistically

significant. Each is associated with a 0.35 standard deviation decline in court quality.

This is roughly the difference between Arkansas and Wyoming. Arkansas has a warmer

and wetter climate and a more traditionalistic political culture. Wyoming has a cooler

and drier climate and a less traditionalistic political culture.

       Table 5.3 here.

       More importantly, in columns (1), (2), and (3), civil law is associated with 0.85 of

a standard deviation decline in court quality. This is roughly the difference between the

civil-law state of Florida and the common-law state of Vermont. Unlike climate and civil

law, the influence of transportation is small and statistically insignificant in all three

regressions.

       In column (4), we present the results from the regression in column (2).

However, we limit the sample to the 28 states that had entered the union by 1860. We do

this to facilitate comparison with the next set of results. It is worth noting that relative to

column (2), the fit in column (4) is much better.   Initial conditions are a better predictor

of the quality of courts in states that had entered the union by 1860 than they are for all

states. The coefficients on climate and civil law in column (4) are also somewhat more

negative than the coefficients on climate and civil law in column (2).

In Chapter 4 we evaluated four possible mechanisms – the Herfindahl-Hirschman Index (HHI) of the elite, HHI of the median, wealth of the elite, and soldier mortality – through which initial conditions may have acted on state political competition. We found that the occupational composition of elites during the antebellum period (HHI of the elite) was the best predictor of the subsequent evolution of state political competition. State legislatures interact with and have substantial power over state courts. For this reason, we are interested in whether HHI of the elite is related to the quality of state courts as well.

In Table 5.4, we eliminate climate, culture, and transportation and run simple horse races with civil law and our four mechanism variables. In columns (1)-(4), the effect of civil law on the quality of state courts is negative, statistically significant, and large. In addition, three of the four mechanism variables – HHI of the elite, HHI of the median, and soldier mortality – have negative and statistically significant impacts on the quality of state courts. Thus, states with more concentrated elites and medians and states with higher mortality also had lower ranked courts.

As measured by R-squared, HHI of the elite in column (1) provides the best fit. The R-squared values were 0.54 (HHI of the elite), 0.50 (HHI of the median), 0.49 (wealth share of the state elite) and 0.40 (soldier mortality). Note that the R-squared for the initial conditions in the 28 states in column (4) of Table 5.3 was 0.65. Hence, civil and HHI of the elite do not fully capture the effects of initial conditions on state courts.

Taken together, the results in Tables 5.3 and 5.4 suggest that conditions at the time of settlement have influenced the quality of state courts at the beginning of the twenty-first century.

Table 5.4 here

Determinants of the Quality of State Courts

Figure 5.1 outlines the relationship between initial conditions, inputs into the court system, and the quality of state courts. We begin by showing that these inputs are related to the quality of state courts. We then discuss each of these inputs and their relationship to initial conditions. We are able to measure many of these inputs over long periods of time. And we show that these inputs tend to be highly persistent.

Figure 5.1 here

We begin by discussing the inputs into the court system. A general definition of judicial independence is that "judges are not subject to the influence of some other actor(s): they are the authors of their own decisions."[6] The independence of judges is determined in large part by what judges need to do to remain in office.[7] Partisan elections are widely considered to give state legislative and executive officials most control over state court judges, because judges need to be re-elected to retain their positions. In particular, they need to participate in party primaries, give campaign speeches, and seek political contributions within the party. These activities tend to leave them in the debt of party officials, both within the legislative and executive branches and

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[6] Kornhauser (2002), p.48.

[7] Retention methods can be distinct from the methods of a judge's initial selection, although the two methods tend to coincide. For example, judges retained by a partisan or non-partisan retention election were typically selected in the first place by the same method. We focus on retention methods, because they determine the incentives that sitting judges face.

outside the branches. Non-partisan elections have some of these features as well. However, they tend to require less cultivation of party officials and in some cases less fundraising. Thus, non-partisan elections and appointment of judges are associated with greater judicial independence than partisan elections. Judges with longer tenure are also relatively more insulated than judges with shorter tenure. Similarly, judges in states with fewer judicial removals per capita are relatively more insulated than judges with more judicial removals per capita. Finally, more independent judges may be more activist, in that they are more willing to declare legislation unconstitutional.

Workload and resources also affect the quality of state courts. Intermediate appellate courts reduce the workload of the state court of last resort, allowing it to have greater control over its docket. Higher judicial budgets per capita may also be associated with higher quality outcomes, as a consequence of the number and quality of court personnel. The relative judicial budget, computed as the judicial budget divided by the legislative budget, may be a better measure of resources going to courts. It accounts for the extent to which state legislatures provide scarce budgetary resources to the courts.

Political competition – although not explicitly included in Figure 5.1 – affects all three categories. It affects judicial independence, because state legislatures with higher levels of political competition have a more difficult time reaching the number of votes to recall or otherwise punish judges who make unpopular decisions. Political competition can affect workload through the creation of additional courts and through the creation of mandatory review for certain types of cases. And political competition can affect resources, since budgets are set annually.

Column (1) of Table 5.5 shows the average values of nine variables related to judicial independence, workload, and resources. The variables are measured over the period 1970-1990. The average value of the Ranney index of political competition was 64. In 80 percent of the state-years there were no partisan retention elections. In 53 percent of the state-years there were no competitive retention elections, whether partisan or non-partisan. The average judicial budget was $16.29 per capita (in 2000 dollars). The average ratio of judicial to legislative budgets was 3.0. In the average state, 0.6 judges were removed per 1,000,000 in population between 1990 and 2001. State supreme courts ruled that legislation was unconstitutional in 9 percent of cases, on average. Sixty-one percent of states had intermediate appellate courts. Finally, the average judicial term was 8.3 years.

Table 5.5 here.

Column (2) of Table 5.5 summarizes the correlations between the quality of state courts and the nine variables. Two variables – the Ranney index and no partisan elections – are highly correlated with the quality of state courts. Five variables – no elections, judicial budgets, relative judicial budgets, judicial removal, and judicial activism – are moderately correlated with the quality of state courts. And two variables – intermediate appellate courts and judicial term – are uncorrelated with the quality of state courts.

Table 5.6 reports the results of regressions of court quality in 2002-2007 on the variables from Table 5.5. As in previous regressions, all variables have been standardized

to have a mean of 0 and a standard deviation of 1. In column (1) we include the Ranney index and the two judicial retention variables – no partisan and no elections. In line with the correlations in Table 5.5, the coefficients for the Ranney index and for no partisan elections are positive, statistically significant, and large in both cases. In contrast, the coefficient on no elections is small and not statistically significant. In column (2), we drop the variable no elections and add the two judicial budget variables. The coefficient on relative judicial budget is positive, statistically significant, and large. In contrast, the coefficient on judicial budget per capita is negative, not statistically significant, and small. The coefficients on the Ranney index and no partisan elections remain positive, statistically significant, and large.

In column (3), we drop judicial budget per capita and add four variables – judicial term, judicial removals, judicial activism, and whether the state had intermediate appellate courts. Of the four new variables, only the coefficient on judicial activism was statistically significant. Thus, in column (4), we drop the three statistically insignificant variables.

Overall, states with greater political competition, no partisan retention elections, less judicial activism, and higher relative judicial budgets during 1970-1990 had higher quality courts in 2002-2007. The effects in column (4) of the Ranney index, no partisan elections, relative judicial budgets and judicial activism range in absolute value from 0.237 to 0.465 of a standard deviation in court quality. To gain some sense of what these magnitudes might mean, note that the difference between Pennsylvania (higher quality courts) and Florida (lower quality courts) is roughly 0.40 of a standard deviation in court quality.

One other notable point is that the fit in column (4) of Table 5.6 (R-squared of 0.61) is substantially better than the fit in Table 5.3 (R-squareds of 0.37-0.39), where we included only initial conditions. That contemporary variables would provide a better fit than initial conditions is not surprising. However, it is no less interesting.

Table 5.6 here.

Retention

As we promised earlier, in this sub-section and those that follow, we discuss the input variables in more detail and investigate the extent to which they are related to state initial conditions.

In principle, the spectrum of judicial independence could run the gamut from judges who are fully subordinate to state legislatures to judges who are completely independent of state legislatures. The five state-level judicial retention procedures now in use fall between these two extremes. Of the five, most observers of the court systems believe that merit-based appointment leads to the most independent judiciary while partisan election of judges leads to the least independent judiciary.[8] The three others – non-partisan elections and non-merit appointment by the legislature or the governor – fall in between.

