# Crown Versus Settler Colonialism in Mexico

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**Abstract**

This paper examines the persistent effects of Crown versus settler colonialism. Exploiting a spatial regression discontinuity design in Mexico, I document that regions where the relative power of the colonial state over settler elites was higher exhibit higher historical and contemporary economic prosperity. In contrast to the view that Crown judges disproportionately weakened property rights, court records analyzed with natural language processing algorithms suggest they constrained settlers from expropriating indigenous lands. In the long-run, a feedback loop appears to have consolidated an emerging rural middle class, whose relative enfranchisement tied it less to patronage politics, encouraging public good provision and labor mobility out of agriculture.

**Keywords:** Colonialism, courts, property rights, economic development, Mexico.
**JEL Codes:** K40, P14, O12, D73, N46.

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# 1 Introduction

Throughout history, there is widespread variation in the colonialism strategies pursued by colonial powers. For instance, the Crown often employed the colonial state to directly colonize territories by subjugating indigenous populations to extract natural resources. Prominent examples of such Crown colonialism include the rule of British India or French Africa between the 18th and 20th centuries. In contrast, in many other cases colonial empires overwhelmingly delegated the endeavor to large numbers of settlers who commonly coerced and forcibly displaced indigenous populations. The well-known cases of Dutch, English or Spanish settlers that emigrated to parts of Southern Africa, the Americas or Oceania after the 16th century are reminiscent of such settler colonialism (Michalopoulos and Papaioannou, 2020; Heldring and Robinson, 2018; Sokoloff and Engerman, 2000).

Both of these broad strategies fundamentally shaped patterns of comparative development in the past centuries, but whether one of them had more detrimental economic consequences than the other is still unclear. From a theoretical perspective, when the Crown led the colonization process, the colonial state had more power to politicize legal adjudication in its favor and arbitrarily expropriate indigenous populations to maximize natural resource extraction (North, 1990; North and Weingast, 1989). However, a countervailing force was that the colonial state could better insulate itself and be less beholden to settler elites, for instance when these sought to expropriate more indigenous lands, which potentially strengthened property rights relative to settler colonialism (Besley and Persson, 2009; Glaeser and Shleifer, 2002).

However, despite growing academic debates and interest in understanding colonial legacies around the world, empirical evidence on this question remains remarkably scarce. It is challenging to study because the strategies pursued by colonial powers were not random and the colonial state is not easy to unbundle. Ideally, one would want to study a historical episode where a colonial empire colonized territories sharing the same geographical, indigenous and other colonial characteristics, but otherwise exogenously varied the relative power of the colonial state over settler elites in doing so. Moreover, detailed systematic information tracing colonial expropriations is typically rare.

In this paper, I make progress by examining the persistent effects of Crown versus settler colonialism in Mexico – the only Spanish colony to possess two colonial appellate courts (*Reales Audiencias*) across which the power of the colonial state over settler elites varied discretely. At the center, the Mexico colonial court was presided by the head of the colonial state – the Viceroy –and empowered with more Crown judges and law enforcement resources (i.e.: prosecutors, military escort) to resolve settler and indigenous disputes in the Crown's

favor. In contrast, further west, the Guadalajara colonial court had fewer judges and law enforcement resources, who were easily bribed or coerced by settler elites to the point that there was "little litigation [...] and, consequently, little work" with which to constrain their behavior (Gerhard, 1972; Parry, 1948, p.266).

Thus, I employ a spatial regression discontinuity design to compare nearby regions historically exposed to the Mexico colonial court – where the relative power of the colonial state over settler elites was higher – to those in the Guadalajara colonial court, but that have since been subjected to the same national and local institutions. To evaluate the validity of my empirical strategy, I provide detailed evidence that the boundary was determined because of idiosyncratic political circumstances, unrelated to pre-existing differences in geography, indigenous or other colonial characteristics, and historically unaffected by selective migration. Likewise, I collect rich archival information on colonial expropriations from 69,966 court records spanning the whole colonial period (1561-1821).

After almost two centuries, I find that locations historically exposed to the Mexico colonial court exhibit higher living standards. Using microdata from the 2000 population census, estimates indicate household income is on average 25% higher. Likewise, individuals accumulate one more year of schooling, relative to a mean of 6.3.[1] Effects are historically very persistent, as data from historical population censuses show that the educational differences at the boundary have been present since the end of the $19^{\text{th}}$ century. Results are robust to extensive alternative specifications that modify optimal bandwidths, RD functional forms, samples (including dropping capitals such as Guadalajara), boundary segment effects, spatially adjusted standard errors, or falsification tests.

Then, I empirically explore the theoretical mechanisms behind them. I curate court records involving settler and indigenous disputes taken to court and analyze their text using natural language processing (NLP) algorithms (i.e: deep-learning neural networks, random forests, etc). I accurately categorize 95% of cases (F1 scores $>0.92$) according to the following dispute types: property rights, civil, criminal, and regulatory, and geolocate them to colonial villages. I also predict whether either group disproportionately won these appeals, allowing me to understand the extent to which colonial appellate courts favored or limited expropriations.

In contrast to the view that Crown judges disproportionately weakened property rights, three main econometric findings suggest that the Mexico colonial court constrained settlers from confiscating indigenous lands more effectively. First, colonial villages exposed to this court were associated with 1.6 more appeals per one thousand indigenous inhabitants in 1800,

[1] Using typical Mexican returns to schooling of 10%-15%, this implies that about half of economic differences at the boundary can be explained by human capital accumulation.

equivalent to 80% of the mean, indicating increased litigation. Second, effects were almost entirely driven by property right disputes and no statistically significant differences were found for other dispute types (i.e.: contract, criminal, or regulatory). Third, indigenous litigants were 71 percentage points more likely to win appeals, compared to a mean of 48%, which substantially secured their property rights and curbed the expansion of large *haciendas*.

I employ theoretical insights from legal and economic theories, as well as archival records, to interpret findings (Besley and Persson, 2009; Glaeser and Shleifer, 2002; North and Weingast, 1989). The Spanish Crown delegated the administration of extractive institutions to settlers, but their excessive confiscations of indigenous lands endangered natural resource extraction. In the Mexico colonial court, more empowered Crown judges politicized legal adjudication but were better insulated from settler elites and less beholden to their bribery or coercion, which allowed the colonial state to constrain unlawful settler expropriations more effectively and provide indigenous communities certain legal guarantees to protect their lands.

Next, I hypothesize that comparatively more secure property rights consolidated an emerging rural middle class long after these institutions ceased to exist. In the 19th century, the Mexican state privatized the communal lands that predominated in colonial villages, but without a system of enforceable peasant titling. Yet, in places historically exposed to the Mexico colonial court, villagers employed colonial titles to defend their ownership (Tutino, 1988). By 1910, small and medium-sized holders (ie: *rancheros*) expanded by 21% percentage points, relative to a mean of 23%, an effect that lingered through 2000, when household ownership was still 4.9 percentage points higher, compared to a mean of 75%.

A wealth of historical and contemporary sources suggests that a growing class of titled, more enfranchised peasants was less prone to tie their economic subsistence to patronage politics, which in turn encouraged public good provision and labor mobility. Collected data on the names of 9,845 local politicians reveals there were 3 percentage points fewer political bosses (ie: *jefe politico, cacique, caudillo)* during the Porfiriato era (1877-1910), relative to a mean of 20%. Most traditional political elites were landed elites themselves or had close connections to them. While the Mexican Revolution overthrew them, the agrarian reform implemented by PRI political elites created a new patronage system. Yet, in the second half of the 20th century political concentration was again 3.8 percentage points lower, relative to mean of 17%, with evidence indicating improvements in public good provision.

Moreover, these small and medium-sized holders were less inclined to suffer further land expropriations after Independence, which is why they mobilized less for revolt or forced redistribution. Using data collected data from Mexican historians, I document that these

locations experienced 39 percentage points less peasant rebellions in the 19th century, relative to a mean of 41%, a majority of them instigated by land disputes. They also exhibited 25 percentage points less uprisings during the Mexican Revolution in 1910-1920, compared to a mean of 29% – after which the agrarian reform redistributed half of the land in the form of *ejidos*.

Finally, individuals in these locations also increasingly moved out of agriculture. While data is scarce, some suggestive evidence shows that as agricultural productivity grew and markets developed, 16 percentage points of the labor force was less employed in subsistence agriculture in 1900, equivalent to 73% of the mean. A hundred years later, working age individuals were still 6.3 percentage points less likely to work in the traditional sector of the economy, relative to a mean of 8.1%, and had transitioned to other high-skill sectors such as manufacturing. Further analysis illustrates that the long-run economic effects are unlikely to be driven by alternative intermediating mechanisms, such as complementarities with local fiscal institutions, financial markets or social capital.

This study contributes to several strands of the economics literature. First, findings deepen our understandings about the persistent consequences of colonialism (Acemoglu et al., 2001). They complement a large number of papers studying, for instance, colonial coercion (Lowes and Montero, 2021a; Dell, 2010), indirect rule (Acemoglu et al., 2014; Iyer, 2010), investments or policies (Chiovelli et al., 2024; Diaz-Cayeros and Jha, 2022; Lowes and Montero, 2021b; Dell and Olken, 2019; Guardado, 2018; Wantchekon et al., 2015; Huillery, 2009), ethnic partitions (Michalopoulos and Papaioannou, 2016, 2013a), or religious missions (Valencia, 2019; Waldinger, 2017; Nunn, 2010), among other relevant topics. To the best of my knowledge, though, they provide the first empirical evidence on the effects of Crown versus settler colonialism, which is in itself a significant contribution.

Moreover, the paper builds on a growing body of empirical work linking the state and economic outcomes (Allen et al., 2023; Dell et al., 2018; Lowes et al., 2017; Acemoglu et al., 2015; Michalopoulos and Papaioannou, 2013b; Besley and Persson, 2009), particularly earlier cross-country analysis focused on legal institutions (La Porta et al., 2008; Acemoglu and Johnson, 2005; Djankov et al., 2003; La Porta et al., 1998, 1997). By unbundling the colonial state and employing NLP algorithms to analyze court records, I go further in exploring theoretical mechanisms. Given that the relative power of the colonial state over settler elites was higher in the Mexico colonial court, another key contribution is to provide for the first time evidence on the long-run capacity of legal institutions (Besley and Persson, 2009). Findings suggest that in settings which lack judicial independence, dispute resolution may work better by accepting political distortions inherent in a more biased but better insulated legal adjudication, particularly from the influence of local elites (Glaeser and Shleifer, 2002).

Finally, in Latin America a seminal view dating back to at least Sokoloff and Engerman (2000) argues that historically high land inequality is the fundamental cause of the continent's poor long-run growth performance (see Caicedo (2023) for a thorough summary). However, in the past decades, empirical studies casted doubt on this hypothesis by finding instead a positive association between historical *haciendas* and contemporary development, for instance in Peru and Colombia (Dell, 2010; Acemoglu et al., 2008). Amid the absence of institutional structures that secured property rights for smallholders, large landowners provided a stable land tenure system that encouraged public good provision.

My findings plausibly reconcile these two seemingly contradictory visions. In general, the implicit Latin American counterfactual to large landowners was insecure and disenfranchised smallholders. However, the case of Mexico shows that when the colonial state operated more effectively, a rural middle class with some similarities to the one that predominated in parts of North America emerged. The lack of well-functioning legal institutions to constrain elites or provide guarantees for citizens significantly conditioned the effects of inequality on the continent's economic trajectory.[2] Attempts to improve the way these institutions work may provide a more useful avenue for changing the underdevelopment equilibrium than forced redistribution (i.e.: agrarian reform).[3]

The paper is organized as follows. The next section provides a historical overview of colonial appellate courts (*Reales Audiencias*) in Mexico. Section 3 discusses the historical and contemporary data used and NLP analysis. Section 4 presents the spatial regression discontinuity specification. Section 5 tests the main findings on economic prosperity. Section 6 empirically examines theoretical mechanisms, primarily focused on property rights, politics, and labor markets, and rules out alternative stories. Finally, section 7 concludes.

# 2 The Spanish Crown vs. Settler Elites

## 2.1 Colonial Courts

As the colonization of the Americas unfolded in the early 16th century, the Spanish Crown mostly delegated natural resource extraction to emigrating settlers. One salient example was the *encomiendas* - land grants conferring settlers the right to demand labor and tributes from indigenous communities – out of which a landed elite of large *haciendas* emerged (Brading,

[2]Other recent work, mostly in political science, has examined the role of colonial courts in constraining colonial bureaucrats (Guardado, 2018) and settlers (Franco-Vivanco, 2021), or implementing reforms (Garfias and Sellars, 2022), but none focuses on the long-run effects or mechanisms that I study.

[3]See, for instance, other recent studies in El Salvador (Montero, 2022), Colombia (Galan, 2020) or Mexico (Dell, 2012) where agrarian reform had mixed economic effects.

1988; Van Young, 1981; Chevalier, 1976).[4] However, widespread indigenous exploitation in the early conquest caused a demographic collapse that significantly endangered the effort.[5] Consequently, the New Laws of 1542 were introduced to protect the rights of indigenous communities, particularly to own land and self-rule within their villages.[6] For instance, most Mexican villages (*pueblos*) practiced traditional communal land tenure systems (*ejidos*) and were governed by native leaders (*caciques*) (Knight, 2002; Lockhart, 1992).

The Spanish Crown transplanted colonial appellate courts called *Reales Audiencias* to oversee the colonization process. Courts were led by Crown judges called *oidores*, who were considered the highest-ranking royal representative in Spanish America.[7] Following civil law systems, judges relied heavily on bright rules and written decrees for legal adjudication and were typically supported by other law enforcement officers, including prosecutors (*alcaldes del crimen, fiscales*), notaries (*escribanos*), and bailiffs (*alguaciles*).[8] They were tasked to uphold the law, which settlers commonly disregarded throughout the colonial period leading to further indigenous land confiscations that jeopardized the Crown's natural resource extraction (Burkholder and Chandler, 1977).[9]

A central instrument to constrain such behavior was to hear indigenous appeals against settler elites.[10] As King Phillip II once emphasised to judges, "if natives appear before you, give them justice and protect them from [those] who might cheat them" (Lockhart, 1992; Owensby, 2008). For instance, an archetypal example from the thousands of Mexican colonial court records that exist describe how in 1593 "the natives from the town of Santa Maria Atengo complained against Juan Antonio de Zavala, landowner of the San Nicolás de Ulala estate, about the possession of land" (see Appendix D.1 B for other examples). In no few instances, judges secured indigenous property rights as exemplified in another

[4]Other extractive institutions, for instance, included the *mita* - a forced labor system used in mining activities, and the *repartimiento* - an internal trade tax forced on natives. See Diaz-Cayeros and Jha (2022) and Dell (2010) for studies that examine the effects of these institutions.

[5]The demographic collapse of native populations (from approximately 22 to 1 million) and the complaints raised by the Church about indigenous exploitation fueled a vibrant philosophical and legal debate about the responsibilities of the Spanish Crown.

[6]Settlement into colonial villages mostly involved recognizing pre-colonial villages, such as the *altépetl* in Mexico or the *ayllus* in Peru, or reallocating indigenous populations to fit labor supply needs (*reducciones*). Labor regulations prohibited indigenous villagers from migrating without consent.

[7]Such was their power that their decisions could only be overruled by the Council of the Indies in Spain (Burkholder and Chandler, 1977). However, their reach excluded ecclesiastical, military, or mercantile affairs, which had special jurisdictions (*fueros*).

[8]Laws were composed of a myriad of decrees issued over centuries, which were compiled by King Charles II in the Compilation of the Laws of the Kingdoms of the Indies (1680).

[9]This behavior gave rise to the famous Latin American dictum: "I Obey But Do Not Comply "("*Obedezco pero no cumplo*"), whereby settlers recognized the authority of the Crown, but not that of the law.

[10]Colonial courts also investigated settlers' usurpations of royal authority through periodic audits (*juicios de residencia*) and were sometimes delegated other administrative functions, particularly lower-ranked courts.

court record where "San Bartolome Atecaman [...] is ordered to protect the natives in their ownership of the mountain, land and water as they express" (see Appendix D.1 F).

Through the Council of the Indies, the Spanish Crown appointed judges and went to extreme lengths to shield their work from settler influence. Candidates with advanced law degrees or noble ancestry were favored to encourage their loyalty and professionalism.[11] Once in the Americas, judges were prescribed to a secluded life and forbidden to take part in public events or engage in profitable activities (i.e.: hold assets, trade, etc.). Moreover, they received higher salaries than other royal officials and usually military protection to curb the risk of settler bribery or coercion (Burkholder and Chandler, 1977).

## 2.2 Variation in Mexico

New Spain was the only colony in the Spanish Empire to possess two colonial appellate courts.[12] The origins of these courts lie in the conquests made by the first wave of conquistadors during the early Mexican conquest. The first appellate court, called the *Real Audiencia de Mexico* - henceforth Mexico colonial court, was established in 1527 in Mexico City by the conquistador Hernán Cortés, after his forces swiftly vanquished the Aztec Empire in 1521. Further northwest, the violent campaign of rival conquistador, Nuño de Guzmán, met stiff resistance from the Chichimeca Confederation which escalated into the 1540 Mixton War. Consequentely, King Charles V instructed to set up a second appellate court, the *Real Audiencia de Guadalajara* - henceforth Guadalajara colonial court, in 1548 in Compostela (later moved to Guadalajara) to restore order in the region (Gerhard, 1972; Parry, 1948).[13]

The colonial courts' jurisdictions were precisely described in royal decrees, most prominently in the 1680 Compilation of Indian Laws (see Figure 1). The Mexico colonial court oversaw the central and southern provinces of New Spain, from Michoacán through Oaxaca and all the way down to Guatemala. On the other hand, the Guadalajara colonial court encompassed the northwestern regions of the Viceroyalty, including the current states of Jalisco and Zacatecas, up to western parts of the modern United States, such as California and Arizona. Both appellate courts worked separately for more than two and a half centuries until the Mexican independence in 1821 (Gerhard, 1972; Parry, 1948).

A significant aspect is the manner in which the boundary of these courts was arbitrarily determined. In their quest to expand the Spanish Empire, the conquistadors Cortés and De Guzmán organized competing military campaigns which led them to fiercely dispute several

[11] However, between the late 17th century and the mid 18th century, a large part of judicial appointments were sold by the Spanish Crown (Burkholder and Chandler, 1977).

[12] The Viceroyalty of New Spain was composed of the current territories of Mexico, parts of Central America, and the United States, including Texas, New Mexico, Arizona and California.

[13] This colonial appellate court was also known as the *Real Audiencia de Nueva Galicia*.

territories in the region of study until they were both forced to return home in 1539. Since the area had not been fully mapped in 1548 and King Charles V was wary of relying on settlers, the arbitrary decision was that the initial lands explored and granted in the form of *encomiendas* by Cortés would mark the end of the Mexico colonial court's jurisdiction, while those by De Guzmán would signal the beginning of the Guadalajara colonial court (Gerhard, 1972).[14] Settler manipulation was limited by the fact that events occurred years before the second appellate court was created.

