

AUTOCRATIC RULE AND SOCIAL CAPITAL: EVIDENCE FROM IMPERIAL CHINA*

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Abstract

This paper explores the impact of autocratic rule on social capital—defined as the attitudes, beliefs, norms, and perceptions that support cooperation. Political repression is a distinguishing characteristic of autocratic regimes. Between 1661 and 1788, individuals in imperial China were persecuted if they were suspected of holding subversive attitudes towards the state (“The Literary Inquisition”). I first show that individuals trust less in affected prefectures. Next, I trace the impact of the Literary Inquisition back to the 18th century and apply a difference-in-differences framework to estimate the effect of exposure to political repression on the formation of local charities. Taking advantage of institutional variation in 20th century China, I provide further evidence that political repression reduced social capital. In line with these results, the Literary Inquisition is associated with political apathy and low community engagement. This raises the possibility that a decline in social capital may make autocratic rule more entrenched.

Keywords: Social Capital, Democracy, China

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Terror can rule absolutely only over men who are isolated against each other... therefore, one of the primary concerns of all tyrannical government is to bring this isolation about.

Hannah Arendt (1951, 474)

I INTRODUCTION

From Tocqueville in *Democracy in America* (1835) to Putnam (1994), social scientists have argued that a thriving civil society supports a vibrant democracy.¹ In recent work, Acemoglu and Robinson (2019) view the development of civil society as critical in “shackling leviathan”. This paper uses China as a historical laboratory to examine how state repression reshapes the attitudes and beliefs of citizens, reduces social capital, and weakens civil society. By measuring the impact of autocratic rule on society for almost 400 years at a decadal level, and making use of a series of historical shocks in imperial and modern China to achieve identification, I shed new light on the consequences of autocratic repression for civil society.

In this paper I focus on the dynamics between the state and society at a crucial point in the economic and institutional divergence between China and Western Europe. Specifically, I study the consequences of the sharp increase in political repression that followed the Manchu occupation of China in 1644, and the establishment of the Qing dynasty. Intellectuals—
influential figures in local society—saw new restrictions imposed on them. In particular, there was a rise in literary inquisitions—investigations which targeted speech and writing. According to Gong Zizhen, fear of persecution led to intellectuals disengaging from society, and withdrawing from public life (Gong, 1991). Interactions between intellectuals were curtailed: “[f]ear of persecution left a deep negative impact on cultural and intellectual life.” Individuals had an incentive to report one another to the authorities. The impact of these literary inquisitions was widespread. This “expansive . . . repression involved the entire population” and “led to the formation of a social environment characterized by mutual deception” (Wang, 2002, 647).

Initial evidence suggests that individuals in affected regions have lower levels of generalized trust today, i.e. they trust strangers less. I go on to examine the impact of the Literary Inquisition in past centuries using a staggered difference-in-differences design. My main finding is that exposure to political repression led to a 38% decline in the number of local charities, my primary measure of social capital before 1900. This was associated with a decline in the number of reputable individuals from affected prefectures. Furthermore, I

¹This insight has been expanded upon by Almond and Verba (1963), Fukuyama (1995), and Paxton (2002).

find that the provision of basic education was worse in affected prefectures in the early 20th century, when the construction and funding of primary schools was a local public good. The relationship was much weakened when education became centralized. Taken together these findings corroborate my hypothesis that literary inquisitions led to a permanent decline in social capital.

Social capital is regarded as a core element of the political culture of modern societies. But the conceptualization of social capital is difficult. As Durlauf (2002) notes, social capital is an elusive concept. In the rest of the paper, the following definition applies: social capital refers to the attitudes, beliefs, norms and perceptions that support cooperation (Guiso, Sapienza, and Zingales, 2011). This definition corresponds to how it is used in previous studies in economics and political science such as Fukuyama (1995, 1999), Putnam (1994, 2001), Guiso, Sapienza, and Zingales (2004, 2016), and Satyanath, Voigtländer, and Voth (2017).

Trust is considered as essential for the existence of social capital (Coleman, 1990). *Generalized trust*, or trust in strangers, is a widely used measure of social capital (Guiso, Sapienza, and Zingales, 2004). It is conceptually distinct from particularized or relational trust, or trust between people who know each other. It is unrelated to the Chinese concept *guanxi* which refers to the personal benefits individuals received from their social or familial network.

I study how social capital is affected by political repression. While it would be desirable to obtain experimental variation, this is rarely feasible when studying the effect of political repression. A common challenge in studying political repression is that repression is often endogenously determined. My setting has several advantages in this respect. While Qing China had sufficient state capacity to conduct literary inquisitions, compared to 20th century totalitarian states, it lacked the ability to precisely target individuals or to monitor the speech and actions of the entire population. Its interventions in local society were sporadic and not well informed. The emperor had discretion to determine all literary inquisition cases but lacked necessary information to form his judgment. This creates local variation in political repression that is plausibly exogenous and well suited for examining how individuals respond to an unanticipated rise in political repression.

I study the Qing-era literary inquisitions for several reasons. Between 1661 and 1788, literary offenses were treated legally as a form of treason. In contrast, previous episodes of repression were sporadic and often driven by court politics. They affected elites and high-level officials and their affiliates. The Qing-era literary inquisitions were far-reaching and long-lasting, They impacted local society and reached “a level of perfection” that was not present previously (Fu, 1994, 138).² My dataset comprises 86 literary inquisition cases. This

²Literary inquisition cases under pre-Qing dynasties are discussed in Appendix 1.B. The historical liter-

is based on the work of historians who worked in the Qing Imperial Archives in the 1930s.³ The Qing Imperial Archives have preserved records and correspondence, from which each case can be traced from being recorded as a local incident until it reached the imperial court. It is important that I focus on authentic literary inquisition cases and are not contaminated by incidents involving palace conspiracies or court politics. I follow historians in using a strict definition of literary inquisitions—for instance, historians do not consider arrests associated with openly anti-Qing movements as relevant for the discussion of literary inquisitions.⁴

A natural concern is that cases of literary inquisitions may have been more or less likely to occur in particular prefectures. For instance, since it was literate individuals that were implicated in literary inquisitions, prefectures with more literate individuals were more likely to see literary inquisitions. Such prefectures also tended to be richer.

Beyond these systematic factors, the location and timing of literary inquisitions was shaped by idiosyncratic factors. One source of idiosyncratic variation stems from the subtlety and ambiguity of the Chinese language which, coupled with a tradition of esoteric writing, allowed considerable scope for interpreting the intention of the writer. Two different individuals could form dramatically different understandings of the same piece of writing. A second source of idiosyncratic variation followed from the nature of the traditional legal system which prevented the standardization of criteria for determining what speech or writing was criminal. Embedded in the Confucian ideal of government was the notion that at each level of government, decisions should ultimately be left to the discretion of the magistrate, provincial governor or emperor who were believed to embody Confucian virtue. This emphasis on personal discretion rather than general rules built in another source of arbitrariness into the generation of literary inquisition cases.

This emphasis on discretion, in conjunction with the centralization of political authority, meant that the subjective judgment of the emperor was critical. This introduced a third source of variation. One individual was persecuted for writing: “Since the clear wind does not recognize words, [w]hy does it flip through the pages of my book?” Because the character for “Qing” is the same as that for “clear,” this was interpreted as mocking the uncivilized character of the ruling dynasty (Gu, 2003, 127). But in a different incident, an individual, also reported for using the character “clear wind” in a negative context, and for praising the

ature I survey makes it clear that these differed considerably from the Qing-era literary inquisitions.

³This is the same data source and same number of cases (86) used in Koyama and Xue (2015) to explore the relationship between inquisitions and human capital accumulation. Between 1931 and 1934, historians compiled a collected volume in 9 volumes based on this research (*Qingdai wenziyu dang ji*) (*Qingdai wenziyu dang ji*, 1934). This source is reprinted as *Qingdai wenziyu dang* (2007). My dataset includes *all* of the cases in both *Qingdai wenziyu dang ji* (1934) and *Qingdai wenziyu dang* (2007).

⁴For robustness purposes, I also consider a more expansive list of cases.

“bright moon,” which was a possible reference to the previous Ming (“bright”) dynasty, was reprieved when the emperor changed his mind at the last moment.⁵ Literary inquisitions represented “the institutionalization of Imperial subjectivity” (Wakeman, 1998, 168). These factors generate idiosyncratic variation in the initial moment when a prefecture might be affected by literary inquisitions.

As I compare vastly different units over long periods of time, I employ matching to reduce heterogeneity in the sample. This approach mitigates the impact of differential trends. After matching, there are no longer differences between treated and untreated prefectures in their initial conditions. Prefectures in the treatment and control group had a similar level of social capital, human capital, population density and state presence before the Literary Inquisition. They do not differ in the intensity of political events such as preemptively cracking down on anti-Manchu sentiment or deterring potentially subversive activities by intellectuals.

Initial evidence shows a correlation between the Qing Literary Inquisition and generalized trust today. Trust in strangers is lower in prefectures affected by the Qing Literary Inquisition, but there is no difference in trust in one’s family members. The results are not driven by a deficit in human capital or other usual determinants of trust.

Next I evaluate outcomes closer to the point of the Literary Inquisition to unpack the historical process using a panel containing 13 time periods (1700 - 1830). This allows me to include prefecture fixed effects to account for unobserved heterogeneity. In a staggered difference-in-differences framework, I first show that literary inquisitions led to a decline in the number of reputable individuals. Literary inquisitions led to fewer reputable individuals. This decline was more pronounced among individuals who came of age in the decade of a literary inquisition (Figure 1.i). This concurs with accounts that intellectuals and local gentry withdrew from public life and kept a low profile and with the observation of Pak Chiwǒn, a Korean visitor to China in 1780 that “Even about the most commonplace affairs, they burn the records of their conversations without leaving a scrap of paper” (Kuhn, 2002, 9). Historians similarly observe a trend towards “safe” topics. I discuss this along with the rise of “evidentiary scholarship” in Appendix K.

I then show the effects of literary inquisitions on charity formation (Figure 1.ii). While data on many aspects of historical China are scant, there exist relatively abundant data on local charities. Charitable provision is also a classic measure of social capital because it reflects the degree to which individuals are willing to volunteer time and resources to help other members of society, including strangers (Putnam, 2004).

Local charities were small-scale, apolitical organizations. They specialized in different

⁵The emperor noted that “clear wind” and ‘bright moon’ are commonly used phrases in poetry and essays. How can one avoid using them?” (Gu, 2003, 127).

activities: aiding widows and orphans, running soup kitchens, paying for burial costs, or alleviating poverty.⁶ While the relevance of the concept of social capital for imperial China has sometimes been questioned, scholars of the period agree that this philanthropic activity reflected a “clearly articulated concept of a ‘public’ or ‘communal’ sphere, as opposed to a ‘state’ or ‘private’ sphere” (Rowe, 2009, 119).⁷ Given their essential role in local society, the state encouraged charity formation, which mitigates concerns that my results were driven by repressive state policies.⁸ As charities in imperial China relied on close cooperation between community members, they are a good proxy for social capital, defined as the attitudes, beliefs, norms and perceptions that support cooperation (Guiso, Sapienza, and Zingales, 2011).⁹

I find that after a prefecture was first exposed to an inquisition case, the number of local charities in that prefecture fell by an average of 38% in the following decades, relative to prefectures that never had a literary inquisition, or prefectures that had not yet experienced a literary inquisition. Mapping out the full dynamic response of charity formation, I characterize the evolution of social capital after exposure to literary inquisitions. I show that there was no pretend and that the “charity gap” between affected and unaffected prefectures, kept widening for the next four decades before stabilizing. This could indicate that the change in social capital did not occur abruptly, and suggests that the decline in social capital was a gradual process which took several decades.

There are several factors that I envision as responsible for the fall in charitable organizations: following a literary inquisition individuals began to trust less. Also, as they became more wary of taking a prominent role in local society, and less keen to interact and cooperate with people that they do not know well, a decline in social interactions and cooperation eventually drove down social capital.

Data on local charities are available until the end of the Qing period. To investigate the impact of repression on social capital after the institutions of imperial China were removed, I

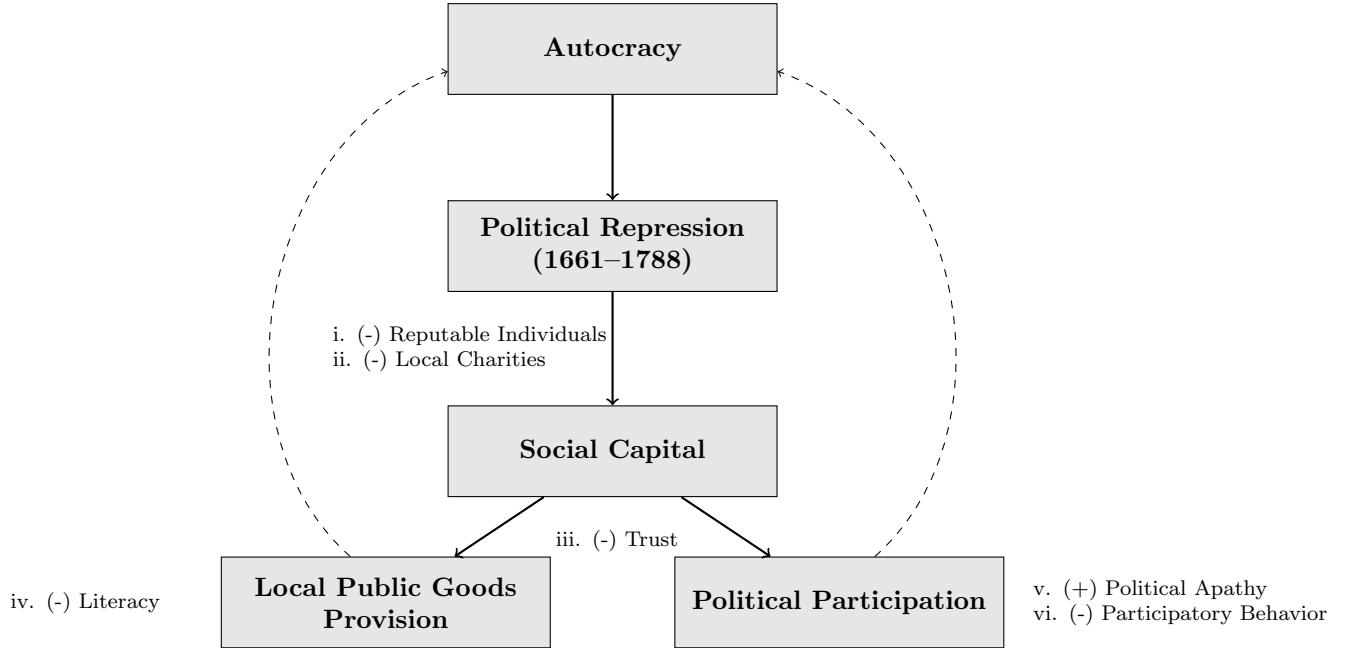
⁶See Tsu (1912), Smith (1987), and Rankin (1990).

⁷See Appendix 1.L. In a recent review of social capital in China, it is claimed that “China’s unique sociological, political, and cultural fabric likely constitutes a fundamentally different society that sometimes defies explanation by Western-sourced theory” (Zhang, Han, Wang, and Lin, 2019). However, this approach may be assuming the answer. As I document, in the 1600s China did see the emergence of civil society organizations. The question is why civil society organizations that flourished in China several hundred years ago did not continue on that path .

⁸I also measure the effect of literary inquisitions on exam funding agencies, a second proxy for social capital. The main coefficient estimate has the same sign, though it is not statistically significant.

⁹This is not always the case, as the function of these organizations changed over time. Civil society organizations in late Ming were most voluntary and autonomous. Later on they became less independent but still reflected the strength of civil society and had significant autonomy from the state. As is the case with all such measures, the extent to which they capture social capital is conditional on other institutional circumstances. In modern China, for instance, charitable organizations no longer reflect social capital as they are entirely dependent on the state.

Figure 1: The Structure of Analysis



rely on other outcome variables. I use the 1982 census to obtain information on literacy over the course of the 20th century which I use as a proxy for the provision of *basic* education. When education is provided informally by local communities as in early 20th century China, I expect social capital to be important in determining its provision. I find that individuals educated in this period were 5 percentage points less likely to be literate in prefectures that experienced literary inquisitions (Figure 1.iv). This is a sizable effect given early 20th century literacy levels ($\approx 15\%$). These results are robust to accounting for intermediate shocks such as the Taiping Rebellion, the exodus to Taiwan following the Chinese Civil War, and the Cultural Revolution. As a robustness check, I also conduct an instrumental variable analysis.

Next, I seek to narrow down the potential mechanisms. I first note that I find no effect on middle or high school education, both of which were provided by the government and in a more centralized manner. This supports my hypothesis that the effect of Qing-era repression on basic education worked through lower levels of social capital. I next explore how the effects of political repression on literacy vary by the importance of social capital to the provision of basic education. Social capital should matter most when and where public goods are provided locally and informally. Consistent with this, I find that the effect of Qing-era repression on literacy was largest in rural areas, where primary education was least formalized.

Exploiting policy variation in the provision of education over time, the negative effect of

the Qing persecutions is evident for cohorts of individuals who reached schooling age before the education system was centralized in the 1930s, but less so for those educated between the 1930s and 1960s. It re-emerges for individuals educated during the Cultural Revolution, when education again became dependent on local initiatives. The fact that I find a stronger effect of Qing-era repression on basic education when its provision was decentralized and reliant on local communities, provides further evidence that its effects worked through reducing social capital. These results also provide additional assurance that my findings are not an artifact of spatial noise.¹⁰

Finally, I turn to a further corollary of low social capital, a reduced interest in political participation (Figure 1.v and 1.vi). I find that individuals in affected prefectures are more likely to be politically apathetic and less likely to engage in community self-governance. This highlights the role of state repression—a distinguishing feature of autocratic rule—in determining the level of political participation. Thus by exploring how state repression in the past is a barrier to democratization today, I provide novel insights into how autocratic repression has shaped the evolution of the state and society over the long run.

II RELATIONSHIP TO THE LITERATURE

Scholars going back to Montesquieu (1748, 1989) have theorized about the relationship between social capital, civil society and political institutions. This theme is developed by Lipset (1959), Habermas (1962 [1989]), Skocpol (1979), and Putnam (1994). Bernhard and Karakoç (2007) provide evidence that a legacy of dictatorship impedes the development of civil society. Acemoglu and Robinson (2019) examine how state policies and behavior affect the nature and extent of civil society. Ticchi, Verdier, and Vindigni (2013) theorize that regime transitions are mediated by political culture, which acts as a commitment device to defend democracy in the event of a coup. Besley and Persson (2019) build a theoretical framework to analyze the two-way interplay between democratic values and democratic institutions. This paper is one of the first to empirically examine how civil society and the state evolve in the long run.

The relationship between civil society and the state is challenging to study empirically because states provide a *bundle* of policies and the effect of each individual component of this bundle on social capital may not coincide. A stable state can be conducive to the development of social capital. But the process through which states maintain power can come at the expense of social capital. Recent findings on the overall impact of the state on

¹⁰See **kelly19** for a detailed discussion of the role of spatial noise in estimating the long-term effects of historical events.

social capital are mixed. Becker, Boeckh, Hainz, and Woessmann (2016) and Dell, Lane, and Querubin (2017) find that a legacy of bureaucratic states is positively associated with social capital and public goods provision. For Lowes, Nunn, Robinson, and Weigel (2017), on the other hand, a powerful state crowds out pro-social values.

My setting is well-suited for studying the long-run impact of state repression on social capital. First, I look at a shock that penetrated society deeply without having wider-ranging effects on the economy or formal institutions. The Literary Inquisition differed from the Holocaust or Cultural Revolution, which had direct economic impacts as a consequence of the destruction of physical and human capital.¹¹

Second, I document the effects of the shock on society both historically, and on more modern outcomes. My setting ensures that the conditions prior to the shock and the features of the shock are well delineated. This helps me determine the mechanisms responsible for the lasting effects that I find.

Third, I use socialist China as a laboratory for isolating the channel of attitudes and beliefs. The modern Chinese state eliminated most local differences, allowing me to rule out alternative channels such as inertia in formal institutions. I show that differences in social capital remained, despite the imposition of state socialism when the state took over services previously provided by local communities.

In many settings, culture co-evolves with institutions, raising the question: how to identify either of the two as an independent mechanism underlying the observed persistence? In the event that Qing-era charitable organizations continued into the modern period, differences in charitable provision might have influenced social capital through a lower level of human capital, health, or more inequality and poverty. Or if literary inquisitions had long-lasting negative economic effects, it would be less surprising to find that they also negatively affected trust and other measures of social capital, as part of the bundle of negative legacies. Similarly, if literary inquisitions led to different formal institutions, their effects on social capital will be indistinguishable from the direct effects of literary inquisitions on social capital. As discussed above (and in Section 3), my setting allows me to disentangle these channels.