Numerous scholars and public officials have publicly opposed the partisan election of judges. In a 1906 address to the American Bar Association, the renowned legal scholar Roscoe Pound argued that "putting courts into politics and compelling judges to become politicians in many jurisdictions. . . [has] almost destroyed the

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[8] Hall (2001) questions whether judicial reform has been effective.

traditional respect for the bench."[9] The American Bar Association (ABA) was instrumental in the development of merit plans in the 1930s and in their adoption in some states beginning in the 1940s. The ABA is also on record as opposing both partisan and non-partisan judicial elections.[10]

Judicial retention procedures vary across states and have varied at the state level over time. Hanssen (2004a) divides historical trends in the election and retention of judges into four periods. During the earliest period (1790-1847), all judges were appointed by either the legislature or governor or jointly when one nominated and the other confirmed the nominee. This retention process reflected a number of issues including the primacy of early legislatures, a lack of distinction between lawmaking and judging, and a distrust of Colonial judges, many of whom had been loyal to the crown. During the second period (1847-1910), 20 of the 29 existing states and all 17 of the new states adopted partisan elections. This change responded to popular concerns about legislatures and the perceived need for state courts to be independent of state legislatures. The result was the direct election of judges. Partisan elections forced judges to participate in the same processes as other political actors, leading to many of the same problems. In response, 17 of the 46 existing states and one of the two new states adopted non-partisan elections in the third period (1910-1958).[11]

Although non-partisan elections were perceived to be an improvement, many citizens felt that judges were still inadequately insulated from the political process. This

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[9] 29 A.B.A. Rep. 395, 410-411 (1906), *reprinted in* 8 Baylor L. Rev. 1, 19-20 (1956)
[10] "BE IT RESOLVED, that the American Bar Association urges state, territorial, and local bar associations in jurisdictions where judges are elected in partisan or non-partisan elections to work for the adoption of merit selection and retention, and to consider means of improving the judicial elective process." www.abanet.org/govaffairs/judiciary/rappd.html
[11] Mississippi is an outlier – it introduced partisan elections in 1914.

was the case, for example, in Missouri in the 1930s, where the abuses of the state court system by "Boss Tom Pendergast" in Kansas City and ward bosses in St. Louis led to intense public backlash.[12] Thus, in 1940 Missouri voters amended the state constitution by initiative and introduced a merit system for state supreme court and appellate court judges as well as many lower court judges. In the Missouri plan, a nonpartisan and expert commission selects candidates for a judicial vacancy based on merit.[13] Once the selected candidate finishes his or her term, he or she must stand for uncontested and non-partisan retention election. However, in contrast to partisan and non-partisan elections where judges can easily lose office, judges standing for merit retention elections are highly likely to remain in office.[14] Bonneau (2004), for example, documents that during 1990-2000 only 3 of 177 judges were defeated in merit retention elections. By 1990, 14 of the 48 continental states had merit selection committees and merit retention elections for their court of last resort judges.[15]

It is worth noting that the ABA was not entirely a disinterested party to adoption of the merit system. Lawyers have benefitted from the merit systems in two ways.[16] First, they typically have greater input into who becomes a judge than under other systems. Second, the number of filed cases has increased. Because independent judges are less predictable, it is more worthwhile to file cases than it was when judges were more predictable.

A substantial empirical literature has developed that examines the effects of different methods of selection and retention on the outcomes of cases. Partisan elections

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[12] See Karlen, 1970 and the Missouri state website "Your Missouri Courts," http://www.courts.mo.gov/.
[13] The governor or the judicial commission selects the final candidate.
[14] See Hall 1995 and Brace and Hall 1997.
[15] The Book of the States, 1991.
[16] Hanssen (2002).

are associated with higher tort awards, decisions against out-of-state businesses, a higher

likelihood of siding with state agencies in challenges to regulations, a lower likelihood of

enforcing constitutional restrictions on deficit financing, and more punitive sentencing

outcomes.[17] Elections are also associated with judges adopting positions on death

penalty cases that may be contrary to their preferences.[18]

Our analysis focuses on the evolution of partisan retention elections and all

retention elections, both partisan and non-partisan, during 1912-2000. We start in 1912

because the last two states in the continental United States – Arizona and New Mexico –

were admitted in that year. 1912 is an opportune starting date from an historical

perspective as well. Many parties had come to believe that partisan elections detracted

from judicial independence. And so around this time states began to change their

methods of retaining judges.

States that eliminated partisan elections or non-partisan elections typically did so

only once during the twentieth century. Reform was costly and therefore rare, because it

typically required amending or even replacing a constitution. These changes entailed a

great deal of coordination among the legislature, executive branch and public interest

groups.[19] Because these procedures evolved slowly, we average the share of years during

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[17] See Tabarrok and Helland (1999), Hanssen (1999), Bohn and Inman (1996), Huber and Gordon (2004). One question that arises is whether the differential behavior of judges selected and retained by partisan elections and by other mechanisms reflects selection or incentives. The available evidence suggests that incentives are the dominant factor. That is, the judges selected are similar, but they behave differently once on the bench. Canon (1972), Glick and Emmert (1987), and Besley and Payne (2003) address this issue. Hall (1984) provides evidence that northern and southern judges have similar educational and family backgrounds. However, Choi, Gulati and Posner (2007) argue that, in the United States, appointed, high-level state court judges write higher quality opinions while elected judges write many more opinions. Furthermore, they argue, election to the bench encourages state judges to behave more like politicians who focus on providing service to their constituents. In contrast, appointment to the judiciary encourages judges to behave more like professionals who focus on building a legacy as creators of law.
[18] Hall (1987, 1992).
[19] See Becker and Reddick (2003).

1912-1920, and then for each subsequent decade (1921-1930, 1931-1940… 1991-2000)

for which a particular state had no partisan elections and no elections.

Columns (1) and (2) of Table 5.7 summarize the share of state-years in which

there were no partisan elections and no elections during 1912-1920, and then on a

decadal basis through 2000.[20] In 1912, 17 states (35 percent) did not use partisan

elections to retain judges and 11 states (23 percent) did not use any form of elections to

retain judges. During the years 1912 to 1920, there were no partisan elections in 41

percent of the state-years and no elections in 21 percent of the state-years. The trend

away from partisan and non-partisan elections proceeded gradually yet steadily. By

1991-2000 there were no partisan elections in 88 percent of the state-years and no

elections in 60 percent of the state-years.

Table 5.7 here.

How have initial conditions influenced the elimination of partisan elections and

all elections during 1912-2000? Let $shREF_{id}$ denote the share of years during a decade

when there are "no partisan elections" or "no elections" in state i in decade d. We

estimate the following linear probability model:

$$shREF_{id} = \alpha_0 + \alpha_1 CLIM_i + \alpha_2 CLIM_i * t_1 + \alpha_3 CLIM_i * t_2 + \alpha_4 CIV_i + \alpha_5 CIV_i * t_1$$
$$+ \alpha_6 CIV_i * t_2 + \alpha_7 TRANS_i + \alpha_8 TRANS_i * t_1 + \alpha_9 TRANS_i * t_2 + \beta_t decade_d + u_{it} \quad (1)$$

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[20] One exception is Tennessee which eliminated partisan retention elections in 1952, reinstated them in 1966, and eliminated them again in 1995. Also, many states simply replaced partisan elections with non-partisan elections.

[20] In the appendix, we report the results from ordered probit regressions. In general, the two models give very similar results.

The model in equation (1) extends the "time trend" model with structural breaks introduced in Chapter 3. The variables *CLIM$_i$, CIV$_i$, and TRANS$_i$* denote climate, civil law, and access to water transportation in state *i*; *decade$_d$* is a decadal dummy variable, and u_{it} is a state specific error term. All standard errors are robust and clustered at the state-level. In some regressions, we also control for logged population at the beginning of each decade. In Chapter 3 we argued that the time trend for initial conditions should vary, with break points at 1896 and 1960. Since the initial decade is 1912-1920, the interaction term t_1 corresponds to the decades within 1912-1960. And, the interaction term t_2 corresponds to the decades during 1961-2000.

Table 5.8 contains estimates of the linear probability model for "no partisan elections" and "no elections." In each pair of columns, we first estimate the regression with the three initial conditions – climate, transportation, and civil – and then estimate the regression with the initial conditions and population.

Table 5.8 here.

Because the effects of initial conditions are permitted to vary over time, we plot their effects on the use of partisan elections and all elections over time in Figures 5.2-5.4. In these figures, we are plotting columns (2) and (4) in which we control for logged population. Figure 5.2 shows that states with warmer, wetter climates were more likely to use partisan retention elections than states with wetter, cooler climates in every decade. The initial difference was relatively small, but it grew through the 1950s and diminished

in subsequent decades. Interestingly, states with warmer, wetter climates were less likely to use elections than states with wetter, cooler climates, although the effects in specific periods are generally small.

Figure 5.2 here.

Figure 5.3 shows that in 1912-1920 civil-law states were much more likely than common-law states to have any type of elections and to have partisan elections.[21] Civil-law states converged towards common-law states in their use of elections until 1950. From 1950 to 2000, civil-law states diverged slightly from common-law states. Common-law states switched from elections somewhat more rapidly than civil-law states.

Figure 5.3 here.

Figure 5.4 shows that states with greater access to water transportation were much less likely to have partisan and non-partisan elections than states with more limited access to water transportation. The effect was fairly constant over time.

Figure 5.4 here.

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[21] Although the magnitudes of the effects are substantial, the differences are only statistically significant in states where there were no systems of judicial elections in 1912-1920. In the ordered probit model reported in the appendix, civil law has a statistically significant negative influence on the removal of elections at the end of the twentieth century. The statistical significance of civil law is the only point on which the two models are different.