Early demarcations from royal emissaries in 1550 indicate limits often followed sharp geographical features (i.e.: rivers, lakes, mountains), in lines that started from Lake Chapala and continued southwest to the Pacific coast, and northeast towards unexplored lands. The boundary cut through parts of the current states of Jalisco, Michoacán, Guanajuato, San Luis de Potosí, and Nuevo León.[15] Appendix C more thoroughly discusses historical accounts about it, which suggest there were little pre-existing differences in the native populations or the environment on either side of it (see Tables 1 and 2 for the supporting econometric evidence as well), because the boundary was a consequence of idiosyncratic political circumstances between rival conquistadors, unrelated to other colonial policies or institutions (for instance, see discussion of the first map of the region in Figure C.1).[16]

The historical literature indicates the relative power of colonial state over settler elites varied discretely at this boundary, because the courts exhibited key institutional differences regarding judges and law enforcement resources (see differences in Figure 1). Throughout the colonial period, the Mexico colonial court was more powerful. The head of the colonial state called the Viceroy presided over it. At the end of the 16th century, the court was allocated 8 *oidores* who for the most part held advanced law degrees that guaranteed loyalty and professionalism. Due to its strategic location, the court was also endowed with several law enforcement officers (i.e.: prosecutors, notaries, etc.) and military escort, making legal adjudication more effective and favorable to the Crown (Arregui Zamorano, 1985).

In contrast, the Guadalajara colonial court was comparatively much less powerful. From the beginning, its president held the local governorship of New Galicia, making it susceptible to excessive settler influence.[17] The court was only allocated 4 *oidores*, many under the

[14]The rule tacitly extended into the future as new territorial explorations made by settlers from the Mexico colonial court were immediately annexed to its jurisdiction, while the same logic applied for those of the Guadalajara colonial court.

[15]Although the boundary changed in certain places, most notably in the western province of Colima and certain northeastern provinces (i.e: Durango, Texas), which were anyways not included in the empirical analysis, it remained stable in the region of study throughout the colonial period.

[16]Crucially, it was not driven by the discovery of the biggest Zacatecas silver mines in the second half of the 16th century.

[17]The court also assumed administrative duties. For example, on local government matters such as public good provision, military and defense needs, and political appointments (Parry, 1948).

figure of *oidores alcaldes mayores* – meaning they simultaneously held local political offices – who were typically biased in favor of settlers. For instance, in 1550 the bishop of New Galicia complained to King Charles V that "the whole kingdom is divided by disorders [...] through the work of partial and inexperienced judges" (Parry, 1948, p.273). In another telling example, a royal auditor complained that "with Indian affairs [...] royal decrees were not be obeyed, because some of the *oidores* do not wish it".

Additionally, the court was endowed with considerably fewer law enforcement resources. Initially, there were "no lawyers or prosecutors, only the *oidores*", a fact that narrowed the scope for legal adjudication. For example, in 1562 the court tasked a prosecutor to investigate a crime in Zacatecas but "for eight months [he] patrolled the mountains [...] without ever coming to grips with his elusive foe" (Parry, 1948, p.279). Also, judges could not count on military escort, making them subject to settler bribery or coercion. Overall, problems were of such magnitude that in 1574 "there was little litigation in New Galicia and consequently little work" with which to constrain settler behavior (Parry, 1948, p.266).

# 3 Data

## 3.1 NLP for Analyzing Colonial Court Records

I employed a variety of sources and methods to study the persistent effects of Crown vs settler led colonialism in Mexico. First, I drew from the Historical-Geographic Information System (HGIS) of the Indies (1701-1808) – produced by the University of Graz, Austria – to pinpoint the boundary between colonial appellate courts (see Figure 1). HGIS maps the administrative boundaries of various colonial institutions across Spanish America. As described in Section 2, their coordinates of the colonial appellate courts' boundary in New Spain are in turn based on original Mexican historical sources, for instance in Gerhard (1972); Parry (1948).

Then, I web-scraped rich information on 69,966 court records from the colonial courts' archives. Records from the Mexico colonial court were located at the General Archive of the Nation (*Archivo General de la Nación*) in Mexico City, while those from the Guadalajara court were housed at the Public Library of the Jalisco State (*Biblioteca Pública del Estado de Jalisco*) in Guadalajara. They span more than two centuries of Spanish rule (1561-1821) and contain the universe of settler and indigenous disputes taken to court in New Spain, particularly those from the civil, criminal indigenous and land branches (*ramos civil, criminal, indios, tierras*), as well as investigations pursued by the Spanish Crown against settlers. Each record includes the title, date, location, and the arquivist's description of events, in-

cluding the individuals or entities involved, nature of the dispute, and when available, court decisions.

I used natural language processing (NLP) algorithms to curate data and analyze their text.[18] First, I extracted keyword sets from the distribution of words in court records to classify legal disputes involving indigenous communities, property rights, contracts, crimes, and regulations, and whether indigenous communities or settlers won court appeals (see keywords and manually annotated examples in Appendix D.1). Then, with the help of research assistants, data was split into training datasets – approximately 10% manually annotated categorizations (roughly half for both positive and negative cases) –, and testing datasets for evaluating the NLP algorithms' performance (see Table D.1). I then predicted categories – or indicator variables capturing whether a court record corresponded to a particular legal dispute type – by training and testing various types of classification algorithms.

Third, I selected the most accurate classification algorithm for each category using the F1 score – a widely used predictive performance measure that combines both precision and recall indicators.[19] Deep-learning algorithms, such as random forests (RF) and convolutional neural networks (CNN), predicted best across all categories (see Appendix D.1 Table D.2). Overall, I accurately categorize 95% of colonial disputes. Algorithms were particularly successful in predicting colonial disputes involving indigenous communities, property rights, contracts, crimes, and regulations (with F1 scores ranging between 0.92 and 0.96). Court decisions by judges were marginally less so (0.89), but still relatively high enough.[20]

Finally, for the empirical analysis I restricted the sample to 12,349 cases (2367 involving indigenous communities) geolocated to colonial villages within 100km of the boundary, which were matched using the equivalences produced by Tank de Estrada et al. (2005) (see Appendix D.1 Table D.3). Sources and a precise description of the NLP analysis is found in Appendix D.1. Section 6.2 describes descriptive statistics in more detail.

## 3.2 Contemporary and Historical Outcome Data

To measure economic prosperity outcomes, I used 5% random micro-level samples of the 2000 and 1960 population censuses produced by INEGI – the Mexican statistical office. The first one is representative of localities with populations above 2,500 inhabitants while the second one is at the municipal level, allowing me to precisely geolocate individuals across the

[18] See also an earlier analysis by Franco-Vivanco (2021) of Mexican colonial records using NLP algorithms.

[19] Precision is the number of true positive results divided by the number of all samples predicted to be positive, including those not identified correctly, and the recall is the number of true positive results divided by the number of all samples that should have been identified as positive.

[20] After selecting the best performing algorithms, hyperparameters were employed to tune in the data as discussed in Appendix D.1.

boundary. I coded information about household income (not for 1960, though), education levels, household ownership, sectoral employment (i.e: agriculture, manufacturing), migration, and several other key individual socio-demographics (i.e: age, sex, etc.) (see Table A.1). Data from the 1900 population census with similar variables at the municipal level is also used. INEGI is widely considered to be a reliable and accurate source of government produced statistics.

Furthermore, I assembled several contemporary and historical sources to explore channels of persistence. Systematic municipal information from the 19th century is rather limited, because continued political instability restricted its collection until autocrat Porfirio Díaz came to power in 1876. First, I focus to understand land and property rights patterns after Independence. I drew from the Official Directory of Ranches and Estates (*Directorio Oficial de los Ranchos y Haciendas de la República Mexicana*) in 1910 – a census of formal landowners just before the Mexican Revolution that lists their names, properties, location and sizes (in hec) – to code variables measuring small and medium-sized holders. I complemented this with statistics from the 1940 population census on the number and type of municipal land properties to code analogous variables for that year.

Second, unfortunately trustworthy voting data is only available after the 1970s. However, I employed the Encyclopedia of Mexican Municipalities in 2005 – which contains a detailed compendium of municipal histories – to examine local politics (INAFED, 2005). I compile the names and surnames of 9,845 local politicians (i.e: mayors) in the 19th and 20 centuries in locations near the boundary. I proxied for political concentration during the Porfiriato (1877-1910) with an indicator variable measuring the presence of political bosses (ie: *jefe politico, caudillo*) and followed the political economy literature to calculate a mayors' surnames Herfindahl-Hirschman index (HHI) between 1960 and 2000 (Ferraz et al., 2022; Querubin, 2016; Acemoglu et al., 2008). The HHI is based on the proportion of years governed by politicians that share the same surname in a given municipality within a particular period.[21] Examples and a more thorough discussion of process is provided in Appendix D.2.3.

Likewise, I use the same source to collect descriptions about the location, dates, and nature of rebellions for the same period of study. I complemented this information with similar descriptions extracted from historian Reina (1980), who compiled archival data and maps on the subject for 1819-1906. I then constructed indicator variables capturing whether various types of rebellions (i.e: indigenous, peasant, property rights, etc.) occurred after Independence in municipalities close to the colonial courts' boundary (see Appendix D.2.2 for coding examples).

[21] The average political concentration measure for municipalities in the region of study was 0.17.

## 3.3 Other Data

Moreover, I employed additional information to test for geographic or pre-treatment balance in 1548, include as controls in the empirical analysis, or rule out alternative mechanisms. In particular, I drew from high-quality topographic and climatic data produced by INEGI to create local measures of elevation (in meters above sea level), slope (in %), rainfall (in average annual mm), and temperature (in average annual degree Celsius). I also employ various raster files on soil quality from the Food and Agriculture Organization (FAO) and rivers – two factors greatly influencing for instance, agricultural productivity or colonization costs –, and average them to construct measures of soil quality and the extent of rivers flowing (in km) (see Table A.2).

Similarly, I collected information from the *Sumas de Visitas* in 1548 - the most first royal survey of New Spain carried out by the King Charles V just before the creation of the second colonial appellate court. The survey provides colonial village-level descriptions about the state of the environment, local populations and colonial institutions, which I geolocate to modern localities and municipalities using the equivalences by (Tank de Estrada et al., 2005). I code various variables capturing the number of tributary indigenous individuals and the presence of Crown and settler land grants (*encomiendas*), taxation, mining or trade, among other variables. The sample size is relatively small because few villages had been established at the time, yet still reflective of early development patterns. Appendix D.2.1 describes the coding and Table A.2 the variables.

For ruling out alternative channels, I first relied on financial markets and tax data. An interesting early source comes from the mining sector, which drove foreign investment and growth at the end of the 19th century (Coatsworth, 1978). The National Mining Directory (*Directorio Nacional Minero*) of 1908 is a census of mining companies that lists their location, access to capital markets (i.e: banks, stocks), and shareholding composition. To be conservative, for the contemporary period I used municipal statistics of National Banking Commission (*Comisión Nacional Bancaria*) in the 2000s on municipal banking. I coded indicator variables measuring access to banks. On the other hand, tax information is unfortunately only available for the contemporary period in the Municipal Public Accounts (*Cuentas Públicas Municipales*) 1990-2000, produced by INEGI as well. I coded variables measuring averaged total tax and property tax revenues (as in Besley and Persson (2009)) (see Table A.1).

Finally, I investigate social capital using waves of the Municipal Development Survey (*Encuesta de Desarrollo Municipal*) in 2000 and National Survey on Victimization and Perception of Public Safety (*Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública*) in 2011-2019 – a bi-annual public opinion survey on security issues performed across

the country. Surveys contain information about people's attitudes towards institutions and corruption (see Table A.1). A key advantage is that sample sizes are considerably large compared to other popular surveys (i.e.: Latinobarometro or World Value Surveys). I coded indicator variables capturing the presence of community organizations (i.e: planning committees) and standardized individual corruption and trust in government indexes.

# 4 Empirical Strategy

A simple OLS estimation comparing the Mexico and Guadalajara colonial courts regions would quite possibly be biased. Their territories plausibly differed along a range of observable and unobservable characteristics, which could lead me to confound outcomes of interest in ways that are hard to predict. For instance, there may be omitted variables that are correlated both with how the colonial state was established or settler migration and economic trajectories within the colonial courts' jurisdictions. Also, one cannot rule out a reverse causality story, where initially prosperous places disproportionately crowded in the presence of either the colonial state or Spanish settlers.

To overcome these issues, I implement a spatial regression discontinuity design (SRDD) exploiting the discontinuous change in the power of the colonial state relative settler elites at the colonial appellate courts' boundary in Mexico. In the baseline specifications, I compare individuals and households in nearby locations historically exposed to the Mexico colonial court to those in the Guadalajara colonial court, but that have since been subjected to the same national and local institutions. The boundary forms a multidimensional discontinuity in longitude-latitude space. I estimate regressions of various forms following:

$$y_{i,m,s} = \alpha + \gamma mexico_m + f(\text{geo}_m) + X'_{i,m}\beta + \phi_s + \epsilon_{i,m,s} \tag{1}$$

Where $y_{i,m,s}$ is an outcome variable of interest for observation $i$ in municipality $m$ along boundary segment $s$. $mexico_m$ is an indicator variable that equals 1 if municipality $m$ belonged to the Mexico colonial court – where the relative power of the colonial state over settler elites was higher – and 0 otherwise. $f(\text{geo}_m)$ is an linear RD polynomial, which controls for smooth functions of geographic location. $X_{i,m}$ is a set of covariates, such as elevation, slope, and distance to Mexico City and USA, to explicitly control for proximity to the country's largest urban area and trading partner. For regressions examining micro-level outcomes, I also include a vector of individual or household demographic characteristics. $\phi_s$ is a set of 70km boundary segment fixed-effects, which equals 1 if municipality $m$ is closest to segment $s$ and 0 otherwise. Finally, $\epsilon_{i,m,s}$ is an error term clustered at the municipal level.

In this setup, the coefficient of interest is $\gamma$ – the causal difference in economic outcomes in regions that belonged to the Mexico colonial court compared to those in the Guadalajara colonial court. This coefficient estimates a local average treatment effect (LATE) and is informative about a bundle of institutional differences in the organization of colonial courts, specially regarding judges and law enforcement resources (see discussion in Section 2.2 and Figure 1). As such, one has to be careful when interpreting results, because I cannot disentangle the effects of any one of these particular characteristics nor provide evidence that one mattered more than other. Rather, taken together they serve to measure variation in the power of the colonial state.

The baseline specification uses a local linear longitude and latitude RD polynomial and limits the sample to observations within 100 kilometers of the boundary.[22] Since there are many options for how to specify the RD polynomial and bandwidth, and I am unaware of a widely accepted method to select them, I perform several robustness checks to document that point estimates remain fairly stable across various specifications that change the RD polynomial, bandwidth, and units of analysis (Calonico et al., 2020, 2014; Gelman and Imbens, 2018; Imbens and Kalyanaraman, 2012).[23] Moreover, I also show robustness to various forms of clustering standard errors and boundary segment fixed-effects.

The SRDD requires two identifying assumptions. First, all relevant factors besides treatment must vary smoothly at the boundary. Following (Dell et al., 2018), if $c_1$ and $c_0$ denote potential outcomes under treatment and control, $x$ denote longitude, and $y$ denote latitude, this assumption requires that $E[c_1|x, y]$ and $E[c_0|x, y]$ be continuous at the boundary for observations located on the Mexico colonial court side to be an appropriate counterfactual for observations on the other side of the boundary. Second, there shouldn't be selective sorting, which in my context would be violated if there is selective migration. For instance, if relatively more productive individuals historically migrated from the Guadalajara colonial court side to the Mexico one and these differences persisted, affecting point estimates. In the next subsections, I assess the credibility of these assumptions.

## 4.1 Pre-Treatment Balance

I begin by evaluating statistical balance in the environment and local populations just before the creation of the colonial appellate courts (see Section 2.2 and Appendix C for the supporting qualitative discussion as well). The basic intuition is to show there were no

[22] This bandwidth is close to the one found using (Calonico et al., 2020, 2014) in a one dimensional approach.

[23] The specification of multidimensional RD regressions is subject to significant debate. Thus, in the empirical exercises I show robustness checks to several specifications.

significant disparities in relevant geographic, pre-colonial, or colonial covariates that may have determined the selection of the boundary or confound outcomes of interest. Initially, I treat municipalities as independent observations because the use of spatially correlated standard errors tends to slightly increase their magnitude. However, results remain fairly the same if Conley standard errors that account for spatial dependence are employed instead (see Appendix E Tables E.2 and E.3).

Table 1 examines a variety of municipal regressions of the form described in equation 1 with geographic covariates as dependent variables. Columns (1) examines elevation, but the point estimate is statistically insignificant. Column (2) looks at slope, whose coefficient is significant but magnitude very small (and controlled for in the empirical analysis). Unsurprisingly, column (3) shows that temperature is likewise balanced. Column (4) doesn't reveal differences in precipitation either. Column (5) documents that soil quality is similar on both sides. Finally, column (6) examines the extent of rivers flowing through each municipality, which is also balanced. Across most specifications, coefficients are relatively small. In sum, they indicate that several environmental dimensions that could influence, for example, agricultural productivity or the costs of colonization campaigns, varied smoothly.

In an analogous way, Table 2 checks pre-treatment covariates in 1548 – the year in which the Guadalajara colonial court was established. I employ the royal survey *Sumas de Vistas*, whose unit of analysis earliest colonial villages. First, I focus on indigenous characteristics. Descriptions in the survey indicate the presence of Chichimecan (i.e: *Otomíes, etc.*) indigenous groups in all the region of study, suggesting statistical balance in indigenous ethnicity across the boundary (something that prior historical studies have not necessarily been able to empirically study, for instance Dell et al. (2018) in Vietnam). One can plausibly infer that pre-colonial indigenous institutions, such as indigenous *caciques* or communal property rights (i.e: *ejidos*), were also similar. Column (1) illustrates few differences in the number of tributary indigenous villagers, possibly implying similar overall indigenous populations and potential for indirect rule (Acemoglu et al., 2014; Iyer, 2010).

I then look at colonial institutions. While the territory was largely unexplored at the time, columns (2) to (3) suggest the balance pattern extended to key extractive activities, such as agriculture and particularly mining – the most important economic industry in colonial Mexico (Lowes and Montero, 2021a; Dell, 2010). One clarifying comment here is that the silver mines of Zacatecas – the biggest ones in the whole Spanish Empire – were discovered in 1546 further northwest in Zacatetas, years after the first colonization campaigns of the 1530s and far away from the boundary, so they could not have influenced its location (Brading, 1971). Likewise, columns (4) and (5) show few differences in extractive taxation (i.e: *repartimiento*) or colonial markets, respectively (Diaz-Cayeros and Jha, 2022). There

is also balance regarding the assignment of the Catholic Saints (column 6), which possibly relates to evangelization efforts (Valencia, 2019).

Finally, I investigate the presence of *encomiendas* given that these land grants were an integral part of the early Mexican conquest, specially in regions colonized by conquistadors Hernán Cortés and Nuño de Gúzman (see discussion in Appendix C). Columns (7) and (8) document that the likelihood of having *encomiendas* was statistically the same on both sides of the boundary, even when unpacked between those possessed by the first settler elites or the Spanish Crown. Point estimates are insignificant and relatively small. Since at the time the Spanish Crown was just transplanting institutions to guide the colonization process, this result is important because one could interpret it as suggestive evidence that the initial power of the colonial state versus settler elites was also balanced. While the sample in all these regressions is relatively small, results are fairly consistent.

However, alternative explanations are also plausible. One may be worried, for instance, that for some other intrinsic reason places on the Mexico colonial court side were initially more prosperous and this gave them an edge. If anything, though, Table 2 suggests that side of boundary didn't exhibit a better agricultural potential or wealth (mining) stock in the first place. Also, to the best of my knowledge, no other colonial institution coincided with this boundary (Gerhard, 1972; Parry, 1948). For example, colonial military, fiscal (i.e: *Cajas Reales)*, or political institutions (i.e: *alcaldias, gobernaciones*) did not share the exact same jurisdictions. Thus, together with historical evidence in Appendix C, I conclude that pre-treatment factors varied smoothly across the boundary, which complies with the first identifying assumption.