I also contribute to an important literature in political economy that studies the legacy of historical institutions (Engerman and Sokoloff, 1997; Engerman and Sokoloff, 2002; Acemoglu, Johnson, and Robinson, 2001; Dell, 2010). Guiso, Sapienza, and Zingales (2016) find that cities in northern Italy with a history of political independence in the middle ages have higher levels of civic capital today. Nunn and Wantchekon (2011) study the negative effects

¹¹These types of shocks have been studied in the literature. Acemoglu, Hassan, and Robinson (2011) examine the legacy of the Holocaust in Russia. Waldinger (2010) finds negative effects of the expulsion of predominantly Jewish scientists in Germany.

of the slave trade on trust.¹²

To interpret my findings, there are several factors specific to the historical setting. State-society relations were already out of balance before the Qing period.¹³ China has been autocratic for almost its entire history. The long tradition of using poetry and other forms of writing to discuss politics meant literary inquisitions struck at intellectuals' way of life. Their response to repression, moreover, was shaped by the Confucian ideal of self-preservation, which encouraged them to protect themselves and their families.¹⁴ These features of imperial China are important for understanding channels through which repression affected society. Furthermore, at the national level, China has had autocratic institutions for almost the entire time since the period of the Literary Inquisition. As such, the effect on social capital might be less persistent in a state without such a long and near continuous history of autocracy.

My study sheds light on the consequences of autocratic repression more broadly (Gregory, Schröder, and Sonin, 2011; Lupu and Peisakhin, 2017). Becker, Pinto, and Vidal-Robert (2018) study the effects of Catholic censorship in Europe following the Reformation. In this paper, I argue that political repression makes autocracy more resilient in the long run and I provide evidence on a novel mechanism: political repression lowers social capital, making it harder to self govern and organize for institutional change.

My analysis complements previous research that has identified a virtuous democratic cycle whereby longer experience of democracy improves economic performance, which in turn further helps to consolidate democracy (Persson and Tabellini, 2009). My findings also shed light on the possibility of reform in autocracies. Inglehart and Welzel (2005) argue that the emergence of democratic values is a precondition for the success of democratization. Moreover, it is crucial that those with democratic values participate in politics. Reforming or overthrowing autocratic regimes requires coordination between individuals who are willing to engage in political protests at a high personal cost.

There has also been a flourishing of research on the economic history of China (Shiue, 2002; Shiue and Keller, 2007; Brandt, Ma, and Rawski, 2014; Shiue, 2017; Keller, Shiue, and Wang, 2020). In particular, recent work has studied the period of modernization in the late 19th century (Gao and Lei, 2020) or the Communist-era (Meng, Qian, and Yared, 2015). I

¹²Note that social capital does not always promote democratization and liberalism. Acemoglu, Reed, and Robinson (2014) find that higher social capital is correlated with less accountable government in Sierra Leone. Satyanath, Voigtländer, and Voth (2017) find that social capital aided the rise of the Nazi party.

¹³Acemoglu and Robinson (2019) discuss how a balance between the strength of society and of the state is crucial for the emergence of liberal states. In imperial China, the early emergence of a strong, centralized Leviathan state mean that civil society was relatively underdeveloped.

¹⁴For instance, De Bary (2009) notes that “[f]or Confucius, self-sacrifice was nothing to be sought after; endurance and survival were preferable to martyrdom (*Analects 15:7*)”. Confucians ideas about loyalty to one's family also encouraged caution as a literary inquisition put at risk one's entire family line.

also contribute to the strands of literature on the distinctive features of Chinese autocracy (Lorentzen, 2014; Wang, 2015; Truex, 2016) and on the relationship between citizens and the state in an autocratic regime (Chen, Pan, and Xu, 2016; Chen and Xu, 2017; Martinez-Bravo, Miquel, Qian, and Yao, 2017; Tsai and Xu, 2018; Chen and Yang, 2019). For analysis of how social capital affects outcomes in modern China see Martinez-Bravo, Padró-i-Miquel, Qian, Xu, and Yao (2017).

III HISTORICAL SETTING & CONCEPTUAL FRAMEWORK

In this section I briefly outline the historical background to the Literary Inquisition. For further details, readers are referred to Appendix 1. Chinese political institutions have long been authoritarian; the period I study—following the establishment of the Qing dynasty (1644-1912) — however, saw the *intensification* of imperial autocracy. This event was a critical juncture in Chinese history — in the sense of Acemoglu and Robinson (2012).

In the middle decades of the 17th century, the collapse of the previous Ming dynasty left a power vacuum that allowed a neighboring steppe people, the Manchus, to take control of the Chinese state. The initial Ming-Qing transition involved massacres and a high degree of tension between the Manchu conquerors and the Han population (Wakeman, 1985). After this period, the policies of the Manchu rulers changed as they strove to integrate Han elites into their new government.

The resulting Qing state was more autocratic than previous dynasties. Importantly, the Qing state was both highly autocratic and did not make major investments in state capacity.¹⁵ These two characteristics reflected a lack of legitimacy.¹⁶ The Manchu's insecurity was exacerbated as their population was extremely small compared to the Han Chinese population they ruled (who made up more than 90% of the population). In response, Qing rulers adopted a variety of strategies, including political repression.

Consequently, the establishment of the Qing dynasty intensified existing tensions between the state and intellectuals (*shì dà fū*). These tensions were the product of long historical gestation. Intellectuals played an important role in Chinese society from antiquity onwards. Under the first emperor, however, tens of thousands of books were burned and hundreds of

¹⁵The Qing state imposed low taxes and provided few public goods (Sng, 2014; Vries, 2015). In fact, the combination of low taxes and unconstrained autocratic rule reflected equilibrium choices made by Qing rulers (Ma and Rubin, 2019).

¹⁶Traditionally obedience to imperial authority was seen as a natural extension of obedience to the head of the family. Unfortunately, for the Manchu Qing dynasty, this strategy was not readily available to them, as they were foreign rulers. This ethnocentrism was strongly tied to Confucianism. The Qing did try to seek legitimacy in an updated variant of Confucianism known as neo-Confucianism. See Appendix 1.I. But this was of limited success due to the strong sense of Han Chinese ethnic/national identity in the Song dynasty (see Tackett, 2017). I discuss ethnicity in Qing China in Appendix 1.M.

scholars executed. This event, known as *fén shū kēng rú* (210 BCE), set the tone for the subsequent relationship between rulers and intellectuals. In this context, the Qing takeover was a further blow to the autonomy of intellectuals.

Individuals were prohibited from meeting to discuss ideas and severe censorship was implemented banning individuals from owning suspect literature.¹⁷ Private academies, which in the late Ming period had become places where intellectuals could engage in policy debate, were shut down (Dardess, 2002). The Qing also embarked on a campaign of propaganda. County magistrates organized lectures to instill the principle that the filial obedience sons owed their fathers extended to the emperor (Hung, 2011, 35–36). They greatly expanded the scope of treason in the Qing Penal Code particularly with regards to permissible speech or writings.

Literary inquisitions (*wén zì yù*) were “legal punishment for criminal acts committed through speech and written words expressed in various forms, including conversations, letters, essays, poems, pamphlets, books, dramas, novels, and diaries” (Fu, 1994, 131). These cases were pursued by the imperial bureaucracy as there was no independent legal system.

My information about literary inquisitions comes from the Qing Imperial Archives which has detailed records. Appendix Figure A.2 details the procedures involved. Information concerning potential cases was passed up the chain of command according to the discretion of county, prefecture, and provincial officials, with some probability, eventually reaching the emperor. Magistrates and provincial governors who did not forward suspected inquisition cases to the emperor could themselves be charged with failing to do their duty. The process involved in any specific incident reaching the imperial court was so uncertain that the outcomes of two incidents that were similar in every dimension could differ greatly. In categorizing literary inquisition cases, historians exclude cases involving imperial politics. Indeed, in almost all cases, the emperor did not know the offending individuals personally. Therefore it was highly unlikely that literary inquisitions involved the premeditated removal of political opponents.

The historical record does not suggest that literary inquisitions were randomly assigned, but it does reveal that there was an arbitrary component to the incidence of literary inquisitions. As I discussed in the introduction, one important reason for this was that the Chinese language permits considerable ambiguity. Writers were habituated to disguising their views through poetic language or in the form of historical commentaries. The long tradition of esoteric writing meant that all kinds of speech and writing were seen as potential vehicles

¹⁷This category even included “frivolous fiction”. Eventually three of the four classic works of Chinese literature were prohibited. Historians speculate that some of the later chapters of *The Dream of the Red Chamber* were destroyed by their author Cao Xueqin due to the fear of being persecuted.

for subversion. In Appendix 1.E I examine all book titles associated with literary inquisitions. Conducting a text analysis, I find that these books resemble most closely the genres of poetry and literary commentary. This supports historians who note that the literary crimes authors were punished for were *not* those that were obviously treasonable or *even* critical of the regime; rather, almost any writings could see an individual implicated in a literary inquisition trial (Wang, 2002).

“Rash fortune-telling and discussion of military strategy could be offenses, as could poetic works with “excessive anger” or “excessive hate,” or even expressions of “sorrow” regarding specific episodes in history. It was a crime to call oneself a non-collaborator, an expression used to refer to adherents of the former dynasty living under a new one without serving it. Use of taboo words and phases, or even nonsensical expressions like “a dog’s wild bark” were offenses ... Careless use of such words as “Han,” “Great Enterprise,” “Ch’ing (Qing), “sun and moon (the components of the character for “Ming”), “barbarian”, “Ming,” and similar words also could be punishable.” (Wang, 2002, 628–629).

Below I report some example cases that illustrate the character of the Literary Inquisition.

A Petitioner Individuals could not easily anticipate what might arouse the anger of the emperor. Liu Zhengyu, a graduate of the lower level (*shengyuan*) exams, tried to impress the emperor by submitting a proposal to reduce peasant unrest. The magistrate passed it on to the provincial governor. The governor passed the document to the emperor. What got the governor’s attention was that Liu was trying to suggest what state policy should be, an offense for someone of his status according to the Qing penal code. The governor recommended that his *shengyuan* status be removed for his presumption (but not because he suspected him of treason). When the emperor reviewed the entire proposal, however, he alighted on Liu’s proposal to change the dress code for officials, interpreting it as a suggestion that the dress should revert to what it had been in Ming times. Believing that this sentiment betrayed dissatisfaction with the current regime and an eagerness to restore a Han Chinese dynasty, the emperor had Liu executed and reprimanded the governor for his mistake.

A Writer’s Descendants In 1730, a literary inquisition case brought to light the writings of Qu Dajun, who had served in various Ming loyalist movements resisting the Manchus and had died in 1696. Over thirty years after his father’s death, fearing persecution, Qu Dajun’s son turned himself in for possessing his father’s books as these contained many

passages that could be interpreted as critical of the Manchus. Through these actions, he spared himself execution and was instead exiled. However, another case arose almost 50 years later in 1774, two of his distant relatives were punished for the possession of Qu Dajun's writings. Ironically, one was a half-literate peddler, the other an illiterate, who preserved his writings out of reverence despite being unable to read them.

A Dictionary Maker The character of these persecutions is further illustrated by the case of Wang Xihou, a 64-year-old dictionary maker. Wang Xihou was the author of ten books including a dictionary. He had passed the provincial-level examinations in 1750 at the age of 38, but never passed the national-level exams. He was responsible for developing improved indexing techniques and for suggesting that entries be categorized according to the domain that they belonged to. Having spent his life preparing for and taking exams, and compiling dictionaries, Wang posed no threat to the emperor. Nevertheless, although the governor general and provincial governor did not find anything inappropriate in Wang's dictionary, when the case was passed on to the Qianlong emperor, the emperor read Wang's dictionary for himself and decided to punish Wang for not showing sufficient deference to the dictionary commissioned by Qianlong's grandfather, the Kangxi emperor. He interpreted Wang's comment on the Kangxi dictionary as hiding a deeper criticism of the competency of the Qing emperors and the legitimacy of their claim to rule China (Reischauer and Fairbank, 1958, 382). The provincial governor who failed to reach the same conclusion as the emperor was nearly executed. Over 100 individuals were investigated. The publishers of the dictionary and someone who wrote a preface for it were punished, as were Wang's associates. Wang himself was sentenced to nine familial exterminations, the most severe punishment available. He was executed, as were all his sons, and 21 other members of his family were enslaved. For details about the Wang Xihou case, see Appendix 1.D.

Surveying the entirety of literary inquisition cases, several features stand out: (a) From the perspective of individuals in a prefecture, the Literary Inquisition was an injection of state power into local society. (b) Inquisitions were unrelated to either external wars, rebellions or unrest, or natural disasters as confirmed by the lack of correlation between them and conflict or natural disasters in my data (Table A.18). (c) It was almost impossible for individuals to anticipate what speech or writing might result in a literary inquisition. (d) Once a local incident was reported to an official, the procedure was bureaucratic and centralized. The final decision rested with the emperor. (e) Governors who failed to investigate cases, or to pass on information that the emperor later deemed important were punished as were others who failed to inform the authorities. (g) Punishment was public (Appendix 1.C.2). As described

in Section IV.B, my empirical strategy exploits idiosyncratic variation in the timing of a literary inquisition case between otherwise comparable prefectures.

While these persecutions may appear irrational or inefficient, Appendix 2 outlines a model that rationalizes the employment of arbitrary persecutions as a signal of state power. It suggests that the primary rationale for persecutions was to signal the strength of a ruler in order to deter future opposition. Guy notes “[t]he singling out of one offender, repugnant though it may seem today, was not an uncommon means of communicating, in the 18th century to a large and diffuse community uncertain of Imperial directions” (Guy, 1987, 176). The model suggests that persecutions can occur without open opposition. And, as predicted by the model, they occurred during the High Qing period when the state was strong. The Kangxi (r. 1661–1722), Yongzheng (r. 1722–1735), and Qianlong (r. 1735–1796) emperors were among the most powerful in Chinese history.¹⁸ The highly publicized executions for literary crimes would also be consistent with the objective of deterrence.¹⁹

IV DATA AND EMPIRICAL STRATEGY

IV.A Data Sources

Data on the Literary Inquisition are from *Qingchao wenziyu an* (Qing Literary Inquisition cases) (Zhang and Du, 1991). A total of 86 cases are included, dating from 1661 to 1788. I examine the effect of literary inquisitions in the persecuted individual’s home prefecture. Ancestor worship, and the agnatic lineage system meant that an individual’s identity was lodged in his hometown, where his family and clan resided.

Zhang and Du (1991) built on *Qingdai wenziyu dang ji* which was produced by historians at the Qing Imperial Archives in the 1930s (*Qingdai wenziyu dang ji*, 1934).²⁰ In Appendix 3.D.2, I employ an alternative list containing ambiguous cases (Table A.15). Figure 2 depicts the prefectoral origin of victims of literary inquisitions per quarter century.²¹

To estimate the relationship between the Qing Literary Inquisition and social capital, I

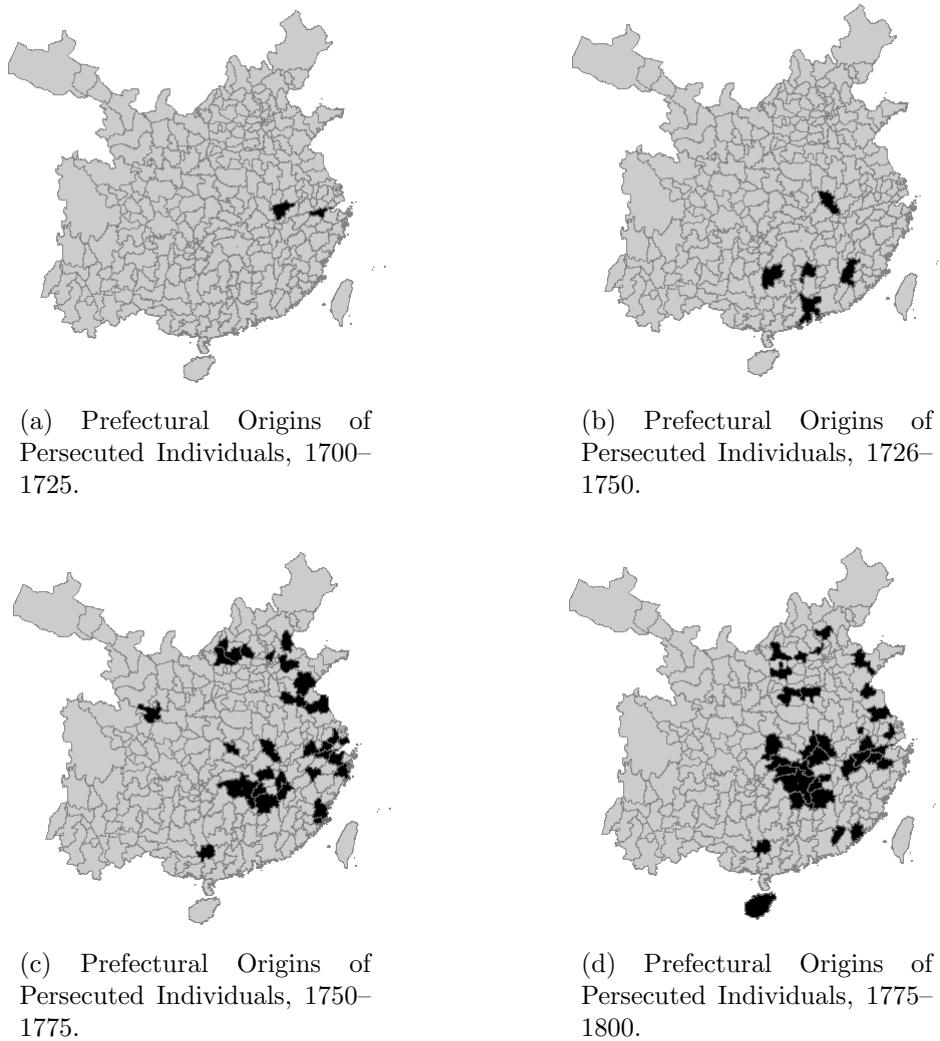
¹⁸Subsequent emperors, the Jiaqing emperor (r. 1796–1820), the Daoguang emperor (r. 1820–1850), and the Xianfeng emperor (r. 1850–1861) were weaker and did not engage in persecutions.

¹⁹Individuals were often punished by *Ling chi* or death by a thousand cuts. For other forms of punishments, see Appendix 1.C.2.

²⁰There are three main sources: the archives of the Grand Council, palace memorials and veritable records. Officials could be punished for omissions made by their staff; “[t]he names, ages, and addresses of suspicious men were transmitted to government offices” (Wang, 2002, 622). The data are depicted in Figure A.3.

²¹There were three levels of administration in imperial China: the province, the prefecture and the county. China proper comprised 18 provinces and 275 prefectures. There were approximately seven to thirteen prefectures per province. An average prefecture in my matched sample was 15,000 square kilometers large. Prefectures in western China were considerably larger on average than those in China proper. Summary statistics are provided in Appendix 3.A.

Figure 2: Prefectural Origins of Persecuted Individuals Per Quarter Century



obtain measures of generalized trust from the Chinese General Social Survey (CGSS) in 2010 (Appendix 3.H.4).

For my historical analysis, I use Jiang (2005) to estimate the impact of literary inquisitions on the number of reputable individuals. Jiang (2005) includes approximately 25,000 individuals well known for reasons that included prominence in science, technology, medicine, education, literary scholarship, history, art, or poetry. I have information on their name, birth year, and hometown.²² There are 3,509 individuals born between 1640 and 1819, from pre-

²²In the database, I have information on an individual's ancestral home (*ji guan*). Individuals were traditionally identified on the basis of their ancestral home, and it was where their familial ties were, and where their family would have resided for generations.

fectures in my matched sample.²³

My main outcome variable is the number of local charities. Charity data are from Liang (2001), the most comprehensive compilation of charities in Qing China. The database is based on primary sources, most of which were local gazetteers.²⁴ Appendix 1.L discusses charities in late Ming and Qing China (Tsu, 1912; Smith, 1987; Rowe, 2009), the motivation of local gentry involved in charitable activity, and the relationship between the local charities and the state.

Prefecture characteristics such as local history, family structure, or the nature of center-periphery relations might make political repression more likely. Prefecture fixed effects absorb the effects of such time-invariant observables and unobservables.

To measure the pre-existing stock of human capital, I use the number of Ming-era degree holders from the metropolitan exams (*jinshi*) from Zhu and Xie (1980). I employ data from Chen (1939) on conflicts between 1644 and 1690 to proxy for opposition to Qing rule. I use 1690 as an endpoint as this date marks the cession of all anti-Qing military resistance (See Table A.1). The degree of resistance to the Qing is potentially informative about the presence of anti-Manchu attitudes.