Finally, the association between logged population and removal of both partisan elections and non-partisan elections in Table 5.8 is negative and statistically significant. One interpretation of this is that changing the method of retaining judges is a complicated process that requires coordination between the different government branches and the public at large. Thus, we expect that larger states would be slower to change these procedures.

In sum, Table 5.8 and the accompanying figures suggest that initial conditions influenced state judicial retention procedures in 1912-1920 as well as the evolution of these procedures over time.

Judicial Terms

Longer tenure gives judges greater independence, because they face elections or other reappointment procedures less often. Court-of-last resort judges have term lengths before re-election or reappointment that vary from two to twenty-one years. Moreover, in Massachusetts, New Hampshire and Rhode Island, court of last resort judges are appointed with tenure.[22] As we argued previously, judicial terms are an indicator of judicial independence.[23] Moreover, like reforms to retention procedures, changes to the length of terms for members of the judiciary move slowly, because reform requires coordination among the different state government branches and even changes to state constitutions.

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[22] Among these states, tenure systems either require their judges to retire at age 70 or allow them to serve for life.

[23] Choi, Gulati and Posner (2007) argue that while it increases independence, length of term does not necessarily increase judicial quality.

For state court of last resort judges, data on judicial terms starting in 1937 is available from the Book of the States. We use this data starting in 1943 when it begins to cover all 48 continental states. Term rules change very slowly. For example, of the three states that grant judges life tenure, Massachusetts alone made a change, which was to require that judges step down at age 70. Of the 45 states that do not grant life tenure, only 11 changed the length of judicial terms between 1943 and 2000. Seven states – Illinois, Indiana, Iowa, Missouri, Montana, South Dakota and Vermont – increased term length. Three states – Louisiana, Maryland, and Pennsylvania – decreased term length. One state – Michigan – decreased term length during the 1960s and later reinstated the original term length of eight years.

Because there is so little time-series variation in term lengths, we check for the influence of initial conditions at the beginning (1943) and end (2000) of our time series. Columns (1) and (3) in Table 5.9 report the results for the group of 45 states that do not grant tenure. In columns (2) and (4) we also include the three states that grant tenure under the assumption that tenured judges spend thirty-three years on the bench.[24] Transportation is statistically significant in three of the four columns. Across the four columns, a one-standard-deviation increase in transportation led to judicial terms that were 0.65-2.92 years longer. Compared to an average term length of 8.3 years during 1970-1990, these increases in term length were sizeable in some instances. Most of the effect, however, came from inclusion of three states with life tenure. No other initial conditions are statistically significant. The low R-squareds suggest that initial conditions, including transportation, are only weakly related to judicial terms. And, as we saw in

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[24] We assume that high court judges are on average appointed in their late 30s or early 40s. The results are not sensitive to this assumption.

Table 5.5, although judicial terms are important in principle, they relate weakly to the quality of state courts in practice.

Table 5.9 here

Judicial Budgets

We use data from the Census of Governments on state judicial and legal budgets for the period 1961-2000. Data start to be available in 1953. [25] Unfortunately, until 1961, only intermittent data are available. Furthermore, during this period, the consistency of the data and its comparability over time are questionable. Thus, we use data from the series beginning in 1961. The budget variable includes expenditures on all state criminal and civil courts. These expenditures include salaries for judges and court reporters and payments for witness fees, as well as payments to legal departments, general counsels, solicitors, and prosecuting and district attorneys. In 1982, this variable began to include payments for public defenders and legal services.

We deflate judicial and legal expenditures using 2000 as the base year and divide by state population in a given year. For brevity, deflated judicial and legal expenditures per capita are denoted as judicial budgets. Between 1961 and 2000, judicial budgets increased in the average state from $3.53 to $48.31. This increase represents an annual real growth rate of almost 7 percent. Dispersion in spending across states has been relatively stable. In 1961 spending on courts in the top ranked state (Vermont at $13.28) was 14.8 times greater than in the lowest ranked state (Michigan at $0.90). In 2000 spending in the top ranked state (Connecticut at $116.69) was roughly 13.7 times greater

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[25] U.S. Census Bureau (2001).

than in the lowest ranked state (Washington at $3.53). There has been some change in the rank of state spending. The correlation coefficient for the rank of judicial budgets in 1961 and 2000 is 0.51.

We also compute the relative judicial budget, which is the state judicial budget divided by the state legislative budget. Relative judicial budgets measure the balance of power between the legislature and the judiciary. Larger relative budgets are likely to imply a more powerful judiciary, as well as one that is very likely to be more independent. The average relative judicial budget grew from 2.2 in 1961 to 6.4 in 2000.

We examine the relationship between initial conditions and judicial budgets by adapting the model in equation (1). Because judicial budgets exhibit substantial variation over time, we use annual data and include year fixed effects. In equation (1) we allowed the effects of initial conditions to be different in the periods 1912-1960 and 1961-2000. Because the budget data that we use falls exclusively in this second period, we drop the time-interacted effects of initial conditions.[26] We also control for whether a state has an intermediate appellate court, because it requires substantial budgetary support.

We report our results in Table 5.10. In columns (1) and (3), we regress budgets and relative budgets on initial conditions. In columns (2) and (4), we add controls for population and for whether the state has an intermediate appellate court. In all four regressions, the coefficients on climate and civil are not statistically significant. By contrast, in columns (1) and (2), the coefficient on access to water transportation is positive, statistically significant and large. A one standard deviation increase in access to

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[26] In unreported regressions, we find that when we control for time-interacted effects and a full set of year fixed effects, the time-interacted effects are jointly statistically insignificant for both judicial budgets and relative judicial budgets. This suggests that time-interacted effects of initial conditions are not important during 1961-2000.

water transportation is associated with a 23-32 percent increase in the judicial budget. The latter can be thought of as the difference between Nevada, which is landlocked, and Tennessee, which has much better access to water transportation. In columns (3) and (4), the coefficients on water transport are not statistically significant.

Intermediate appellate courts and population also have significant effects on budgets in columns (2) and (4). The coefficients on intermediate appellate courts are positive, statistically significant, and large. The coefficients on population are negative, statistically significant, and large. There are a number of possible explanations for the negative influence of population. One is that there are economies of scale in court systems. Another is that bigger states have more agencies competing for scarce dollars. A third is that the strong negative effect is partly the result of the fact that population and intermediate appellate courts are positively correlated. We will discuss this last point further in the next section.

Intermediate Appellate Courts

Intermediate appellate courts now exist in many states to help the state supreme courts handle appeals from trial courts. This enables courts of last resort to have greater control over their dockets. The control is not complete. Supreme courts in some states have mandatory jurisdiction over a variety of cases, including death penalty appeals. Nevertheless, having greater control over the docket allows state supreme courts to devote more attention to fewer cases.

Similar to the elimination of retention elections, the introduction of intermediate appellate courts required substantial coordination among different branches of

government. This was true, because change required either an executive order or an amendment to the state constitution.[27] Thus, reform moved slowly and without reversal. In 1909, only nine states had intermediate appellate courts. As late as 1956, only three more states had intermediate appellate courts. Reform accelerated in the 1960s, and by 2000, intermediate appellate courts were operating in 37 of the 48 states.

As Kagan et al. (1978) noted, rapid growth in state population was associated with growth in the caseload in state supreme courts. Supreme courts in states that established intermediate appellate courts were subsequently successful in controlling their caseload. For example, New Jersey established an intermediate appellate court in 1844. The intermediate appellate court may have been one reason why the New Jersey Supreme Court could keep a low caseload during 1900 and 1935, a period when population increased by 222 percent. Similarly, one explanation for why the Tennessee Supreme Court had low caseload throughout the twentieth century is that it set up an intermediate appellate court for equity cases in 1895 and for civil cases in 1907. It then expanded the intermediate appellate court for civil appeals in 1925.[28]

In Table 5.11, we estimate for the period 1912-2000 the same linear probability model that we estimated for judicial retention procedures in equation (1). In particular, we estimate how the initial conditions have affected the share of state years during 1912-1920, 1921-1930…, 1991-2000 in which there were operating intermediate appellate courts. Once again, the interaction terms t_1 and t_2 correspond respectively to the decades within 1912-1960 and 1961-2000.

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[27] See Chapp and Hanson (1990).
[28] See Kagan et al. (1978), pp.973-974

In column (1) of Table 5.11, we report the influence of initial conditions and in column (2) we include a control for logged population at the beginning of each decade within the sample. In both columns the coefficients on climate and transportation are not statistically significant. Somewhat surprisingly, in both columns the effect of civil law on the adoption of intermediate appellate courts is large, positive and statistically significant throughout the period. The effect is illustrated in Figure 5.5[29] One interpretation of the positive influence of civil law is that legislatures and members of the executive branch in civil-law states prefer intermediate appellate courts for reasons having to do with control. The issue of control is likely to arise if the number of important cases is large enough that they cannot all be heard by the state high court. At this juncture, the state legislature has two options. It can let these important cases be heard and decided by trial courts, or it can create intermediate appellate courts. The latter choice may be more attractive if control is important, because there are typically only a small number of intermediate appellate courts. In many states, there is only one. In contrast, trial courts are large in number and are geographically distributed. These factors make monitoring trial courts' activities and possibly punishing errant judges much more difficult.