## 4.2 Selective Sorting

Finally, I evaluate historical selective migration across the boundary. Unfortunately, I'm unaware of any reliable source of information that could be employed to empirically study the issue during the colonial period. However, the existing qualitative evidence overwhelmingly suggests that indigenous migration was uncommon and costly. For instance, indigenous villagers were deeply attached to their communities and colonial labor regulations forbade native migration without royal consent (see Appendix C for further discussion). Even if imperfectly enforced, these restrictions largely discouraged the free movement of individuals and plausibly reduced the extent of indigenous migration (Lockhart, 1992; Tutino, 1988).

Moving to the post-Independence period, colonial labor regulations ended but data became increasingly available. Thus, I investigate whether migration patterns affect outcomes of interest using micro-data from the 1960 and 2000 Population Censuses. Columns (9) in

Tables 3 and Appendix B Tables B.1 through B.4 trim observations for migrating individuals living in different municipalities to the ones in which they lived five years earlier, for various cohorts going back to the early 19th century. Overall, estimates indicate that baseline results are robust after performing these econometric exercises. Consequently, I conclude that there is no evidence of selective sorting affecting the main results, a fact that further bolsters the validity of my empirical strategy.

# 5 Effects on Economic Prosperity

## 5.1 Contemporary Income

This section examines the persistent effects on economic prosperity. First, I use the 2000 Mexican population census to study contemporary household income, a salient measure of living standards. I subtract transfers received from the government and assume that children aged 0 to 4 are equal to 0.4 adults and children aged 5 to 14 are equal to 0.5 adults Deaton (1997). As standard, I also drop observations belonging to the bottom and top 1% of the income distribution to eliminate extreme values that introduce noisiness. While using consumption would probably be more convenient, I am unaware of any consumption measures recorded in Mexican censuses.[24]

Various estimations of the form described in equation 1 are reported in Table 3, using the arcsin of equivalent household income as the dependent variable. All baseline regressions include observations within 100km of the boundary along the central portion that is balanced on key geographic and pre-treatment characteristics (see Figure 1). I also include the standard controls discussed in Section 4, as well as the number of household members aged 0-4, 5-14, and 15 and older. Moreover, standard errors are clustered at the municipal level.[25]

Overall, results indicate that contemporary income in 2000 for households historically exposed to Mexico colonial court is, on average, around 25% higher, a result that is statistically significant at 1% or 5% confidence levels. Point estimates remain economically similar when performing several specifications and robustness checks. For instance, when introducing a local linear polynomial in latitude and longitude (column 1), a local linear polynomial in distance to the boundary (column 2) – although in this case the coefficient is barely insignificant –, or including both polynomials (column 3). They also remain similar when using higher order quadratic or cubic functional forms (columns 4 and 5).

[24] Household surveys also exhibit less variation near the boundary.

[25] Results are economically similar when localities or municipalities are used as alternative units of analysis.

Figure 2 plots point estimates for observations within 50km and up to 100km of the boundary, at 5km intervals. Dashed lines show 95% confidence intervals. The panels in different rows employ various functional forms for the RD polynomial: linear latitude-longitude (row 1), linear distance to the boundary (row 2) – which shows the coefficient is generally significant except when approaching the 100km mark–, both linear latitude-longitude and linear distance to the boundary (row 3), and analogous specifications using quadratic functional forms (rows 4 through 6). Effects are remarkably robust to alternative bandwidth and RD polynomial choices, though naturally estimates for smaller bandwidths tend to be noisier, particularly for quadratic polynomials.

Moreover, in Table 3 I perform additional checks. One concern may be that Guadalajara, the home of the Guadalajara colonial court and a manufacturing hub today, is driving the results. Other important cities on the other side of the boundary include León and San Luis de Potosí. In columns (6) and (7) estimates are robust to dropping state capitals, which largely removes urban centers, as well as including alternative 35km boundary segment fixed-effects. One additional worrying concern is that the boundary may be at an unusual place. I address this by examining alternative samples. The first considers only places 25-75 km away, omitting the boundary region itself (column 8), but point estimates remain fairly similar. Finally, as discussed in section 4.2, column (9) documents results are robust to eliminating migrating individuals from the sample.

## 5.2 Education

Human capital is another relevant proximate factor of economic prosperity. It is more widely and precisely measured across time than income, particularly in developing economy such as Mexico (Deaton, 1997). Consequently, Table 4 estimates regressions of the form described in 1 using individual-level data on years of schooling from the 1960 and 2000 Mexican population censuses as outcome measures. I focus on adult cohorts above 25 years old and split them in several categories depending on the decades in which they were born: before 1880, between 1880-1899, 1900-1919, 1920-1939, 1940-1959, and after 1960. This exercise spans more than ten decades going back to the late 19th century, allowing me to study the historical persistence of educational disparities at the boundary.

Column (1) shows individuals living in places inside the former the Mexico colonial court accumulate on average 1 more year of schooling, relative to mean of 6.3. Columns (2) through (6) report results for various cohorts. Coefficients reveal a similar pattern and are statistically significant at 1% and 5% confidence levels. Magnitudes are considerably large

relative to sample means, but are decreasing overtime (from 27% in 1880 to 16% in 2000).[26] As in the case of income, Appendix B Table B.1 shows point estimates for various cohorts are robust to different RD polynomials, samples, boundary segment fixed-effects, and other robustness checks. Using typical contemporary returns to schooling of 10%-15%, they are large enough to explain around half of economic differences at the boundary, suggesting the effects on public goods have been quite persistent over the past century and a half.

## 5.3 Additional Robustness Checks

I perform additional robustness checks in Appendix E using alternative standard errors and falsification tests. First, I consider the case where errors have plausible dependence based on spatial proximity. I estimate regressions of the form following equation 1, but employ spatially adjusted Conley standard errors instead of clustering errors at the municipal level. Since I am unaware of a standard way for choosing the spatial radius, specifications use two radius of 50km and 100km, basically the RD bandwidth. In line with statistical patterns previously found, Appendix E Tables E.4 and E.5 show that baseline findings on economic prosperity hold the same levels of statistical significance (5% confidence level) when estimating these alternative standard errors (in some columns, the significance levels even improve).[27]

A final check is to conduct a randomization inference simulation. For each of the study's outcomes, I randomly re-assign distance to the boundary. I regress the outcome of interest on the re-assigned indicator for whether the municipality was historically exposed to the Mexico colonial court, and then repeat this exercise 1,000 times. Table E.9 reports the share of the 1,000 absolute placebo coefficients that are larger in magnitude than the absolute actual coefficient on the Mexico dummy. The p-values computed using this exercise provide a broadly similar picture to those computed using conventional inference. Overall, evidence indicates the main economic prosperity findings are robust to these additional robustness checks.

[26] Similar effects arise when looking at other public goods, such as running water, sewage or electricity. They are available upon request but not shown for simplicity.

[27] The computational power needed for some regressions using micro-level data is too large, most notably for recent periods. In these cases I resort to running 100 RD regressions with 10,000 observations each, which basically captures the same logic but are notoriously less computationally demanding (see Appendix E).

# 6 Mechanisms

My analysis has so far documented lasting positive effects of Crown versus settler colonialism in Mexico. Yet these findings raise the intriguing question of why effects persisted long after colonial appellate courts disappeared, particularly in the face of the major upheavals such as Independence or the Mexican Revolution. Thus, in the following sections I lay out a conceptual framework and empirically explore channels of persistence, particularly property rights – a central theme in Mexican history and archival records. I hypothesize that regions exposed to the Mexico colonial court benefited from increased property rights security, creating a feedback loop in the long-run that led to the emergence of a small rural middle class, whose relative political enfranchisement encouraged public good provision and labor mobility out of agriculture.

## 6.1 Conceptual Framework

I lay out a simple conceptual framework based on the work from economists and legal scholars in this section. I apply insights from seminal legal theories to my historical setting and discuss when they are most likely to be relevant for the empirical analysis. The starting point is that the state is a fundamental factor for explaining economic development, particularly legal institutions such as courts (La Porta et al., 2008; Acemoglu and Johnson, 2005; Djankov et al., 2003; La Porta et al., 1998, 1997). However, a key finding from this seminal literature is that without judicial independence, the effects of a more powerful colonial state on property rights are theoretically ambiguous (Besley and Persson, 2009).

A first insight in my setting can be derived from the fact that the greater power of the colonial state in the Mexico colonial court (as previously described in Section 2.2 and Figure 1) made legal adjudication more effective and favorable to the Spanish Crown. Conventional wisdom would suggest that such a *politicization* effect in turn exacerbated arbitrary royal expropriations, for example with the purpose of expanding natural resource extraction (North, 1990; North and Weingast, 1989).[28] An obvious consequence of such actions is that they undermined the security of indigenous property rights (Glaeser and Shleifer, 2002).[29] One reasonable way this could be reflected in the data is that indigenous communities litigated less in courts and disproportionately lost court appeals to protect their lands.

[28] Remember that in Section 2.1 I discussed how the Spanish Crown sought to control Crown judges, which is why the Council of the Indies favored those with noble ancestry or legal studies.

[29] This argument is of course reminiscent of earlier studies showing that when monarchs faced weaker executive checks and balances, for instance in 17th century Great Britain (prior to the Glorious Revolution) or when comparing civil law (i.e: France) to common law (i.e: England) countries, they employed courts to arbitrarily expropriate political enemies.

On the other hand, however, a central requirement in the design of a legal system is the protection of judges from local elites. As highlighted in Section 2.2, law enforcers in the Mexico colonial court were less beholden to settler bribery or coercion than those in the Guadalajara colonial court, where the ineffective nature of dispute resolution favored settler elites over the Spanish Crown.[30] For example, by potentially allowing settlers to confiscate indigenous lands without restrictions and grant themselves *encomiendas*, which the historical evidence illustrates not only endangered the natural resource extraction effort but also further weakened indigenous property rights (Knight, 2002; Lockhart, 1992).[31] Incidentally, the Spanish Crown and indigenous communities had aligning interests to constrain settler elites through colonial appellate courts.

Consequently, a second interesting insight suggests that a countervailing *insulation* effect may be at play because the colonial state in the more powerful Mexico colonial court better insulated judges from excessive settler influence, which allowed them to hold local elites accountable more effectively and provide legal guarantees to native populations (Glaeser and Shleifer, 2002, p.1205). In particular, by enforcing the New Laws of 1542 that protected indigenous communities. A direct consequence from this effect is that indigenous property rights would have been relatively more secure, which may have manifested in indigenous communities disproportionately taking disputes with settlers to court and winning those court appeals.

## 6.2 Property Rights

This section draws from the previous conceptual framework to empirically examine the long-run role of colonial appellate courts in securing property rights. First, I employed the curated archival data discussed in Section 3.1 from 12,349 colonial court archives geolocated close to the boundary. I constructed several measures that capture the number of indigenous court appeals made per colonial village during the whole colonial period (1561-1821) for each legal dispute category (i.e: property rights, contract, criminal, etc.). I normalized these measures using the 1800 indigenous population data from Tank de Estrada et al. (2005) to make them comparable across observations.

Appendix D.1 Table D.3 shows some descriptive statistics for the region of study. A fifth of all court records involved indigenous communities. On average, approximately 2

[30] The legal origins theory would suggest that the ability of local elites to influence Crown judges is significantly higher in contexts where inequality is also high, the costs for local elites of using coercion are low, and the state is relatively weak, all of which seem to be plausibly be operating in this part of colonial Mexico (Glaeser and Shleifer, 2002).

[31] A large literature on settler colonialism has documented similar settler expropriatory behavior in Africa, for example in South Africa or Zimbabwe (see for instance Michalopoulos and Papaioannou (2020)).

indigenous appeals were made in 1561-1821 per colonial village per one thousand indigenous inhabitants in 1800. Most explicitly asked the Spanish Crown to secure their lands as property right disputes represented almost 30% of cases, followed by criminal (13%) and regulatory (9%) disputes. Moreover, approximately 24% of court cases were deemed to contain a court ruling, a fact that I use to predict dispute winners among settlers and indigenous villagers. Of these cases, an overwhelming majority appears to have benefited indigenous communities which is in itself indicative.

Next, I turn to empirically analyzing the data with the baseline equation 1. In contrast to the view that that Crown judges disproportionately promoted arbitrary royal expropriations, Table 5 documents increased indigenous litigation in places belonging to the Mexico colonial court. Column (1) shows that indigenous villagers filed almost 1.6 per one thousand inhabitants more appeals in 1561-1821 against settlers relative to those on the other side of the boundary, equivalent to 80% of the mean. The effect is almost exclusively driven by land confiscations, as column (2) reports 0.34 more property rights disputes, compared to a mean of 0.6. Appendix E Table E.1 shows that colonial disputes involving contract, criminal or regulatory issues did not vary significantly across the boundary, further indicating they did not drive increased litigation. Importantly, column (3) shows indigenous litigants were associated with an 71 percentage points increased likelihood of winning appeals against settlers, compared to a mean of 48%, which generally secured their titles and plausibly curbed the expansion of large *haciendas* (Brading, 1988; Van Young, 1981; Chevalier, 1976). Coefficients are significant at the 5% and 10% confidence level.

These findings provide broader implications for our understandings of legal systems in contexts which lack judicial independence. Interpreted through the conceptual framework discussed earlier, they suggest that the *insulation* effect provided by a more powerful colonial state outweighed the *politicization* effect of colonial appellate courts, particularly because the preferences of the Spanish Crown to constrain settlers aligned with those of indigenous communities. Point estimates thus indicate indigenous property rights were more secure. One interpretation is that in such scenarios courts may work better by accepting political distortions inherent in more biased but better insulated legal adjudication (Besley and Persson, 2009; Glaeser and Shleifer, 2002).

The consequences of these institutional structures potentially persisted in the centuries following Independence, even if the historical literature argues that the new Mexican courts were even more biased in favor of landed elites than their colonial predecessors (Tutino, 1988). Consequently, I employ land ownership information from the 1910 Official Directory of Ranches and Estates and the 1940 and 2000 population censuses that measure variables regarding small and medium-sized holders in those years. As before, the most recent popu-

lation census allows me to exploit micro-level data.

In the mid 19th century the Mexican state abolished the communal land tenure that predominated in colonial villages and a few decades later autocrat Porfirio Díaz pushed to privatize lands, but without a system of enforceable peasant titling.[32] Yet in places historically exposed to the Mexico colonial court, villagers employed colonial titles to claim private ownership. Column (4) indicates that the proportion of small and medium-sized peasants called *rancheros* expanded by 21 percentage points, compared to a mean of 23%.[33] Results are in line with 1877-1910 statistics showing that titled farmers more than tripled in the region while large estates declined 10% (Tutino, 1988, p.284). Conversely, masses of landless peasants became laborers at *haciendas* on the other side of the boundary, which tied their economic subsistence to landed elites.

In the early 20th century, the state redistributed through agrarian reform over half of its surface in the form of *ejidos* – a system of communal and private plots with incomplete land rights that remained in place until 1992 (Knight, 1986a,b).[34] Only until that year was a national titling program called Procede rolled out to resolve land disputes. Land redistribution was not more intense in places where a middle-sized land tenure system (*rancheros*) was more prevalent. Finally, column (5) shows that in 2000 households were 5% percentage points more likely to possess a title, relative to a mean of 73%. As before, Appendix B Table B.2 and Appendix E Table E.6 show estimates are robust to the usual robustness checks. Overall, results strongly suggest that relatively more secure property rights on the Mexican colonial court side consolidated an emerging rural middle class.

## 6.3 Politics

The consolidation of an emerging rural middle class may have impacted economic prosperity in a number of ways of course. Yet one key topic the historical and economic literature highlight is peasant enfranchisement, which plausibly made politics less trapped in patronage and rebellions (Tutino, 1988). Patronage can negatively inhibit policies for the rural middle class, for instance by prioritizing private good provision (i.e: subsidies, public employment) or reducing accountability which in turn discourages broad investments in public goods such as education. Consequently, in this section I employ data on the names of local politicians and rebellions described in Section 3.2 (and Appendix D.2) to investigate further. As before,

[32]Most notably, the process began with the enactment of Law Lerdo in 1856 which disentailed Church properties and lands.

[33]The term *"ranchero"* in Mexico traditionally refers to laborers, sharecroppers or tenants who worked in large *haciendas* and eventually became owners of small and middle-sized plots of land.

[34]Communal plots were devoted to purposes such as grazing and firewood, whereas crops were typically cultivated on individual ejidal plots.

Table 6 estimates the various regressions following equation 1 with municipalities as the unit of observation.

Amid the dysfunction of the Mexican state after Independence, I hypothesize that less political strongmen (i.e.: *caciques, caudillos*) – usually landed elites themselves or with links to them – swept in to impose their patronage order in locations on the Mexican colonial court side (Knight and Pansters, 2006).[35] Enfranchised, secure peasants were systematically less inclined to be trapped to their electoral patronage, while on the other side landless peasants were subjugated to it (Tutino, 1988). For example, during the rule of autocrat Porfirio Diaz in 1877-1910, column (3) documents that the presence of political bosses was 3 percentage points lower, relative to a mean of 0.21. The coefficient is significant at the 5% confidence level.

The presence of local strongmen often led to massive land confiscations, escalating peasant grievances. Yet, enfranchised small and medium-sized holders mobilized less for forced redistribution through revolution or revolt (Tutino, 1988; Knight, 1986a). Column (1) documents that these locations experienced 29% percentage points less revolts in 1821-1877, relative to a mean of 57%.[36] Most were driven by dispossessed peasants with land grievances, as shown in column (2). Decades later in 1910-1920, they were 25% percentages points less likely to exhibit violent events during the transformative Mexican Revolution, relative to a mean of 29% (column 4).[37] Most point estimates are significant at the 1% confidence level as well.

After the Mexican Revolution, the winning PRI party was also less successful in institutionalizing a political patronage system linking *ejidal* elites to politicians too (Ronfeldt, 1973). In consequence, column (5) indicates that political concentration, measured by the HHI of mayors' surnames from 1960s and until today, continued to be 4 percentage points lower, relative a mean of 0.17. Interestingly, results are quantitatively similar when comparing before and after the Mexican Revolution in 1910, or through democratic reforms in the 1980s, illustrating that new political elites reproduced similar patronage logic in the face of major critical junctures. As before, Appendix B Table B.3 and Appendix E Table E.7 shows estimates are robust to the usual robustness checks.[38]

[35]During much of the 19th century, rival political factions between Liberals and Conservatives struggled to seize power across the country. Mexico changed presidents numerous times until autocrat Porfirio Diaz came to power in 1877. *Caciques* and *caudillos* typically symbolize patronage combined repression and charismatic leadership – from 19th century former military politicians in the Porfiriato, to 20th century revolutionary and PRI politicians, to contemporary populist strongmen.

[36]Revolts were lengthy protests, typically local in their demands and scope and punctuated by sporadic violence and peasant coordination, that continued for months or years (Tutino, 1988, p.256).

[37]The rebellions led by Pancho Villa in northern Mexico and Emiliano Zapata in central Mexico are the largest and most well-known of these revolutionary movements.

[38]These results are in line with (Dell, 2012) who studied the long-run consequences of the Mexican

## 6.4 Labor Markets

In the long-run, it is also probable that peasant enfranchisement influenced the sectoral allocation of the labor force. For instance, the 19th landed elite tied landless laborers or sharecroppers to the land (Van Young, 1981; Tutino, 1988).[39] After the Mexican Revolution, restrictions imposed by the agrarian reform also discouraged individuals from leaving agriculture (De Janvry et al., 2015).[40] Alternatively, lower agricultural productivity in places with more revolts and land redistribution could affect labor mobility. Thus, in this section I examine the effects on the labor force. I exploit micro data from the 1900, 1960 and 2000 population censuses, coding variables described in Section 3.2. I also run regressions following equation 1, but include additional individuals controls (i.e: sex, age, etc.) when micro-date is used.