Anti-Manchu sentiment might also be reflected in the number of Ming loyalists, who refused to serve the Qing. Notable opponents of the Qing, like Qu Dajun, devoted themselves to various Ming loyalist movements after the Qing takeover. Ming loyalists also withdrew from public life and became devoted to private spiritual pursuits becoming known as recluses (*yīn shí*). For example, the celebrated scholar Gu Yanwu remained loyal to the Ming dynasty. Imprisoned by the Qing in 1655, on his release he returned to his hometown and withdrew from public life. The decision of such Ming loyalists to withdraw from public life could directly affect trends in charity formation in the long run. I constructed a novel dataset of Ming loyalists from Sun (1985).²⁵

To measure natural disasters I draw on the Central Meteorological Bureau of China (1981) which provides yearly data on floods and droughts from 1470 to 2000. As charities were organized by members of the gentry, I account for the number of examination candidates who acquired their *jinshi* degree during that decade (Zhu and Xie, 1980). Lastly, I examine outcomes that I do not expect to be affected by literary inquisitions, such as

²³ Jiang (2005) was compiled long after the collapse of the Qing Dynasty. Hence the selection criterion is unlikely to be related to the incidence of literary inquisitions. Of course, if intellectuals hid their writing out of fear, this would preclude inclusion in Jiang (2005).

²⁴ Gazetteers recorded local histories. They are a vital data source in Chinese historical research containing copious materials on local administration, economies, cultures, dialects, and dignitaries (See Appendix 3.B.2).

²⁵ In several literary inquisition cases, individuals were investigated for possessing books written by Ming loyalists. Nostalgia towards the Ming Dynasty could also arouse suspicion.

government-sponsored academies (Ji, 1996). For details of variables used in robustness checks see Appendix 3.I.

For post-Qing analysis, I study the provision of local public goods using literacy from the 1982 census. The 1982 census is the first reliable, large-scale census that has the advantage of providing a large sample and data of high consistency across prefectures.

To measure the impact of political repression on political attitudes and behavior, I use answers to survey questions in the CGSS 2010 and the Chinese Political Compass (CPoC), an online survey of political beliefs in China used by Pan and Xu (2017) (Appendix 3.H.6).

IV.B Empirical Strategy

I motivate my empirical strategy with the rich qualitative evidence reviewed in Section III and Appendix 1. This evidence suggests that variation in the probability that a prefecture would experience a literary inquisition can be broken into three components. First, there are factors such as prefecture-level literacy that were systematically correlated with the probability of having a literary inquisition and with social capital. Second, there were factors that may have been systemically related to the probability of having a literary inquisition but were orthogonal to my outcome variables of interest. Third, there were idiosyncratic shocks to the probability of having a literary inquisition. My empirical strategy aims to partial out these systematic sources of variation leaving the idiosyncratic component to be exploited for identification.

I employ a panel (1700-1830) in a staggered difference-in-differences framework. The prefecture-decade is my unit of observation. My treatment is the first literary inquisition case to occur in a prefecture. Prefectures receive treatments at different points in time. The composition of my treatment and control groups evolves each decade: the control group comprises all prefecture-decades that had remained unaffected by literary inquisitions. This includes all prefectures that were never treated, but also prefecture-decades of prefectures that were yet to receive the treatment. The inclusion of prefectures that were treated eventually, but were not treated at the time, improves the quality of my control group and provides a more reliable counterfactual. The identifying assumption is that, in the absence of literary inquisitions, changes in the number of local charities would have been the same for both treated and untreated prefectures.

A credible difference-in-differences design has to address pre-existing differences between the treatment and control group and establish why these would not affect trends (Kahn-Lang and Lang, 2018).²⁶

²⁶Concern over differential trends is magnified when the panel is long as differential trends are more likely to emerge over time (Abadie, 2005). In Table A.13, I extend my analysis to 1900, in which case I compare

Treated prefectures—prefectures that experienced a literary inquisition case—and untreated prefectures differed greatly in both their number of charities in 1700 and other characteristics. In a staggered difference-in-differences design conditioning on observables is important (see Callaway and Sant’Anna, 2020; De Chaisemartin and d’Haultfoeuille, 2020; Athey and Imbens, 2021; Borusyak, Jaravel, and Spiess, 2021; Goodman-Bacon, 2021). Thus, before implementing a difference-in-differences strategy, I apply matching methods to the raw data and construct a comparable control group (see Heckman, Ichimura, and Todd, 1997; Dehejia and Wahba, 2002). I employ propensity score matching to construct my sample (Appendix 3.B). To demonstrate that my results are not subject to the choice of matching method, I also show results with Coarsened Exact Matching (CEM) (Table A.9).

I condition my sample on a minimal set of pre-treatment covariates: population size in 1600, the number of imperial courier routes, agricultural suitability, ruggedness, the socioeconomic macroregion the prefecture belongs to, and the total number of Ming-era degree holders (*jinshi*). I include the number of degree holders as a measure of pre-existing human capital.²⁷

To illustrate why matching is necessary, Table A.6(a) shows that in the raw data, my treatment and control groups differ in terms of economic geography, the stock of human capital, and in the initial number of local charities. Specifically, I know that prefectures that had more educated inhabitants were more likely to experience a literary inquisition. Charity formation was also on very different trends in prefectures with more literate individuals—Figure A.7 illustrates the vastly different trends in charity formation for prefectures in the top half of Ming degree holders, versus those in the bottom half. Conducting my analysis without preprocessing my data would generate misleading results (see Kahn-Lang and Lang, 2018).

After matching, I obtain balance on the set of covariates used for matching (Table A.6(c)). Matching also results in balancedness in pretreatment covariates that are outside of the set of covariates used to condition my sample, which helps to confirm the validity of the matching exercise (Table A.7).

Matching necessarily reduces the size of the sample. That is, to achieve greater internal validity, my research design trades-off a degree of external validity. For instance, treated prefectures in the matched sample have fewer Ming degree holders (*jinshi*) (3.8 individuals) than in the full sample (4.5 individuals). This is natural as treated prefectures had more

outcomes over 200 years.

²⁷Chen, Kung, and Ma (2020) use the number of degree holders as a measure of pre-existing human capital. Appendix 1.J explains the role degree holders played in Chinese society. Figure A.4 outlines the relationship between the different types of degree holders.

Ming *jinshi* on average before matching than did untreated prefectures. My results speak to the impact of literary inquisitions on prefectures in the matched sample. They do not directly speak to the effects of literary inquisitions on prefectures with *vastly* different characteristics from the matched sample, although it is possible to extrapolate my results from the matched sample to the full sample.

IV.C Initial Evidence: The Literary Inquisition and Generalized Trust

Below I discuss initial evidence from estimating the relationship between the Qing Literary Inquisition and generalized trust in modern-day China. I use the Chinese General Social Survey (CGSS) to investigate this relationship.²⁸

Table 1: The Literary Inquisition and Generalized Trust (CGSS)

	Trust in Strangers			Trust in Family		
	(1)	(2)	(3)	(4)	(5)	(6)
Mean of Dep. Var	3.477	3.477	3.486	4.798	4.798	4.796
Literary Inquisition	-0.187** (0.0845)	-0.158* (0.0921)	-0.179* (0.0915)	0.0397 (0.0460)	0.0340 (0.0438)	-0.000251 (0.0383)
Individual Controls	No	Yes	Yes	No	Yes	Yes
Contemporary Controls	No	No	Yes	No	No	Yes
Socioeconomic Macroregion FE	No	No	Yes	No	No	Yes
Observations	3346	3343	3246	3345	3341	3244
Adjusted R^2	0.00354	0.0293	0.0481	0.000581	-0.000423	0.0152

This table reports OLS estimates of the relationship between literary inquisitions and both generalized trust (trust in strangers) and trust in family members in modern China using data from CGSS 2010. The dependent variables are on a 5-point Likert scale. Columns 1–3 examine the relationship between literary inquisitions and generalized trust. Columns 4–6 show that there is no relationship between literary inquisitions and trust in family members. Individual controls include fixed effects for gender, age, and the level of education. Contemporary controls are log GDP per capita, log total population, years of schooling, share of urban population and share of agricultural workforce, all from 2010. I also control for the linguistic fragmentation index. Columns 2 and 5 just include individual controls. Columns 3 and 6 add contemporary controls and socioeconomic macroregion fixed effects. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 1 suggests that the Literary Inquisition is associated with a decline of 0.179 points in generalized trust, which is 16.7% of its standard deviation (column 3). My estimates

²⁸My sample has the same geographic coverage (i.e. matched sample) as in the historical panel. The intersection of the CGSS sample (91 prefectures) and the matched historical sample includes 31 prefectures. 26 of the 31 prefectures contain responses to the questions I examine. The percentage of the prefectures that are treated (16%) is similar to the percentage of the treated in the historical sample (17%). For details on linking historical and modern data, see Appendix 3.B.3.

are robust to including both individual- and prefecture-level correlates of trust.²⁹ There is no relationship between Qing persecutions and trust among family members, a form of particularized trust (columns 4-6, Table 3).³⁰

Generalized trust is a widely used measure of social capital (Guiso, Sapienza, and Zinigales, 2004). This relationship between the Literary Inquisition and generalized trust today indicates the possibility that the Literary Inquisition permanently lowered social capital. In Sections V and VI, I further investigate this possibility by estimating the relationship between the Literary Inquisition and social capital in past centuries.

V THE LITERARY INQUISITION AND PUBLIC SPHERE IN QING CHINA

In this section I report two main findings. First, I show that political repression led to a decline in the number of reputable individuals. Second, I show that charity formation fell in prefectures. The decline in reputable individuals and in charity formation can be interpreted as reflecting individuals being more cautious in response to the threat of political repression, both in their choice of activities and in their participation in the public sphere. Taken together I argue that these results reflect a fall in social capital following the incidence of a literary inquisition.

V.A *The Effects on Reputable Individuals*

Qing-era political repression affected all of society, but its impact was first felt by intellectuals. The role of intellectuals was based on their scholarship, literary activities, and involvement in local organizations (Bol, 2008). A subset of them—those active in local society or well-known for their writing, scholarship, or artistic achievements—would be listed as reputable individuals.

First, I show that persecutions had an effect on the number of individuals becoming well-known in an affected prefecture.

$$\# \text{Reputable Individuals}_{p,d} = \beta \text{Literary Inquisition}_{p,d} + \mathbf{X}'_p \boldsymbol{\Lambda}_d + \boldsymbol{\Omega}_p + \boldsymbol{\Lambda}_d + \epsilon_{p,d}, \quad (1)$$

where subscript p represents a prefecture and d , a decade. $\text{Literary Inquisition}_{p,d}$ is an indicator variable that becomes equal to one in the decade following the first literary inquisition case in prefecture p and decade d .³¹ For further details, see Appendix 3.C.

²⁹These results are also robust to controlling for the number of deaths during the Cultural Revolution.

³⁰Indeed, in the face of a decline in community-wide charitable provision, if anything, individuals should rely on family members more.

³¹For robustness, I also allow the treatment to turn on during the same decade as the occurrence of the first literary inquisition case. Results are similar in both sign and magnitude.

Table 2: The Impact of Literary Inquisitions on Reputable Individuals, 1700 – 1830

	# Reputable Individuals		
	16–30 Years Old	31–45 Years Old	46–60 Years Old
	(1)	(2)	(3)
Mean of Dep. Var.	2.476	2.2	2.13
Literary Inquisition	-0.903*	-0.563	-0.508
	(0.468)	(0.493)	(0.483)
Degree Holders (<i>Jinshi</i>)	Yes	Yes	Yes
Initial Pop. Density \times Decade FE	Yes	Yes	Yes
Ming Degree Holders (<i>Jinshi</i>) \times Decade FE	Yes	Yes	Yes
Latitude/Longitude \times Decade FE	Yes	Yes	Yes
Socioeconomic Macroregion \times Decade FE	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes
N. of Periods	13	13	13
Observations	1417	1417	1417
Adjusted R^2	0.857	0.844	0.815

This table reports difference-in-differences estimates of the effect of the Literary Inquisition on the number of reputable individuals between 1700 and 1830. From columns 1 to 3, the dependent variables are the number of reputable individuals who were aged between 16–30, 31–45 and 46–60. The results suggest that the impact of the Literary Inquisition was concentrated on individuals who were young enough (age 30) to alter their career choice. All columns include degree holders (*jinshi*) by decade, log population density in 1600, the number of Ming-era degree holders (*jinshi*), latitude and longitude interacted with decade fixed effects, as well as socioeconomic macroregion, prefecture and decade fixed effects. Robust standard errors are clustered at the prefecture level and are reported in parentheses. *

$p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

I divide all reputable individuals into three groups: aged 16–30, 31–45 & 46–60. I anticipate that the impact of literary inquisitions would have been larger on individuals who were still young and whose reputable status remains to be determined. Compared to the young, by the time of witnessing a literary inquisition, older individuals had probably already made their reputation which led them to being documented as reputable individuals. That is to say, their reputable status is independent of their response to literary inquisitions. If already with the reputable status, by data construction, an individual's decision to keep a low profile is not going to change his reputable status in the data I examine.

Consistent with this, I find that exposure to literary inquisitions resulted in a decline of 36% ($-0.36 = -0.903 \div 2.476$) in the number of individuals becoming reputable for individuals aged 16–30 (Table 2, column 1). The coefficients for individuals aged 31–45 and 46–60 are smaller in magnitude and not precisely estimated. Appendix 3.C further explains the rationale

behind an “age-based” classification of individuals into being more and less likely to have their reputable status affected by the literary inquisitions. The results are robust to choosing alternative age cutoffs (Table A.12), in which I divide reputable individuals into aged 11–20, 21–30, 31–40, 41–50, 51–60. The negative impact of literary inquisitions on reputable status is the most evidence for individuals aged 11–20 and 21–30.

As the recorded location in Jiang (2005) reflects the hometown of a reputable individual, which is determined at birth, a decline in the number of reputable individuals cannot reflect promising, but not yet established, individuals fleeing from an affected prefecture.³²

These findings are in keeping with historical accounts that intellectuals became more careful; writers shifted away from certain topics or refrained from writing altogether. A literary inquisition case sent out a clear signal about the arbitrary nature of autocratic rule, and shaped relations between the state and intellectuals. Prior beliefs about the type of activities that could get one into trouble were overturned: from this point onwards, any speech or writing could arouse suspicion, and could be grounds for punishment; and this was all entirely subject to the discretionary interpretation of the emperor.³³

V.B The Literary Inquisition and Local Charities: Baseline Results

I now estimate the impact of literary inquisitions on charity formation. Table 3 examines the number of charities in treated and untreated prefectures. Treated and untreated prefectures in my matched sample had a comparable level of charity formation in 1700. But this was no longer true by 1750. To examine this in a causal framework, I estimate:

$$\# \text{ Local Charities}_{p,d} = \beta \text{Literary Inquisition}_{p,d} + \Omega_p + \Lambda_d + \mathbf{X}'_p \Lambda_d + \epsilon_{p,d}, \quad (2)$$

where $\# \text{ Local Charities}_{p,d}$ denotes the number of local charities in prefecture p , and decade d from 1700 to 1830.³⁴ $\text{Literary Inquisition}_{p,d}$ is an indicator variable that becomes equal to one in the decade following the first literary inquisition case in prefecture p and decade d .³⁵ Ω_p is a vector of prefecture fixed effects. Λ_d is a vector of decade fixed effects. \mathbf{X}_p includes the number

³²Regardless of where they fled, individuals would still have been subject to punishment by the Chinese state, as long as the final destination was within China. In contrast to Europe where scholars frequently migrated due to fear of persecution (see Mokyr, 2016), Chinese intellectuals who fell foul of the emperor could not escape, but rather had to submit to imperial authority.

³³In the short run, it was exceedingly difficult for intellectuals to reduce the threat of persecution because there were no topics that could guarantee their safety. In the longer run, writers who resumed writing would confine themselves to technical matters of philology or so-called “evidentiary research”. I discuss the actions individuals took, including self-censorship, in order to avoid attention in Appendix 1.F.

³⁴In Appendix 3.D, I use charities per capita and obtain very similar results (Table A.22).

³⁵For robustness, I also allow my treatment to turn on during the same decade as the first literary inquisition case. Results are similar in both sign and magnitude (Table A.14).

Table 3: Trends in Charity Formation

	N. of Local Charities			
	1700	1750	1800	1850
Literary Inquisition	0.474	2.421	2.947	3.421
No Literary Inquisition	0.456	2.933	3.84	5.489

This table reports the number of local charities by 1700, 1750, 1800 and 1850 in an average prefecture with or without literary inquisition cases.

of Ming degree holders (*jinshi*), log population density in 1600, Skinner’s socioeconomic macroregions, and latitude and longitude. I interact these time-invariant characteristics with decade fixed effects.

As is standard in a staggered difference-in-differences design, the identifying assumption is that the timing of literary inquisition was not correlated with factors affecting charity formation.³⁶ This is a significantly weaker assumption than the requirement that literary inquisitions were random. It is supported by historical evidence that I review in Appendix 1 and by the results I present in Table A.8 which show that timing is not correlated with prefecture characteristics (column 1).

According to my preferred specification, there were 1.024 fewer local charities in an average decade after the first literary inquisition case (Table 4, column 3). This corresponds to 38% of the mean or 24% of the standard deviation of local charities ($-0.243 = -1.024 \div 4.218$).

It is possible that some of the effects that literary inquisitions had on local charities operate through the reduced participation of local gentry in charitable provision. I find that charity formation was especially sensitive to changes in the number of who became active in the public sphere and were recorded as reputable individuals (Table A.11, column 1). The number of gentry—proxied for by the number of *juren*—lower level degree holders—is positively correlated with charity formation.³⁷ But in a horserace only the effect of reputable individuals survives (column 3).

As Liang (2001) documents the date of foundation of charities, this estimated decline is best explained by fewer new charities being formed, rather than by the closure of existing charities. Nor can the decline in the formation of local charities be explained by policy changes. Charities had no political influence, and hence were not viewed suspiciously by the

³⁶Staggered difference-in-differences research designs are discussed by Callaway and Sant’Anna (2020), De Chaisemartin and d’Haultfoeuille (2020), Athey and Imbens (2021), Borusyak, Jaravel, and Spiess (2021), and Goodman-Bacon (2021).

³⁷I provide more detail about the different levels of degree holders in Appendix J. I use the number of *juren* degree holders here to capture the size of the gentry because it varied year on year while the *shengyuan* quota was fixed.

Table 4: The Impact of Literary Inquisitions on Local Charities, 1700 – 1830

	# Local Charities			
	(1)	(2)	(3)	(4)
Literary Inquisition	-0.750*	-0.988**	-1.024**	-1.024**
	(0.419)	(0.419)	(0.506)	(0.469)
Initial Pop. Density × FE	Yes	Yes	Yes	Yes
Ming <i>Jinshi</i> × FE	No	Yes	Yes	Yes
Latitude/Longitude × FE	No	No	Yes	Yes
Socioeconomic Macroregion × FE	No	No	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
Clusters	Prefecture	Prefecture	Prefecture	Prefecture-Decade
N. of Periods	13	13	13	13
Observations	1417	1417	1417	1417
Adjusted R^2	0.779	0.792	0.828	0.828

This table reports difference-in-differences estimates of the effect of literary inquisitions on the number of local charities between 1700 and 1830. The unit of observation is the prefecture-decade. Column 1 only controls for the interaction between decade fixed effects and log population density in 1600. Column 2 adds interactions between the number of Ming-era *jinshi* and Skinner's socioeconomic macroregion and decade fixed effects. Column 3 adds controls for latitude and longitude interacted with decade fixed effects; it is my baseline specification. Column 4 clusters standard errors by both prefecture and decade (Cameron and Miller, 2015); for the rest robust standard errors are clustered at the prefecture level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

state.³⁸ Policies concerning the establishment of charities did not change: they remained easy and low cost to establish (Smith, 1987).

My empirical strategy only allows me to estimate the local effects of literary inquisitions.³⁹ These local effects would have been important if: (i) people had greater information about literary inquisitions in their own locality than elsewhere; (ii) they were psychologically more affected by literary inquisitions implicating individuals from their locality. These conditions were particularly likely to be satisfied in Qing China than in the modern world. The absence of newspapers, or other media, meant that information about the majority of the cases disseminated slowly and within a limited geographical range. For cases that attracted national attention, my estimates would be a lower bound of the true effect of the literary inquisitions.

³⁸Overt political organizations were prohibited: they cannot be observed before or after the literary inquisitions.

³⁹I cannot estimate the effects of political repression at the *national* level. As Chodorow-Reich (2019) discusses, the aggregate effects of a shock can differ from the local effects due to the presence of “micro” spillovers from affected to unaffected areas. I consider the possibility of such spillovers in Appendix Section 3.D.4.

V.C Local Charities: Initial Conditions and the Demand for Charities

Next I situate my results in their historical context to address the extent to which I can interpret these results as reflecting a change in social capital.

Prefecture fixed effects filter out the effects of initial social capital. To account for its time-varying effect, I interact proxies of initial social capital with decade fixed effects (Table A.16).⁴⁰ I sequentially consider the number of local charities by 1700; the number of Buddhist temples by 1700, used by Martinez-Bravo, Padró-i-Miquel, Qian, Xu, and Yao (2017); the number of funding agencies by 1700—local organizations that supported the travel of examination candidates to capital cities; a linguistic fragmentation index; and the first principal component of these variables. My coefficient of interest remains stable.