Table 5.11 and Figure 5.5 here

Consistent with Kagan et al (1978), the coefficient on population is positive, statistically significant, and large. Moreover, the fit improves appreciably. Thus, state population appears to be an important factor in the adoption of intermediate appellate courts.

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[29] This corresponds to column (2) in Table 5.11 where we control for logged population.

Lawyers and Judges

We have not yet discussed a key input into the legal system, namely, lawyers and judges. The Census of Population recorded the primary occupation of all adults from 1850 onward. Thus, we can track lawyers and judges together as a percentage of the population for the period 1850-2000.[30] The percentage of lawyers and judges sheds light on a number of issues including: the attractiveness of law as a profession; the depth of the pool from which judges were selected; the relative demand for lawyers across states at a given point in time and the evolution of relative demand over time.

In Figure 5.6, we plot the number of lawyers per 100,000 in the United States by decade. From 1850 to 1970, the average number of lawyers fluctuated between 108 per 100,000 and 155 per 100,000. The relatively limited variation in the number of lawyers per capita from 1850 to 1970 is striking, because this was a period of extraordinary change. One dimension of this change was that the United States became much more heavily urban, something that is often considered to be a predictor of litigation and the need for lawyers. The number of lawyers then rose extremely rapidly from 1970 to 2000.

In Table 5.12, we examine the relationship between three state initial conditions – climate, transportation, and civil law – and the natural log of the number of lawyers per capita from 1870 to 2000. We control for population, to capture any scale related issues, such as smaller states requiring proportionately more or fewer lawyers. The regression in column (1) restricts the effects of the initial conditions to be constant over the whole period, but it includes decade-specific fixed effects. Climate had a statistically significant

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[30] To make these calculations, we computed the number of lawyers and judges (of all genders and races) from the published census volumes for 1850-1930. From 1940 onward, we used the 1-100 public use samples of the Censuses of Population to estimate the number of lawyers and judges.

negative effect on the number of lawyers per capita. A one-standard-deviation increase in climate decreased the number of lawyers by 20 percent. Transportation had a statistically significant positive effect on the number of lawyers per capita. A one standard deviation increase in access to water transportation increased the number of lawyers by 9 percent. Both civil law and population had positive yet statistically insignificant effects. The fit is good when one considers the parsimony of the model.

In column (2), we estimate the time-trend model with the usual breaks at 1896-1900 (because we are using decadal observations) and 1960. Figure 5.7 plots the marginal effects of climate, transportation, and civil law on the number of logged lawyers per capita. The effect of climate was always negative and large. It was falling from 1870 to 1900 and rising thereafter, although it remained negative throughout. The effect of greater access to water transportation was initially negative and fell slightly from 1870 to 1900. After 1900, the effect was rising and it became positive after 1940. By 2000, the effect of increased access to water transportation was strongly positive. The effect of civil law was the reverse of access to water transportation. It was initially positive and rose slightly between 1870 and 1900. The positive effect of having been a civil-law state on lawyers per 100,000 may have been driven in part by lawyers' tendencies to flock to the frontier as new states and territories were formed.[31] Many of these lawyers sought to establish themselves as judges, legislators, governors, and other state officials.

The effect of civil law on the number of lawyers per 100,000 was falling after 1900, negative after 1950, and strongly negative in 2000. The decline in the number of lawyers per capita in civil-law states after 1900 may be related to the fact that civil-law states were slow to move away from partisan elections. Recall that judges retained under

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[31] See Friedman (1985).

partisan elections are more predictable in their decision making than, for example, judges who are appointed. Thus, relatively fewer cases are filed under partisan elections than under appointment-based systems, which may have an effect on the demand for lawyers.

The effects of initial conditions on lawyers and judges per capita at the end of the twentieth century are consistent with what we found for the quality of state courts. States with warmer, wetter climates had fewer lawyers and judges in 2000 and lower quality courts in 2002-2007. States with greater access to water transport had more lawyers and judges and insignificantly higher-quality courts. Civil-law states had fewer lawyers and judges and lower-quality courts. The relative impact of climate and civil law on lawyers in 2000 and courts in 2002-2007 is notable. A one-standard-deviation increase in the climate index is associated with having 10-percent fewer lawyers per capita and 0.34 of a standard deviation lower quality courts. And, having civil law origins is associated with having 40-percent fewer lawyers per capita and courts whose quality is 0.89 of a standard deviation lower.

Because lawyers and judges per capita is a crude and indirect measure of the functioning of the state legal system, we are cautious with inferences. However, we find that the patterns for the evolution of lawyers and judges per capita are consistent with the patterns in the evolution of both judicial selection systems and state budgets. Besides fewer lawyers and judges per capita, states with warmer, wetter climates were slower to move from partisan elections. States with great access to water transport had more lawyers and judges per capita, were more likely to have abandoned partisan elections, and had larger judicial budgets in both absolute and relative terms. Civil-law states had larger initial numbers of lawyers and judges per capita than common-law states.

However, beginning in 1900, the numbers of judges and lawyers per capita in civil-law

states fell over time and became negative by 1950. At the same time, civil-law states

were slower to move from partisan elections and had lower absolute and relative budgets.

Conclusion

We began by showing the relationship between state initial conditions and the

quality of state courts in 2002-2007. Both climate and civil law had negative, large, and

statistically significant effects on the quality of state courts. In contrast, access to water

transportation had a positive, small, and statistically insignificant effect on state courts.

The question is why and how conditions at the time of a state's settlement would affect

the quality of state courts.

To address this, we examined the relationship between contemporary variables

and the quality of state courts. Of the contemporary variables, the four that had

statistically significant relationships with the quality of state courts were: the Ranney

index, whether the state had no partisan elections, the size of the state judicial budget

relative to the legislative budget, and judicial activism. The effects of the first three were

positive – states with greater competition in the state legislature, states that did not use

partisan elections to retain their judges, and states with larger relative judicial budgets --

and all had higher quality state courts. States with more activist state court judges had

lower quality courts. For judicial selection and the Ranney index, we had data over very

long periods of time that allowed us to begin to examine why and how initial conditions

have affected these inputs into the judicial system. For judicial budgets, we had data over

a shorter period of time – forty years at the end of the twentieth century – which allowed

a more limited examination of the effects of initial conditions over time. And for

activism, we had data only for 1981-1985.

As we discussed in detail in Chapter 3, the evolution of the state Ranney index

was strongly related to state initial conditions. The effect of climate on the Ranney index

was persistently negative and statistically significant, while the effect of transportation on

the Ranney index was persistently positive and statistically significant. The effect of

civil-law origins was persistently positive but not statistically significant in most cases.

For partisan elections, we showed that climate, access to water transportation, and

civil law all had substantial and persistent effects on the use of partisan elections. States

with warmer and wetter climates were more likely to use partisan elections, as were states

with civil-law origins. As we discussed earlier, the effect of climate on partisan elections

is likely to have been a product of two related factors. States with warmer, wetter

climates had lower competition in the state legislature and a more homogeneous elite that

was likely to prefer less independent (and more pro-elite) judges. The civil-law effect on

partisan elections, while at times substantial, was not statistically significant in the second

half of the twentieth century and was only marginally significant during the first half of

the twentieth century. The civil-law effect was stronger for all elections.

States with greater access to water transportation were less likely to use partisan

elections. This was a likely result of a number of forces, including greater competition in

the state legislature, a more diverse elite that preferred independent judges, and

competition with other states for trade through the provision of more impartial courts.

Although we observed relative budgets over a much shorter period of time, the

fact that the effect of civil-law origins on this measure was negative, albeit statistically

insignificant, is of interest. In principle, under civil law the judiciary is viewed as subordinate to the legislature.[32] Consistent with this result, we found that civil-law states had smaller budgets in absolute terms and in relative terms. The effect of access to water transportation on judicial budgets was positive and statistically significant. This is likely to be driven by the same forces that led these states not to use partisan elections. The effect of climate on judicial budgets was negative but not statistically significant. This too was likely to be driven by the same forces that led these states to use partisan elections.

Finally, we found that the evolution of the number of lawyers and judges was also systematically related to initial conditions. States with warmer and wetter climates had fewer lawyers and judges, as did civil-law states. This may be another reason why these states had lower quality state courts in 2002-2007.

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[32] Merryman (1985).

Table 5.1: Quality of Courts Surveys – Respondents

Year of Survey	Respondents	States evaluated by the average respondent	Respondents' years of legal experience
2002	824	5	21
2003	928	5	22
2004	1,402	5	20
2005	1,437	5	19
2006	1,456	6	NA
2007	1,599	3	22

Notes: *State Liability Systems Ranking Study,* various years.