The econometric evidence in Table 7 supports this view. Column (1) documents that in 1900, the percentage of the labor force working in agriculture was around 16.6 percentage points lower in places historically exposed to the Mexico colonial court. However, the result is not significant possibly due to low variation. This pattern deepened through the century. Columns (2) and (3) show that, in 1960 and 2000, working age individuals were 6.8 and 6.3 percentage points less likely to be employed in the traditional sector of the economy respectively, relative to means 23.3% and 8.1%. Point estimates are significant at the 10% and 1% confidence levels. Taken together, findings are in line with individuals moving out of agriculture and being less tied to the land.

In fact, columns (4) and (5) show the percentage of those employed in manufacturing was somewhat higher in the same locations. For instance, in 1960 individuals were 5.2% percentage points more likely to work in manufacturing, compared to a mean of 7.8%. The coefficient is significant at 5% confidence level. Nevertheless, the point estimate for 2000 is close to cero and very noisily estimated. This could be explained by the rise of Guadalajara as a manufacturing hub on the other side of the boundary, particularly in the second half of the 20th century. Or, by the fact that perhaps individuals moved into other non-traditional economic sectors, such as services. Appendix B Table B.4 and Appendix E Table E.8 shows estimates are robust to the usual robustness checks.

Revolution.

[39] See for example the case of Chile too in Baland and Robinson (2008).

[40] Indeed, the historical and economic literature argues, for instance, that ejidal lands could not be sold, rented, or converted to non-agricultural use.

## 6.5 Financial Markets and Taxation

While I have argued that peasant enfranchisement is an important mechanism linking increased security in property rights to modern economic outcomes, an alternative channel is perhaps financial development. Peasant titles could have been used as a collateral to access credit or capital markets, widening economic opportunities for small and medium-sized holders. Likewise, political stability could have attracted investment, such as in 1877-1910, when autocrat Porfirio Díaz opened the economy to foreign investors in order to boost the mining and industrial sectors which required large capital sums (Haber et al., 2003; Coatsworth, 1978). In this section, I combine data from the 1900 population census and the Official Directory of Mines (1908), and re-estimate regressions following equation 1 to explore such an alternative hypothesis.

However, point estimates in Table 8 illustrate this is unlikely to be relevant in the region of study. Columns (1) to (3) document that locations historically exposed to the Mexican colonial court were not more likely have banks in 1900 or 1960, and only marginally so for 2000. Means are also small which suggests that even if point estimates were statistically significant they would be unlikely to drive developmental differences at the boundary. Likewise, no appreciable disparities are seen in columns (4) to (5) in terms of capital market penetration, for example in the likelihood that mines at the height of the Porfiriato in 1908 were listed in the stock market or part of foreign investment projects.

Financial market results can seem surprising, but are perhaps most straightforward to interpret through politics as well. The development of capital markets was historically associated to growth in the mining and industrial sectors rather than the traditional sector of the economy (Coatsworth, 1978). And in the process of supporting these sectors, qualitative evidence shows that the Mexican state arbitrarily enforced property rights as private goods, with the resulting rents shared among business and political elites (Haber et al., 2003). Thus, despite all the political instability in the countryside, locations on the Mexico court side had the similar access levels to financial markets than those on the other side.

Moreover, one could also hypothesize that the increased economic activity derived from more secure property rights fostered tax collection as in Besley and Persson (2009), a key input for public good provision. While local historical tax data is rather limited, contemporary estimates using the Public Municipal Accounts (1990-2000) data show this is unlikely. For example, columns (6) and (7) document that contemporary tax revenues in this period seem balanced across the boundary, even when disentangling property tax revenues which are directly related to land properties. Results indicate that in this context legal institutions did not necessarily complement local fiscal institutions, perhaps because an overwhelming proportion of municipal budgets comes from national transfers.

## 6.6 Social Capital

One plausible last intermediating factor is social capital. The communal environment that existed in colonial villages (and later resurfaced in the form of *ejidos* through agrarian reform) could have persisted and been important for securing property rights, particularly given the history of land expropriations or coercion, or reducing informational asymmetries for political mobilization or public good provision. To rule out such alternative stories, I draw from the Municipal Development Survey (2000) and public opinion data from the 2011-2019 National Survey of Victimization and Perception of Public Security to run various versions equation 1.

Table 9 shows results. Across a number of measures, locations exposed to the Mexico colonial court exhibit on average lower, not higher, social capital which is incosistent with the main hypothesis. Column (1) reveals that communities in these locations were 28 percentage points less likely to have a participatory council or *cabildo abierto* - an assembly mechanism inherited from the colonial period to discuss public matters –, relative to a mean of 65%. Columns (2) to (4) suggests there was less participation in various community organizations too, but not necessarily guilds or religious organizations. In consequence, column (5) documents there were 0.24 fewer annual meetings between participatory council and the mayor, compared to a mean of 3.1. Most results are significant at the 1% or 5% confidence level although some are not. Interestingly, column (6) shows that individuals residing on the Mexico colonial court side today are 10.9 percentage points more likely to consider local government institutions as corrupt, relative to a mean of 66%. And in column (7) one can see they also exhibit significantly less trust.

Overall, I conclude that social capital is unlikely to drive the baseline findings. Instead, they are consistent with local political elites (i.e: *jefes políticos, caciques*) capturing civil society through patronage which plausibly even offers better order today than the weak Mexican state's alternative, even if not conducive to economic development. Alternatively, peasant villagers could have developed norms of cooperation for overcoming incomplete property rights or as response to historical exploitation which market interactions weakened on the other side of the boundary. Such hypothesis are in line with earlier empirical studies, for example in Sub-Saharan Africa, where post-colonial societies are captured by local elites (Lowes and Montero, 2021a; Acemoglu et al., 2014).

# 7 Conclusions

This study examined the persistent effects of Crown versus settler colonialism in Mexico. I employed a spatial regression discontinuity design to compare regions where the power of the colonial state over settler elites was higher and found these exhibited higher historical and contemporary economic prosperity. I developed a conceptual framework based on legal theories to study channels of persistence (Besley and Persson, 2009; Glaeser and Shleifer, 2002; North and Weingast, 1989). In contrast to the view that Crown judges disproportionately weakened property rights, court records analyzed with natural language process (NLP) algorithms suggest these constrained settlers from expropriating more indigenous lands, which suggests that the insulation provided by a more powerful colonial state outweighed the politicization of legal adjudication.

I hypothesized that in the long-run more secure property rights consolidated an emerging rural middle class (i.e: *rancheros*). The small and medium-sized land tenure system that predominated in these locations increased peasant enfranchisement, making it less prone to tie its economic subsistence to patronage politics or mobilize for land redistribution through revolution. Econometric evidence indicates this in turn encouraged public good provision and labor mobility, with working individuals increasingly moving out of agriculture. I also tested alternative channels of persistence that could compete with my main hypothesis and showed that effects are unlikely to be driven by them, such taxation, financial markets or social capital.

Although many of the details are specific to the Mexican context, findings have broad implications for our understandings of colonialism and legal institutions. They provide insights for explaining the apparently divergent development trajectories of postcolonial societies in Latin America, Africa or Asia, as a consequence of the colonialism strategies that colonial powers pursued. For example, why certain places that experienced more settler colonialism developed extremely unequal economies. Moreover, they also suggest that in settings without judicial independence, courts may work better by accepting political distortions inherent in more biased but better insulated legal adjudication. Thus, developing a better understanding of how to strengthen these legal institutions remain central areas for future research.

# References

Acemoglu, D., Bautista, M. A., Querubin, P., and Robinson, J. A. (2008). *Economic and Political Inequality in Development: The Case of Cundinamarca, Colombia*, pages 181–

245. Cambridge: Harvard University Press.

Acemoglu, D., Garcia-Jimeno, C., and Robinson, J. A. (2015). State Capacity and Economic Development: A Network Approach. *American Economic Review*, 105(8):2364–2409.

Acemoglu, D. and Johnson, S. (2005). Unbundling Institutions. *Journal of Political Economy*, 113(5):949–995.

Acemoglu, D., Johnson, S., and Robinson, J. A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, 91(5):1369–1401.

Acemoglu, D., Reed, T., and Robinson, J. A. (2014). Chiefs: Economic Development and Elite Control of Civil Society in Sierra Leone. *Journal of Political Economy*, 122(2):319–368.

Allen, R. C., Bertazzini, M. C., and Heldring, L. (2023). The Economic Origins of Government. *American Economic Review*, 113(10):2507–45.

Arregui Zamorano, P. (1985). *La Audiencia de México Según los Visitadores (Siglos XVI y XVII)*. Universidad Nacional Autonoma de México.

Baland, J.-M. and Robinson, J. A. (2008). Land and Power: Theory and Evidence from Chile. *American Economic Review*, 98(5):1737–65.

Bernabeu, S. and García, J. M. (2010). Sobre Cartografía y Fascinación de la Frontera: El Mapa de la Nueva Galicia (Circa 1550). *Escuela de Estudios Hispano-Americanos*, 1(1):129–78.

Besley, T. and Persson, T. (2009). The Origins of State Capacity: Property Rights, Taxation, and Politics. *American Economic Review*, 99(4):1218–44.

Brading, D. A. (1971). *Miners and merchants in Bourbon Mexico 1763-1810*, volume 10. Cambridge University Press.

Brading, D. A. (1988). *Haciendas and Ranchos in the Mexican Bajio: León 1700–1860*. Cambridge Latin American Studies.

Burkholder, M. A. and Chandler, D. S. (1977). *From Impotence to Authority: The Spanish Crown and the American Audiencias, 1687-1808*. University of Missouri Press.

Caicedo, F. (2023). *Roots of Underdevelopment: A New Economic and Political History of Latin America and the Caribbean*. Springer International Publishing.

Calonico, S., Cattaneo, M. D., and Farrell, M. H. (2020). Optimal Bandwidth Choice for Robust Bias Corrected Inference in Regression Discontinuity Designs. *Econometrics Journal*, 23(2):192–210.

Calonico, S., Cattaneo, M. D., and Titiunik, R. (2014). Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs. *Econometrica*, 82(6):2295–2326.

Chevalier, F. (1976). *La Formación de los Latifundios en México. Tierra y Sociedad en los siglos XVI, XVII y XVIII* . Mexico: Fondo de Cultura Económica.

Chiovelli, G., Fergusson, L., Martinez, L. R., Torres, J. D., and Valencia Caicedo, F. (2024). Bourbon Reforms and State Capacity in the Spanish Empire. *BFI Working Paper*.

Coatsworth, J. H. (1978). Obstacles to Economic Growth in Nineteenth-Century Mexico. *The American Historical Review*, 83(1):80–100.

De Janvry, A., Emerick, K., Gonzalez-Navarro, M., and Sadoulet, E. (2015). Delinking Land Rights from Land Use: Certification and Migration in Mexico. *American Economic Review*, 105(10):3125–3149.

Deaton, A. (1997). *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*. The World Bank.

Dell, M. (2010). The Persistent Effects of Peru's Mining Mita. *Econometrica*, 78(6):1863–1903.

Dell, M. (2012). Path Dependence in Development: Evidence from the Mexican Revolution. *Mimeo*.

Dell, M., Lane, N., and Querubin, P. (2018). The Historical State, Local Collective Action, and Economic Development in Vietnam. *Econometrica*, 86(6):2083–2121.

Dell, M. and Olken, B. A. (2019). The Development Effects of the Extractive Colonial Economy: The Dutch Cultivation System in Java. *Review of Economic Studies*, Forthcoming.

Diaz-Cayeros, A. and Jha, S. (2022). Conquered but not Vanquished: Complementarities and Indigenous Entrepreneurs in the Shadow of Violence. *Stanford Graduate School of Business Working Paper Series*, 4098.

Djankov, S., La Porta, R., Lopez-de Silanes, F., and Shleifer, A. (2003). Courts. *Quarterly Journal of Economics*, 118(2):453–517.

Ferraz, C., Finan, F., and Martinez-Bravo, M. (2022). Political Power, Elite Control, and Long-Run Development: Evidence from Brazil. *NBER Working Paper No. 27456*.

Franco-Vivanco, E. (2021). Justice as Checks and Balances: Indigenous Claims in the Courts of Colonial Mexico. *World Politics*, 73(4):712–773.

Galan, J. S. (2020). Tied to the Land? Agrarian Reform and Intergenerational Mobility in Colombia.

Garfias, F. and Sellars, E. A. (2022). When State Building Backfires: Elite Coordination and Popular Grievance in Rebellion. *American Journal of Political Science*, 66(4):977–992.

Gelman, A. and Imbens, G. (2018). Why High-Order Polynomials Should Not Be Used In Regression Discontinuity Designs. *Journal of Business and Economic Statistics*.

Gerhard, P. (1972). *A Guide to the Historical Geography of New Spain*. University of Oklahoma Press.

Glaeser, E. and Shleifer, A. (2002). Legal Origins. *Quarterly Journal of Economics*, 117(4):1193–1229.

Guardado, J. (2018). Office-Selling, Corruption and Long-Term Development in Peru. *American Political Science Review*, 112(4):971–995.

Haber, S., Maurer, N., and Razo, A. (2003). *The Politics of Property rights: Political Instability, Credible Commitments, and Economic Growth in Mexico, 1876-1929*. Cambridge University Press.

Heldring, L. and Robinson, J. A. (2018). *Colonialism and Economic Development in Africa*, chapter The Oxford Handbook of the Politics of Development. UK: Oxford University Press.

Huillery, E. (2009). History Matters: The Long-Term Impact of Colonial Public Investments in French West Africa. *American Economic Journal: Applied Economics*, 1(2):176–215.

Imbens, G. and Kalyanaraman, K. (2012). Optimal Bandwidth Choice for the Regression Discontinuity Estimator. *Review of Economic Studies*, 79(3):933–959.

INAFED (2005). *Enciclopedia de Municipios de Mexico*. Instituto Nacional para el Federalismo y el Desarrollo Municipal.

Iyer, L. (2010). Direct versus Indirect Rule in India: Long-Term Consequences. *Review of Economics and Statistics*, 4(92):693–713.

Knight, A. (1986a). *The Mexican Revolution, Volumen 1: Porfirians, Liberals, and Peasants*. Cambridge University Press.

Knight, A. (1986b). *The Mexican Revolution, Volumen 2: Counterevolution and Reconstruction*. Cambridge University Press.

Knight, A. (2002). *Mexico: The Colonial Era*. Cambridge University Press.

Knight, A. and Pansters, W. (2006). *Caciquismo in Twentieth-Century Mexico*. University of London Press.

La Porta, R., Lopez-de Silanes, F., and Shleifer, A. (2008). The Economic Consequences of Legal Origins. *Journal of Economic Literature*, 46(2):285–332.

La Porta, R., Lopez-de Silanes, F., Shleifer, A., and Vishny, R. W. (1997). Legal Determinants of External Finance. *Journal of Finance*, 52(3):1131–1150.

La Porta, R., Lopez-de Silanes, F., Shleifer, A., and Vishny, R. W. (1998). Law and Finance. *Journal of Political Economy*, 106(6):1113–1155.

Lockhart, J. (1992). *The Nahuas After the Conquest: A Social and Cultural History of the Indians of Central Mexico, Sixteenth Through Eighteenth Centuries*. Stanford University Press.

Lowes, S. and Montero, E. (2021a). Concessions, Violence, and Indirect Rule: Evidence from the Congo Free State. *Quarterly Journal of Economics*, 133(4):2047–2091.

Lowes, S. and Montero, E. (2021b). The Legacy of Colonial Medicine in Central Africa. *American Economic Review*, 111(4):1284–1314.

Lowes, S., Nunn, N., Robinson, J. A., and Weigel, J. L. (2017). The Evolution of Culture and Institutions: Evidence from the Kuba Kingdom. *Econometrica*, 85(4):1065–1091.

Michalopoulos, S. and Papaioannou, E. (2013a). National Institutions and Subnational Development in Africa. *Quarterly Journal of Economics*, 129(1):151–213.

Michalopoulos, S. and Papaioannou, E. (2013b). National Institutions and Subnational Development in Africa. *Quarterly Journal of Economics*, 129(1):151–213.

Michalopoulos, S. and Papaioannou, E. (2016). The Long-Run Effects of the Scramble for Africa. *American Economic Review*, 106(7):1802–48.

Michalopoulos, S. and Papaioannou, E. (2020). Historical Legacies and African Development. *Journal of Economic Literature*, 58(1):53–128.

Montero, E. (2022). Cooperative Property Rights and Development: Evidence from Land Reform in El Salvador. *Journal of Political Economy*, 130(1):48–93.

North, D. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.

North, D. C. and Weingast, B. R. (1989). Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England. *Journal of Economic History*, 49(4):803–832.

Nunn, N. (2010). Religious Conversion in Colonial Africa. *American Economic Review*, 100(2):147–52.

Owensby, B. P. (2008). *Empire of Law and Indian Justice in Colonial Mexico*. Stanford University Press.

Parry, J. H. (1948). *The Audiencia of New Galicia in the Sixteenth Century: A Study in Spanish Colonial Government*. Cambridge University Press.

Querubin, P. (2016). Family and Politics: Dynastic Persistence in the Phillipines. *Quarterly Journal of Political Science*, 11(2):151–181.

Reina, L. (1980). *Las Rebeliones Campesinas en México, 1819-1906*. Siglo XXI.

Ronfeldt, D. (1973). *Atencingo: The Politics of Agrarian Struggle in a Mexican Ejido*. Stanford University Press.

Sokoloff, K. L. and Engerman, S. L. (2000). Institutions, Factor Endowments, and Paths of Development in the New World. *Journal of Economic Perspectives*, 14(3):217–232.

Tank de Estrada, D., Miranda Garcia, J. L., and Chavez Soto, T. L. (2005). *Illustrated Atlas of the Indian Towns: New Spain, 1800*. Fomento Cultural Banamex.

Tutino, J. (1988). *From Insurrection to Revolution in Mexico: Social Bases of Agrarian Violence, 1750-1940*. Princeton University Press.