Commerce and economic prosperity can threaten traditional authority. One path to inclusive institutions is that trade empowers local economic elites who then press for more inclusive institutions (Acemoglu, Johnson, and Robinson, 2005). In Ming China, urban areas produced movements such as the Fu-she and the Donglin Academy, which shaped political ideas and intellectual debate. As the Qing may have feared that similar developments could challenge traditional political authority, urban areas might have been more likely to experience literary inquisitions.

Table A.16, Panel B interacts measures of the local economy and the presence of the state with decade fixed effects. First, I include the interaction between agricultural suitability and decade fixed effects (column 6). The earliest charities emerged to help the urban poor. I use estimates of total urban population from 1393—the only year for which estimates of the urban population exist (column 7). To account for commercialization, I measure whether a prefecture was on the Grand Canal or the Yangtze River (column 8), or on the coast (column 9). My estimate of the impact of literary inquisitions does not change. Controlling for proximity to the nearest imperial courier route, as a measure of state presence, also has no impact (column 10).

Natural disasters increased demand for charities. If natural disasters also increased the probability of literary inquisitions, I would underestimate the effect of political repression on local charities. I do not find literary inquisitions to be associated with natural disasters (Table A.18 columns 3–4).

Disaster relief and tax relief were major government expenditures in Qing China (Shiue, 2004, 2005). These could either substitute for, or complement, local charities. Controlling

⁴⁰Note that by restricting my main sample to prefectures that were alike before 1700, I have already reduced potential biases caused by differential trends in charity formation. Before 1700, prefectures eventually exposed to literary inquisitions had roughly the same number of local charities as those that were never exposed (Table 3).

for disaster or tax relief leaves my results unaffected (Table A.23).

V.D Additional Robustness Checks

Resistance to the Qing takeover could reveal valuable information about a particular area, such as the ability of locals to take collective action or the presence of anti-Manchu attitudes. I employ data from Chen (1939) on conflicts in the early Qing period to measure political opposition. Anti-Manchu sentiment might also be reflected in the number of Ming loyalists, who refused to serve the Qing. Ming loyalists withdrew from public life devoting themselves to private spiritual pursuits as recluses (*yīn shì*). The decision of such individuals to withdraw from public life could directly affect trends in charity formation. Private academies were part of a vibrant “proto-liberal” and “anti-authoritarian” late Ming intellectual movement (Wakeman, 1998). The vibrant political and civic participation championed by these private academies could be related to both trends in charity formation and literary inquisitions. I interact the number of early Qing conflicts, Ming loyalists, and Ming-era academies with decade fixed effects in Table A.17 and my coefficient of interest remains stable.

If people responded to unjust literary inquisitions the way predicted by the literature on grievances as a cause of civil conflict, inquisitions could have provoked conflicts. On the other hand, conflicts might cause the state to repress the ideology or interests responsible, leading to literary inquisitions.⁴¹ Literary inquisitions and conflicts appear to be unrelated events. Table A.18 shows that literary inquisitions were not responsive to conflicts (Panel A); nor did conflicts break out in the aftermath of literary inquisitions (Panel B). Moreover, I control for the number of conflicts during that decade in Table A.20.

I find no evidence that the impact of literary inquisitions was confined to members of the elite (as measured by holders of the highest level degree—*jinshi*) or to members of the gentry, more broadly. In Table A.23 I use the number of Ming degree holders as a measure of high level elites and the quota for the lowest-level (*shengyuan*) imperial exams as the measure of the wider gentry. I obtain similar results for prefectures with above and below the median of either Ming degree holders (columns 1-2) or that of the *shengyuan* quota (columns 3-4).

There is no relationship between literary inquisitions and the number of newly minted *jinshi* or *juren* degree holders during that decade. I also find no decline in the formation of top-down organizations such as the government-sponsored academies that trained candidates for the exams (Table A.24).

If the number of charities falls in one place, it may affect the number of charities in neighboring prefectures. I discuss concerns of spatial autocorrelation in greater detail in Appendix

⁴¹Recent research finds that civil conflicts can increase social capital by improving community cohesion (Gilligan, Pasquale, and Samii, 2014).

D.4. Specifically, I first report the Moran statistic, a measure of spatial autocorrelation. Second, I use Conley standard errors allowing for spatial correlation within a radius of 50km, 100km, 250km, 500km and 750km (Table A.21(A)).⁴² Third, I vary the number of lags from 1 to 5, keeping the radius constant at 500 km. Fourth, I allow for spillover effects by adding a lagged dependent variable based on a spatially weighted measure of all charities formed in all other prefectures (Table A.21(C)). My estimates are largely unaffected and I find little evidence of a spillover effect.

Other robustness checks are reported in Appendix 3.D. My results are unchanged when I use 50-year time periods to reduce serial correlation and to extend the analysis to the end of the 19th century (Table A.13).⁴³ Varying the start and end date of my analysis as a sensitivity check does not affect my findings (Table A.19, columns 1-4). I show that my results are robust to subsetting the data in the following ways: dropping (a) prefectures which had no charities by 1750 (Table A.19, column 5); (b) prefectures which had no charities throughout the sample period (Table A.19, column 6); (c) prefectures which had no Ming *jinshi* (Table A.19, column 7); and (d) prefectures which are recorded as having any significant number of immigrants (Table A.19, column 8).

V.E An Event Study Approach

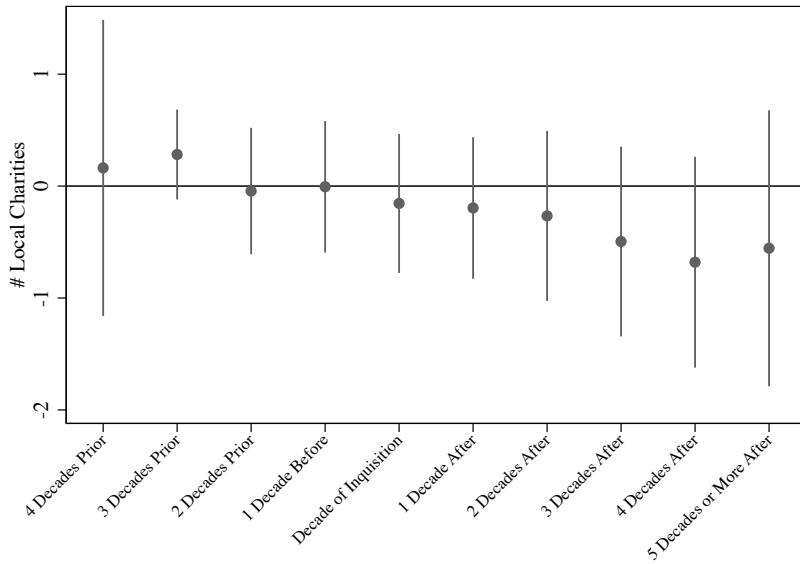
I estimate the dynamic effects of literary inquisitions following an event study approach (Appendix 3D.6). In recent work, an event study approach has been recommended for difference-in-differences regressions with multiple treatment timing (Callaway and Sant'Anna, 2020). The first literary inquisition case occurred in different decades for different prefectures. The event study plot in Figure 3 focuses on relative time to the decade during which a prefecture had the first literary inquisition case. Prior to the first literary inquisition case, there is no difference in charity formation between affected and unaffected prefectures. Following the first literary inquisition, the number of local charities fell gradually for the four subsequent decades, relative to the number of local charities in prefectures without literary inquisitions, before stabilizing at a permanently lower level.

My results suggest that prefectures affected by literary inquisitions adapted to a new equilibrium in which fewer local charities existed. The pattern of coefficients that I observe is consistent with standard models of voluntary public provision (see Cornes and Sandler, 1996). In such coordination games there are typically two equilibria: one in which individuals invest

⁴²The standard errors I obtain increase up to a radius of 500km and decline thereafter.

⁴³In my main analysis, I focus on the periods prior to and shortly after a literary inquisition. A relatively small number of periods minimizes the chance of false rejections in a difference-in-differences setup (Bertrand, Duflo, and Mullainathan, 2004).

Figure 3: Relative Time to a Prefecture’s First Being Affected by the Literary Inquisition



This figure reports the impact of literary inquisitions on the number of local charities. The coefficient is normalized to zero for one decade prior to a literary inquisition case. Error bands represent a confidence interval of 95%.

time and effort in supporting the voluntary public goods—in this case local charities—in part, because they expect others to do so, and one in which they do not. Applying the insights of such models to my setting, it is easy to see how a shock such as a persecution could induce individuals to switch from a high investment, high social capital equilibrium to the low investment, low social capital equilibrium. Thus a one-time shock could lead to a self-reinforcing decline in the local level of social capital.

V.F Discussion of the Historical Panel

Literary inquisitions could have damaged charity formation in several ways. Studying Zimbabwe, Young (2019) finds that repression induces pessimism and greater risk aversion. The effects of literary inquisitions could have worked through similar channels. Historians note that they generated “a hydra of suspicion and denunciations” (Brook, 2005, 178). Individuals were expected to denounce suspects and could be punished themselves for failing to report others. Intellectuals became more careful, ceasing to write or publish on topics and in subject areas open to interpretation, avoiding conversations and interactions with others, and withdrawing from the public sphere.

How did social capital decay following a literary inquisition? Compared to modern experimental studies, my data limits my ability to pin down the process through which the number of charities declined. It is worth noting that among their functions, charities helped provide local public goods, as the Chinese state did not penetrate deeply into society and lacked the capacity to provide basic social services. Following the stagnation of local charities, therefore, help within clans, or the extended family, could partially substitute for the services of charities. This, however, could have had the effect of further undermining trust in strangers. Such a downward spiral may have magnified the initial impact of political repression; indeed, consistent with this, I find that the initial impact of a literary inquisition on charity formation increased for the following four decades.⁴⁴

VI BEYOND QING CHINA: THE PROVISION OF BASIC EDUCATION AS A PROXY

In the above analysis I have shown that literary inquisitions had an immediate and lasting impact on social capital in imperial China. In this section, I consider the effects of literary inquisitions in several different political and institutional settings. First, I document a negative correlation between the Qing persecutions and generalized trust in modern China. Second, I examine the impact of Qing persecutions on the provision of basic education in late Qing and early Republican China. Third, I consider how their impact varied over the course of the 20th century according to whether the institutional environment was centralized. Appendix Figure A.1 illustrates the key stages in my analysis.⁴⁵

VI.A Basic Education in Early 20th Century China

Traditionally the responsibility of clans, after the introduction of new laws in 1905, the provision of basic education shifted to a public, cross-clan, village-based, system and local collective action began to matter (Hao and Xue, 2017). If political repression reduces social capital, I should find an effect of Qing persecutions on basic education in this period.

Examining individuals aged over 70 in the 1982 census provides a snapshot of the provision of basic education in the early 20th century. Specifically I run regressions based on the following equation:

$$\text{Literate}_{p,i} = \beta \text{Literary Inquisition}_p + \Omega \mathbf{X}_p + \Theta \mathbf{Z}_i + \Gamma_{\text{prov}} + \Psi_m + \epsilon_{p,i}. \quad (3)$$

⁴⁴Compared to the effect of literary inquisitions on the number of individuals becoming reputable (see Appendix 3.C), their effects on charity formation were much longer lasting (Table A.13).

⁴⁵Throughout, I employ the same sample of prefectures, balanced on pre-1700 characteristics, used in the historical panel for my analysis of modern China. I explain how I match China's historical prefectures to modern-day prefectures in Appendix B.3.

Table 5: The Literary Inquisition and Basic Education in the Early 20th Century

	Literate (0/1)			
	(1)	(2)	(3)	(4)
Mean of Dep. Var.	0.153	0.108	0.153	0.153
Literary Inquisition	-0.0447** (0.0205)	-0.0283* (0.0166)	-0.0453** (0.0206)	-0.0524** (0.0220)
Log Degree Holder (<i>Jinshi</i>) Density	0.0136 (0.0153)	0.00559 (0.0104)	0.0266 (0.0163)	0.0336** (0.0163)
Over 80 Year Olds Only	No	Yes	No	No
Individual Controls	No	No	Yes	Yes
Contemporary Controls	No	No	No	Yes
Historical and Geographical Controls	Yes	Yes	Yes	Yes
Observations	72658	12035	72658	72658
Adjusted R^2	0.0340	0.0244	0.233	0.233

This table reports OLS estimates of the relationship between the Qing Literary Inquisition and literacy in early 20th century China. The dependent variable is whether an individual was literate at the time of the survey. All individuals were over 70 when surveyed in 1982. All specifications include province and socioeconomic macroregion FE. Individual controls include gender, marital status, and the number of couples in the household. Contemporary controls include log total population, % over 65, and % Manchu. Historical and geographical controls include the density of the examination quota (*shengyuan*) in 1820, agricultural suitability, population density in 1820, per capita taxation in 1820, distance to Beijing, distance to the nearest imperial courier route, whether a prefecture was on the Grand Canal or Yangtze river, on the coast, or was an important center of transport and communication (Chong), and business (Fan), difficult to tax (Pi) or affected by high crime (Nan), whether a prefecture was a treaty port and ruggedness. Column 1 only includes historical and geographical controls. Column 2 restricts the sample to individuals aged over 80 in 1982. Column 3 adds individual-level controls. Column 4 adds contemporary controls. Robust standard errors, clustered at the prefecture level, are reported in parentheses. There are 72 clusters. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The dependent variable is equal to one if an individual was literate at the time of the survey. The explanatory variable, $\text{Literary Inquisition}_p$, takes the value of one, if prefecture p ever experienced literary inquisition cases. \mathbf{Z}_i contains individual-level characteristics. Γ_{prov} and Ψ_m are province and socioeconomic macroregion fixed effects, respectively.

I include in \mathbf{X}_p controls for prefecture p 's conditions in the early 20th century.⁴⁶ In addition to geographical controls and measures of historical economic activity, transportation, and infrastructure, I control for pre-20th century human capital as measured by the density of *jinshi* degree holders and the density of the prefecture-level quota for *shengyuan* degrees (per 10,000). I also control for distance to Beijing, and to the nearest imperial courier route, to account for the impact of the state.⁴⁷

⁴⁶A full list of controls are provided in the notes to Table 5.

⁴⁷I use variables from 1820 as this was the year of the last comprehensive survey of Qing China, "The

Table 5 reports the effects of literary inquisitions on the literacy of individuals educated in the early 20th century. In a prefecture with a legacy of literary inquisitions, the probability of individuals being literate is 5.2 percentage points lower (column 4), corresponding to 15% of the standard deviation of literacy ($0.15 = 0.052 \div 0.348$).⁴⁸ These results are comparable to those from the historical panel: approximately 20% of the standard deviation of the number of local charities.

To interpret these results note that while in the historical panel analysis, I exploited variation in the timing of literary inquisitions across comparable prefectures, here I necessarily rely on cross-sectional variation. Matching produces an unbiased estimate of the treatment effect when treatment assignment is ignorable conditional on covariates. Under the assumption that unobservables are correlated with observables, differences between treated and untreated units can be assigned to the treatment. In Table A.6 I show that my matching algorithm that leads to balance on covariates used for matching also leads to balance on covariates outside of the set of covariates used to condition my sample.

These results are highly robust. China experienced several shocks between 1840 and 1982. If some of these events that affected literacy levels in the population, occurred in the same locations as the Qing persecutions, my estimates may be biased. I check my results against the impact of three major historical events: the Taiping Rebellion, the exodus to Taiwan in 1949, and the Cultural Revolution (Appendix 3.F). I also conduct an instrumental variable analysis (Appendix 3.G).

VI.B From Decentralization to Centralization

If social capital is a relevant channel, the effect of Qing persecutions on basic education should vary by the importance of social capital to the provision of basic education. Through most of the 20th century, basic education in rural China remained informal and decentralized and was less affected by the centralizing policies of Nationalist and Communist governments. Thus I should expect a larger effect of literary inquisitions on rural literacy.

Table A.27 supports this hypothesis. There is a strong association between state repression and literacy for the rural sample (columns 1-2), but not for the urban sample (columns 3-4).

Next, I exploit variation in schooling regimes. In 1935, the Nationalist government passed a compulsory education law centralizing basic education. Centralization continued

Comprehensive Geography of the Great Qing Realm” (*Daqing Yitongzhi*), was complied.

⁴⁸These results are robust to controlling for potential determinants of literary inquisitions, such as the number of Ming degree holders, Ming-era academies, and Ming loyalists (See Table A.25). As expected, literacy is positively correlated with pre-1905 human capital as proxied for by the density of degree holders (Chen, Kung, and Ma, 2020).

Table 6: Basic Education During the 20th Century: From Decentralization to Centralization

	Literate (0/1)		
	Baseline	Method I	Method II
	(1)	(2)	(3)
Literary Inquisition	-0.0585* (0.0340)	-0.0806** (0.0394)	-0.0823** (0.0334)
Literary Inquisition \times Age 23–56 in 1982 (c)		0.0464** (0.0231)	0.0436*** (0.0132)
Literary Inquisition \times Age < 23 in 1982 (d)		-0.0102 (0.0330)	
Log <i>Jinshi</i> Density	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes
Contemporary Controls	Yes	Yes	Yes
Historical and Geographical Controls	Yes	Yes	Yes
Observations	1870154	1870144	1870144
Adjusted R^2	0.275	0.344	0.285

This table reports how the relationship between the Qing Literary Inquisition and literacy in 20th century China varied according to whether an individual was educated under centralized or decentralized institutions. The dependent variable is whether an individual was literate at the time of the survey. Respondents were at least 15 years old when surveyed in 1982. All specifications include province and socioeconomic macroregion FE and the same controls as in column 4 of Table 5. Column 1 reports the baseline estimates. Columns 2 and 3 use two different methods to construct periods of centralized vs. decentralized provision of basic education. Column 2 includes controls for the direct effect of Age 23–56 in 1982 and Age < 23 in 1982. Column 3, includes the direct effect of Age < 23 in 1982. In column 2, I create three categories corresponding to individuals educated under a decentralized schooling system (d), born before 1927, aged 57 or older; individuals educated under a centralized schooling system (c), born between 1927 and 1959, and aged between 23 and 56 in 1982; and individuals educated under a decentralized schooling system (d) during the Cultural Revolution, born after 1959, and aged 23 or less in 1982. I refer to this as Method I. In column 3, I create two categories: individuals who were educated during periods of centralization (c) (born between 1927 and 1959) and those who were educated during either period of decentralization (d) (born before 1927 or after 1959). I refer to this as Method 2. The omitted category under both methods refers to individuals who were educated under decentralization. There are 72 clusters. Robust standard errors, clustered at the prefecture level, are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

under Communist rule. But during the Cultural Revolution (1966-1976) basic education was delegated. As Pepper (1991) details the decision to establish primary schools became the responsibility of local communities. This decentralization is evident in aggregate statistics. The share of spending on education in the national budget fell from 6.4% to 4.2% between 1966 and 1970 and the percentage of teachers in rural China working for community-funded schools increased from 52.6% to 73.4% between 1965 and 1978.

To see how the impact of the Literary Inquisition varied by schooling regime I conduct the following analysis. Expanding my sample to include all individuals at least 15 years old in 1982, I interact a categorical variable, namely whether an individual was educated under

a decentralized schooling regime, with the Qing persecutions. Individuals born either before 1929 or after 1959 are considered as educated under a decentralized system; individuals born between 1929 and 1959 are considered as educated under a more centralized system.

The estimated effect of the Literary Inquisition on basic education is halved for individuals born between 1929 and 1959, and hence educated under centralized institutions, compared to those educated under more decentralized arrangements (Table 6, column 2). This indicates that the negative association between the Literary Inquisition and basic education is weakened for cohorts educated under centralized institutions. Schools began to rely on local funding during the Cultural Revolution, and the literacy gap between affected and unaffected prefectures expanded again.⁴⁹ The close-to-zero coefficient of the interaction term between individuals aged less than 23 and the Literary Inquisition (column 2) suggests that the effect of inquisitions on the Cultural Revolution cohort is similar to its effect on individuals educated before the 1935 compulsory education law.

In column 3, I merge two groups (individuals born before 1927 or after 1959) under the category “educated under decentralized regimes” and compare them to individuals educated under a centralized education system. I find that the effects of the Literary Inquisition are present both in a low literacy regime—when average literacy was 15%—and in a high literacy regime—when average literacy was 85%—so long as schooling was decentralized. This further substantiates my hypothesis that the Literary Inquisition reduced social capital. In the next section, I turn to a further corollary of low social capital, attitudes towards political participation.