Table 5.2: Correlations among Measures of Quality of State Courts

Correlations with the Quality of State Courts 2002-2007			
Government Corruption, 1992-2001	-0.47	Legal Professionalism, prior to 1973 (ranked in ascending order)	0.28
Corruption, 1982-1991	-0.40	Judicial Removal, 1990-2001	-0.22
Corruption based on surveys of state reporters, 1999	-0.40	Political attitude of supreme court judges, 1960-93 (increasing in liberalism)	-0.22
Judicial Activism, 1981-85	-0.32	Citations of Supreme Court, 1975 (ranked in ascending order)	0.10

Notes: Corruption, 1992-2001, is average federal public corruption convictions per 100,000 for 1992-2001 and 1982-1991 (Public Integrity Section, selected years). Corruption as perceived by state legislative reporters in 1999 is based on a survey of State House reporters (Boylan and Long, 2003). Judicial removal is the total number of judges removed, including those who step down by agreement or an order, between January 1990 and December 2001 per 1,000,000 in population (Gray 2002). Judicial activism is based on the 3,024 constitutional challenges in both civil and criminal cases to state legislation in state supreme courts during 1981-85 compiled by Beavers and Emmert (1985). Judicial activism is measured as the share of these cases in which state court of last resort ruled that state legislation was, at least to some degree, unconstitutional. The index of legal professionalism is a composite score including five major factors of state court systems. The factors include (1) method of selection for judges in all courts -- states were scored for approximation to ABA model plan of selection; (2) state court organization and the approximation to the ABA model court structure; (3) judicial administration in the states -- states were scored for presence of professional administrator and size and nature of his staff; (4) tenure of office for judges of major trial and appellate courts and approximation to ABA recommendations; (4) level of basic salary for judges of major trial and appellate courts exclusive of fees and local payments. Each factor involved scoring the state on a five-point scale according to how closely judicial features in the state approached the ABA model and each was measured prior to 1973 (Glick and Vines 1973). Reputation of a state supreme court in 1975 is based upon the number of citations by other supreme courts in 1975 (Caldeira 1983). Political Attitude of Supreme Court Judges, 1960-93, is a measure of the ideology of these judges serving during this period based on elite ideology for appointed judges and citizen ideology for elected judges and also includes the influence of partisan affiliation of these judges. The measure ranges from a minimum of most conservative to a maximum of most liberal and is computed for 900 judges at the time of appointment or election. We report the ideology of the median judge in each state. (Brace, Langer, and Hall 2000). The numbers have been updated and are available at http://www.u.arizona.edu/~llanger/replication_datasets.htm.

Table 5.3: Initial Conditions and the Quality of State Courts

Dependent Variable	Standardized Quality of State Courts in 2002-2007			
Column	(1)	(2)	(3)	(4)
Climate	-0.176	-0.363***		-0.549***
	(0.31)	(0.12)		(0.154)
Culture	-0.210		-0.336**	
	(0.29)		(0.13)	
Civil	-0.833***	-0.843***	-0.886**	-1.04***
	(0.30)	(0.29)	(0.34)	(0.310)
Transport	0.072	0.130	0.013	-0.009
	(0.15)	(0.11)	(0.11)	(0.107)
Observations	48	48	48	28
R-squared	0.39	0.37	0.38	0.65

Notes: Standard errors are in parentheses and are robust. The notations *, **, and *** denote statistical significance at the 10-percent, 5-percent, and 1-percent levels. The constant is estimated but not reported. The p-value for the F-test for the joint exclusion of climate and culture is 0.019. Climate, transportation, and the quality of state courts are standardized to have a mean of 0 and a standard deviation of 1. Thus, the point estimates for climate and transportation estimate "quantitative significance," i.e., the influence of a one-standard deviation increase in this initial condition on the quality of state courts, as measured in standard deviations. Civil law is a dummy variable that measures the influence of civil relative to common-law origins.

Table 5.4: Civil Law, Mechanism Variables, and the Quality of State Courts

Dependent Variable	Standardized Quality of State Courts in 2002-2007			
Column	(1)	(2)	(3)	(4)
Civil	-1.25*** (0.33)	-1.42*** (0.353)	-1.34*** (0.392)	-0.779** (0.323)
HHI elite	-0.318** (0.137)			
HHI Median		-0.231** (0.097)		
Elite Share of Wealth			-0.204 (0.168)	
Soldier Mortality				-0.385*** (0.135)
Observations	28	28	28	28
R-squared	0.55	0.50	0.50	0.40

Notes: Standard errors are in parentheses and are robust. The notations *, **, and *** denote statistical significance at the 10-percent, 5-percent, and 1-percent levels. The constant is estimated but not reported. The quality of state courts is standardized to have a mean of 0 and a standard deviation of 1. Civil law is a dummy variable that measures the influence of civil relative to common-law origins.

Table 5.5: Contemporary Variables and the Quality of State Courts

	Mean (Standard deviation)	Correlation with Court Quality
Column	(1)	(2)
Ranney Index	63.96 (24.73)	0.60
No Partisan Elections	0.804 (0.378)	0.58
No Elections	0.530 (0.479)	0.34
Judicial Budget per capita	16.29 (9.95)	0.33
Relative Judicial Budget	3.02 (1.88)	0.24
Judicial Removal	0.595 (0.906)	-0.22
Judicial Activism, 1981-1985	8.94 (25.04)	-0.18
Intermediate Appellate Courts	0.614 (0.432)	-0.09
Judicial Term	8.34 (2.31)	-0.07

Notes: All of the variables are averaged over the period 1970-1990. When making calculations for judicial term length, we drop the three states where judges are tenured.

Table 5.6: Determinants of the Quality of State Courts

Dependent Variable	Standardized Quality of State Courts in 2002-2007			
Column	(1)	(2)	(3)	(4)
Ranney Index	0.397*** (0.135)	0.406*** (0.128)	0.329** (0.145)	0.329** (0.138)
No partisan elections	0.320* (0.167)	0.417*** (0.145)	0.412*** (0.148)	0.465*** (0.123)
No elections	0.0579 (0.102)			
Judicial Budget per capita		-0.0404 (0.137)		
Relative Judicial Budget		0.379*** (0.129)	0.267** (0.0991)	0.279*** (0.100)
Judicial Activism, 1981-1985			-0.272** (0.114)	-0.237** (0.106)
Judicial Removal			-0.150 (0.110)	
Intermediate Appellate Courts			-0.114 (0.108)	
Judicial Term			0.0279 (0.0592)	
Observations	47	47	47	47
R-squared	0.445	0.566	0.641	0.613

Notes: Standard errors are in parentheses and are robust. The notations *, **, and *** denote statistical significance at the 10-percent, 5-percent, and 1-percent levels. The constant is estimated but not reported. We have 47 observations. Because Nebraska is unicameral, we cannot compute a Ranney index for it. All variables have been standardized to have a mean of 0 and a standard deviation of 1.

Table 5.7: Judicial Retention

Column	No Partisan Elections (1)	No Elections (2)
1912-1920	0.412	0.213
1921-1930	0.438	0.208
1931-1940	0.483	0.225
1941-1950	0.538	0.25
1951-1960	0.602	0.275
1961-1970	0.669	0.356
1971-1980	0.783	0.504
1981-1990	0.831	0.567
1991-2000	0.881	0.596

Notes: *The Book of States*, various years.

Table 5.8: Initial Conditions and Judicial Retention 1912-2000

Dependent Variable	No Partisan Elections	No Partisan Elections	No Elections	No Elections
Column	(1)	(2)	(3)	(4)
Climate	-0.126	-0.097	0.056	0.080
	(0.084)	(0.083)	(0.060)	(0.060)
Climate*t_1	-0.034**	-0.036**	-0.009	-0.011
	(0.016)	(0.16)	(0.011)	(0.011)
Climate*t_2	0.024**	0.024**	-0.006	-0.066
	(0.011)	(0.011)	(0.009)	(0.009)
Civil	-0.281	-0.269	-0.365***	-0.355***
	(0.185)	(0.177)	(0.112)	(0.108)
Civil*t_1	0.034	0.042	0.047	0.054
	(0.034)	(0.033)	(0.034)	(0.034)
Civil*t_2	-0.008	-0.009	-0.007	-0.008
	(0.026)	(0.026)	(0.028)	(0.014)
Transportation	0.120	0.142**	0.162**	0.180***
	(0.074)	(0.066)	(0.064)	(0.060)
Transportation*t_1	0.005	0.007	0.004	0.006
	(0.012)	(0.012)	(0.006)	(0.006)
Transportation*t_2	-0.008	-0.009	-0.014	-0.014
	(0.008)	(0.009)	(0.008)	(0.008)
Logged population	X	-0.102**	X	-0.082*
		(0.044)		(0.048)
Observations	432	432	432	432
R-squared	0.36	0.39	0.24	0.26

Notes: Standard errors are in parentheses. They are robust and clustered at the state level. The notations ***, ** and * denote significance at the 1-percent, 5-percent and 10-percent levels. Controls for national decadal time effects and a constant are estimated but not reported. Climate and transportation are standardized to have a mean of 0 and a standard deviation of 1. Thus, the point estimates for climate and transportation indicate "quantitative significance," i.e., the influence of a one-standard deviation increase in this initial condition on the share of years in which there are no partisan election or other elections. Civil law is a dummy variable that measures the influence of civil relative to common-law origins.