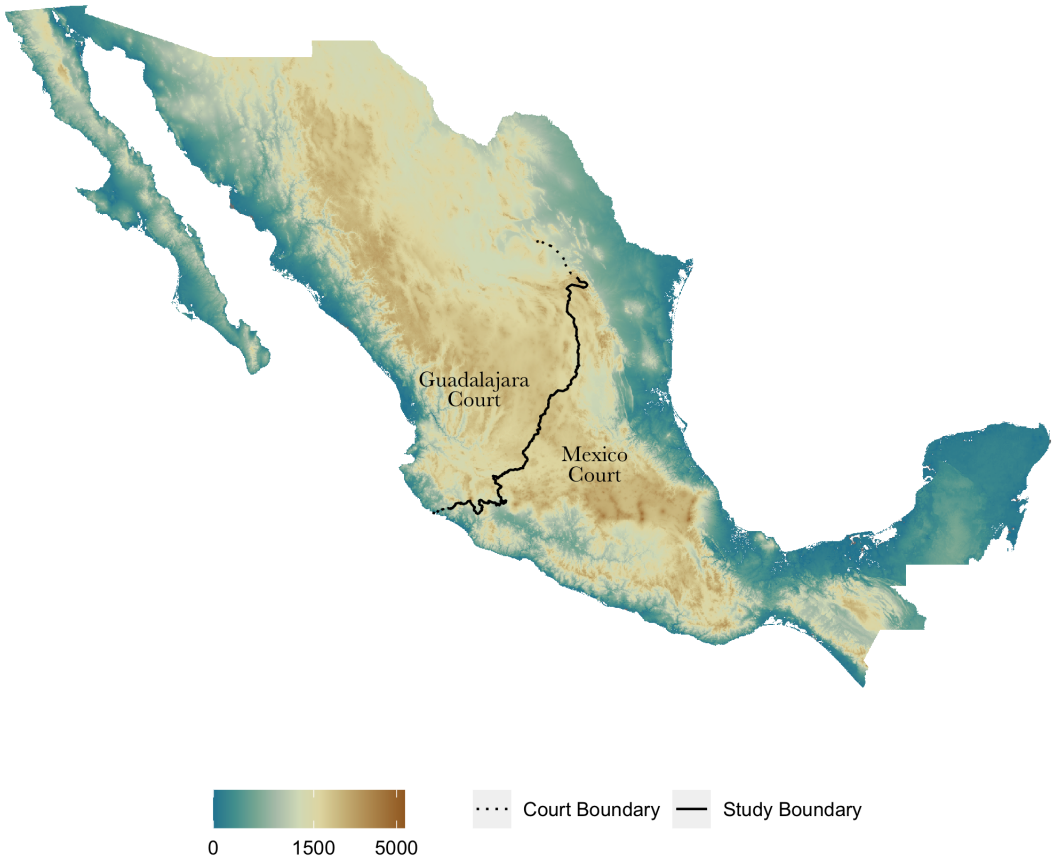
Valencia, F. (2019). The Mission: Human Capital Transmission, Economic Persistence, and Culture in South America. *Quarterly Journal of Economics*, 134(1):507–556.

Van Young, E. (1981). *Hacienda and Market in Eighteenth-Century Mexico: The Rural Economy of the Guadalajara Region, 1675-1820*. Berkeley: University of California Press.

Waldinger, M. (2017). The Long-Run Effects of Missionary Orders in Mexico. *Journal of Development Economics*, 127:355–378.

Wantchekon, L., Marko, K., and Natalija, N. (2015). Education and Human Capital Externalities: Evidence from Colonial Benin. *Quarterly Journal of Economics*, 130(2):703–757.

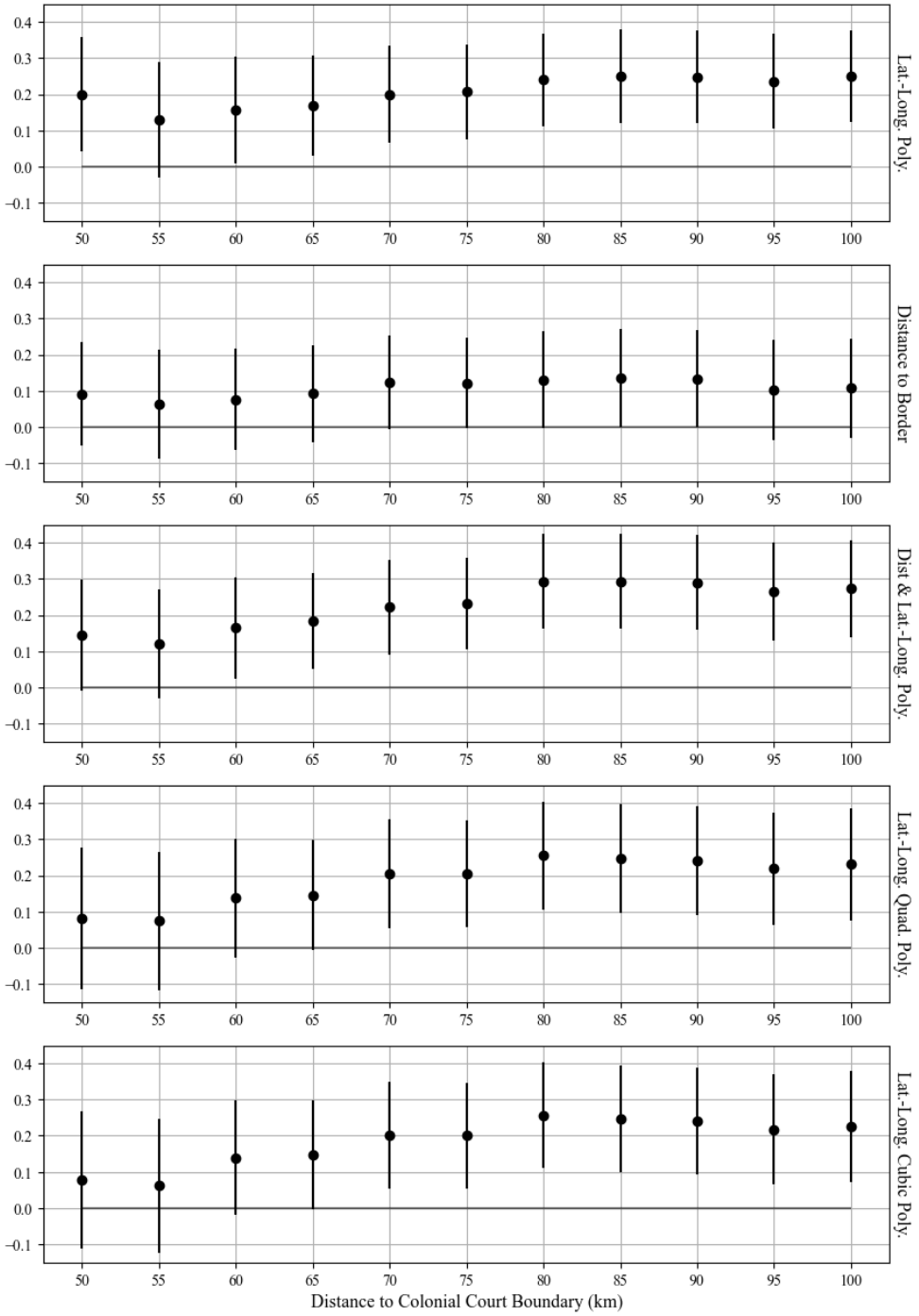
Figure 1: Boundary of Colonial Courts in New Spain, 1548 - 1821




| *Guadalajara Court* | *Mexico colonial court* |
|---|---|
| Led by a local governor | Led by the Viceroy |
| 4 settler-biased judges | 8 Crown-biased judges |
| Less law enforcement resources | More law enforcement resources |
| No military protection | Military protection |
| More administrative functions | Less administrative functions |

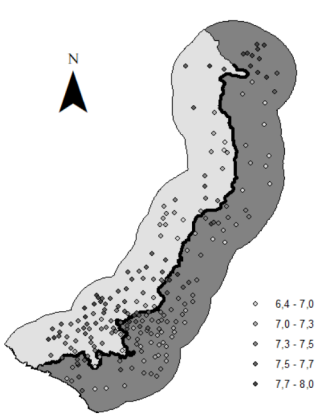
Note: This figure shows a map of the boundary between the Mexico and Guadalajara colonial courts in New Spain – the former Spanish colony in Mexico –, and a table comparing their institutional differences. Source: Gerhard (1972); Parry (1948).

Figure 2: Robustness of Contemporary Income

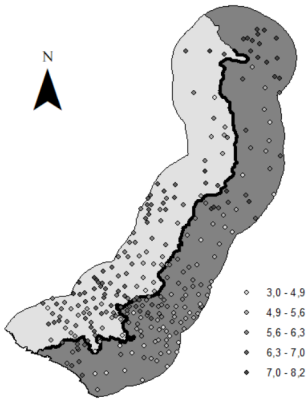



Note: Each sub-figure plots the point estimates of $\gamma$ (vertical axis) from equation 1 for different bandwidth values between 50-100 kilometers in 5 km increments (horizontal axis). Thin lines stemming from the point estimates show 95% confidence intervals. The panels in different rows correspond to different polynomial functions for geographic location. Source: Population Census (INEGI, 2000).

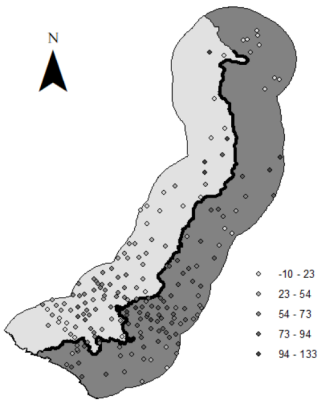
Figure 3: Spatial RD Graphs



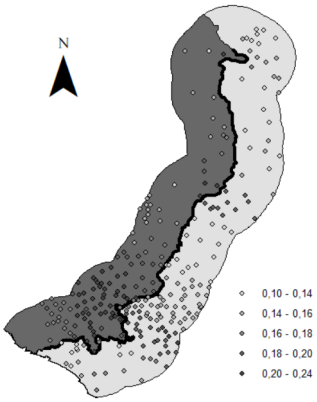

(a) Income 2000



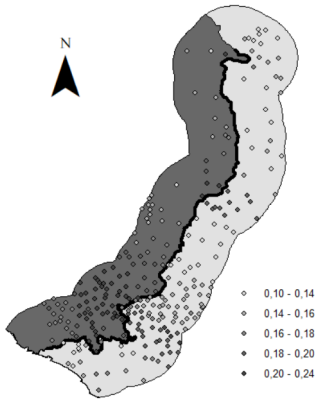

(b) Years of Schooling 2000



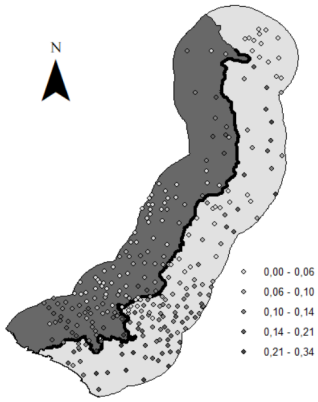

(c) Indigenous Ownership 1561-1821




(d) Rebellions 1821-1877




(e) Political Concentration 1960-2000




(f) Agriculture 2000

Notes: The background shows predicted values, for a finely spaced grid of longitude-latitude coordinates, from a regression of various outcome variables under consideration using equation 1.

## Table 1: Geographic Balance

| | Elevation (in mts) | Slope (in %) | Temperature (in C°) | Rainfall (in mm) | Soil Quality | Rivers (in km) |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| *Mexico* | -10.490 | -1.763** | -0.099 | -0.495 | -0.013 | -5.658 |
| | (65.866) | (0.893) | (0.435) | (2.112) | (0.167) | (7.580) |
| Obs. | 272 | 272 | 272 | 272 | 272 | 272 |
| Mean | 1,653 | 4.498 | 18.92 | 63.87 | 1.331 | 37.63 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality. Robust standard errors clustered at the municipality level are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.2 describes outcome variables, sources, and coding. All regressions include a linear polynomial in longitude and latitude, 70km boundary segment FE, distance to Mexico City and USA, and observations within 100km of the boundary.

## Table 2: Pre-Treatment Balance in 1548

| | Indigenous Pop. | Agriculture | Mining | Tributes | Market | Catholic Saint | Crown *Encomienda* | Settler *Encomienda* |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| *Mexico* | 0.362 | -0.017 | -0.229 | -0.034 | -0.128 | -0.131 | 0.026 | -0.020 |
| | (1.000) | (0.115) | (0.176) | (0.258) | (0.085) | (0.116) | (0.298) | (0.303) |
| Obs. | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Mean | 7.152 | 0.925 | 0.237 | 0.163 | 0.0250 | 0.862 | 0.525 | 0.588 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the colonial village. Robust standard errors clustered at the colonial village level are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.2 describes outcome variables, sources, and coding. All regressions include include elevation, slope, a linear polynomial in longitude and latitude, 70km boundary segment FE, distance to Mexico City, and observations within 100km of the boundary.

## Table 3: Contemporary Income

| | Arcsinh(Household Income) 2000 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lat-Long Pol. | Dist. to Bound. | Lat-Long. & Dist. Pol. | Quadratic | Cubic | Alternative Boundary FE | No capitals | 25km to 75km | Trim for Migr. |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| *Mexico* | 0.250*** | 0.107 | 0.273*** | 0.230*** | 0.225*** | 0.176** | 0.225*** | 0.312** | 0.255*** |
| | (0.065) | (0.070) | (0.068) | (0.080) | (0.078) | (0.0782) | (0.070) | (0.122) | (0.063) |
| Obs. | 273,074 | 273,074 | 273,074 | 273,074 | 273,074 | 273,074 | 204,978 | 217,231 | 243,502 |
| Clusters | 272 | 272 | 272 | 272 | 272 | 272 | 265 | 195 | 272 |
| Mean | 7.567 | 7.567 | 7.567 | 7.567 | 7.567 | 7.567 | 7.449 | 7.594 | 7.595 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the household. Robust standard errors clustered at municipality level are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, an RD polynomial described in each column, 70km boundary segment FE, distances to Mexico City and USA, demographic controls for the number of infants, children, and adults in the household, and observations within 100km of the boundary.



## Table 4: Education

| | Years of Schooling | | | | | |
|---|---|---|---|---|---|---|
| | Cohorts Born in Decades | | | | | |
| | All | >1960 | 1940 | 1920 | 1900 | 1880 |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| *Mexico* | 1.006*** | 1.390*** | 1.904*** | 0.408 | 0.487** | 0.419** |
| | (0.226) | (0.340) | (0.378) | (0.257) | (0.204) | (0.183) |
| Obs. | 1,094,530 | 295,732 | 177,436 | 19,214 | 12,359 | 4,403 |
| Clusters | 272 | 272 | 272 | 261 | 262 | 253 |
| Mean | 6.310 | 8.443 | 6.071 | 2.448 | 2.064 | 1.539 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the individual. Robust standard errors clustered at municipality level are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70km boundary segment FE, distances to Mexico City and the USA, demographic controls for age and sex, and observations within 100km of the boundary.

## Table 5: Property Rights

| | Indigenous Appeals 1561-1821 | Property Rights 1561-1821 | Indigenous Ownership 1561-1821 | Small & Medium-Holder Ownership 1910 | Household Ownership 2000 |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| *Mexico* | 1.568* | 0.344* | 0.712** | 0.209* | 0.049*** |
| | (0.853) | (0.207) | (0.332) | (0.125) | (0.017) |
| Obs. | 188 | 188 | 188 | 272 | 271,025 |
| Clusters | 188 | 188 | 188 | 272 | 272 |
| Mean | 1.962 | 0.584 | 0.477 | 0.230 | 0.752 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the colonial village (columns 1-3), the municipality (columns 4-5) and the household (column 6). Robust standard errors clustered at the colonial village (columns 1-3) and the municipality (columns 4-6) levels are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70km boundary segment FE, distance to Mexico City and USA (columns 4-5), demographic controls for the number of infants, children, and adults in the household (column 5), and observations within 100km of the boundary.



## Table 6: Politics

| | Any Rebellion 1821-1877 | Peasant Rebellions 1821-1877 | Political Bosses 1877-1910 | Mexican Revolution 1910-1920 | Political Concent. 1960-2000 |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| *Mexico* | -0.290* | -0.390*** | -0.030** | -0.253*** | -0.038*** |
| | (0.156) | (0.126) | (0.011) | (0.089) | (0.014) |
| Obs. | 272 | 272 | 272 | 272 | 272 |
| Mean | 0.570 | 0.412 | 0.204 | 0.294 | 0.169 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality. Robust standard errors clustered at the municipality level are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70Km boundary segment FE, distances to Mexico City and USA, and observations within 100km of the boundary.

## Table 7: Labor Markets

| | Employment in | | | | |
|---|---|---|---|---|---|
| | | Agriculture | | Manufacturing | |
| | 1900 | 1960 | 2000 | 1960 | 2000 |
| | (1) | (2) | (3) | (4) | (5) |
| *Mexico* | -0.166 | -0.068* | -0.063*** | 0.052*** | -0.005 |
| | (0.233) | (0.035) | (0.017) | (0.017) | (0.014) |
| Obs. | 272 | 48,466 | 732,354 | 48,466 | 732,354 |
| Clusters | 272 | 272 | 272 | 272 | 272 |
| Mean | 0.733 | 0.233 | 0.081 | 0.078 | 0.201 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality (column 1) and the individual (columns 2-5). Robust standard errors clustered at the municipality level are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70Km boundary segment FE, distances to Mexico City and USA, demographic controls for age and sex (columns 2-5) and observations within 100km of the boundary.



## Table 8: Financial Markets and Taxation

| | | Banks | | Mines, 1908 | | Taxation, 1990-2000 | |
|---|---|---|---|---|---|---|---|
| | 1900 | 1960 | 2000 | Stock Market | Foreign Owner | Tax Revenues | Property Tax Revenues |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| *Mexico* | 0.028 | 0.023 | 0.181* | 0.061 | -0.013 | 0.018 | 0.005 |
| | (0.072) | (0.059) | (0.096) | (0.053) | (0.032) | (0.020) | (0.005) |
| Obs. | 272 | 272 | 272 | 272 | 272 | 272 | 272 |
| Mean | 0.054 | 0.080 | 0.665 | 0.058 | 0.057 | 0.174 | 0.046 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality. Robust standard errors clustered at the municipality level are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70Km boundary segment FE, distances to Mexico City and USA, and observations within 100km of the boundary.

Table 9: Social Capital

| | Community Participation 2000 | | | | | Public Opinion 2011-2019 | |
|---|---|---|---|---|---|---|---|
| | Participatory Council | Community Orgs. | Guild Orgs. | Religious Orgs. | Mayor-Council. Meetings | Government Is Corrupt | Trusts Government |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| *Mexico* | -0.280*** | -0.251** | -0.002 | 0.087 | -0.241** | 0.109*** | -0.187*** |
| | (0.095) | (0.111) | (0.085) | (0.099) | (0.103) | (0.026) | (0.052) |
| Obs. | 272 | 272 | 272 | 272 | 272 | 66,596 | 68,958 |
| Clusters | 272 | 272 | 272 | 272 | 272 | 228 | 228 |
| Mean | 0.647 | 0.540 | 0.221 | 0.349 | 3.124 | 0.662 | 2.490 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality (columns 1-5) and the individual (6-7). Robust standard errors clustered at the municipality level are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70Km boundary segment FE, distances to Mexico City and USA, demographic controls for age and sex (columns 6-7) and observations within 100km of the boundary.