VII POLITICAL REPRESSION, CIVIC CAPITAL AND AUTHORITARIAN RESILIENCE

I can now examine the implications of reduced social capital for political participation and explore how the Literary Inquisition has contributed to authoritarian resilience. It is well understood that low social capital undermines civic engagement and the willingness of individuals to participate in politics (Putnam, 2001). Exploring this insight fully in a Chinese context is challenging as it is difficult to observe willingness to participate in politics in an authoritarian regime, where political action is restricted. Nevertheless, in the absence of elections and voting, participation can take the form of involvement in one’s local community. Indeed, according to Putnam (1966), community involvement reveals attitudes towards broader political engagement.

⁴⁹During this period, literacy increased and access to primary and middle schools improved nationwide. My findings, however, suggest that the extent of this rise differed between prefectures with and without a legacy of literary inquisitions.

I proceed in two stages. First, I investigate the impact of the Qing persecutions on political participation and community self-governance. Second, I examine the impact of the Qing persecutions on political ideology.

To examine political and community engagement I use data from the Chinese General Social Survey (CGSS). As before I restrict my attention to the matched sample. Starting with attitudinal questions, I find that individuals in prefectures with a legacy of the Literary Inquisition are more likely to think that people like themselves do not influence decisions made by government (Table 7, columns 1-2). They are also less likely to believe that their suggestions to the government will be adopted (columns 3-4). Does this apathy simply reflect a pragmatic response to an autocratic regime? While a possible explanation for pervasive political apathy in China as a whole, this is an unlikely explanation for *regional* variation in political apathy because all respondents face the same national-level autocratic regime.⁵⁰ Examining participatory behavior and turning to the community level, respondents from affected prefectures are less likely either to volunteer on local committees (columns 5-6), or to make suggestions to local committees (columns 7-8). Across the specifications, the magnitude of the coefficients is around 20% of the standard deviation of the outcome variables.⁵¹

To understand the impact of political repression on authoritarian resilience, it is important to take into account how it affects attitudes to autocracy. Inglehart and Welzel (2005) argue that democratic values are an important predictor of successful democratization. Are individuals inured to autocratic rule too used to state direction to believe that democracy is worth striving for? To address this, I dig deeper into how political repression left a legacy that is visible in attitudes towards political ideology and democratic values in particular.

The Chinese Political Compass (CPoC), an online survey of political beliefs and political ideology, allows me to explore this further. Compared to traditional surveys, in which responses can be influenced by social desirability bias, the CPoC offers the advantage of anonymity.⁵²

The results reported in Table 8 contain responses to three questions in the CPoC that

⁵⁰Hence it cannot be that individuals in prefectures with a legacy of the Literary Inquisition are more apathetic because they face a more autocratic government. But the possibility remains that individuals in affected prefectures differentially curb their political participation in response to the autocratic regime. I find in Table 8 that respondents in affected prefectures have a less positive attitude towards autocracy.

⁵¹Recall that I found that the effect of political repression on basic education was larger in rural areas, raising the possibility that social capital was transmitted differently in urban areas (Table A.27). This possibility is ruled out by results in Table A.33 which reports the same results as Table 8 but for the urban sample. In addition, I consider several alternative explanations such as differences in political knowledge (Table A.34) and differences in collectivism (Table A.35).

⁵²Thus I believe the difference in attitudes expressed in the survey are genuine. Note that when the data were collected in 2014, the level of internet surveillance was much lower compared to today.

Table 7: Authoritarian Resilience: Political Participation and Community Engagement

	Political Apathy				Volunteering on Local Committees		Making Suggestions to Local Committees	
	OLS				Logit			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean of Dep. Var	3.540	3.546	2.582	2.580	0.0677	0.0666	0.121	0.121
Literary Inquisition	0.199** (0.0815)	0.134* (0.0746)	-0.131* (0.0711)	-0.136* (0.0767)	-0.753** (0.360)	-1.080*** (0.419)	-0.435* (0.248)	-0.693** (0.290)
<i>Marginal Effects</i>	0.199** (0.0815)	0.134* (0.0746)	-0.131* (0.0711)	-0.136* (0.0767)	-0.047** (0.024)	-0.065*** (0.027)	-0.045* (0.027)	-0.071** (0.031)
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Contemporary Controls	No	Yes	No	Yes	No	Yes	No	Yes
Adjusted R^2 / Pseudo R^2	0.0507	0.0543	0.0101	0.0114	0.0397	0.0485	0.0495	0.0577
Observations	3320	3224	3298	3201	3280	3184	3335	3238

This table reports estimates of the relationship between the Qing Literary Inquisition and political participation and community engagement. All specifications include socioeconomic macroregion FE. Columns 1-4 examine the relationship between literary inquisitions and political apathy. Columns 1-2 are for the question: “People like me won’t have any influence on how the government makes its decisions.” Columns 3-4: “My suggestions to the government will be adopted.” The answers for these questions are on a 1-5 scale, from completely disagree to completely agree. Columns 5-6: “Have you ever volunteered to work on local (village/residential) committees?” Columns 7-8: “Have you ever made suggestions to local (village/residential) committees?” The answers for these questions are binary. I report marginal effects. For columns 1-4, these are identical to the OLS estimates. Individual controls include FEs for gender, age, and education. Contemporary controls are the same as in Table 1 and include log GDP per capita, log total population, years of schooling, share of urban population and share of agricultural workforce, all from 2010. Robust standard errors are clustered at the prefecture level and reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

elicit views over alternative political systems. Individuals in prefectures with a legacy of the Literary Inquisition are less likely to agree with the following statements: “Western style multi-party systems are not suitable for China” (columns 1-3), “Free speech is a Western concept and will only lead to chaos” (columns 4-6), and “Modern China needs to be guided by the wisdom of Confucius” (columns 7-9). The CPoC is an online survey; I show that results are robust to controlling for internet access. I find no evidence that the Literary Inquisition made individuals more inclined to autocracy. In fact, these individuals have greater skepticism towards pro-autocracy ideologies such as Confucianism.⁵³

Observers of autocratic regimes such as Orwell (1948) and Arendt (1951) warned that autocracies would produce populations incapable of self-governance. My results speak to these concerns. In this setting, at least, I find evidence that individuals who do not share

⁵³Autocratic regimes in China have often emphasized aspects within Confucianism that lend support and legitimacy to the state. As discussed in Appendix 1.I, the Qing relied on Confucianism for legitimacy. In today’s China, the link between Confucianism and autocracy remains potent. The recent strengthening of autocratic power has been accompanied by a renewed emphasis on Confucianism.

Table 8: Authoritarian Resilience: Attitudes Towards Autocracy (CPoC)

	Multi-Party Systems, Unsuitable [§]			Free Speech, Chaos [¶]			Confucianism, Essential [†]		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Mean of Dep. Var	0.417	0.417	0.417	0.587	0.587	0.587	0.238	0.238	0.238
Literary Inquisition	-0.147*** (0.0302)	-0.139*** (0.0292)	-0.159*** (0.0369)	-0.0962* (0.0545)	-0.0852+ (0.0593)	-0.107** (0.0441)	-0.149** (0.0676)	-0.114* (0.0619)	-0.123** (0.0623)
Survey FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Internet Access	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Contemporary Controls	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Historical & Geographical Controls	No	No	Yes	No	No	Yes	No	No	Yes
Observations	52046	52046	51834	52062	52062	51850	52075	52075	51863
Pseudo R ²	0.0121	0.0123	0.0124	0.0163	0.0165	0.0167	0.0356	0.0357	0.0359

This table reports logit estimates of the relationship between the Qing Literary Inquisition and modern attitudes to autocracy and shows that individuals from prefectures previously exposed to the Qing Literary Inquisition are not more supportive of autocracy. The results rule out a more favorable attitude towards authoritarian regimes as an explanation for authoritarian resilience following the Qing Literary Inquisition. The dependent variables are responses to questions in the Chinese Political Compass (CPoC). I group them into two categories: 0 (“disagree”, “strongly disagree”) and 1 (“agree”, “strongly agree”). All specifications include province and socioeconomic macroregion FE. Individuals are asked whether they agree with the following statements: Western style multi-party systems are not suitable for China[§]; Free speech is “Western” and will only lead to chaos[¶]; Modern China needs to be guided by wisdom of Confucius[†]. Individual controls include year of birth, sex, income, and the level of education. Contemporary controls are the same as in Table 1, including log GDP per capita, log total population, years of schooling, share of urban population and share of agricultural workforce, all from 2010. Historical and geographical controls are the same as in Table 5. Survey FEs include fixed effects for the “day of the month” and “month of the year” in which individuals took the survey. Robust standard errors are clustered at the prefecture level. + $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

the values of the regime are also those more likely to be disengaged from politics. One can interpret Tables 7 and 8 as suggesting that individuals from prefectures which have a legacy of the Literary Inquisition are not more supportive of autocratic rule, but are less inclined to participate in public affairs including the governance of their own community, and thus less able to resist autocratic entrenchment.

Low levels of political participation likely reflect the consequences of low social capital in the political domain. From my findings, I would expect an impaired civil society to affect the probability of democratization both by making it harder for individuals to coordinate to protest against autocracy and because it reduces the quality of democratic governance once democracy has been attained. Modern experimental work can shed further light on the mechanisms linking low social capital to political apathy. Ongoing research by Yuyu Chen and David Yang explores how media censorship in modern China affects the ability of students to coordinate.

VIII CONCLUSION

The Literary Inquisition (1661–1788) marked a period of sustained repression that led to deep societal changes. Using a panel dataset, I demonstrate that political repression reduced the number of individuals becoming reputable; I then show that repression led to a decline in local charities. The resulting gap in the number of local charities between affected and unaffected prefectures did not close.

Qing China was an autocratic state whose policy of sustained repression left a lasting legacy on society. The results from the historical panel show that exposure to literary inquisitions triggered a fall in charitable provision. The effects of persecution on social capital, that is, on the attitudes and beliefs supporting cooperation were long lasting and transmitted across generations. Individuals in affected prefectures trust less and are more disengaged from politics. In some domains, states can partially compensate for low social capital, for instance, by building schools, investing in infrastructure, or centralizing public goods provision. However, my findings suggest that state cannot easily undo the deeper societal changes caused by autocratic rule: the effects of political repression remain evident in domains that are intrinsically decentralized and heavily reliant on self-governance.

Drawing on evidence from imperial and modern China, I provide a new way to conceptualize the long-run dynamics between state and society. My analysis suggests that political repression lowers social capital, making it harder for individuals to organize for institutional change. Additionally, autocracies can provide order and public goods when social capital is low. And for this reason, autocratic rule can have appeal in societies with low social capital.

Hence, by reducing social capital, autocracy can introduce a vicious cycle that favors its survival and persistence. These insights shed new light on the impediments to democratization faced by countries with a long history of autocracy.

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ONLINE APPENDICES (FOR WEB PUBLICATION ONLY)

1 Historical Appendix	App.1
A Background for the Literary Inquisition	App.2
B Comparison with other persecutions in Chinese History	App.3
C The Literary Inquisition	App.6
D Example Literary Inquisition Cases	App.9
E Books Targeted in the Qing Literary Inquisition	App.11
F The Impact of the Literary Inquisition	App.12
G Late Ming Intellectual Trends	App.13
H Academies and the Nascent Public Sphere in Late Ming China	App.13
I Neo-Confucianism	App.14
J Intellectuals and Gentry in Chinese Society	App.15
K Qing-era Intellectual Developments	App.16
L Local Charities in Qing China	App.17
M Ethnic Identity in Qing China	App.20
N Comparison with the Spanish Inquisition	App.21
2 A Signaling Model of Political Persecutions	App.22
A Setup	App.22
B Equilibrium	App.23
3 Empirical Appendix	App.27
A Summary Statistics	App.27
B Matching, Balancedness, and Data Construction	App.30
C Reputable Individuals	App.38
D Further Robustness Analysis: Historical Panel	App.40
E Further Robustness Analysis: Basic Education	App.56
F Basic Education in Early 20th Century China: Political and Demographic Shocks	App.57
G Basic Education in Early 20th Century China: IV Estimates	App.63
H Main Dependent Variables	App.71
I Main Control Variables	App.73

1 HISTORICAL APPENDIX

I now provide an overview of the political economy of Qing China, supplying more details concerning the incentives and constraints facing the rulers of China in the 17th and 18th centuries.

This overview (i) sets out the historical context to the Qing Literary Inquisition, particularly detailing the nature of the Qing regime as an ethnic minority regime; (ii) establishes the distinct character of the Qing Literary Inquisition which differed in scope, scale, and intensity to earlier purges, persecutions, and inquisitions; (iii) details the bureaucratic procedures involved in literary inquisitions and provides several detailed examples of individuals

persecuted; (iv) discusses the role intellectuals played in Chinese society; (v) considers developments in the Ming/Qing periods, focusing both on relative decline in the political influence of intellectuals and the stagnation of the public sphere after a promising beginning in the late Ming; and (vi) examine the motivations and incentives for intellectuals to participate in the provision of charities.

A *Background for the Literary Inquisition*

The analysis in the main paper focuses on the High Qing Period (c. 1680-1796). I first provide further details on the turbulent period of transition that preceded it. The Ming-Qing transition saw the collapse of the Ming regime, the invasion of China by the Manchus and the establishment of a new regime. The following decades saw both major internal rebellions and external wars (Wakeman, 1985a, 1985b) (Table A.1).

The Ming-Qing transition was accompanied by famine, climate change, and sizable population loss (Parker, 2013). The initial transition involved massacres and a high degree of tension between the Manchu conquerors and the Han population (Wakeman, 1985a). After this period, the policies of the Manchu rulers changed as they strove to integrate Han elites into their new government. I focus on the period that followed this political stabilization.

The High Qing period was a period of great political stability, imperial expansion and internal peace, but also political repression. Emperors such as the Kangxi and Qianlong emperors are seen as among the most powerful in Chinese history. Their authority was uncontested. The state in Qing China dominated civil society.

As I documented in the main text, the High Qing period also saw the *intensification* of imperial autocracy in China. The Qing rulers achieved this stability by restricting freedom of expression and organization and by suppressing any potential signs of opposition. As members of a tiny conquest elite, the Qing rulers were extremely sensitive to potential opposition from the Han Chinese. Thus while China has always been ruled through an autocracy, the Qing period stands out as a period of intense autocratic rule.

As invaders, the Qing rulers lacked political legitimacy.⁵⁴ Unlike states in Europe or the Middle East that could rely on religious legitimization (see Rubin, 2017), the Qing state sought legitimacy in Han Chinese culture. Han culture, however, was highly ethnocentric. This created a problem for the Qing emperors who patronized traditional Confucian values and scholarship, but also feared being seen as outsiders. Traditional Confucianism was premised on Han dominance and implicitly challenged the “naturalness” of Qing rule. In the words of Fairbank and Goldman (1992, 159): “Truly the price of alien despotism was external vigilance”.

The Qing maintained their distinct Manchu identity. Manchu banner troops were stationed across China to maintain control, and Manchus were not allowed to intermarry with the Han population. In the capital Beijing, Han Chinese were expelled from the inner city which was settled by Manchu bannermen.

Why did the Qing emperors use political repression? At first sight, the Qing rulers would appear not to need to resort to persecutions. In the terminology of Svolik (2009), the Qing

⁵⁴Political legitimacy is the “common knowledge probability that each member of a society holds that others will obey” the political authority (Greif and Rubin, 2015, 5).

Empire after 1680 was an *established* rather than a *contested* dictatorship, as the emperor could not be credibly threatened by other members of the ruling coalition. This apparent strength and stability is somewhat misleading, however. Rather, historians have suggested that the real puzzle is “how the Manchus—who were outnumbered by the Chinese by about three hundred and fifty to one—managed to conquer China in the first place and then go on to rule for nearly three hundred years”? (Elliott, 2001, 3).

Literary inquisitions played a crucial role in enabling the Qing emperors to deter potential opposition. As Kuhn puts it:

“The interests of the Throne had to be boosted by repeated injections of autocratic, unpredictable power, which were best administered in the context of political crime. The shadow (and who can certify the unreality of shadows?) was the fear of forces unseen” (Kuhn, 1990, 225).

In particular, the Qing rulers sought to dominate the Han literati who made up the bureaucracy and governed the empire. As I document, this policy of intimidation and periodic terror was accompanied by “persuasion and remuneration”. As Fu (1994, 141) observed: “Autocracy has two faces . . . suppression of political heresy and Confucian persuasion went hand in hand; book censorship was followed by state-sponsored compilations of classics”.

B Comparison with other persecutions in Chinese History

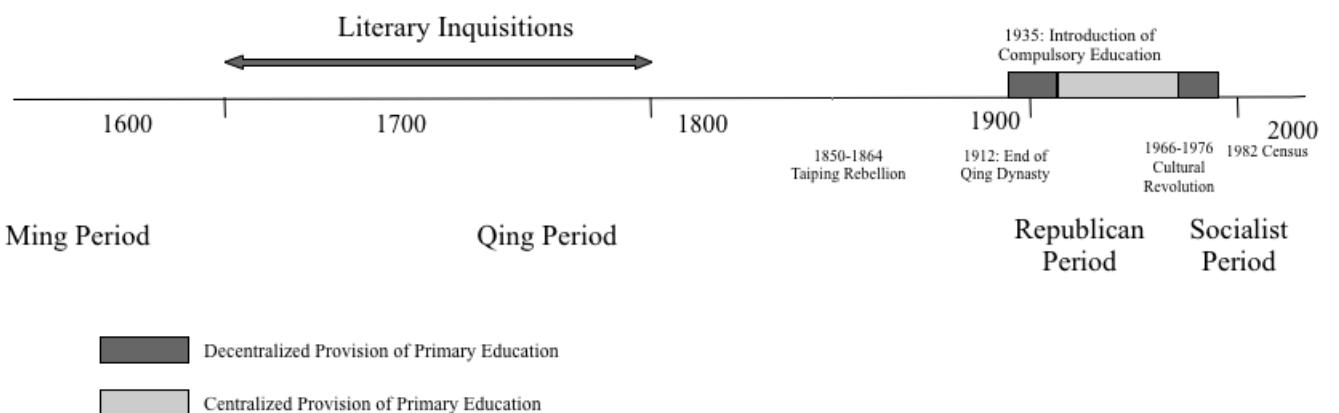
I focus on the Qing period because it was during the Qing dynasty that the Chinese state developed an institutional infrastructure aimed at rooting out disloyalty by punishing individuals for subversive speech or writing. Of course, the Qing period was not the only period in Chinese history when the state used political persecutions. Earlier emperors purged political enemies, often *en masse*. But the Qing-era literary inquisitions were very different to these persecutions. For instance, the purges conducted by the first Ming emperor were less systematic and institutionalized and restricted to those related to a circle of officials close to the emperor (see Goodrich, 1935; Fu, 1994; Wang, 2002). Literary inquisitions, in contrast, were not limited to those in positions of power, but reached down to quite ordinary individuals including dictionary makers and fortune tellers (Wang, 2002). In the words of one historian, it was in the Qing period “that literary inquisitions in China . . . reached a level of perfection” (Fu, 1994, 138).

Table A.1: A Timeline of Major Events in Qing China

Year	Event	Description
1618	Manchu leader issues Seven Grievances	Manchu leader Nurhaci cites a list of Seven Grievances as casus belli against the Ming
1625	Nuchaci conquers city of Shenyang	Manchus establish Shenyang as their capital and, in 1634 rename it, Mukden.
1635	Hong Taiji renames the Jurchen as Manchus.	
1644	Fall of the Ming Dynasty	Beijing falls to a peasant army and the last Ming emperor commits suicide. The Qing are invited in to defeat rebels and conquer Beijing.
1644	Shunzhi Emperor proclaimed Emperor of China	
1644–1660	Suppression of rival regimes in southern China.	
1652	Individuals forbidden to meet in large groups	
<hr/>		
1661-1723	Reign of the Kangxi emperor	
1661	<i>Case of the History of the Ming Dynasty</i>	Over 70 individuals executed (and many more punished) for publishing a history of the Ming dynasty
1673-1681	Revolt of the Three Feudatories	Defeat of the Three Feudatories marks the pacification of China and the beginning of a long period of internal peace.
1723-1735	Reign of the Yongzheng emperor	
1728	<i>Zeng Jing case</i>	
1735-1796	Reign of the Qianlong emperor	
1753	<i>Lu Lusen case</i>	
1773	Qianlong emperor initiates campaign to destroy ‘evil’ books	
1777	<i>Wang Xihou case</i>	
<hr/>		
1796-1820	Reign of the Jiaqing emperor	
1799	Qianlong emperor dies	
1796–1804	White Lotus Rebellion	First major rebellion in Qing China
1839-1842	First Opium War	Defeat by Britain weakens the authority of the Qing regime

This table depicts the major historical events in the history of Manchus and Qing China. The period during which the Qing literary cases took place is from 1660-1788. Particular literary inquisition cases discussed in the main text are in italics.

Figure A.1: Key Stages in the Long-Run Analysis



C The Literary Inquisition

C.1 Data

My source of data on literary inquisition cases is *Qingchao wenziyu an* (Qing literary inquisition case). This source is based on *Qingchao wenziyu dang ji* (Qingdai wenziyu dang ji, 1934), including cases collected and compiled by historians from the Qing Imperial Archive. A total of 86 cases are included in *Qingchao wenziyu an*, dating from 1661 to 1788. This is the same data source and same number of cases as I used in Koyama and Xue (2015).⁵⁵ This includes all cases recorded in the Qing Imperial Archive and hence is regarded as a comprehensive list of genuine inquisition cases.