Table 5.9: Initial Conditions and Judicial Terms

Dependent Variable	Judicial Term Length			
Date of Judicial Term Length	1943	1943	2000	2000
Column	(1)	(2)	(3)	(4)
Climate	0.117 (0.460)	-0.520 (0.699)	-0.177 (0.335)	-0.839 (0.621)
Civil	-0.515 (0.892)	-2.04 (1.43)	0.264 (0.777)	-1.30 (1.37)
Transportation	1.03** (0.494)	2.92** (1.25)	0.649 (0.389)	2.60** (1.25)
Observations	45	48	45	48
States with Tenure	No	Yes	No	Yes
R-squared	0.104	0.190	0.073	0.160

Notes: Standard errors are in parentheses. They are robust. Length of terms in states where tenure is granted is set at 33 under the assumption that high court judges will go onto the bench in their late 30s or early 40s. The results with tenured states in columns (2) and (4) do not change appreciably when we vary the length of term. The notations ***, ** and * denote significance at the 1-percent, 5-percent and 10-percent levels. Climate and transportation are standardized to have a mean of 0 and a standard deviation of 1. Thus, the point estimates for climate and transportation estimate "quantitative significance," i.e., the influence of a one-standard deviation increase in this initial condition on a judicial term. Civil law is a dummy variable that measures the influence of civil- relative to common-law origins.

Table 5.10: Initial Conditions and Judicial Budgets during 1961-2000

Dependent Variable	Logged Real Judicial Budget per Capita (2000=100)		Relative Judicial Budget (Judicial/Legislative)	
Column	(1)	(2)	(3)	(4)
Climate	-0.130	-0.109	0.171	0.155
	(0.084)	(0.076)	(0.393)	(0.375)
Civil	-0.286	-0.166	-1.13	-1.20
	(0.191)	(0.174)	(0.698)	(0.765)
Transportation	0.234***	0.320***	0.385	0.478
	(0.081)	(0.062)	(0.303)	(0.312)
Intermediate Appellate Courts	X	0.259* (0.130)	X	1.13* (0.564)
Logged population	X	-0.315*** (0.082)	X	-0.479* (0.275)
Observations	1920	1920	1920	1920
R-squared	0.746	0.788	0.264	0.280

Notes: Standard errors are in parentheses. They are robust and clustered at the state level. The notations ***, ** and * denote significance at the 1-percent, 5-percent and 10-percent levels. Controls for annual time effects and a constant are estimated but not reported. Climate and transportation are standardized to have a mean of 0 and a standard deviation of 1. Thus, the point estimates for climate and transportation estimate "quantitative significance," i.e., the influence of a one-standard deviation increase in this initial condition on budgets. Civil law is a dummy variable that measures the influence of civil relative to common-law origins.

Table 5.11: Initial Conditions and Intermediate Appellate Courts

Dependent Variable	Operating Intermediate Appellate Courts	
Column	(1)	(2)
Climate	0.096	0.030
	(0.085)	(0.084)
Climate*t_1	0.004	0.010
	(0.004)	(0.005)
Climate*t_2	-0.009	-0.009
	(0.010)	(0.010)
Civil	0.372**	0.344**
	(0.179)	(0.150)
Civil*t_1	-0.019*	-0.038***
	(0.009)	(0.012)
Civil*t_2	0.011	0.012
	(0.024)	(0.024)
Transportation	-0.007	-0.057
	(0.062)	(0.056)
Transportation*t_1	0.007	0.002
	(0.008)	(0.008)
Transportation*t_2	0.001	0.002
	(0.009)	(0.009)
Logged population	X	0.231***
		(0.038)
Observations	432	432
R-squared	0.38	0.56

Notes: Standard errors are in parentheses. They are robust and clustered at the state level. The notations
***, ** and * denote significance at the 1-percent, 5-percent and 10-percent levels. Controls for national
decadal time effects and a constant are estimated but not reported. Climate and transportation are
standardized to have a mean of 0 and a standard deviation of 1. Thus, the point estimates for climate and
transportation indicate "quantitative significance," i.e., the influence of a one-standard deviation increase in
this initial condition on the share of years per decade when intermediate appellate courts operate. Civil law
is a dummy variable that measures the influence of civil relative to common-law origins.

Table 5.12: Initial Conditions and Lawyers and Judges, 1870-2000

Dependent Variable	Logged Lawyers per 100,000	
Column	(1)	(2)
Climate	-0.199***	-0.248***
	(0.046)	(0.047)
Climate*t_1		-0.005**
		(0.002)
Climate*t_2		0.001*
		(0.001)
Climate*t_3		0.006***
		(0.001)
Civil	0.094	0.206**
	(0.094)	(0.094)
Civil*t_1		0.002
		(0.003)
Civil*t_2		-0.005***
		(0.002)
Civil*t_3		-0.008***
		(0.002)
Transportation	0.088**	0.031
	(0.040)	(0.043)
Transportation*t_1		-0.004**
		(0.002)
Transportation*t_2		0.003***
		(0.001)
Transportation*t_3		0.004***
		(0.001)
Logged population	0.039	0.048
	(0.038)	(0.038)
Observations	651	651
R-squared	0.523	0.577

Notes: Standard errors are in parentheses. They are robust and clustered at the state level. The notations ***, ** and * denote significance at the 1-percent, 5-percent and 10-percent levels. Controls for national decadal time effects (for all decades during 1870-2000) and a constant are estimated but not reported. Climate and transportation are standardized to have a mean of 0 and a standard deviation of 1. Thus, the point estimates for climate and transportation estimate "quantitative significance," i.e., the influence of a one-standard deviation increase in this initial condition on logged lawyers per decade. Civil law is a dummy variable that measures the influence of civil relative to common-law origins on logged lawyers per decade. Because we are using decadal data during 1870-2000, the time interaction variables t_1, t_2 and t_3 correspond to annual effects during 1870-1900, 1900-1960, and 1960-2000.
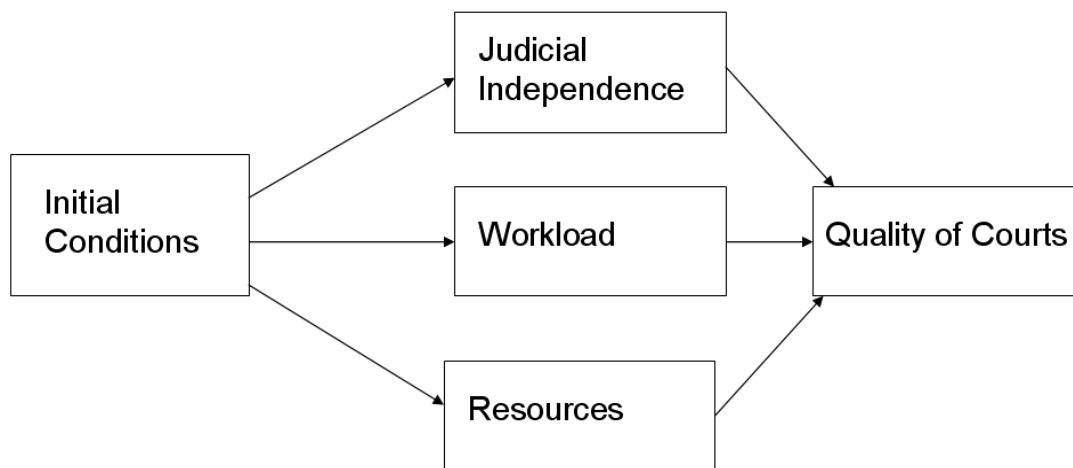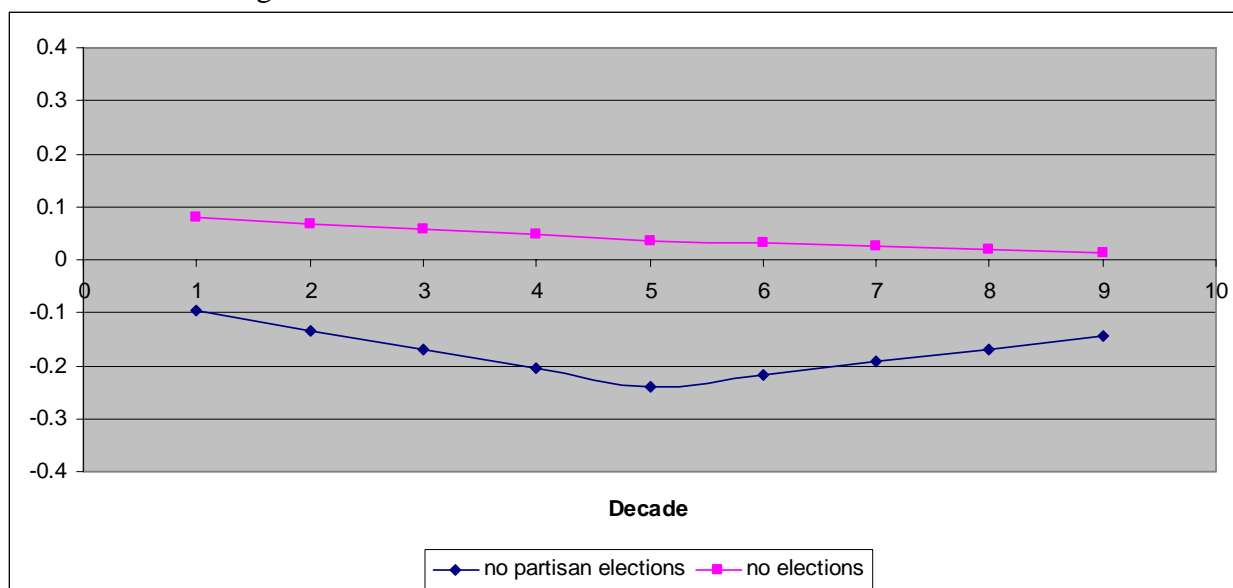
Figure 5.1