# Appendices

# Appendix A Variable Descriptions and Sources

Table A.1: Contemporary and Historical Outcomes

| Table, Column | Variable | Original Description | Coding | Source |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| 3, 1-9 | Contemporary Household Income | Level of household income | Arcsin of household income | Population Census (INEGI, 2000) |
| 4, 1-6 | Years of Schooling (cohorts born in decades >1960, 1940, 1920, 1900 and <1880 | How many years of schooling do you have? | Continuous variable using interval midpoints (0,20). | Population Census (INEGI, 2000) |
| 5, 1 | Indigenous Appeals 1561-1821 | Total indigenous appeals during the colonial period | Number of indigenous appeals per 1,000 indigenous inhabitants in 1800 (Tank de Estrada et al., 2005) | Colonial Courts Archives (See Appendix D) |
| 5, 2 | Property Rights Appeals 1561-1821 | Total indigenous property rights appeals during the colonial period | Number of indigenous property rights appeals per 1,000 indigenous inhabitants in 1800 (Tank de Estrada et al., 2005) | Colonial Courts Archives (See Appendix D) |
| 5, 3 | Indigenous Ownership 1561-1821 | Indigenous property rights appeals won by indigenous litigants during the colonial period | Proportion of indigenous appeals won by indigenous litigants during the colonial period | Colonial Courts Archives (See Appendix D) |
| 5, 4 | Small & Medium-holder Ownership 1910 | Relative size of small or medium-sized holders in 1910 | Small and medium sized-holders (bottom 20% of property size distribution) as % of total landowners | Official Directory of Ranches and Estates of Mexico 1910 |
| 5, 5 | Household Ownership 2000 | Does the household have property ownership? 1=yes, 2=no, 9=missing | 1= if household has property ownership, 0= otherwise | Population Census (INEGI, 2000) |
| 6, 1 | Any Rebellion 1821-1877 | Whether or not a rebellion occurred in the municipality in 1821-1877 | 1= if a rebellion occurred in the municipality in 1821-1877, 0= otherwise | Encyclopedia of Mexican Municipalities (INAFED, 2005), (Reina, 1980) (See Appendix D) |

Note: This table describes outcome and treatment variables employed in the empirical analysis. Column (1) lists the table and column for each variable and column (2) its name, column (3) describes its content, column (4) shows its coding, and column (5) specifies sources of information.

| | | | | |
|---|---|---|---|---|
| 6, 2 | Peasant Rebellions 1821-1877 | Whether or not a peasant rebellion occurred in the municipality in 1821-1877 | 1= if a peasant rebellion occurred in the municipality in 1821-1877, 0= otherwise | Encyclopedia of Mexican Municipalities (INAFED, 2005), (Reina, 1980) (See Appendix D) |
| 6, 3 | Political Bosses 1877-1910 | Whether or not a political boss (*jefe político*) originated from the municipality in 1877-1910 | 1= if political boss (*jefe político*) originated from the municipality in 1877-1910, 0= otherwise | Encyclopedia of Mexican Municipalities (INAFED, 2005) (See Appendix D) |
| 6, 4 | Mexican Revolution 1910-1920 | Whether or not any rebellion occurred in the municipality in 1910-1920 | 1=if a rebellion occurred in 1910-1920, 0= otherwise | Encyclopedia of Mexican Municipalities (INAFED, 2005) (See Appendix D) |
| 6, 5 | Political Concentration 1960-2000 | Concentration of mayors' surnames between 1960-2000 | Herfindhal-Hirschman Index (HHI) of mayors surnames in 1960-2000 [0,1] | Encyclopedia of Mexican Municipalities (INAFED, 2005) (See Appendix D) |
| 7, 1 | Agriculture 1900 | Population employed in agriculture in 1900 | Workers employed in agriculture in 1900 as % of total workers | Population Census (INEGI, 1900) |
| 7, 2-3 | Agriculture 1960 & 2000 | Whether or not an individual works in agriculture, 1=yes, 2=no, 9=missing | 1= if employed in agriculture in 1960 or 2000, 0= otherwise | Population Census (INEGI, 1960, 2000) |
| 7, 4-5 | Manufacturing 1960 & 2000 | Whether or not an individual works in manufacturing, 1=yes, 2=no, 9=missing | 1= if employed in manufacturing in 1960 or 2000, 0= otherwise | Population Census (INEGI, 1960, 2000) |
| 8, 1-3 | Banks 1900, 1960 & 2000 | Whether or not the municipality had a bank branch in 1900, 1960 or 2000 | 1= if municipality had a bank branch in 1900, 1960 or 2000, 0= otherwise | Population Census (INEGI, 1900, 1960) |
| 8, 4 | Stock Market 1908 | Whether or not a mine was listed in the stock market | 1= if a mine was listed in the stock market , 0= otherwise | National Mining Directory (1908) |
| 8, 5 | Foreign Owner 1908 | Whether or not a mine had a foreign owner | 1= if a mine had a foreign owner , 0= otherwise | National Mining Directory (1908) |
| 8, 6 | Tax Revenues 1990-2010 | Avg. municipal tax revenues in 1990-2010 | Avg. tax revenues as % of municipal budget in 1990-2010 | Municipal Public Accounts (1990-2000) |
| 8, 7 | Property tax revenues 1990-2010 | Avg. property tax revenues in 1990-2010 | Avg. property tax revenues as % of municipal budget in 1990-2010 | Municipal Public Accounts (1990-2000) |

Note: This table describes outcome and treatment variables employed in the empirical analysis. Column (1) lists the table and column for each variable and column (2) its name, column (3) describes its content, column (4) shows its coding, and column (5) specifies sources of information.

| | | | | |
|---|---|---|---|---|
| 9, 1 | Participatory Council 2000 | Whether or not the municipality uses participatory council (i.e: *cabildo*) with the community to discuss the budget | 1= if the municipality uses a participatory council with the community, 0=otherwise | Municipal Development Survey (2000) |
| 9, 2 | Community Orgs. 2000 | Whether or not the municipality had community organizations | 1= if the municipality had community organizations, 0=otherwise | Municipal Development Survey (2000) |
| 9, 3 | Guild Orgs. 2000 | Whether or not the municipality had guild organization | 1= if the municipality had guild organization, 0=otherwise | Municipal Development Survey (2000) |
| 9, 4 | Religious Orgs. 2000 | Whether or not the municipality had religious organizations | 1= if the municipality had religious organizations, 0=otherwise | Municipal Development Survey (2000) |
| 9, 5 | Mayor-Council Meetings 2000 | Annual meetings between the mayor and the participatory council to discuss the budget | Number of annual meetings | Municipal Development Survey (2000) |
| 9, 6 | Trusts Government 2011-2019 | How much do you trust the government? 1=very little to 4=very much | Ordinal variable [1,4] | National Survey on Victimization and Perception of Public Safety (2011-2019) |
| 9, 7 | Government is Corrupt 2011-2019 | Do you consider the government corrupt? 1=yes, 2=no, 9=missing | 1= if considers government corrupt, 0= otherwise | National Survey on Victimization and Perception of Public Safety (2011-2019) |
| 1-9 | Mexico | Whether or not the observation is located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher | 1= if located inside the Mexico colonial court, 0= otherwise | Historical Geopgraphic Information System (HGIS) of the Indies (1701-1808), University of Graz, (Gerhard, 1972) |

Note: This table describes outcome and treatment variables employed in the empirical analysis. Column (1) lists the table and column for each variable and column (2) its name, column (3) describes its content, column (4) shows its coding, and column (5) specifies sources of information.

Table A.2: Other Data

| Table, Column (1) | Variable (2) | Original Description (3) | Coding (4) | Source (5) |
|---|---|---|---|---|
| 1, 1 | Elevation | Average municipal elevation above sea level | Meters above sea level | Geographic Information (INEGI, 2010) |
| 1, 2 | Slope | Average municipal slope | Percentage (%) | Geographic Information (INEGI, 2010) |
| 1, 3 | Temperature | Average municipal annual temperature | Degree Celsius (°C) | Geographic Information (INEGI, 2010) |
| 1, 4 | Rainfall | Average municipal annual rainfall | Millimeters (mm) | Geographic Information (INEGI, 2010) |
| 1, 5 | Soil Quality | Municipal soil suitability for agriculture | Avg qualities: nutrient availability, rooting conditions, oxygen, salts, toxicity, and workability | Food and Agriculture Organization (FAO) |
| 1, 6 | Rivers | Density of the municipal river network | Length of rivers (km) / municipal area ($km^2$) | Geographic Information (INEGI, 2010) |
| 2, 1 | Indigenous Population 1548 | Indigenous population in colonial village | Log of indigenous population | Sumas de Visitas (see Appendix D) |
| 2, 2 | Agriculture 1548 | Whether or not the colonial village practiced agriculture | =1 if the colonial village practiced agriculture, =0 otherwise | Sumas de Visitas (see Appendix D) |
| 2, 3 | Mining 1548 | Whether or not the colonial village mined gold or silver | =1 if the colonial village mined gold or silver, =0 otherwise | Sumas de Visitas (see Appendix D) |
| 2, 4 | Tributes 1548 | Whether or not the colonial village collected labor or good & services tributes | =1 if the colonial village collected tributes | Sumas de Visitas (see Appendix D) |
| 2, 5 | Market 1548 | Whether or not the colonial village had a market | =1 if the colonial village had a market, =0 otherwise | Sumas de Visitas (see Appendix D) |
| 2, 6 | Catholic Saint 1548 | Whether or not the colonial village had a Catholic saint | =1 if the colonial village had a Catholic saint, =0 otherwise | Sumas de Visitas (see Appendix D) |
| 2, 7 | Crown Encomienda 1548 | Whether or not the colonial village had a crown encomienda | =1 if the colonial village had a Crown encomienda, =0 otherwise | Sumas de Visitas (see Appendix D) |
| 2, 8 | Settler Encomienda 1548 | Whether or not the colonial village had a settler encomienda | =1 if the colonial village had a crown encomienda, =0 otherwise | Sumas de Visitas (see Appendix D) |

Note: This table describes other variables employed in the empirical analysis. Column (1) lists the table and column for each variable and column (2) its name, column (3) describes its content, column (4) shows its coding, and column (5) specifies sources of information.

# Appendix B Robustness Checks

Table B.1: Education

| | Lat-Long Pol. | Dist. to Bound. | Lat-Long. & Dist. Pol. | Quadratic | Cubic | Alternative Boundary FE | No capitals | 25km to 100km | Trim for Migr. |
|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| | | | | | All | | | | |
| *Mexico* | 1.006*** | 0.643*** | 1.281*** | 1.166*** | 1.126*** | 0.976*** | 0.849*** | 1.805*** | 1.032*** |
| | (0.226) | (0.246) | (0.248) | (0.263) | (0.260) | (0.295) | (0.227) | (0.415) | (0.233) |
| | | | | | 1960 | | | | |
| *Mexico* | 1.390*** | 0.934*** | 1.832*** | 1.646*** | 1.610*** | 1.483*** | 1.230*** | 2.590*** | 1.411*** |
| | (0.340) | (0.350) | (0.378) | (0.389) | (0.387) | (0.452) | (0.349) | (0.636) | (0.352) |
| | | | | | 1940 | | | | |
| *Mexico* | 1.904*** | 1.345*** | 2.406*** | 2.217*** | 2.164*** | 1.924*** | 1.533*** | 3.371*** | 1.950*** |
| | (0.378) | (0.418) | (0.429) | (0.461) | (0.455) | (0.500) | (0.371) | (0.744) | (0.390) |
| | | | | | 1920 | | | | |
| *Mexico* | 0.408 | 0.250 | 0.505* | 0.438 | 0.445 | 0.172 | 0.113 | 1.015** | -1.528** |
| | (0.257) | (0.236) | (0.297) | (0.277) | (0.271) | (0.265) | (0.264) | (0.393) | (0.724) |
| | | | | | 1900 | | | | |
| *Mexico* | 0.487** | 0.326 | 0.586** | 0.490** | 0.479** | 0.374* | 0.185 | 0.960** | -0.244 |
| | (0.204) | (0.200) | (0.245) | (0.239) | (0.235) | (0.212) | (0.213) | (0.381) | (0.575) |
| | | | | | 1880 | | | | |
| *Mexico* | 0.419** | 0.184 | 0.273 | 0.062 | 0.044 | 0.204 | -0.038 | 1.335*** | 0.412 |
| | (0.183) | (0.183) | (0.201) | (0.187) | (0.189) | (0.180) | (0.148) | (0.302) | (1.194) |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the individual. Robust standard errors clustered at the municipality level are in brackets. Each cell reports the coefficient estimated from an RD regression following equation 1 using different specifications (described in columns) of years of education for various cohorts in Table 4 on *Mexico*, an indicator variable that equals 1 if located inside the Mexican colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise (shown in rows). Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, 70km boundary segment FE, distances to Mexico City and USA, demographic controls for age, race, and sex, and observations within 100km of the boundary.

## Table B.2: Property Rights

| | Lat-Long Pol. | Dist. to Bound. | Lat-Long. & Dist. Pol. | Quadratic | Cubic | Alternative Boundary FE | No capitals | 25km to 100km | Trim for Migr. |
|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| | | | | | Indigenous Appeals 1561-1821 | | | | |
| *Mexico* | 1.568* | 1.966** | 1.717** | 1.755** | 1.544** | 1.458 | 0.827 | 3.557* | - |
| | (0.853) | (0.832) | (0.848) | (0.802) | (0.777) | (1.058) | (0.746) | (1.802) | |
| | | | | | Property Rights 1561-1821 | | | | |
| *Mexico* | 0.344* | 0.434** | 0.397* | 0.408** | 0.400** | 0.333 | 0.191 | 0.607 | - |
| | (0.207) | (0.188) | (0.205) | (0.200) | (0.193) | (0.250) | (0.183) | (0.427) | |
| | | | | | Indigenous Ownership 1561-1821 | | | | |
| *Mexico* | 0.712** | 0.720** | 0.747** | 0.717** | 0.673** | 0.750* | 0.438 | 0.150** | - |
| | (0.332) | (0.327) | (0.330) | (0.303) | (0.293) | (0.391) | (0.294) | (0.722) | |
| | | | | | Small and Medium-Holder Ownership 1910 | | | | |
| *Mexico* | 0.209* | 0.209 | 0.333** | 0.295** | 0.404*** | 0.226 | 0.248* | 0.168 | - |
| | (0.125) | (0.131) | (0.145) | (0.143) | (0.145) | (0.142) | (0.148) | (0.118) | |
| | | | | | Household Ownership 2000 | | | | |
| *Mexico* | 0.049*** | 0.063*** | 0.036** | 0.033* | 0.032* | 0.023 | 0.060*** | 0.102*** | 0.032** |
| | (0.017) | (0.017) | (0.018) | (0.020) | (0.020) | (0.022) | (0.018) | (0.030) | (0.015) |

Note: *** p<0.01, ** p<0.05, * p<0.1. *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the colonial village (rows 1-3), the municipality (rows 4-5) and the household (row 6). Robust standard errors clustered at the colonial village (columns 1-3) and municipality (columns 4-6) level are in brackets. Each cell reports the coefficient estimated from an RD regression following equation 1 using different specifications (described in columns) of property rights outcomes in Table 5 on *Mexico*, an indicator variable that equals 1 if located inside the Mexican colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise (shown in rows). Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, boundary segment FE, distance to Mexico City and USA (rows 4-5), demographic controls for the number of infants, children, and adults in the household (row 5), and observations within 100km of the boundary.

## Table B.3: Politics

| | Lat-Long Pol. | Dist. to Bound. | Lat-Long. & Dist. Pol. | Quadratic | Cubic | Alternative Boundary FE | No capitals | 25km to 100km |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| | | | | Any Rebellion 1821-1877 | | | | |
| *Mexico* | -0.290* | -0.399*** | -0.278* | -0.372** | -0.347** | -0.286** | -0.290* | -0.263 |
| | (0.156) | (0.120) | (0.162) | (0.154) | (0.151) | (0.133) | (0.158) | (0.216) |
| | | | | Peasant Rebellions 1821-1877 | | | | |
| *Mexico* | -0.390*** | -0.458*** | -0.371*** | -0.413*** | -0.386*** | -0.400*** | -0.400*** | -0.532*** |
| | (0.126) | (0.099) | (0.130) | (0.131) | (0.131) | (0.108) | (0.127) | (0.158) |
| | | | | Mexican Revolution 1910-1920 | | | | |
| *Mexico* | -0.253*** | -0.275*** | -0.252*** | -0.289*** | -0.260*** | 0.258** | -0.249*** | -0.366** |
| | (0.089) | (0.070) | (0.092) | (0.088) | (0.085) | (0.083) | (0.090) | (0.161) |
| | | | | Political Concentration 1960-2000 | | | | |
| *Mexico* | -0.038*** | -0.043*** | -0.036*** | -0.038*** | -0.036** | -0.047*** | -0.036** | -0.071*** |
| | (0.014) | (0.011) | (0.014) | (0.014) | (0.015) | (0.016) | (0.014) | (0.026) |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality. Robust standard errors clustered at the municipality level are in brackets. Each cell reports the coefficient estimated from an RD regression following equation 1 using different specifications (described in columns) of political outcomes in Table 6 on *Mexico*, an indicator variable that equals 1 if located inside the Mexican colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise (shown in rows). Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, 70km boundary segment FE, distances to Mexico City and USA, and observations within 100km of the boundary.

## Table B.4: Labor Markets

| | Lat-Long Pol. | Dist. to Bound. | Lat-Long. & Dist. Pol. | Quadratic | Cubic | Alternative Boundary FE | No capitals | 25km to 100km | Trim for Migr. |
|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| | | | | | Agriculture 1900 | | | | |
| *Mexico* | -0.166 | 0.021 | -0.189 | -0.265 | -0.404 | -0.190 | 0.051 | 0.114 | - |
| | (0.233) | (0.213) | (0.228) | (0.252) | (0.252) | (0.226) | (0.217) | (0.340) | |
| | | | | | Agriculture 1960 | | | | |
| *Mexico* | -0.068* | -0.043 | -0.059 | -0.040 | -0.040 | -0.027 | -0.016 | -0.189*** | -0.095 |
| | (0.035) | (0.034) | (0.039) | (0.042) | (0.041) | (0.035) | (0.037) | (0.066) | (0.141) |
| | | | | | Agriculture 2000 | | | | |
| *Mexico* | -0.063*** | -0.030* | -0.068*** | -0.064*** | -0.063*** | -0.038** | -0.058*** | -0.072*** | -0.102*** |
| | (0.017) | (0.018) | (0.016) | (0.018) | (0.018) | (0.019) | (0.018) | (0.026) | (0.032) |
| | | | | | Manufacturing 1960 | | | | |
| *Mexico* | 0.052*** | 0.034** | 0.049*** | 0.045** | 0.045** | 0.024 | 0.033* | 0.071*** | 0.102** |
| | (0.017) | (0.015) | (0.017) | (0.020) | (0.020) | (0.015) | (0.018) | (0.022) | (0.044) |
| | | | | | Manufacturing 2000 | | | | |
| *Mexico* | -0.005 | -0.018 | -0.009 | -0.010 | -0.010 | -0.033** | -0.001 | -0.072*** | 0.014 |
| | (0.014) | (0.012) | (0.015) | (0.015) | (0.015) | (0.016) | (0.014) | (0.021) | (0.032) |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality (row 1) and individual (rows 2-5). Robust standard errors clustered at the municipality level are in brackets. Each cell reports the coefficient estimated from an RD regression following equation 1 using different specifications (described in columns) of bureaucratic or taxation outcomes in Table 7 on *Mexico*, an indicator variable that equals 1 if located inside the Mexican colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise (shown in rows). Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, boundary segment FE, distances to Mexico City and USA, demographic controls for age and sex (rows 2-5), and observations within 100km of the boundary.

# Online Appendix

## Appendix C Historical Background Expansion

As mentioned in Section 2.2, the origins of the boundary between the two colonial appellate courts lie in the arbitrary conquests made by the first wave of Spanish conquistadors in the early Mexican colonization. After the defeat of the Aztec Empire, King Charles V rewarded the conquistador Hernán Cortés with the title Marquis of the Valley of Oaxaca in 1529 and the promise over future discoveries along the Pacific coast. However, the King also sent rival conquistador Nuño de Guzmán in 1526 to contest his power, which generated profound animosity and competition between them (Arregui Zamorano, 1985; Parry, 1948).[41]

The two conquistadors embarked on several competing conquest campaigns in 1529-1539. Hernán Cortés went on new unsuccessful expeditions that took him to the unexplored west of New Spain, from Guatemala, through parts of modern Guerrero, Sinaloa, and up to California. For his part, De Guzmán organized military expeditions in the also unknown north-western territory of New Galicia, traversing from Lake Chapala through Chichimecan indigenous lands in the current Mexican states of Jalisco, Michoacán, Nayarit, and Zacatecas. During his quests, he founded important cities along the region of study, such as Compostela or Guadalajara, among others (Gerhard, 1972).