Literary inquisition cases all involved “speech crimes”. If a case involved violence or civil unrest or any other action against authority, it would not be categorized as a literary inquisition case. There are more expansive lists, the most expansive of which includes 180 cases. However, this larger list is much more ambiguous as it includes both early persecutions that occurred during the Ming-Qing transition and other less clear-cut cases (i.e., cases that were not strictly speaking “speech crimes”).

Based on the hypothesis I outline in Section III, events related to the crackdown of specific individuals for anti-Qing *actions* should not introduce the same dynamics related to social interactions and social trust. In Appendix 3.D.2 (Table A.15), I report my results using the more expansive set of persecution cases. I find the estimates to be of a similar magnitude, but less precise. This is consistent with my prior that using a less precise definition introduces noise and measurement error.

The fact that I use the most accurate and parsimonious list of inquisition cases means that my dataset has no such cases that were clearly based on factional politics within the imperial court. Nevertheless, a small number of ambiguous cases remain. For example in 1755, an official called Hu Zhongzao was investigated for a poem where he wrote the character for murky or muddy (*zhuó*) before the character Qing. Some historians interpret this case as being about factional political conflicts between Hu’s mentor, Ortai and Zhang Tingyu. In general, these cases were rare exceptions. Bias, moreover, is only an issue if charity formation in a prefecture was somehow related to factional politics at the imperial court.

C.2 The Procedure of a Literary Inquisition Case

The Qing Empire had a highly centralized and hierarchical bureaucracy that was subordinated to the emperor. The authority of the emperor was replicated at the provincial level in the authority of the governor, at the prefecture level in the authority of prefect, and at the county level in the authority of magistrate. Governors, prefects and magistrates were all appointed and rotated regularly, and were not expected to respond to local interests or concerns. Governors were responsible to the emperor alone.⁵⁶

To better understand the process involved, Figure A.2 depicts a stylized literary inquisi-

⁵⁵Koyama and Xue (2015) contained an error in the text which referred to the number of cases as 88, rather than 86. The actual number of cases is identical in both papers.

⁵⁶The Yongzheng emperor instituted an elaborate system which allowed lower-level officials to directly report to the emperor in secrecy. This institutional change further strengthened emperor’s control over the bureaucracy.

tion case. A civil dispute might give rise to a denouncement to a county-level magistrate. If the case was deemed serious, it would be passed to the provincial governor. As literary inquisition cases often involved written materials, the provincial governor would have consultants scrutinize the offending writings for evidence of treason. The position of provincial governors in Qing China was dependent on the discretion of the emperor. They could be suspected of fermenting disloyalty if they did not crack down on any instance of suspected subversive activity. Any case that was potentially serious would go to the imperial court in Beijing and be examined by the emperor himself. Provincial governors who did not pass on information to the emperor could be punished themselves. During the Qianlong period, individual officials were made responsible for particular regions and were liable for forbidden books that were later discovered in those regions. Officials were made responsible for omissions made by their staff: “[t]he names, ages, and addresses of suspicious men were transmitted to government offices” (Wang, 2002, 622).⁵⁷

Qing China was governed by a civilian bureaucracy selected from the imperial examination system. Nevertheless, authority remained personalized rather than rule-based. In theory, the authority of the emperor was unconstrained. And this emphasis on the discretionary nature of authority was replicated at lower levels of government.

Individuals guilty of treason were subject to the Qing penal code. The emperor had to approve all death sentences. The proscribed punishment in such cases was death by *Lingchi* (slow slicing). In some cases, the guilty party would be executed by beheading or being sentenced to internal exile. Collective punishment was an important part of the sanctioning of offenders in literary inquisition cases. The extended families of guilty parties were routinely punished by the Qing legal code:

“the culprit would be tortured to death by slicing; his father, uncles, sons and grandsons, his brothers and sons of his brothers who were over the age of fifteenth would be executed; such males under the age of fifteen along with the along with the culprits mother, wife, concubines, daughters, sisters, and daughters-in-law would be enslaved; all properties of the culprit would be confiscated. In cases involving a deceased person, the body of the culprit would be dug out of the grave, the deceased culprit would be decapitated or mutilated, and then displayed. The living family members of the deceased culprit would be executed, or exiled if they were lucky” (Fu, 1994, 134).

Given the emphasis in traditional Confucianism on one’s family, and on maintenance of the family line, this was an important part of the deterrence effect of inquisition cases. In one case, when an offender did not have an extended family to punish, the emperor regretted the fact that just killing the offending individual seemed like insufficient punishment.

Consistent with the emphasis on deterrence, the degradation and mutilation of the bodies of offenders was an important aspect of their punishment as in other premodern societies (Foucault, 2012). This was particularly significant given the importance of maintaining the integrity of the body in traditional Chinese culture.

⁵⁷To the extent that there were periods of more intense paranoia concerning “speech offenses,” such as during the reign of the Qianlong emperor, these are absorbed by decade fixed effects.

Figure A.2: From a Local Incident to a Literary Inquisition Case

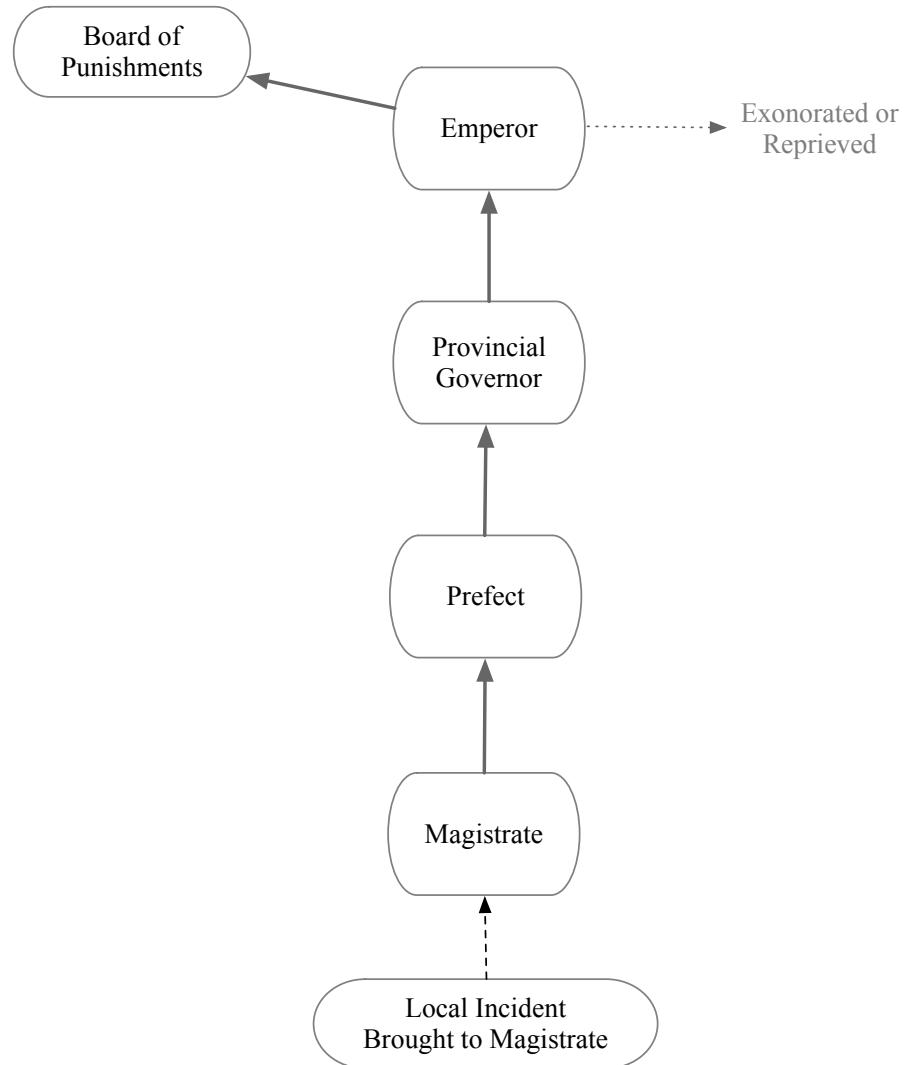


Figure A.3: Literary Inquisition Cases as Presented in *Qingchao wenziyu dang ji*.

清代文字獄檔目錄	
第一輯	
謝濟世著書案	乾隆六年九月起七年正月止
著孫嘉淦查明謝濟世註書員奏諭 實錄 聖訓法祖門卷三十三	一
孫嘉淦奏遷旨查取謝濟世所著書籍板片並銷燬摺 氣機處檔	一
王肇基獻詩案	乾隆十六年八月起本年九月止
阿思哈奏據黑王肇基獻詩緣由摺 繼回硃批檔	五
王肇基是瘋人諭 實錄	五
阿思哈奏訊得王肇基供情大略摺 繼回硃批檔	六
王肇基立斂杖下母妻交地方官安撫諭 實錄	七
阿思哈奏將王肇基杖斂摺 繼回硃批檔	九
丁文彬逆詞案	乾隆十八年六月起本年九月止 本案缺三法司摺二件
孔昭煥奏丁文彬冒稱親戚並搜獲所携書籍摺 軍機處檔	一一

There was some variation in punishment. Of these 86 cases, 74 out of 86 involved public trials in which the accused were investigated for crimes against the state. In over half of the cases (54), the victim was a degree holder. In almost half of the cases, more than one individual was accused and in 38 cases more than three individuals were accused. Celebrated cases, such as the investigation of Zeng Jing in 1728, documented in great detail by Spence (2001), saw dozens of individuals investigated, imprisoned, and enslaved in addition to the eventual execution meted out to Zeng Jing in 1735. The largest inquisition case involved 70 executions and the punishment of over a thousand individuals (the *Case of the History of the Ming Dynasty* or the Zhuang Tinglong Case). My results, however, are not driven by these large-scale persecutions.⁵⁸

The death penalty was employed in almost half of the cases for which I know the methods of punishment. Among the other punishments, individuals could be subject to exile and at least 100 lashes (often equivalent in practice to a death penalty) while in a small minority of cases only the offending writing was destroyed.

Naturally, it would be interesting to explore whether more severe or intensive punishments were associated with a greater deterrence effect. My sample size limits my capacity to explore heterogeneous treatment effects.

D Example Literary Inquisition Cases

The case of Wang Xihou provides a good example of how literary inquisitions were used to generate fear and awe amongst Han intellectuals. Wang Xihou was not disloyal to the regime nor a Ming loyalist of any kind. He came to the attention of the authorities largely by chance,

⁵⁸For example, the *Case of the History of the Ming Dynasty*, for example, is not part of the matched sample.

but once he was brought to the attention of the emperor, he was made an example of (Guy, 1987).

I can study the steps that led to Wang's execution in 1777.

1. The case was first brought to the attention of the magistrate of Xinchang (Wang Xihou's hometown) by Wang Longnan, a village member. Wang Longnan had been banished from the province for fomenting litigation in the past. When he returned, he was reported by Wang Xihou. In return, he accused Wang Xihou of being disloyal to the Manchu regime.
2. Wang Longnan found a statement in the dictionary in which Wang Xihou seemed to cast doubt on the scholarly ability of the Kangxi emperor. Wang Xihou praised the Kangxi dictionary, but he mentioned that having as many as 46,000 characters in a slightly disorganized form, makes it hard to look for any particular word.
3. Having reported these writings to the magistrate, the magistrate in turn reported the case and passed a copy of Wang Xihou's dictionary to the provincial governor of Jiangxi.
4. The governor assigned the dictionary to the consultants of his book bureau who searched the book for questionable passages. This provincial governor, was a Manchu who had been previously commended for finding subversive books. These consultants assessed Wang Xihou's writings and judged that they violated the Great Qing Code but did not constitute treason. They suggests that Wang Xihou's *juren* status should be stripped from him.
5. The Governor did not think the dictionary was too problematic. Nevertheless, fearing the consequence of failing to report a speech crime, he chose to report up the chain of command to the emperor.
6. The Qianlong emperor was extremely offended by Wang Xihou's dictionary. He accused the governor of overlooking and missing other offensive passages.
7. Wang Xihou was ordered to Beijing. His case was passed to the Board of Punishment. As a result, over a hundred individuals were investigated and interrogated. Wang Xihou was executed on 22 December 1777. All his sons were also killed and twenty-one other members of his family were enslaved.
8. The provincial governor, who failed to find anything criminal in Wang's dictionary, was almost executed as well, but escaped with being exiled. Other officials involved in the case were demoted or lost their jobs.

Other examples also confirm that it was not easy for individuals to safeguard themselves from being persecuted. Referring to a case where a writer was accused of using poetic constructions that would inspire hatred of the Manchus, Kuhn (1990, 65) notes that this involved "what even then must have seemed a far-fetched textual construction". There are other cases of individuals who were decidedly not anti-Manchu falling victim to the inquisition.

Fang Bao, for example, was jailed for a preface that he did not in fact write (Schmidt, 2003, 369). Poetry that expressed sadness or regret could be interpreted in political terms.

An important characteristic of literary inquisitions was that magistrates and provincial governors who did not forward suspected inquisition cases to the emperor were themselves charged with failing to do their duty. This exacerbated the arbitrary and idiosyncratic character of the persecutions. In the words of one historian:

“Beyond these there was a host of other things that could get writings banned. Rash fortune-telling and discussion of military strategy could be offenses, as could poetic works with “excessive anger” or “excessive hate,” or even expressions of “sorrow” regarding specific episodes in history. It was a crime to call oneself a non-collaborator, an expression used to refer to adherents of the former dynasty living under a new one without serving it. Use of taboo words and phases, or even nonsensical expressions like “a dog’s wild bark” were offenses. Inappropriate word choice also led to the banning of books. For example, the unauthorized use of “to pardon” or referring to the army that conquered the Ming empire as “Ch’ing (Qing) troops instead of “imperial soldiers” or “the sovereign’s troops” were banned. Careless use of such words as “Han,” “Great Enterprise,” “Ch’ing (Qing), “sun and moon (the components of the character for “Ming”), “barbarian”, “Ming,” and similar words also could be punishable.” (Wang, 2002, 628–629).

This highlights the highly arbitrary and unpredictable nature of persecutions under the Qing and is consistent with the simple model I outline in Appendix 2.

E Books Targeted in the Qing Literary Inquisition

Scholars in imperial China developed the following four-part system of categorization:

- 经: includes books on political and religious doctrines, ethical codes, including the thirteen Confucian classics.⁵⁹ It also includes books that study these classical texts.
- 史: includes various genres of history, geography and laws and studies of institutions. It is divided into 15 categories.
- 子: includes philosophy, military strategy, and Buddhist and Taoist religious writings as well as on Confucianism and Legalism.
- 集: includes collections of essays, poems, lyrics, and lyrics, as well as literary criticisms, operas, etc. It is divided into five categories.

I compare the title of the 60 texts mentioned in the 88 literary inquisition case with 100 random samples of 60 book titles in each of these four genres. I compute text similarity using

⁵⁹Confucianism has thirteen classics : “Book of Changes”, “Book”, “Zhou”, “Book of Rites,” “ritual”, “The Book of Songs”, Spring and Autumn Zuo Zhuan”, “Spring and Autumn Rams”, “Spring and Autumn Valley Liang Chuan”, “The Analects of Confucius”, “Xiao Jing”, “Erya”, “Mencius”.

the gensim package in python in order to assess which category books implicated in literary inquisition cases were most comparable to.

I find that texts mentioned in literary inquisitions are more similar to 集 than to any other genre. This suggests that the authors and writings implicated in literary inquisition cases were not guilty of authoring overtly political works. The books that were involved in literary inquisition cases were often poems, essays, literary criticism. They did not directly criticize Qing rule. Interpreted in the context of the history of esoteric writing in China discussed in Section III, it appears that authors were suspected of hiding subversive thoughts or opinions in non-political writings.

F The Impact of the Literary Inquisition

Inquisition cases were prominent and widely publicized. They involved relatively small numbers of individuals but they had a much larger cultural and psychological impact on society:

“At any point in the Ch’ing (Qing) dynasty, news of major cases traveled quickly and had a capacity to induce fear. Punishment was also arbitrary. The governor of Kiangsi (Jiangxi), Hai-ch’eng (d. 1794), was one of the most thorough investigators of infractions, but he was himself nearly executed after he was judged to have not been vigorous enough in pursuing the *Tzu-kuan* (*Comprehensive dictionary*) case. The crimes in these literary inquisition cases that involved improper political theory, slander of Sung philosophers, whimsical historiography, and so forth might seem trivial, but the severity of the punishments made writers avoid certain topics. This had a great impact on 18th-century intellectual culture” (Wang, 2002, 614).

Moreover, there were more subtle effects as the intellectuals disengaged from the public sphere. Intellectuals in traditional China were responsible for the provision of many basic public goods. And by the Ming period, they had come to play a growing role in the formation of policy and public discourse (Wakeman, 1998). Under the Qing, these developments went into reverse.

I know from other examples that a small number of persecutions can have a large impact. The “chilling effect” that the persecution of Giordano Bruno in 1600 had on scientists in Catholic Europe is well attested to in the historical literature, though the number of scientists actually investigated by the Roman inquisition was very small (Mokyr, 2007). Historians have discussed the consequences of these persecutions for the activity of intellectuals.⁶⁰ My data on reputable individuals across the Qing period allows me to provide the first systematic test of this.

Finally, an important difference between early modern Europe and Qing China is that Europe was comprised of many competing states (Ko, Koyama, and Sng, 2017). Thus Descartes could escape to the Netherlands and Sweden and Rousseau to England (Mokyr, 2007, 2016). But given the vastness of the Qing Empire, this option was not available to Chinese intel-

⁶⁰See Wiens (1969), Huang (1974), and Schmidt (2003) and Gu (2003).

lectuals. Those who fell foul of the emperor could not escape, but rather had to submit to imperial authority.

G Late Ming Intellectual Trends

In the late Ming period, under the influence of Wang Yangming (1472–1529), a more liberal branch of neo-Confucian thinking emphasized the active role scholars could play in local governance. In the late 16th century, Wang Yangming's work became particularly influential and academies flourished in which intellectuals came to play a role in cultivating a nascent public sphere (Bol, 2008). Indeed it is in this context that Mokyr (2016) discusses a possible Late Ming "Chinese Enlightenment". This stream of thought could have led to the development of more useful knowledge and could also have led to the emergence of more liberal political ideas. Bai (2012, 166) notes that "in addition to 'gaining the emperor's ear so as to practice the Way' (de jun xing dao), these Confucians tried to "enlighten the people so as to practice the Way" (jue min xing dao). They established private schools, and cultivated the village gentry (xiang shen), trying to . . . render local communities autonomous".

However, Mokyr notes that "what little there was of a stirring of intellectual progress before 1644 could not survive what de Bary has called the 'Manchu suppression'" (Mokyr, 2016, 322). The Qing actively suppressed the Wang Yangming school. In particular, they felt threatened by the way in which it encouraged horizontal relationships between members of the gentry "as an alternative to filial loyalty to the emperor-patriarch" (Hung, 2011, 36).

Huang Zongxi (1610-1695) can stand as an example of the role played by intellectuals in late Ming China. He was a proponent of the Wang Yangming school of Neo-Confucianism. Huang was also involved with the Fu-she Academy as I note in the main text. He was the author of a history of the first thirteen reigns of the Ming Dynasty and *The Record of the Ming Scholars*, a general history of Chinese philosophy. He condemned unrestrained autocratic rule and his books were associated with the idea that there should be constitutional law and that officials should have the freedom to criticize the emperor.

Huang's most sensitive political works were not published in his lifetime because he feared persecution. Some of his writing, especially those that were most "likely to provoke Manchu reprisals" were entrusted to his followers and only recovered more recently (Huang, 1994, 5).

H Academies and the Nascent Public Sphere in Late Ming China

There was no concept strict equivalent to that of free speech in imperial China. Nevertheless, there was recognition of the importance of intellectual autonomy. Wakeman observes that what intellectuals did claim was "a continuous right of independent judgement within a strictly defined perimeter of values shared with authority" (Wakeman, 1972, 37). This came to the fore in the late Ming period which saw the rise to prominence of public intellectuals who sought to influence political discourse.

These intellectuals were influenced by the liberal wing of Wang Yangming neo-Confucianism. This played a crucial role in shaping the discourse of the literati who gathered in the private academies that proliferated, particularly in southern China. Hung (2011) comments on late-Ming literati who "armed" with a "liberal, populist, and anti-authoritarian ideology," formed "quasi-political associations".