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                          ┌──────────────┐
                          │ Judicial     │
                     ┌───▶│ Independence │───┐
                     │    └──────────────┘   │
                     │                       ▼
┌─────────────┐      │    ┌──────────────┐   ┌──────────────────┐
│ Initial     │──────┼───▶│ Workload     │──▶│ Quality of Courts│
│ Conditions  │      │    └──────────────┘   └──────────────────┘
└─────────────┘      │                       ▲
                     │    ┌──────────────┐   │
                     └───▶│ Resources    │───┘
                          └──────────────┘
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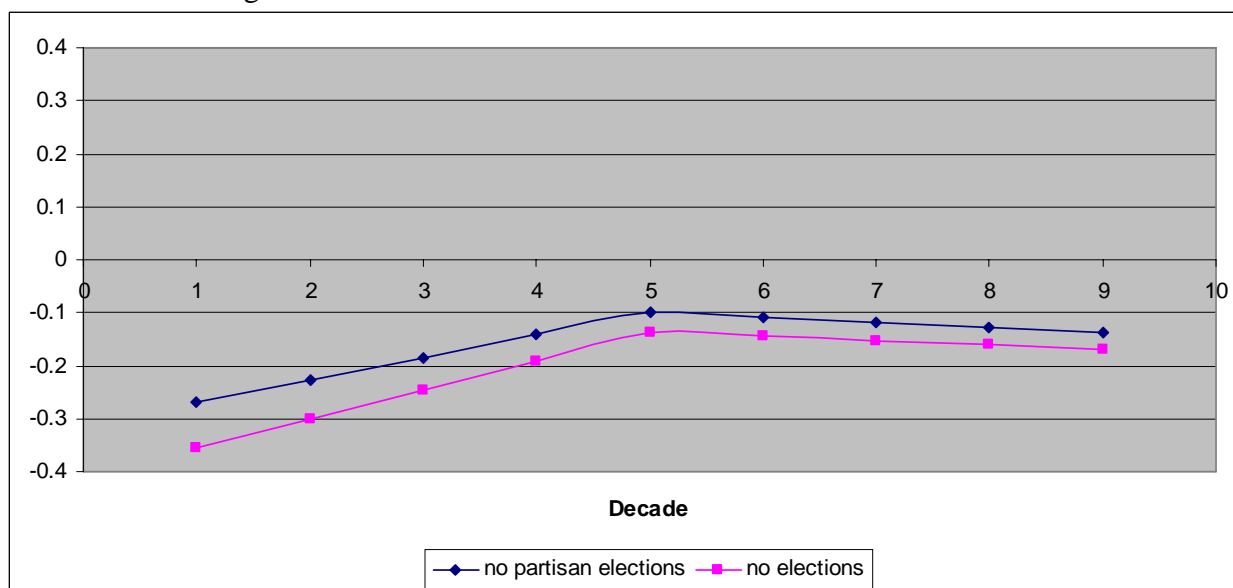
Figure 5.2: Influence of Climate on Judicial Retention

Influence of Climate-Selected Decades

Years	Decade	No Partisan Elections	No Elections
1912-1920	1	-0.097 (0.083)	0.080 (0.060)
1951-1960	5	-0.241*** (0.064)	0.037 (0.074)
1991-2000	9	-0.144** (0.057)	0.013 (0.069)

Notes: Standard errors are in parentheses. They are robust and clustered at the state level.

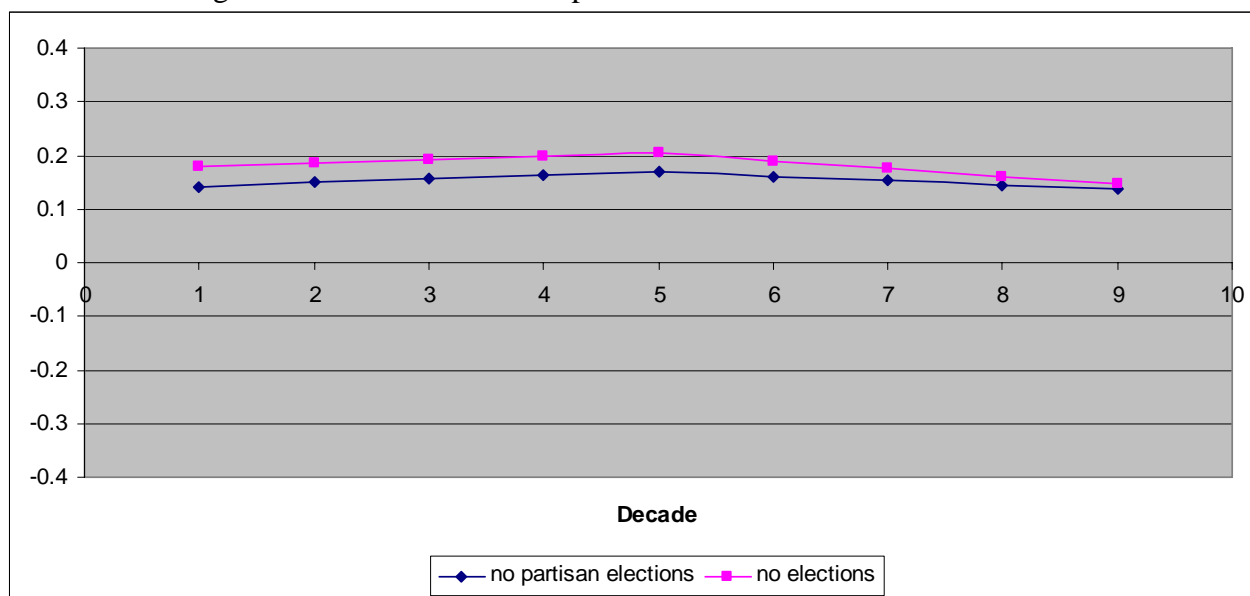Figure 5.3: Influence of Civil Law on Judicial Retention

Influence of Civil Law - Selected Decades

Years	Decade	No Partisan Elections	No Elections
1912-1920	1	-0.269 (0.177)	-0.355*** (0.108)
1951-1960	5	-0.100 (0.159)	-0.138 (0.169)
1991-2000	9	-0.136 (0.127)	-0.168 (0.126)

Notes: Standard errors are in parentheses. They are robust and clustered at the state level.

Figure 5.4: Influence of Transportation on Judicial Retention

Influence of Transportation - Selected Decades

Years	Decade	No Partisan Elections	No Elections
1912-1920	1	0.142** (0.066)	0.180*** (0.060)
1951-1960	5	0.170*** (0.047)	0.204*** (0.058)
1991-2000	9	0.136*** (0.032)	0.146*** (0.052)

Notes: Standard errors are in parentheses. They are robust and clustered at the state level.

Figure 5.5 – Influence of Civil Law on Intermediate Appellate Courts
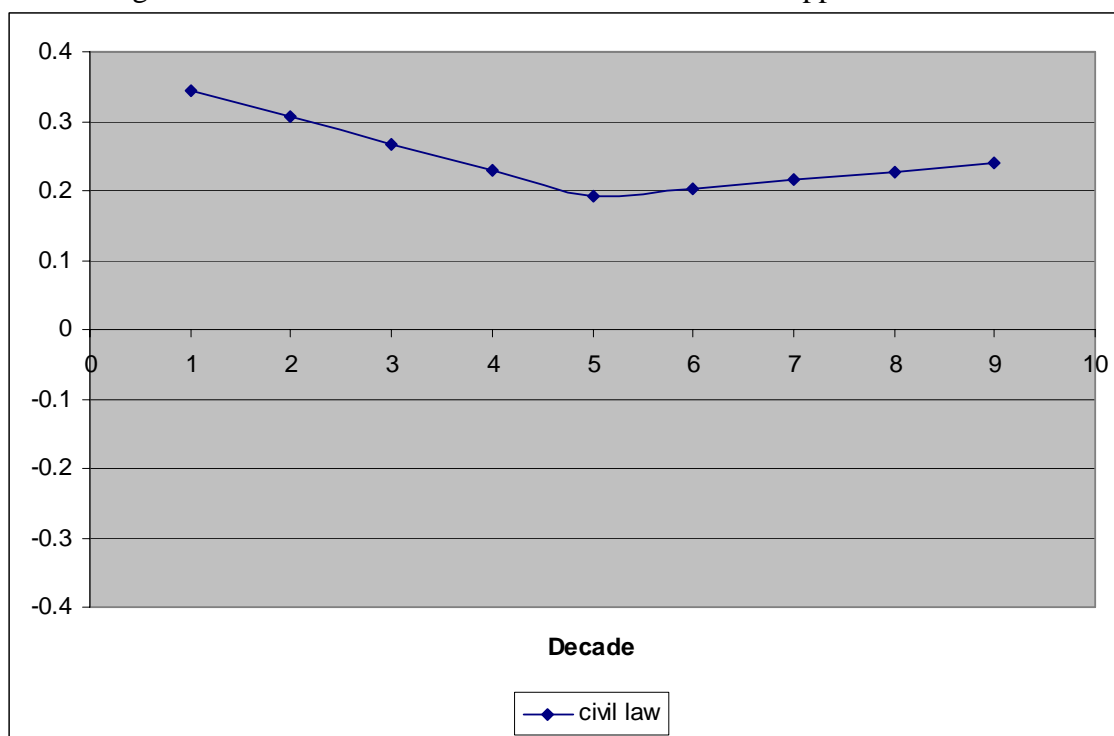
Influence of Initial Conditions on Intermediate Appellate Courts-Selected Decades

Years	Decade	Climate	Civil Law	Transportation
1912-1920	1	0.030	0.344**	-0.057
		(0.084)	(0.150)	(0.056)
1951-1960	5	0.070	0.191	-0.048
		(0.075)	(0.145)	(0.051)
1991-2000	9	0.035	0.239***	-0.040
		(0.051)	(0.083)	(0.028)

Notes: Standard errors are in parentheses. They are robust and clustered at the state level.