Both conquistadors granted settlers new *encomiendas* in a bid to expand their discoveries, leading them to fight several territorial disputes.[42] Perhaps the most prominent one saw De Guzmán seize one of the ships that Cortés was carrying for his California expedition in 1533, which prompted Cortés to invade New Galicia the following year. Their rivalry also led De Guzmán to employ increasingly brutal conquest methods that devastated Chichimecan communities who had ferociously defended their lands.[43] Since these developments jeopardized natural resource extraction, the Council of the Indies ordered to investigate De Guzmán in 1537 and sent him back to Spain. Cortés also returned home in 1539 (Bernabeu and García, 2010).

Despite these measures, tensions between settlers and Chichimecan indigenous groups es-

[41] De Guzmán was appointed Governor of Panuco in 1526 and promoted to president of the newly created Mexico colonial court in 1528, from where he took legal and administrative measures against Cortés. Evidence from his letters to the King ("*Las Cartas de Relación*") shows Cortés' growing distrust towards De Guzmán.

[42] However, this situation intensified after Gil González's expedition to the border towns between New Spain and Pánuco, in which these towns were burned and looted while their inhabitants were sent as slaves to Mexico City.

[43] The conquest campaigns in New Galicia were used by Bartolomé de las Casas to plead before the Spanish Crown for the protection of indigenous communities with the New Laws of 1542.

calated into the biggest native revolt of the century - Mixton War of 1540.[44] After the costly war, King Charles V commissioned a royal mission to investigate the area and make recommendations to restore order in the north-western provinces of New Spain.[45] The mission recommended that a new colonial appellate court be established, which the King implemented in 1548 (Gerhard, 1972; Parry, 1948).

The boundary in the region of study was determined in an arbitrary manner (see Figure 1). Given that the area had not been explored with cartographic instruments and King Charles V did not want to empower any remaining settler, the royal decision was that the first lands arbitrarily explored and granted to settlers in the form of *encomiendas* during the 1530s expeditions of Cortés would mark the end of the Mexico colonial court's jurisdiction, while those by De Guzmán up to his arrest would start the one of the Guadalajara colonial court.[46] It cuts through parts of the current Mexican states of Colima, Jalisco, Michoacán, Guanajuato, San Luis de Potosí and Nuevo León (Gerhard, 1972).

In an attempt to clarify the limits of the Guadalajara colonial court, the visitador Hernán Martinez de la Mancha produced the first map of the region in 1550 (shown in Figure C.1). The drawings of small houses indicate the existence of Spanish or indigenous villages, while notable rivers and mountain ranges mark salient boundaries. Adversary indigenous groups are also depicted, as can be seen northwest of Zacatecas ("Llanos de los Chichimecas") and the Sierra Madre mountain range. Some of the battles of the 1540 Mixton war (i.e: Coina, Nochistlán, Juchipila, El Mixtón and El Teúl) are also shown (Bernabeu and García, 2010).

A striking fact about the map is that it implicitly delineates the boundary between the colonial appellate courts.[47] The houses marked with crosses (center and right parts of the map) were subjected to the Mexico colonial court, whereas those without crosses (center, left, and top parts of the map) belonged to the Guadalajara colonial court. One can join those symbols by means of a line, as shown by in the image, to reveal the boundary. Demarcations in the map often followed sharp geographical descriptions (i.e.: rivers, lakes, mountain ranges), in lines that started from Lake Chapala and continued southwest to the Pacific coast, and northeast towards the unexplored lands of the "Llanos de los Chichimecas"

[44]The natives managed to temporarily expel Spanish settlers from many northwestern villages, and even killed the conquistador Pedro de Alvarado, until the forces of the Viceroy Antonio de Mendoza eventually defeated them in the mountains of the Sierra Madre.

[45]The 1544 commission was led by the *oidor* Lorenzo de Tejada.

[46]The rule would tacitly extend into the future as new territorial discoveries made by settlers from the Mexico colonial court were immediately annexed to that jurisdiction, while the same logic operated for settlers from the Guadalajara colonial court.

[47]The boundaries between Mexico and Guadalajara colonial courts are difficult to pinpoint in some places outside the region of study. This was particularly true in the western province of Colima and and the north-eastern territories (i.e: Durango, Texas), which underwent frequent jurisdictional litigation and conflicts with nearby Chichimecan indigenous groups.

(Bernabeu and García, 2010).

Interestingly, the boundary is not formally drawn. Some historians interpret this as evidence that apart from differences in court jurisdictions, the villages and individuals residing in the area were otherwise regarded as economically and culturally similar (Bernabeu and García, 2010). Such interpretation is in line with econometric evidence presented in Tables 1 and 2 and discussed in Section 4.1. Overall, these facts indicate that the boundary was the consequence of idiosyncratic political-military circumstances between rival conquistadors during the early conquest, unrelated to other colonial boundaries and pre-existing differences in the native populations or the environment.

Figure C.1: The Mexico and Guadalajara Colonial Courts' Boundary, c.1550

Note: This figure shows the first known map (c.1550) of the boundary between the Mexico (right of the black line) and Guadalajara (left) colonial courts in New Spain – the former Spanish colony in Mexico.

# Appendix D Data Construction

## D.1 Colonial Court Records, 1548-1821

I webscrapped a total of 69,966 court records from the online catalogues of the Mexico (54,508 records) and Guadalajara (15,458 records) courts' archives, representing the universe

of court appeals in 1549-1821 (*Ramos Civil, Criminal, Indios, Tierras*).[48] I primarily obtained information on: title, date, location, number of pages, and the archivist's description of each appeal. A simple process was developed to transform Spanish text into data, which was then used to train, test, and select the best performing natural language processing (NLP) algorithms for this task. I describe the steps followed below.

### D.1.1 Feature Extraction

With the help of research assistants, raw text $\Omega$ in court records ($i = 1, ..., n$) was standardized by removing unnecessary words or punctuations (ie: lower case transformation, lemmatization, punctuation, and stop-words removals). Based on the distribution of words in $\Omega$, sets of key words $w$ were selected to identify categories $c$: indigenous appeals, colonial dispute types (ie: property rights, contracting, criminal, and regulatory) and verdicts. $w_c$ in $\Omega$ were transformed into numeric matrix formats $N_c$ employing other common feature extraction techniques to further reduce data dimensionality: Term Frequency – Inverse Document Frequency (TF-IDF), and Vocabulary Index Tokenization (VIT) for neural networks (see column (1) Table D.2). Below is a description for each set of keywords, along with manually annotated examples employed for training and testing NLP algorithms.

**A. Indigenous Appeals:** Includes cases containing an indigenous agent (ie: *cacique*, *pueblo* or indigenous individual) that appealed the colonial court, colonial state, or another institution. The following text is a example:

> Original (MX_41398): SE ORDENA A LA JUSTICIA DE SAN BARTOLOME ATECAMAN, SUJETO, A PAPALPAN DE LA PROVINCIA DE SAYULA, AMPARE A LOS NATURALES EN LA POSICION DEL MONTE, TIERRAS Y AGUAS QUE EXPRESAN. JALISCO.
>
> English: The Justice of San Bartolome Atecaman, adjacent to Papalpan from the province of Sayula, is ordered to protect the indigenous people in the position of mountain, land and water that they express. Jalisco.

To find possible candidates for this category, the following words were used:

> Original: 'natural', 'naturales', 'indio', 'indios', 'cacique'
>
> English: The first four words are ways to say native or indigenous, and 'cacique' means indigenous governor.

[48] The link for the *Archivo General de la Nación* (AGN) can be found here, while the link for the *Biblioteca Pública del Estado de Jalisco* (BPEJ) can be found here.

**B. Property Rights:** Includes cases involving property right disputes, mostly about lands or territory. Parties involved can be individuals, a colonial village, the Crown, or basically any other agent, claiming land or other assets. An example is the following text:

> Original (MX_5844): TLAXCOAPAN SAN PEDRO, PO.- JUAN ANTONIO DE ZAVALA, ADMINISTRADOR DE LA HACIENDA DE SAN NICOLAS DE ULAPA, CONTRA LOS NATURALES DEL PUEBLO DE SANTA MARIA ATENGO, SOBRE POSESION DE TIERRAS. JURIS. HIDALGO.
>
> English: Tlaxcoapan San Pedro, town. Juan Antonio de Zavala, manager of the San Nicolas de Ulapa estate, against the natives from the town of Santa Maria Atengo, about the possession of land. Hidalgo jurisdiction.

To find possible candidates for this category, the following words were used:

> Original: 'tierra', 'tierras', 'hacienda', 'haciendas', 'terreno', 'solar', 'solares', 'rancho', 'propiedad'
>
> English: land, lands, estate, estates, terrain, estate, estates, ranch, property

**C. Contract:** Includes cases related to contract enforcement problems, such as debts, marriages, and/or inheritances. It does not include issues like robbery or murder. The following example can illustrate this:

> Original (NG_86091001): Juicio testamentario promovido por María González, vecina de Aguascalientes, en nombre propio y de sus hijos menores con Juan Fernández de Castro por la repartición de los bienes del difunto Esteban de la Huerta, esposo y padre de éstos. Contiene testamento, cuerpo de bienes y Real Provisión.
>
> English: Testamentary trial established by Maria Gonzalez, inhabitant of Aguascalientes, in her own name and the name of her children, against Juan Fernandez de Castro, about the distribution of the possessions of the deceased Esteban de la Huerta, husband and father of the aforementioned. Contains a will, list of possessions and Royal Provision.

To find possible candidates for this category, the following words were used:

> Original: 'adulterio', 'arriendo', 'arrendamiento', 'matrimonio', 'remate', 'civil', 'bienes', 'inventario', 'testamento', 'testamentaria', 'concurso', 'acreedores', 'pesos', 'boda', 'dote', 'difunto', 'vender', 'heredero', 'herencia', 'herederos', 'herencias', 'heredera', 'herederas', 'adeudo', 'deuda'

English: affair, rent, renting, marriage, auction, civil, goods, inventory/stock, will, testamentary, competition, lenders, pesos (currency name), wedding, endowment, deceased, sell, heir, inheritance, heirs, inheritances, heir (female), heirs (female), debt, debt

**D. Regulatory:** This category includes cases in which an agent asks for and/or receives a license or permission. Several types of permissions exist, including but not limited to: carry weapons, perform economic activities, sell properties, tax cuts, or marriages. An example of this can be:

Original (NG_959414029): Pablo Rebanusco, indio cacique y alcalde de barrio de la Soledad del pueblo de Teponaguasco, jurisdicción de Cuquío, solicita a la Real Audiencia que habiendo fallecido 4 tributarios, 2 casados y 2 solteros sin pagar tributo y exigiéndole el corregidor de Cuquío el pago de dichos tributos, se le mande que no le exijan el pago de los mismos.

English: Pablo Rebanusco, indigenous governor and major of the Soledad neighborhood in the town of Teponaguasco, Cuquío jurisdiction, requests to the Royal Hearing that, after the death of four taxpayers, two married and two singles, which did not pay their taxes, and given that the mayor of Cuquío is asking for such taxes, the payment of those taxes should be forgiven.

To find possible candidates for this category, the following words were used:

Original: 'permiso', 'permisos', 'licencia', 'licencias', 'autorización', 'autorizacion', 'autorizaciones'

English: permission, permissions, license, licenses, authorization, authorization, authorizations

**E. Criminal** Includes cases refering to criminal behavior, including rape, murder, kidnapping, robbery, or rebellion. The following case is an example of this:

Original (NG_7146002): Ante Don José Miguel Coronado, Capitán de la Tercera Compañía del Cuerpo de Auxiliares de Caballería y Alcalde Ordinario de Primer Voto, se acusa a Pedro Reyes por homicidio como resultado de las heridas y golpes que le infirió a Benito Abad por intento de robo.

English: Before Jose Miguel Coronado, Captain of the Third Company of the Group of Auxiliaries of the Chivalry and Ordinary Major of First Vote, Pedro

Reyes is accused of murder as a result of the injuries and blows inflicted on Benito Abad, while attempting a robbery.

To find possible candidates for this category, the following words were used:

Original: 'reo', 'reos', 'sublevación', 'sublevacion', 'ladron', 'ladrón', 'ladrones', 'pleito', 'agresión', 'agravio', 'agravios', 'murió', 'herida', 'heridas', 'robo', 'homicidio', 'rebelde', 'rebelión', 'rebeldes', 'desertor', 'deserción', 'desercion', 'hurto', 'invasión', 'matar', 'arma', 'prohibida', 'armas', 'prohibidas', 'prohibido', 'prohibidos'

English: convicted/offender, convicted/offenders, revolt/rebellion, revolt/rebellion, thief, thief, thieves, dispute, aggression, insult, insults, died, injury, injuries, robbery, homicide, rebel, rebellion, rebels, deserter, desertion, desertion, theft, invasion, kill, weapon, prohibited, weapons, prohibited, prohibited, prohibited

**F. Verdicts:** Includes cases with a court resolution, where there is a clear argument made by the colonial court. Most cases in the dataset do not have a resolution. An example of such a case is the following:

Original (NG_47751002): Don Alonso Ramon Barturen, vecino del Real de Asientos, presenta argumentos para probar la inocencia de su defendido, Don Felipe Herrecarte, a quien se le acusa de ser concubino de tres prostitutas, ya que las frecuenta aprovechándose de su oficio de amanuense. Finalmente, el Juez Semanero, Don Cecilio Odoardo le concede el indulto y queda en libertad.

English: Alonso Ramon Barturen, inhabitant of the Royal Seats, presents arguments to probe the innocence of his defendant, Felipe Herrecarte, who is accused of being a concubine of three prostitutes because of the visits he gives them due to their work as scribes. Finally, judge Cecilio Odoardo gives him a pardon and releases him.

To find possible candidates for this category, the following words were used:

Original: 'ordeno', 'ordenó', 'ordena', 'ordene', 'condeno', 'condenó', 'condena', 'condene', 'sentenciar', 'sentencio', 'sentenció', 'sentencie', 'sentencia', 'determino', 'determinó', 'determina', 'sentencie', 'amparó', 'amparo', 'ampara', 'ampare', 'concede', 'concedió', 'concedio', 'conceda', 'protege', 'protegio', 'protegió', 'proteja'

English: ordered, ordered, orders, order, condemned, condemned, condemns, condemn, sentence, sentenced, sentenced, sentence, sentences, determined, determined, determines, sentences, protected, protected, protects, protect, concedes, conceded, conceded, concede, protects, protected, protected, protect

Original (MX_5819): real provision para que en conformidad del auto acordado inserto se ampare a los naturales del pueblo de san francisco sayula en lo que justifiquen estar en actual posesion sin despojar a ninguna persona de pedimento de los susodichos paraje de san gabriel 2 sitios tetepango sayula

### D.1.2 Training and Testing Data

Data was then split into training datasets $N_c^{train}$– containing research assistants' manually annotated categorizations of 10%-12% of court records near the boundary and testing datasets $N_c^{test}$ for evaluating NLPs algorithms performance. All of the categories employed over 1800 observations (roughly half for positive cases and half for negative cases) to train deep-learning NLP algorithms (see Table D.1). We then mapped matrices $N_c$ to predictions $\hat{P}_c$ – variables of interest indicating whether court record $i$ corresponded to particular a colonial dispute type $c$. We trained and tested popular text and deep-learning algorithms for text classification problems: Support Vector Machine (SVT), Generalized Linear Models (GLM), Random Forest (RF), and Neural Networks (CNN).

Table D.1: Annotated Cases for Training NLP algorithms

| Category | Positive Cases (1) | Negative Cases (2) | Total Cases (3) |
|---|---|---|---|
| Indigenous | 994 | 994 | 1988 |
| Property Rights | 804 | 1080 | 1884 |
| Contract | 1137 | 784 | 1921 |
| Criminal | 1063 | 1086 | 2149 |
| Regulatory | 1000 | 1000 | 2000 |
| Verdicts | 1239 | 1239 | 2478 |

Note: This table documents the number of manually annotated cases used for training NLP algorithms. Column (1) lists the number of positive cases for each dispute type, column (2) the number of negative cases, and column (3) the total number of cases employed.

### D.1.3 NLP Algorithm Selection

For each category $c$, I selected the most accurate classification algorithm using the F1 score – which combines both measures of precision and recall. In general, Table D.2 column (2) shows that deep-learning algorithms, such as random forests (RF) and convolutional neural networks (CNN), performed best across all categories. Column (5) documents algorithms were particularly successful in predicting indigenous appeals (0.95) and colonial dispute types: property rights (0.93), contract (0.92), criminal (0.95), and regulatory (0.96). Verdicts were marginally less so (0.89), but still high enough. After selecting the best performing algorithms, column (6) indicates how hyperparameters were tuned using two optimization approaches: Grid Search and Randomized Grid Search, both with additional Cross-Validation.

Table D.2: NLP Algorithm Selection

| Colonial Dispute Type | Feature Extraction (1) | NLP Algorithm (2) | Recall (3) | Precision (4) | F1 Score (5) | Hyperparameter Optimization (6) |
|---|---|---|---|---|---|---|
| Indigenous | TD-IDF | Random Forest | 0.946 | 0.946 | 0.946 | RGS |
| Property Rights | VIT | Neural Network | 0.964 | 0.888 | 0.925 | GS |
| Contract | VIT | Neural Network | 0.922 | 0.916 | 0.919 | GS |
| Criminal | TD-IDF | Random Forest | 0.921 | 0.970 | 0.945 | RGS |
| Regulatory | TD-IDF | Neural Network | 0.934 | 0.986 | 0.959 | GS |
| Verdicts | VIT | Neural Network | 0.897 | 0.888 | 0.893 | GS |

Note: This table describes NLP analysis and algorithm selection. Column (1) lists the feature extraction method employed for each dispute category, column (2) the NLP algorithm selected for the empirical analysis, columns (3) and (4) shows the algorithm's recall and precision measures, column (5) its F1 score, and column (6) the hyperparameter optimization method employed to tune in the data at the end.

### D.1.4 Predictions

After training and testing, classifiers were used to predict categories in the data. Categories are not mutually exclusive. Finally, we developed a simple method to geolocate 12,349 cases within the 100km boundary to Mexican colonial villages (*pueblos*) using the location information (i.e: village, city, state, etc.) of each court case and the equivalences produced by Tank de Estrada et al. (2005). Of those, 2,367 were deemed to involve indigenous communities. Table D.3 below documents the distribution of predictions for each category in the region of study that are employed in the empirical analysis, whose descriptive statistics have been normalized using indigenous population data in 1800 from Tank de Estrada et al. (2005).

Table D.3: Predictions Within 100km of Boundary

| Colonial Dispute Type | Court Cases | % of Court Cases | Mean | S. D |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| | Panel A: All =12349 | | | |
| Property Rights | 2190 | 17.7 | 1.454 | 2.468 |
| Contract | 4935 | 40.0 | 2.200 | 7.394 |
| Criminal | 5055 | 40.9 | 1.925 | 8.541 |
| Regulatory | 840 | 6.8 | 0.400 | 1.197 |
| | Panel B: Indigenous =2367 | | | |
| Property Rights | 695 | 29.4 | 0.583 | 0.878 |
| Contract | 1134 | 47.9 | 0.963 | 1.423 |
| Criminal | 301 | 12.7 | 0.172 | 0.444 |
| Regulatory | 218 | 9.2 | 0.141 | 0.328 |
| Verdicts | 560 | 23.6 | 0.476 | 1.255 |

Note: This table describes predictions from the NLP analysis for locations within 100km of the boundary. Panel A shows predictions for all court records, while Panel B shows those for indigenous court records. Column (1) lists the number of court cases for each dispute type, column (2) their proportions, column (3) specifies their mean (normalized per one thousand indigenous inhabitants in 1800 Tank de Estrada et al. (2005)) and column (4) their standard deviation.