However, this right to independent judgement came under threat during the High Qing period. The Shunzhi emperor (r. 1643-1661) purged the officials and prohibited the establishment of independent academies as they were suspected of encouraging factionalism as, well as fostering discontent. Wakeman notes that as a result of the Literary Inquisition and “heightened imperial autocracy … and growing intellectual conformity”, intellectuals “were awed into submissive clienthood before their grand dynastic patron” (Wakeman, 1998, 175). Wakeman writes: “The public activities of the literati heroes of the Donglin and Fushe movements were looked upon with alarm by the new Qing rulers, who pointed out that the Ming empire had fallen so easily to them because of political factionalism at court and literati bickering in the cities of the South” (Wakeman, 1998, 172). They viewed the prominent private academies of the late Ming period as a source of political disorder and weakness. They did not wish to allow local elites to form political or intellectual associations. Rather, they sought to attach them to and make them dependent on imperial authority.

I Neo-Confucianism

The dominant Qing-era intellectual ideology was neo-Confucianism. Originating during the Song dynasty, a variant of neo-Confucianism was championed by the Qing emperors. In this subsection, I provide more information on the significance of Neo-Confucianism.

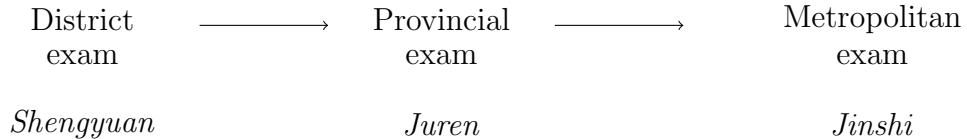
Neo-Confucianism was a philosophical movement that reformulated Confucian ideals in reaction to the ideas of Buddhism and Taoism. As there were many different strands within neo-Confucian thought, neo-Confucianism had two conflicting implications for how scholars thought of imperial authority.

In some respects, neo-Confucianism provided a powerful source of legitimacy for the emperor. In particular, neo-Confucianism stressed the traditional Confucian emphasis on obedience to imperial authority as a natural extension of obedience to the head of the family. This was an important element of the neo-Confucian political teachings associated with the work of Zhu Xi (1130-1200), the most influential neo-Confucian scholar. Filial piety was thus used to mobilize loyalty to the state.

At the same time, however, neo-Confucianism also emphasized that the burden of ruling was the joint responsibility of the emperor and the gentry (Bary, 1983). In this respect, neo-Confucianism set limits to imperial authority. Alan Woods writes: “the ruler’s authority was integrated into a rational view of the universal order that clearly transcended the position of the ruler and to which in fact the ruler himself was made subordinate” (Woods, 1995, 15). Neo-Confucian scholars established an external standard for judging rulers: “whether their actions were guided by the moral conscience (*tian li*), ‘heavenly principle’ or ‘universal coherence’” (Bol, 2008, 129).

The Qing encouraged the more authoritarian interpretations of neo-Confucianism based on the writings of Zhu Xi (Hung, 2011, 81). They sponsored literati who favored orthodox interpretations of neo-Confucianism. The examination system was one way in which they promoted this orthodoxy (Liu, 1990). At least two literary inquisition cases were related to either inappropriate questions or answers or the language used in the exams. Scholars have termed this interpretation of neo-Confucianism “imperial Confucianism”. Qing-era neo-Confucianism advocated blind loyalty to the emperor drawing a direct analogy between it

Figure A.4: The Imperial Examination System



and the pure filial piety a son owed his father.

The Qing rulers used this imperial Confucianism in their propaganda. Government officials and literate members of the public were expected to read the pronouncements of the emperor. Magistrates were required to give lectures based on the *Sacred Edict* authored by the Kangxi emperor in 1670, which emphasized the importance of obedience and filial loyalty. At the village level, local gentry were also required to repeat these lectures to the ordinary population. This practice continued into the 20th century. All in all, these policies thus complemented the literary inquisitions that I have studied in this paper.

J Intellectuals and Gentry in Chinese Society

The majority of victims of literary inquisitions were intellectuals. Intellectuals in this context refers to individuals who passed imperial exams at some point in their life. I refer to these individuals as degree holders. There were three levels of degree holders in Imperial China: district level (*shengyuan*); provincial level (*juren*); and metropolitan level (*jinshi*) (Figure A.4). Together individuals who passed through at least one of these three levels of exams formed the class referred to by historians as the gentry.

The most successful examination graduates from the metropolitan exams became officials and played a crucial role in governing the empire (Elman, 2000). But many others, who did not pass the highest level exams, or were not able to obtain official positions, played an important role in local society. If the gentry are defined as those individuals who passed the distinct level exams, Chang (1955) estimates that during the pre-1850 period, there were approximately 740,000 members of the gentry.

The gentry might superficially resemble the aristocracy of medieval and early modern Europe. But their status differed in important ways. First, in contrast to early modern Europe, there was no hereditary nobility or order of ranks in China (e.g. Doyle, 1992). Unlike Europe, landlords and members of the local elite did not control local legal systems, nor direct local armed forces as these were controlled by the central state. For their children to retain their status, they have to pass the imperial exams. This made them particularly vulnerable to predation from the state.

Second, due to the absence of a hereditary nobility and the importance of the examination system for selection into the bureaucracy, this elite was fluid. Levels of social mobility were high for preindustrial standards (Jiang and Kung, 2015; Bai and Jia, 2016; Shiue, 2018). As a consequence, there was no sharp distinction between elites and masses. Many members of the masses would have aspired to become members of gentry and many of them indeed became so. The gentry were less a different social class, than a category that all could aspire to belong to.

Third, though there were certain minor privileges for degree holders, members of the local elite had the same legal status as commoners: both were subject to the Qing penal code.⁶¹

A final defining characteristic of the gentry was that they were educated in the Confucian classics. As such, they were aware of the tensions and ambiguities in the Confucian tradition that I have discussed in Appendix 1.I.

On the one hand, Confucian scholars recognized the importance of upholding the political and social order. They taught obedience to established political authority. On the other hand, there were elements of Confucian thought that had the potential to undermine the authority of the Qing emperors because they denigrated non-Chinese as barbarians and praised the role of the emperor in subduing them. These classics emphasized that the fact that the authority of previous dynasties had partially rested on protecting the Chinese from nomadic invasion by “barbarians” like the Manchus. Earlier emperors claimed the “mandate of heaven” on the basis of their ability to secure internal peace and guard the borders against incursions from nomadic, non-Chinese people (Ma, 2011). However, now it was a non-Han people, the Manchu who ruled the Chinese.⁶² Philip Kuhn writes:

“However, cunningly the conquerors might frame the rhetoric of succession (a virtuous regime replacing a corrupt one was the conventional rhetoric of the Mandate of Heaven), there was always the danger that the symbolism of legitimate rule might be challenged by the ugly ethnic feelings: the claim that these rulers were usurpers precisely because they were outsiders” (Kuhn, 1990, 53).

It was this tension and sensitivity that drove the Qing emperors to both promote the orthodox interpretations of the classics and to persecute any deviations from ideological orthodoxy.

K Qing-era Intellectual Developments

As discussed by numerous scholars such as Huang (1974), the Qing period was one in which the state imposed severe restrictions on intellectual freedom. While “orthodox doctrines were promoted to achieve ideological conformity, literary inquisition was used to intimidate nonconformists. Both manifested the autocrat’s passion for conformity and uniformity, which would enhance his political authority” (Huang, 1974, 204)

At the same time, there were important intellectual developments in this period, notably the rise of “evidentiary scholarship” as emphasized by scholars in the New Qing history such as Elman (2001) and Elman (2002a). Numerous scholars have discussed the significance of this shift towards philological and evidentiary learning and away from metaphysics in this Qing period (see Huters, 1987).

I do not claim that there was an intellectual decline in the Qing period. Rather, my evidence is consistent with a shift in the focus of scholarship towards less risky themes.

⁶¹For instance, members of gentry were not allowed to possess books or material prohibited to the masses. This is in contrast to western Europe, where possession of forbidden books by elites was sometimes tolerated.

⁶²See Brook (1988, 177–178). This animosity long preceded the Qing dynasty. It was firmly established from the Song dynasty onwards (see Rossabi, 1983; Ebrey, 1991; Ge, 2004).

L Local Charities in Qing China

My main dependent variable in the historical panel is the number of local charities at the prefecture level. Local charities provided charitable relief which included famine relief, help for the indigent, support of orphans, as well as helping widows, burying unclaimed dead, establishing soup kitchens, extending zero-interest credit, organizing fire protection, and providing refuge for the poor during winter (Tsu, 1912; Smith, 1987).

Traditionally, these services were provided within the clan, and to an extent by the state, especially during the Song dynasty. However, by the Ming and Qing periods these private local charities were no longer clan-based organizations and had expanded to provide relief to those outside of the kinship group. Confucianism did not go as far as Christianity and Islam in making charitable donations a requirement but it did elevate charitable giving as a virtue (see Tsu, 1912). William Rowe writes:

“One of the most distinctive Qing-era expressions of the passion for organization-building was in the area of philanthropy. Turning away from Buddhist and toward orthodox Confucian ideologies to underpin this activity, Qing society clearly articulated the concept of a ‘public’ or ‘communal’ sphere, as opposed to a ‘state’ or ‘private’ sphere, as both the agent and the beneficiary of philanthropic activism” (Rowe, 2009, 119).

These developments resulted in the emergence of local elites who were “committed to a Confucian agenda of activities” and who were responsible for creating “granaries, schools, charitable estates, and village compacts” (Wong, 2000, 250).

A variety of terms are used to refer to these local charities including benevolent societies and charity halls, which reflects the fact that they were often housed in fairly simple buildings. Charities combined elements of formal and informal institutions. They drew on the voluntary contributions of local individuals. Charities did not possess complex, formalized, organizational forms. Nonetheless, they played a vital role in Chinese society. In the words of one historian, they were “locally sponsored, voluntary, and enduring” (Smith, 1987, 310). For instance, local charities were often orphanages, as illustrated in Figure A.5.

The desire to form a charitable organization or benevolent society reflected, as Rankin observes, a mixture of motives including “the wealthy elite’s preoccupation with gaining merit through charity (*shan*) and the tendency of scholars to seek “statecraft” solutions to social problems within their home districts outside of the government” (Rankin, 1990, 30). Local elites aspired to be seen to be public-spirited, charitable, and community-minded as opposed to selfish or avaricious. The establishment of a local charity was often commemorated in a stele. Thus though the “attribution of high moral character to local elites engaged in the public sphere does not have to be taken literally”, she notes that “it does reflect the reality that managers were frequently drawn from respectable, even prominent, social networks or from the ranks of upwardly mobile men seeking to solidify their local social positions by demonstrating their (sometimes new-found) capacity for public responsibility” (Rankin, 1990, 39).

Smith (1987) provide an example of how the desire to stand out led to the building of charitable societies. After the establishment of a charitable organization or benevolent society

Figure A.5: An Orphanage in Suzhou.



Wet nurses are gathered in front of the orphanage. The orphanage is located near a temple. Sources: Fuma (1986).

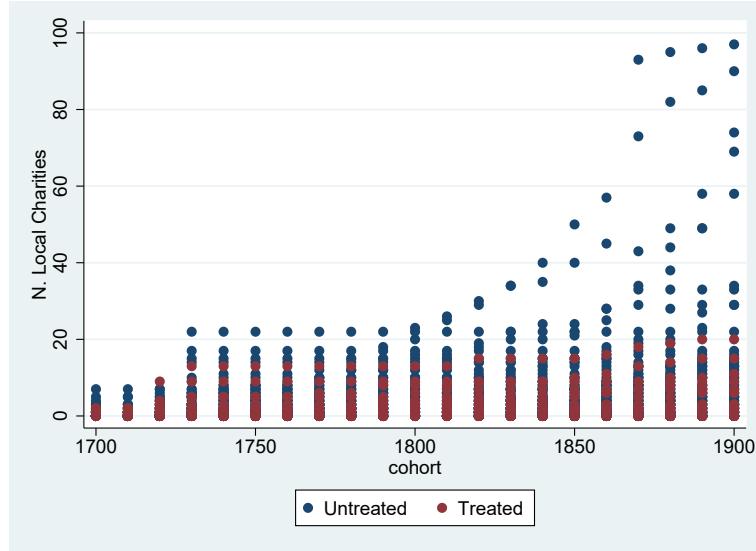
by Yang Tung-ming:

"In the following year, 1591, thirty-one residents—virtually 'all the rich and powerful of the city' (Yang 1624, 1:9b)—so admired Yang's benevolent society that they formed a second one, which successfully sponsored medical care for the poor. Having thus 'rivaled the Society for Sharing Goodness in charitableness' this society proudly assumed the name 'Society for Spreading Humaneness' (kuang-jen hui; Yang 1624, 1:9b–10a). In summarizing the accomplishments of the two societies that graced his 'small town,' Yang observed, 'By treating one person with exceptional generosity, one can transform [the customs of] ten thousand people' (Yang 1624, 1: 12a). The distribution of wealth even in very limited amounts had, according to Yang, the power to achieve the moral integration of his community" (quoted in Smith, 1987, 312).

Among historians there is debate about the role played by the state in supporting local charities (see Wong, 2000). Local charities were the responsibility of the local gentry, who were typically not officials. Smith notes that "The Ming-Qing institutions were based on the voluntary support of local elites, which included merchants and farmers as well as scholars and members of the gentry." (Smith, 1987, 310). Partly for this reason, scholars such as Rankin (1990) and Rowe (2009) argue that these organizations formed part of the nascent public sphere that emerged in early modern China and were separate and distinct from the state. According to Rankin (1990, 20), it was part of

"a broader manifestation of societal public activity [that] involved all the practices of local elites in establishing, financing, and managing institutions and services

Figure A.6: Charity Formation in Treated and Untreated Prefectures



The figure reports charity formation in prefectures treated by literary inquisitions and those untreated on the matched sample.

considered necessary to local communities. This activity took place outside of bureaucratic frameworks and was oriented to the community as a whole rather than to any particular segment.”

After 1840 local charities went through a phase of growth across China. This was in part due to local regions gaining more autonomy, and to the influence of the West. An interesting question here is: how civil society would have developed in China in the absence of literary inquisitions. At the national level, this counterfactual is impossible to assess. But my findings suggest that local charities in affected prefectures would have followed a very different path and that the number of local charities would have been much higher for those prefectures after 1840.

Figure A.6 illustrates the trends in the raw data by simply plotting the formation of new charities in treated and untreated prefectures in the matched sample. Given that those prefectures were quite advanced regions that had high literary and were economically developed,⁶³ the consequences of political repression—a stunted civil society and discouraged intellectuals—led to a much smaller role for these regions in national politics, despite their superior economic position.⁶⁴

⁶³ As revealed by their pretreatment characteristics before my matching exercise.

⁶⁴ But I cannot fully assess the impact of the Qing persecutions on the economically and politically most advanced part of China, the Yangtze Delta region, as this is the hardest region to build a counterfactual for, due to the absence of a suitable comparison group. The region was unrivaled by any other region with regards to its economic prosperity and population density.

M Ethnic Identity in Qing China

Economists have documented that ethnic fractionalization is an important source of political tensions and economic underperformance in developing countries today (Easterly and Levine, 1997). Recent research further suggests that a lack of history of shared and centralized governance between groups can also be responsible for the adverse outcomes associated with the coexistence of different ethnic groups (Michalopoulos and Papaioannou, 2013; Dippel, 2014; Hao and Xue, 2017).

The Qing Empire was a conquest regime comprised of a tiny number of Manchus who were able to rule the most populous nation in the world. Han Chinese accounted for over 90% of the population across Qing China, and over 95% of the population in China proper. The Manchus spoke their own language and retained their own culture and traditions. In this subsection, I provide more detail about the role played by ethnicity in the Qing regime.

The topic of ethnicity in Qing China is a subject of considerable controversy (Crossley, 1990a, 1990b, 1999; Crossley, Siu, and Sutton, 2006; Elliott, 2001; Elliott, 2006). The scholarship of the last three decades has stressed the extent to which ethnic identities are social and political constructs. Thus identities like Manchu or Han Chinese were fluid and do not correspond to racial differences. The label Manchu itself was coined to refer to the new Manchu state. The term referred to those individuals who served as bannermen for the Manchu rulers; it did not include all Jurchens and could include Mongols and northerners of Chinese descent who joined the Manchus early on (Elliott, 2001; Crossley, 1999).

The Qing Empire was a self-consciously multi-ethnic empire. The Qing emperor was both a Chinese emperor, and a ruler in the steppe tradition of the first Manchu leader Nurhaci, and of Genghis Khan. Philip Kuhn observed that:

“The rhetoric employed by the Manchu rulers displayed both the cosmopolitanism of the universal empire and the narrow defensiveness of the ethnic minority. As a minority people ruling a great empire, the Manchu minority had to have it both ways: they had to express their superiority in both a cosmopolitan mode and an ethnic mode. Both were needed to solve the regime’s basic problem: how to rule the universal empire as a legitimate dynastic house, and still preserve the coherence and élan of the conquest elite” (Kuhn, 1990, 60).

These tensions were particularly acute during the Manchu take-over of China. Large numbers of Chinese “turncoat” or “collaborators” joined the Qing during the 1620s through to the 1640s; they are described as “special wards to be ‘nourished’ by the state” (Wakeman, 1985a, 70). Many Chinese joined Manchu banner troops or served as slaves or servants. Individuals in Liaodong for example—a Chinese-speaking area north of the Great Wall served in both the Ming and the Qing armies in the 17th century. They were able to smoothly transition from an allegiance to the Ming state to the Qing precisely because of their shared history and geographic and cultural proximity to the Jurchen people. Nevertheless, tensions between Manchu and Chinese identities remained potent. These tensions moved into the background once Qing rule was stabilized in the 1650s, but never receded completely.

N Comparison with the Spanish Inquisition

Vidal-Robert (2014) studies the long-run impact of the Spanish Inquisition in early modern Spain. He finds that the Spanish Inquisition reduced population growth in early modern Spain. The Spanish Inquisition, however, was very different to the Qing Literary Inquisition despite the superficial similarity evoked by the common word “inquisition”. The main target of the Spanish Inquisition, in its initial, and most intense phase, were converted Jews (and their descendants) (Kamen, 1985; Netanyahu, 1995; Rawlings, 2006). Subsequently, the Inquisition targeted homosexuals, bigamists, and social outsiders. As such, I would not necessarily expect it to have the same impact as the Qing-era persecutions.

In contrast, aspects of the literary inquisitions do have a parallel in persecutions conducted by the Roman inquisition of the writers, scientists, doctors, and intellectuals in the 16th and 17th century. Like the Qing Literary Inquisition, these involved relatively small numbers of individuals, but they did have a major impact on intellectuals and writers in Catholic Europe (Anderson, 2015). Historians suggest that the persecution of Giordano Bruno and Galileo had a discernible “chilling effect” across in Catholic Europe.⁶⁵

⁶⁵See discussion in Parker (1982), Mokyr (2007), and Anderson (2015).

2 A SIGNALING MODEL OF POLITICAL PERSECUTIONS

To build intuition for my analysis, I sketch a simple signaling model of political persecutions in Qing China.

A Setup

Consider a simple signaling model of persecutions. There are two types of players: a ruler and a representative member of the population. As my focus is not on the ability of citizens to coordinate among themselves, I model the population as a single entity represented by one agent. A more general model could draw on the literature on global games to incorporate the coordination problem facing individuals in deciding whether to rebel against the emperor.⁶⁶ This is not the focus of my analysis here.

The ruler is endowed with strength $\theta_i \in \{S, W\}$, that is, he can be strong (S) or weak (W). This strength refers to the ruler's ability to maintain social control and capacity to enforce political order, hence $1 > S > W > 0$. Δ measures the perceived legitimacy of the regime. A regime that is perceived as more legitimate can more easily survive challenges. For the purpose of studying imperial China, one can think of legitimacy as a trait that pertains to dynasties as much as a particular emperor. Δ is common knowledge.⁶⁷ Therefore, when the ruler faces a rebellion by the citizen, he will survive with probability $S + \Delta$ if his strength is S , and survive with probability $W + \Delta$ if his strength is W . I call the type S ruler a strong ruler and the type W ruler a weak ruler. The ruler's strength is private information. I label a ruler who is both illegitimate and strong as despotic.

The citizen has a prior belief that the ruler's type, θ , is S with probability π and W with probability $1 - \pi$. If the ruler stays in power, he obtains 1. To make the analysis as simple as possible, assume that the cost of suppressing a rebellion reflects the resources and capability of the regime and has therefore been incorporated into the probability of surviving the rebellion.

I focus on the role political persecutions can play in signaling strength. The ruler can choose how many individuals to persecute. The cost of persecuting for a type θ ruler is $c(p, \theta)$, where both the total and marginal cost of persecutions are increasing, and both total and marginal costs are lower for the strong type, S . The twice differentiable cost function satisfies $c_p(0, \theta) = 0$, $c_p(p, \theta) > 0$, $c_{pp}(p, \theta) > 0$, and $c_p(p, W) > c_p(p, S)$. It is easier for a strong ruler to both persecute a given number of individuals and to persecute more individuals. This is the canonical single crossing condition.