Figure 5.6: The Evolution of Lawyers per 100,000
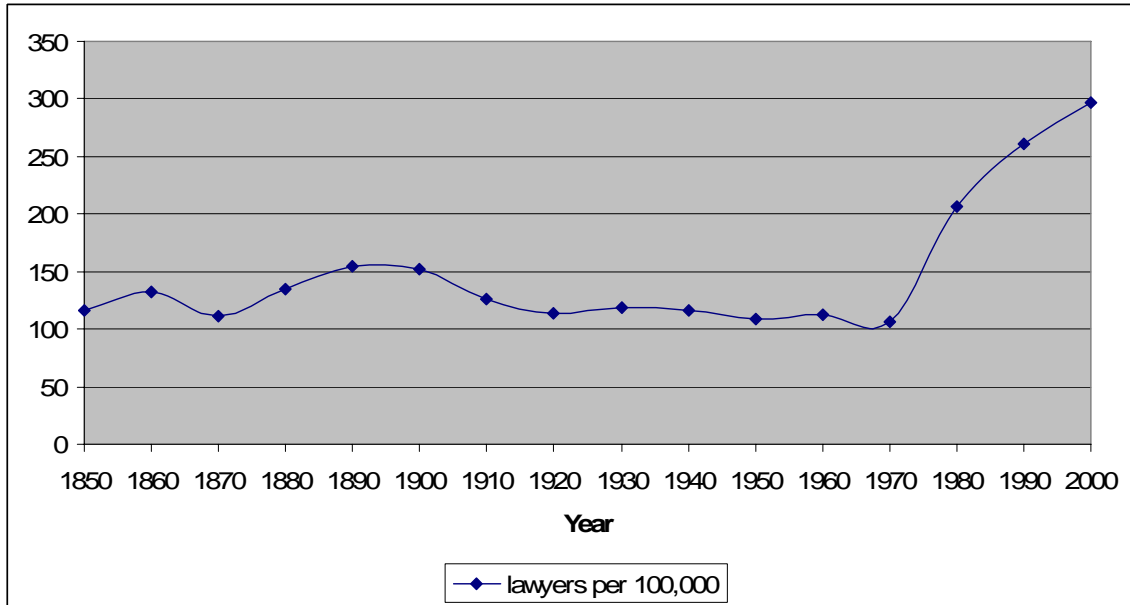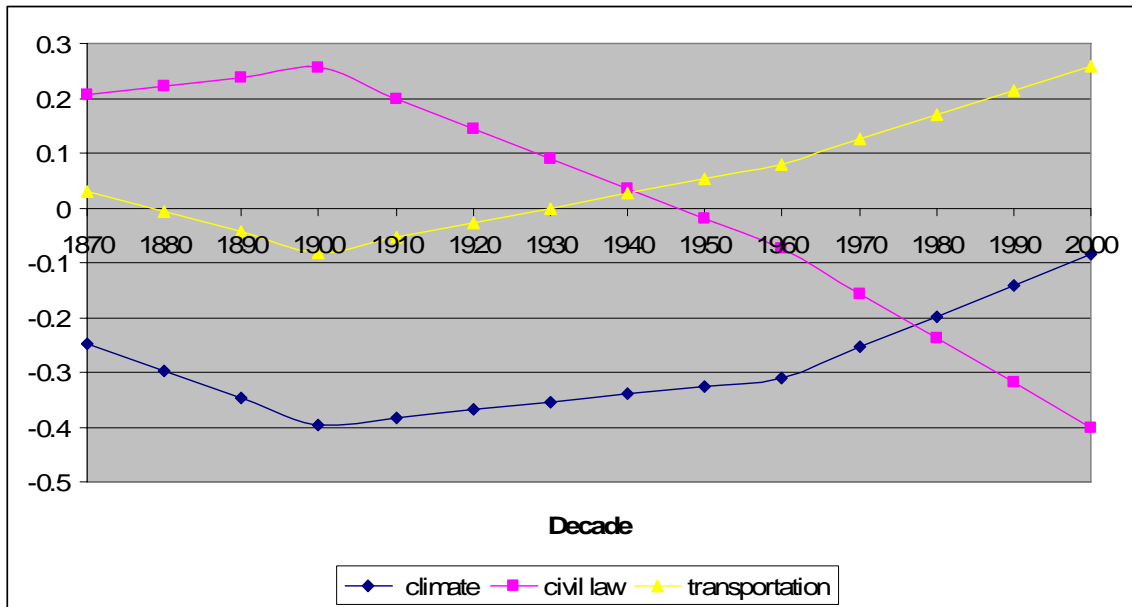
Figure 5.7 – Influence of Initial Conditions on Logged Lawyers per 100,000

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Appendix

Table A1: Initial Conditions and Court Policies, Ordered Probits

Column	(1)	(2)	(3)
Dependent Variable	No Partisan Elections	No Elections	Operating Intermediate Appellate Courts
Climate	-0.250	0.474**	0.669**
	(0.272)	(0.236)	(0.315)
Climate*t_1	-0.170***	-0.097**	0.079
	(0.060)	(0.046)	(0.052)
Climate*t_2	0.074	0.012	-0.219***
	(0.049)	(0.034)	(0.060)
Civil	-0.807	-1.82***	1.42**
	(0.596)	(0.607)	(0.661)
Civil*t_1	0.123	0.361**	-0.190*
	(0.114)	(0.150)	(0.100)
Civil*t_2	-0.039	-0.107	0.163
	(0.084)	(0.121)	(0.114)
Transportation	0.459**	0.624**	-0.403
	(0.216)	(0.252)	(0.352)
Transportation*t_1	0.037	0.009	0.091
	(0.039)	(0.036)	(0.086)
Transportation*t_2	-0.011	-0.049*	-0.082
	(0.034)	(0.025)	(0.067)
Logged population	-0.422***	-0.236	2.06***
	(0.182)	(0.177)	(0.396)
Observations	432	432	432
Pseudo R-squared	0.242	0.170	0.477

Notes: In the case of intermediate appellate courts, standard errors are questionable because 58 observations are completely determined. Controls for national decadal time effects and a constant are estimated but not reported. Ordered probit estimates are conducted where 0 denotes a decade where there are either partisan or other elections or no intermediate appellate courts in a state. The number 1 denotes a decade where there are either no partisan elections, no elections or there are operating intermediate appellate courts in a state. The number 0.5 denotes a decade where either partisan elections or other elections were removed or intermediate appellate courts were set up in the first through ninth year of the decade. Each cell contains point estimates. Standard errors are in parentheses and are clustered at the state level and corrected for heteroskedasticity. The same convention holds for Table A2.

Influence of Climate-Selected Decades

Years	Decade	No Partisan Elections	No Elections	Intermed. App. Cts
1912-1920	1	-0.150 (0.272)	0.087 (0.261)	0.669** (0.315)
1951-1960	5	-0.831*** (0.285)	0.135 (0.206)	0.985*** (0.309)
1991-2000	9	-0.534*** (0.192)	0.624** (0.252)	0.108 (0.235)

Influence of Civil Law-Selected Decades

Years	Decade	No Partisan Elections	No Elections	Intermed. App. Cts
1912-1920	1	-0.806 (0.596)	-1.82*** (0.607)	1.42** (0.661)
1951-1960	5	-0.314 (0.515)	-0.373 (0.696)	0.660 (0.584)
1991-2000	9	-0.468 (0.430)	-0.801* (0.424)	1.31*** (0.486)

Influence of Transportation-Selected Decades

Years	Decade	No Partisan Elections	No Elections	Intermed. App. Cts
1912-1920	1	0.459** (0.216)	0.624** (0.252)	0.108 (0.235)
1951-1960	5	0.606*** (0.208)	0.659*** (0.209)	-0.403 (0.352)
1991-2000	9	0.563*** (0.154)	0.464*** (0.171)	-0.037 (0.294)

Notes: Standard errors are clustered at the state level and corrected for heteroskedasticity.