## D.2 Other Historical Data

### D.2.1 Sumas de Visitas, 1548-1550

Considered the first statistical study of Spanish America, this series of written surveys were carried out by King Charles V in New Spain in 1548-1550. They contain the earliest information about Mexican colonial villages, an example of which (and its translation into english) is shown below:

> English: (376) MECHINANGO, [in the Guadalajara region] Nueva Galizia. 684 [Number] LVI. [On the left margin:] [Entrusted] to Francisco de Estrada (folio 111 front). This town has one hundred married tributaries without other singles, which are in total three hundred and sixty-two people. They pay tribute each year: twenty large blankets of [henequen]; and twenty mantillejas; and twelve naguas of [henequen]; and six jars of honey; and a little of wax; and twenty hens from the land and five from Castile; and ten Indians in service. After the visitation many Indians have died; and for this reason they have been released

> from everything, except what they want to give to their master. It has as estancias Cuyutlan and Miztlan and Acatitlan, which are in total three hundred and forty tributaries, without others who do not pay tribute. They give eighteen large blankets; and six naguas; and six mantillejas of [henequen]; and some hens from the land and from Castile; and honey; and corn; and wax; and beans; and personal service. It is a cold and partly rugged land. The natives are lazy and wild. They have no houses or settlements. They have good fertile lands and large forests and samples of silver mines. They border on TENAMAZTLAN (558 and 783) and MAZCOTE (377) and ATENGOYCHAN (60). Estates can be made. There are good pastures for cattle.

The coding of the text followed the variables definitions described in Table A.2. In this example, for instance, the town of Mechinango in New Galicia had an indigenous population of 362; paid a number of tributes to Spanish authorities (tributes =1), practiced agriculture and live stocking (agriculture =1), and had silver mines (mines =1). However, there is no mention of a market (market =0). Moreover, the town was entrusted in the form of *encomienda* to a settler named Francisco de Estrada (settler encomienda =1), but there is no explicit mention that Spanish Crown had one (crown encomienda =0). Once coded, I then geolocated the village using the equivalences produced by historian Tank de Estrada et al. (2005).

#### D.2.2 Rebellions, 1821-1920

Data on 19th and 20th century rebellions were manually collected from historian (Reina, 1980)'s maps and the Encyclopedia of Mexican Municipalities (INAFED, 2005). With the help of research assistants, I digitized maps and manually coded the nature of rebellions (i.e: total, peasant, etc.) for 272 municipalities within 100km of the colonial courts' boundary. A municipality is classified as having a rebellion if - during the post-Independence period between 1821 and 1877 and during the Mexican Revolution between 1910 and 1920 - it was reported that violence was employed to attack representatives of the Mexican government (i.e: mayors, police, military) or the landed elite (i.e: landowners, *haciendas*), which often confiscated indigenous or peasant lands.

A clear example to illustrate comes from the La Barca rebellion in the state of Jalisco in 1855-1857. In the text, it is described that "the peasants from La Barca region tried to reclaim the lands that landowners had bought but never paid". Documents from the peasant movement detail that indigenous villagers were "summoned by the indigenous governor of the Zacoalco de Torres, with the purpose of carrying out the sacred goals of the indigenous

people, regarding the restitution of their lands usurped by *haciendas*" and for which "sooner or later the strong arm of justice will be unleashed upon landowners due to the indignation of the people" (Reina, 1980, p.148-149).

Initially protests were peaceful but would soon turn violent. The text describes how the strength and force of the peasant movement caused alarm among the landowning elite. Towards 1856 the "peasants revolts spread to the towns of Tamani, San Pedro Ysican, Aclatlan, Ahuatalan, Zula, Poncitlan, Santiago and others." (Reina, 1980, p.144) The following year "the movement grew and attacked the populations of Ocaltan, Totollan, Zacoalco, Mazamitla, Tuscuca, Tizapan and the *haciendas* of Gachos, San Andrés, San Francisco, Buena Vista, Milpilla, Huchotitán, etc." (Reina, 1980, p.145). In this case, I coded all those locations as having experienced a rebellion in the 19th century (any rebellion 1821-1877 =1). It was also clearly instigated by peasant grievances and movements too (peasant rebellion 1821-1877 =1).

Other examples come from the neighboring state of Guanajuato. For instance, the municipality of Salamanca experienced "the battle of Salamanca and the death of Coronel Don José María Calderon" during an uprising in 1858 (INAFED, 2005, Salamanca). In this case, I coded the municipality as having experienced a rebellion in the 19th century (any rebellion 1821-1877 =1), but not of indigenous or peasant origin because it wat not explicitly discussed (peasant rebellion 1821-1877 =0). To provide another example, in the munipality of Irapuato "the invading French troops arrived and settled in a wooded area near the temple of San Antonio, which from then on was called Forest of the French" (INAFED, 2005, Irapuato). In contrast to the previous case, the municipality exhibited violence stemming from a French (external) invasion but not from an internal rebellion (so any rebellion 1821-1877 =0 and peasant rebellion 1821-1877 =0). In other locations where no attack was reported or mentioned, the coding followed the same pattern.

Moreover, back to the municipality of Salamanca, the text says that during the Mexican Revolution "the Maderistas [a revolutionary faction] entered the city" in 1911, while "the city was attacked by the troops of General Francisco Villa" in 1918, one of the most iconic leaders of the Mexican Revolution (so Mexican Revolution =1) (INAFED, 2005, Salamanca). Similar descriptions were found in numerous other municipal histories, for example, in the nearby municipality of Celaya, where "on April 13, 14 and 15, 1915, the famous battles of Celaya took place, in which General Álvaro Obregón emerged victorious over General Francisco Villa" (so Mexican Revolution =1), referencing a crucial battle of the Mexican Revolution (INAFED, 2005, Celaya).

### D.2.3 Political Concentration, 1877-2000

From the Encyclopedia of Mexican Municipalities (INAFED, 2005), I also collected data on the identity of 9,845 local politicians (i.e: mayors) that held office from 1877 to 2000 for 272 municipalities within 100km of the colonial courts' boundary. Political elites (*jefes políticos*, *Caudillos*, *caciques*) historically consolidated patronage politics through political dynasties. Thus, one proxy for them is a measure of political concentration using their surnames. I use the Spanish tradition of assigning two surnames to individuals – the first from the father and second one from the mother – to infer members of the same family. Most politicians have somewhat uncommon surnames, which makes it easier to find and define a political dynasty (see Table D.4).

However, I reconstructed family identifiers ignoring common surnames. More specifically, I assigned mayors different family identifiers if they only shared a common surname, such as Hernández. In 2020, the most common surnames in Mexico were Hernández, García, Martínez, López and González, which had population shares of 5.2%, 3.5%, 3.5%, 3.2% and 2.7%, respectively. None of the remaining surnames used to construct the families had a population share larger than 3%.

Table D.4: Example of Political Concentration

| Election Year | Name of Mayors in Cerro de San Pedro, San Luis de Potosí (1) | Family Identifiers (2) |
|---|---|---|
| 1950 | PRIMITIVO LOREDO SÁNCHEZ | 1 |
| 1953 | ARMANDO LOREDO LOREDO | 1 |
| 1956 | ALVARO PATIÑO | 2 |
| 1959 | PRIMITIVO LOREDO SÁNCHEZ | 1 |
| . | | |
| 1971 | ALEJANDRO GUERRERO AGUAYO | 4 |
| 1974 | JESÚS NAVA LOREDO | 1, 7 |
| 1977 | ANDRÉS LOREDO LOREDO | 1 |
| 1980 | ROMÁN OJEDA FLORES | 5 |
| . | | |
| 1992 | JOSE SANTOS NAVA OJEDA | 7 |
| 1994 | CARLOS ESCALANTE HERNÁNDEZ | 8 |
| 1995 | JUAN CARLOS ESCALANTE HERNANDEZ | 8 |
| 1997 | MARCOS NAVA OROCIO | 7 |
| 2000 | MARIA ROSAURA LOREDO LOREDO | 1 |
| . | | |
| 2012 | MARIA ROSAURA LOREDO LOREDO | 1 |
| 2015 | ANGEL DE JESUS NAVA LOREDO | 1 |
| 2018 | MARIA ROSAURA LOREDO LOREDO | 1 |

Note: This table shows an example of political concentration through the years. Column (1) lists mayors' names and surnames for each election year and column (2) the family identifier coding used to calculate the political concentration measure.

To measure political dynasties, I followed (Ferraz et al., 2022) and constructed a political Herfindahl-Hirschman (HH) index based on the share of terms governed by the same family. Specifically, I compute the HH index, $H_{m,t}$, for municipality $m$ during period $t$ as:

$$H_{m,t} = \sum_i \left( \frac{\text{Number of years family } i \text{ is in power}_{m,t}}{\text{Number of years}_{m,t}} \right)^2 \tag{2}$$

# Appendix E Additional Robustness Checks

Table E.1: Other Colonial Disputes 1561-1821

| | Settler and Indigenous Appeals | | | | Only Indigenous Appeals | | |
|---|---|---|---|---|---|---|---|
| | Property Rights | Contract | Criminal | Regulatory | Contract | Criminal | Regulatory |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| *Mexico* | 0.796 | 0.453 | -0.117 | (0.016) | 0.254 | -0.009 | 0.077 |
| | (0.588) | (1.145) | (1.165) | (0.018) | (0.547) | (0.081) | (0.071) |
| Obs. | 188 | 188 | 188 | 188 | 188 | 188 | 188 |
| Mean | 1.454 | 2.200 | 1.925 | 0.400 | 0.963 | 0.172 | 0.142 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the colonial village. Robust standard errors clustered at the colonial village level are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70km boundary segment FE, distance to Mexico City, and observations within 100km of the boundary.

## E.1 Conley Standard Errors

Table E.2: Geographic Balance

| | Elevation (in mts) | Slope (in %) | Temperature (in C°) | Rainfall (in mm) | Soil Quality | Rivers (in km) |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | | | Panel A: r=50km | | | |
| *Mexico* | -8.054 | -1.774** | -0.127 | -0.564 | -0.003 | -6.655 |
| | (86.838) | (0.862) | (0.606) | (2.792) | (0.124) | (7.310) |
| | | | Panel B: r=100km | | | |
| *Mexico* | -8.054 | -1.774*** | -0.127 | -0.564 | -0.003 | -6.655 |
| | (87.025) | (0.645) | (0.632) | (2.764) | (0.105) | (7.853) |
| Obs. | 272 | 272 | 272 | 272 | 272 | 272 |
| Mean | 1653 | 4.498 | 18.92 | 63.87 | 1.331 | 37.63 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the household. Conley standard errors calculated using 50km (Panel A) and 100km (Panel B) radius are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.2 describes outcome variables, sources, and coding. All regressions include a linear polynomial in longitude and latitude, 70km boundary segment FE, distance to Mexico City and USA, and observations within 100km of the boundary.

Table E.3: Pre-Treatment Balance in 1548

| | Indigenous Pop. | Agriculture | Mining | Tributes | Market | Catholic Saint | Crown *Encomienda* | Settler *Encomienda* |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Panel A: r=50km | | | | | | | | |
| *Mexico* | 0.362 | -0.017 | -0.229 | -0.034 | -0.128 | -0.131 | 0.026 | -0.020 |
| | (0.944) | (0.111) | (0.192) | (0.164) | (0.101) | (0.108) | (0.178) | (0.193) |
| Panel B: r=100km | | | | | | | | |
| *Mexico* | 0.362 | -0.017 | -0.229 | -0.034 | -0.128 | -0.131 | 0.026 | -0.020 |
| | (0.983) | (0.092) | (0.172) | (0.133) | (0.091) | (0.097) | (0.150) | (0.198) |
| Obs. | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Mean | 7.152 | 0.925 | 0.237 | 0.163 | 0.0250 | 0.862 | 0.525 | 0.588 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality. Conley standard errors calculated using 50km (Panel A) and 100km (Panel B) radius are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.2 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70km boundary segment FE, distance to Mexico City, and observations within 100km of the boundary. Source: *Sumas de Visitas, 1548-1550.*

## Table E.4: Contemporary Income

| | Arcsinh(Household Income) 2000 | |
|---|---|---|
| | (1) | (2) |
| *Mexico* | 0.249 | 0.255 |
| | (0.096) | (0.110) |
| Obs. | 10,000 | 10,000 |
| Reps. | 100 | 100 |
| r | 50km | 100km |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the household. Conley standard errors calculated using 50km (Column 1) and 100km (Column 2) radius are in brackets. Columns report mean coefficients and Conley standard errors from 100 RD regressions following equation 1 each with 10,000 random observations from the sample employed in Table 3. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, an RD polynomial described in each column, 70km boundary segment FE, distances to Mexico City and USA, demographic controls for the number of infants, children, and adults in the household, and observations within 100km of the boundary.

## Table E.5: Education

| | Years of Schooling | | | | | |
|---|---|---|---|---|---|---|
| | Cohorts Born in Decades | | | | | |
| | All | >1960 | 1940 | 1920 | 1900 | 1880 |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: r=50km | | | | | |
| *Mexico* | 1.009 | 1.417 | 1.889 | 0.408* | 0.487** | 0.419* |
| | (0.361) | (0.487) | (0.536) | (0.241) | (0.232) | (0.214) |
| | Panel B: r=100km | | | | | |
| *Mexico* | 0.972 | 1.395 | 1.885 | 0.408* | 0.487** | 0.419 |
| | (0.389) | (0.509) | (0.579) | (0.223) | (0.239) | (0.262) |
| Obs. | 10,000 | 10,000 | 10,000 | 19,214 | 12,359 | 4,403 |
| Reps | 100 | 100 | 100 | - | - | - |
| Mean | 6.310 | 8.443 | 6.071 | 2.448 | 2.064 | 1.539 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the individual. Conley standard errors calculated using 50km (Panel A) and 100km (Panel B) radius are in brackets. Columns 1-3 report mean coefficients and Conley standard errors from 100 RD regressions following equation 1 each with 10,000 random observations from the samples employed in the analogous columns of Table 4. Columns 4-6 estimate RD regressions with the same samples as the analogous columns in 4. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70km boundary segment FE, distances to Mexico City and the USA, demographic controls for age and sex, and observations within 100km of the boundary.

## Table E.6: Property Rights

| | Indigenous Appeals 1561-1821 | Property Rights 1561-1821 | Indigenous Ownership 1561-1821 | Small & Medium-Holder Ownership 1910 | Household Ownership 2000 |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| | | | Panel A: r=50km | | |
| *Mexico* | 1.568** | 0.344** | 0.712** | 0.209 | 0.052 |
| | (0.723) | (0.174) | (0.297) | (0.146) | (0.030) |
| | | | Panel B: r=100km | | |
| *Mexico* | 1.568** | 0.344** | 0.712** | 0.209 | 0.048 |
| | (0.690) | (0.140) | (0.283) | (0.161) | (0.030) |
| Obs. | 188 | 188 | 188 | 272 | 10,000 |
| Reps. | - | - | - | - | 100 |
| Mean | 1.962 | 0.584 | 0.477 | 0.230 | 0.752 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the colonial village (columns 1-3), the municipality (columns 4-5) and the household (column 6). Conley standard errors calculated using 50km (Panel A) and 100km (Panel B) radius are in brackets. Columns 1-4 estimate RD regressions with the same samples as the analogous columns in 5. Column 5 reports mean coefficients and Conley standard errors from 100 RD regressions following equation 1 each with 10,000 random observations from the sample employed in the analogous column of Table 5. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70km boundary segment FE, distance to Mexico City and USA (columns 4-5), demographic controls for the number of infants, children, and adults in the household (column 5), and observations within 100km of the boundary.

## Table E.7: Politics

| | Any Rebellion 1821-1877 | Peasant Rebellions 1821-1877 | Political Bosses 1877-1910 | Mexican Revolution 1910-1920 | Political Concent. 1960-2000 |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| | | | Panel A: r=50km | | |
| *Mexico* | -0.290 | -0.390*** | -0.030** | -0.253*** | -0.038*** |
| | (0.181) | (0.137) | (0.012) | (0.078) | (0.014) |
| | | | Panel B: r=100km | | |
| *Mexico* | -0.290 | -0.390** | -0.030** | -0.253*** | -0.038*** |
| | (0.224) | (0.163) | (0.010) | (0.069) | (0.012) |
| Obs. | 272 | 272 | 272 | 272 | 272 |
| Mean | 0.570 | 0.412 | 0.204 | 0.294 | 0.169 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality. Conley standard errors calculated using 50km (Panel A) and 100km (Panel B) radius are in brackets. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70Km boundary segment FE, distances to Mexico City and USA, and observations within 100km of the boundary.

## Table E.8: Labor Markets

| | Employment in | | | | |
|---|---|---|---|---|---|
| | | Agriculture | | Manufacturing | |
| | 1900 | 1960 | 2000 | 1960 | 2000 |
| | (1) | (2) | (3) | (4) | (5) |
| | Panel A: r=50km | | | | |
| *Mexico* | -16.620 | -0.143 | -0.046 | 0.052 | -0.020 |
| | (21.437) | (0.074) | (0.042) | (0.020) | (0.031) |
| | Panel B: r=100km | | | | |
| *Mexico* | -16.620 | -0.145 | -0.048 | 0.052 | -0.027 |
| | (17.781) | (0.081) | (0.046) | (0.022) | (0.031) |
| Obs. | 272 | 10,000 | 10,000 | 10,000 | 10,000 |
| Reps | - | 100 | 100 | 100 | 100 |

Note: *** p<0.01, ** p<0.05, * p<0.1. The unit of observation is the municipality (column 1) and the individual (columns 2-5). Conley standard errors calculated using 50km (Panel A) and 100km (Panel B) radius are in brackets. Columns 1 estimate an RD regression with the same sample as the analogous column in Table 7. Columns 2-5 report mean coefficients and Conley standard errors from 100 RD regressions following equation 1 each with 10,000 random observations from the sample employed in the analogous column of Table 7. *Mexico* is an indicator variable that equals 1 if located inside the Mexico colonial court – where the relative power of the colonial state versus settler elites was higher – and 0 otherwise. Appendix A Table A.1 describes outcome variables, sources, and coding. All regressions include elevation, slope, a linear polynomial in longitude and latitude, 70Km boundary segment FE, distances to Mexico City and USA, demographic controls for age and sex (columns 2-5) and observations within 100km of the boundary.

## E.2 Randomization Inference

Table E.9: Randomization Inference

| Variable | p-value |
|---|---|
| Contemporary Income | 0.074 |
| Years of Education (All) | 0.106 |
| Indigenous Appeals 1561-1821 | 0.009 |
| Property Rights 1561-1821 | 0.014 |
| Indigenous Ownership 1561-1821 | 0.000 |
| Small & Medium-Holder Ownership 1910 | 0.005 |
| Household Ownership 2000 | 0.000 |
| Total Rebellions 1821-1877 | 0.000 |
| Peasant Rebellions 1821-1877 | 0.000 |
| Political Bosses 1877-1910 | 0.000 |
| Mexican Revolution 1910-1920 | 0.000 |
| Political Concentration 1960-2000 | 0.000 |
| Agriculture 1900 | 0.145 |
| Agriculture 1960 | 0.000 |
| Agriculture 2000 | 0.000 |
| Manufacturing 1960 | 0.000 |
| Manufacturing 2000 | 0.093 |

Note: The p-values give the share of 1000 absolute placebo coefficients larger in magnitude than the absolute coefficient for the actual effect of being on the Mexico colonial court side of the boundary on the outcome under consideration.