This assumption can be interpreted in terms of the administrative capacity of a regime. A regime that has higher state capacity can more easily carry out persecutions than can a weak regime. Alternatively, another interpretation of the single crossing condition is that though costly, persecutions make a strong regime more stable while for a weak regime they make it less stable.

⁶⁶Recently global games have been used to study revolutions (see Edmond, 2013).

⁶⁷ Δ is also unaffected by a ruler's actions. Therefore, in my model it is not possible for "too many" persecutions to "delegitimatize" the ruler. This extension could be easily added at the cost of additional notation by modifying the cost function.

The individual citizen can choose action $a \in \{0, 1\}$, where $a = 0$ refers to not rebelling and $a = 1$ to rebelling against the emperor. If the citizen rebels, they pay a cost of r regardless of the outcome of the rebellion. If the rebellion is successful, the citizen obtains a benefit of b . I normalize the utility of living under the current regime to 0. I could include the direct cost of persecutions (i.e. the risk of being persecuted oneself), but this complicates my notation without substantively affecting analysis.

The utility of the ruler is denoted by $U_R(\theta)$ while the utility of the citizen is denoted by $U_c(\theta)$ as follows:

$$U_R(\theta) = \begin{cases} 1 - c(p, \theta), & \text{if } a = 0; \\ \theta - c(p, \theta) & \text{if } a = 1. \end{cases} \quad (4)$$

$$U_c(\theta) = \begin{cases} 0, & \text{if } a = 0; \\ b(1 - \theta - \Delta) - r & \text{if } a = 1. \end{cases} \quad (5)$$

The timing of the game is as follows:

1. Nature determines the ruler's type θ and the value of Δ and r .
2. The ruler decides how many individuals to persecute.
3. After observing the number of persecutions, the citizen will decide to rebel based on his beliefs about the strength of the ruler.
4. Payoffs are realized.

B Equilibrium

As this is a game of asymmetric information, the solution concept is a Perfect Bayesian Nash Equilibrium (PBE). There are several cases to consider.

Case 1 Suppose Δ is greater than $1 - W - \frac{r}{b}$ (case 1). In this case, the regime is perceived as legitimate and both weak and stronger rulers are safe from rebellion. There is no incentive for either ruler type to engage in political persecutions. There is a trivial pooling equilibrium.

Case 2 Consider the case where Δ is uniformly distributed on $[1 - S - \frac{r}{b}, 1 - W - \frac{r}{b}]$. Hence there will be a rebellion against a ruler who is known to be weak. If the citizen is unable to tell whether a ruler is strong or weak, the citizen will rebel if r is lower than $\pi b(1 - S - \Delta) + (1 - \pi)b(1 - W - \Delta)$ and not rebel otherwise. This means that the probability of rebellion is $1 - \pi$.

Case 3 If Δ or r are such that $1 - S - \frac{r}{b}$, then both strong and weak regimes types face a rebellion and neither have an incentive to engage in political persecutions. There is a trivial pooling equilibrium.

I focus on Case 2 as this is the most relevant scenario for my historical setting. Consider the following candidate equilibrium: The citizen rebels if he observes the ruler's type is W , and does not rebel if he observes the ruler's type is S . Since in this equilibrium the weak ruler's type is revealed, there is no point in persecuting, and hence it will choose $p = 0$. Let the equilibrium number of persecutions conducted by the strong ruler be p^* . It has to be the case that the weak ruler prefers to face the risk of rebellion associated with being perceived as weak and obtain $(W - \Delta)$ than to pass as strong and persecute p^* individuals. To ensure that there are no deviations from these strategies, the following conditions need to both hold:

$$\begin{aligned} U_R^*(S) &= 1 - c(p^*, S) \geq S - \Delta ; \\ U_R^*(W) &= W - \Delta \geq 1 - c(p^*, W) . \end{aligned} \quad (6)$$

To ensure that there is indeed no incentive to deviate from this candidate equilibrium, define \underline{p} implicitly as satisfying: $1 - c(\underline{p}, W) = W$ as the number of persecutions at which a weak ruler is indifferent between persecuting and attempting to pass as a strong ruler and not persecuting and being known to be weak. Define \bar{p} as satisfying $1 - c(\bar{p}, S) = S$. \bar{p} is the maximum number of persecutions a strong government is willing to engage in and be known as strong. At \bar{p} , a strong ruler is indifferent between engaging in no persecutions and being perceived to be weak. The equilibrium level of persecutions in the separating equilibrium p^* can correspond to any level of persecutions between \underline{p} and \bar{p} if it is supported by the following beliefs:

$$\mu(\theta_S) = \begin{cases} 0 & \text{if } p < p^* ; \\ 1 & \text{otherwise .} \end{cases}$$

Together these form a PBE. Observe that though any value of p^* between \underline{p} and \bar{p} can support a separating equilibrium, the only value of p^* consistent with the intuitive criterion is $p^* = \underline{p}$. Hence I can establish the following.

Proposition 1. *For values of $\Delta \in [(1 - S - \frac{r}{b}), (1 - W - \frac{r}{b})]$, there is a unique separating PBE that satisfies the Intuitive Criterion, in which the strong ruler chooses a level of persecutions that solves $1 - c(p^*, W) = W$ and the weak ruler chooses no persecutions ($p = 0$). The citizen will not rebel if the observed level of persecution is p^* or higher, and rebel otherwise.*

No pooling equilibrium can satisfy minimal restrictions on out-of-equilibrium beliefs. In a pooling equilibrium, the citizen cannot tell whether the ruler is strong or weak from the number of individuals it persecutes, and so treats the ruler as being weak with probability $1 - \pi$. Suppose the two types of ruler pool at p^* , their payoffs are then respectively

$$U_g^*(S) = \pi + (1 - \pi)(S - \Delta) - c(p^*, S) ; \quad (7)$$

$$U_R^*(W) = \pi + (1 - \pi)(W - \Delta) - c(p^*, W) . \quad (8)$$

Let \tilde{p} be the highest number of persecutions a weak ruler will carry out in a pooling equilibrium: $\pi + (1 - \pi)(W - \Delta) - c(\tilde{p}, W) = (W - \Delta)$. The following beliefs support persecutions

in a pooling equilibrium for any $p^* \in [0, \tilde{p}]$;

$$\mu(\theta_S) = \begin{cases} \pi & \text{if } p = p^* \\ 0 & \text{otherwise} \end{cases}.$$

This can be part of a PBE but it requires unappealing out of equilibrium beliefs. More formally, it can be shown that no pooling equilibrium survives the Intuitive Criterion. Define p' which is greater than p^* by:

$$\pi + (1 - \pi)(W - \Delta) - c(p^*, W) = 1 - c(p', W),$$

where p' is the highest number of persecutions that a weak ruler is willing to engage in if it is mistaken for a strong ruler. But if this is the case, then a ruler who is strong will benefit from deviating to p' . Thus this pooling equilibrium fails the intuitive criterion because it requires the citizen to believe that only weak and not strong rulers would deviate to p' .⁶⁸

Proposition 1 gives rise to the following corollaries:

Corollary 1. *Persecutions are more likely when the legitimacy of the dynasty is questionable (Δ is low).*

In my model persecutions are not responses to either realized threats or to other shocks. They are a way to signal the strength of the ruler. This observation is consistent with the history of Qing dynasty. The Qing dynasty was strong in the 18th century. It faced no significant external threats or major rebellions during the 18th century (certainly not until the White Lotus Rebellion (1794–1805) which took place at the end of the century, after the period of the Literary Inquisition). The emperors in this period used literary inquisitions to deter the smallest hint of opposition.

Corollary 2. *Despotic rulers are mostly likely to use persecutions. This follows from Corollary 1 and from the fact that in equilibrium weak rulers do not use persecutions.*

This accords with the historical evidence. The Literary Inquisition took place during the High Qing period. The Kangxi emperor, the Yongzheng emperor, and the Qianlong emperor were amongst the most powerful and successful rulers in Chinese history. The emperors who followed them, the Jiaqing emperor (r. 1796–1820), the Daoguang emperor (r. 1820–1850), and the Xianfeng emperor (r. 1850–1861) were notably weaker and less successful rulers and they did not engage in persecutions.

⁶⁸To see this, note that the pooling equilibrium requires a citizen to believe that any ruler to deviates from p^* to $p' > p^*$ is weak. However, strong rulers have a greater incentive to deviate to p' if

$$\pi + (1 - \pi)(S - \Delta) - c(p^*, S) < 1 - c(p', S).$$

which is equivalent to:

$$c(p^*, W) - c(p^*, S) < c(p', W) - c(p', S).$$

and hence always holds as $p' > p^*$ and $c(p, S) < c(p, W)$.

Note that in my model there is only a single actor so it follows by definition that persecutions are indiscriminate. The important observation is that in equilibrium there is no open opposition. Hence the emperor is not able to selectively target enemies for persecution and instead relied on inquisitions to signal his ability to seek out and crush any potential opposition.

Finally, note that my model is intended to rationalize political repression in a premodern state. Even a *relatively* high capacity premodern state like 18th century Qing China was not comparable to a modern state in terms of its ability to monitor individual behavior or conduct wholesale purges.

3 EMPIRICAL APPENDIX

In this appendix I first present summary statistics (Section A) before explaining in detail the matching and sample construction procedures (Section B).

In Section C I provide a detailed analysis of the impact of literary inquisitions on the number of reputable individuals.

Section D provides robustness checks for the historical panel. This includes using 50-year time periods, a different definition of literary inquisitions, and correcting for spatial autocorrelation. I also analyze alternative outcome variables and heterogeneous effects.

I conduct robustness checks for the 20th century analysis in Section E. In particular, I show that my results on basic education are not driven by other shocks such as the Taiping Rebellion, the Communist Revolution, or the Cultural Revolution. In Section G I conduct an instrumental variable analysis. I examine two different instruments and find comparable results to my OLS estimates.

In Section H I provide further details on the main dependent variables used in my analysis. In Section I I provide information on my main control variables.

A *Summary Statistics*

I provide summary statistics for the historical panel in Table A.2. Summary statistics for my 20th century analysis are presented in Table A.3.

Table A.2: Summary Statistics for the Historical Panel

Variable	Mean	Std. Dev.	Min.	Max.	N
Literary Inquisition	0.077	0.267	0	1	1417
# Local Charities	2.679	4.218	0	30	1417
# Reputable Individuals Aged 15 to 30	2.476	4.819	0	51	1417
# Reputable Individuals Aged 31 to 45	2.2	4.283	0	46	1417
# Reputable Individuals Aged 46 to 60	2.13	4.11	0	42	1417
# Government-Sponsored Academies	6.809	5.647	0	29	1417
# Degree Holders (<i>Jinshi</i>)	3.715	6.183	0	70	1417
# Degree Holders (<i>Juren</i>)	19.037	24.42	0	236	1183
Time-Invariant Controls					
Log Population Density in 1600	3.498	0.922	1.364	5.37	109
Agricultural Suitability	4.009	1.63	2	8	109
Ruggedness	4.532	3.102	0.103	15.552	109
Longitude	113.729	4.243	102.71	121.099	109
Latitude	31.088	5.317	20.008	40.966	109
# Ming Degee Holders (<i>Jinshi</i>)	75.761	83.965	1	533	109
# Ming Academies	4.156	3.885	0	17	109
# Local Charities in 1700	0.459	1.093	0	7	109
# Buddhist Temples in 1700	9.477	7.544	0	60	109
# Funding Agencies in 1700	0.275	1.193	0	11	109
Linguistic Fragmentation Index	0.104	0.177	0	0.699	108
1st Principal Component of Initial Social Capital	0.241	1.119	-0.919	4.639	109
Urbanization (1393)	8.549	7.475	0	59.1	75
On Grand Canal/Yangtze	0.862	0.346	0	1	109
Distance to the Nearest Imperial Courier Route	39.934	73.875	0	402.712	109
# Conflicts 1644 to 1690	2.606	2.832	0	13	109
# Ming Loyalists	1.193	3.105	0	24	109
Distance to Beijing	1017.389	555.199	0	2255.115	109
<i>Shengyuan</i> Quota	115.269	56.739	37	422	108
Time-Varying Controls					
Disaster Intensity	0.611	0.266	0	1.4	1339
# Conflicts	0.045	0.257	0	4	1308
Disaster Relief	4.123	9.738	0	104	1404
Tax Relief	9.092	16.855	0	162	1391
# Degree Holders (<i>Jinshi</i>)	3.715	6.183	0	70	1417

Table A.3: Summary Statistics for Analysis of Basic Education in the Early 20th Century

Variable	Mean	Std. Dev.	Min.	Max.	N
Literate	0.153	0.36	0	1	72659
Literary Inquisition	0.139	0.348	0	1	72
Individual Controls					
Secondary Education	0.027	0.162	0	1	72659
Higher Education	0.003	0.05	0	1	72659
Female	0.603	0.489	0	1	72659
# Married Couples in Household	0.851	0.686	0	6	72659
Single	0.012	0.11	0	1	72659
Married	0.331	0.47	0	1	72659
Separated/Divorced	0.006	0.075	0	1	72659
Widowed	0.651	0.477	0	1	72659
Unknown/Missing	0	0.004	0	1	72659
Contemporary Characteristics					
Population 1982	4227607	3584138	221621	22677512	72
% Manchu	14.681	78.822	0	667	72
% Over 65	4.977	0.769	2.767	6.4	72
Historical and Geographical Characteristics					
Agricultural Suitability	4.056	1.618	2	7	72
Coastal	0.167	0.375	0	1	72
Ruggedness	4.349	3.153	0.11	13.071	72
Distance to Beijing	949.489	581.09	0	2255.114	72
Population Density 1820	762.612	586.222	13.378	3118.766	72
Per Capita Taxation in 1820	0.088	0.065	0.016	0.316	72
<i>Shengyuan</i> Quota (per 10,000)	0.929	0.651	0.285	3.979	72
Degree Holder (<i>Jinshi</i>) Density (1366-1905)	1.256	1.512	0.145	10.252	72
Distance to Nearest Imperial Courier Route	35.918	71.502	0	356.48	72
On Grand Canal/Yangtze	0.139	0.348	0	1	72
Treaty Port	0.083	0.278	0	1	72
Transportation Center (Chong)	0.75	0.436	0	1	72
Business Center (Fan)	0.694	0.464	0	1	72
Difficult to Tax (Pi)	0.222	0.419	0	1	72
High Crime (Nan)	0.667	0.475	0	1	72
Cultural Rev. Deaths p.c. (V1)	20.306	41.584	0	205.25	72
Cultural Rev. Deaths p.c. (V2)	85.758	96.715	0	593.75	72
Occupied by Taiping Troops	0.097	0.298	0	1	72
Months Occupied by Taping Troops	3.743	17.936	0	135.426	72

Table A.4: Number of Cases by Province

	Number of Affected Prefectures	Number of Cases
Anhui	4	7
Fujian	4	4
Gansu	1	1
Guangdong	3	3
Guangxi	2	4
Henan	2	2
Hubei	5	7
Hunan	6	10
Jiangsu	5	12
Jiangxi	6	10
Shandong	3	4
Shanxi	5	5
Zhejiang	7	11
Zhili	4	4
Total	57	84

This table depicts the distribution of literary inquisitions across provinces. There are a total of 86 cases, two of which cannot be assigned to a specific province.

B Matching, Balancedness, and Data Construction

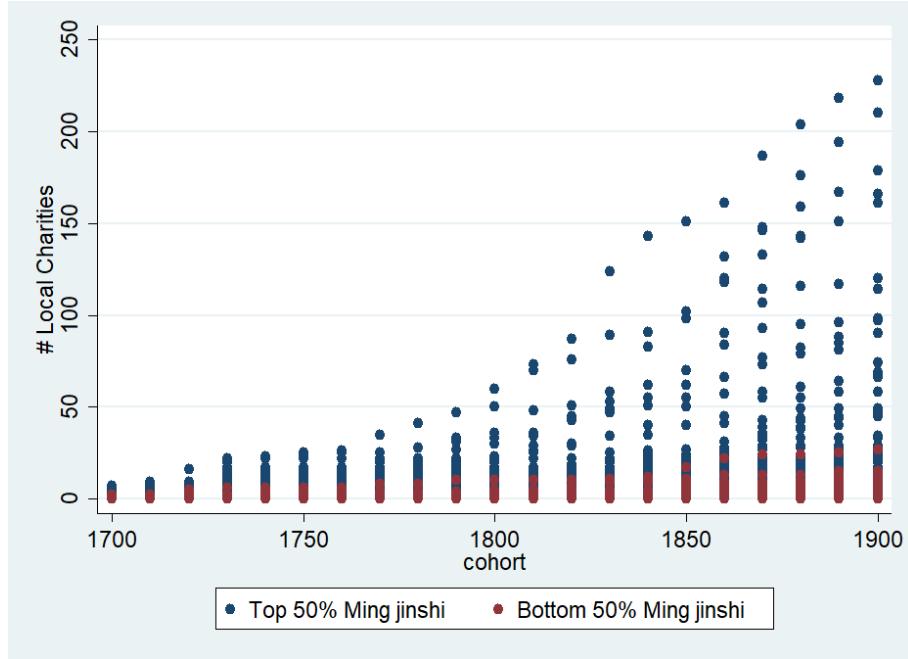
My empirical strategy utilizes a matching approach. This approach is vital in my setting as a difference-in-differences approach requires the parallel trend assumption. This states that in the absence of treatment, average outcomes for the treated and control groups would have followed parallel trends over time (Abadie, 2005). Matching creates a control pool which is similar to the treated group (Heckman, Ichimura, and Todd, 1997; Heckman, Ichimura, and Todd, 1998; Blundell and Monica, 2000; Dehejia and Wahba, 2002; Blundell and Dias, 2009).

To demonstrate why a matching approach is essential, in Figure A.7 I contrast the charity formation in prefectures with the top 50 percentage of Ming *jinshi* to those in the bottom 50 percentage. The number of charities and the rate of charity formation were radically different in these prefectures and as literary inquisitions were more likely to occur in prefectures with more literate and educated individuals, a raw comparison of treated and untreated prefectures in the full sample will be highly misleading (see Kahn-Lang and Lang, 2018).⁶⁹

The heterogeneity in my units of observations is evident in Table A.6 which depicts the balance of economic, geographical, and human capital fundamentals across treated and untreated prefectures before and after matching. First, I exclude frontier regions that experienced rapid in-migration during the Qing period. Nevertheless, differences in observables

⁶⁹Using an unmatched sample, as expected, the estimates are positive. As I add more controls for pretreatment characteristics interacted with time trends, the estimates become increasingly more negative, indicating the importance of properly addressing pre-existing differences between affected and unaffected prefectures.

Figure A.7: Charity Formation in Prefectures with the Top 50% and Bottom 50% of Ming Degree Holders (Jinshi).



remain (Table A.6.(b)). Next, I match my prefectures on a range of covariates using propensity score matching.

I generate a propensity score for each prefecture by estimating:

$$Prob(\text{Literary Inquisition}_i = 1) = F(X_i), \quad (9)$$

where $Prob$ is the probability that a prefecture experienced a literary inquisition case and X_i is my vector of covariates.

I employ a parsimonious set of matching covariates. These include geographical variables such as ruggedness and agricultural suitability and economic variables such as Skinner's socioeconomic macroregions, the log of population in 1600 and the number of Ming *jinshi*, a measure of the level of human capital in a prefecture (Table A.5). The number of Ming *jinshi* is a key predictor of literary inquisition cases. The variable alone accounts for a R^2 of 0.165.

I use a relatively tight caliper ($=0.002$). A tight caliper has been shown to reduce bias and produce closer matches (Lunt, 2014). The distribution of propensity scores for treated and untreated prefectures are similar (Figure A.8.a and Figure A.8.b). In addition, as shown in Figure A.8.c and Figure A.8.d, the distribution of treated and untreated prefectures are no longer similar to each other.

After matching, as Table A.6.(c) indicates, I obtain a balanced sample.⁷⁰ The matched

⁷⁰Note that matching reduces the number of treated prefectures from 57 to 19. Of course some treated and untreated prefectures are fundamentally different in their stock of human capital. As a result, there is no natural control group for some of the most economically developed, prosperous, and highly educated

Table A.5: Coefficients of Matching Covariates

Covariate		Covariate	
# Ming <i>Jinshi</i>	0.0663**	North China	0.0129
Agricultural Suitability	-0.0185	Northwest China	0.263
Log Population Density in 1600	0.0450	Upper Yangtze	0.207*
# Imperial Courier Routes	0.0203	Middle Yangtze	0.256**
Ruggedness (2nd quartile)	0.116	Lower Yangtze	0.158
Ruggedness (3rd quartile)	0.0783	Southeast Coast	0.115
Ruggedness (4th quartile)	0.00522	Lingnan	0.0454

This table reports the coefficients of matching covariates. The omitted categories are the first quartile of ruggedness and Northeast China. There are 217 observations. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure A.8: Propensity Score Matching: Varying Caliper Width

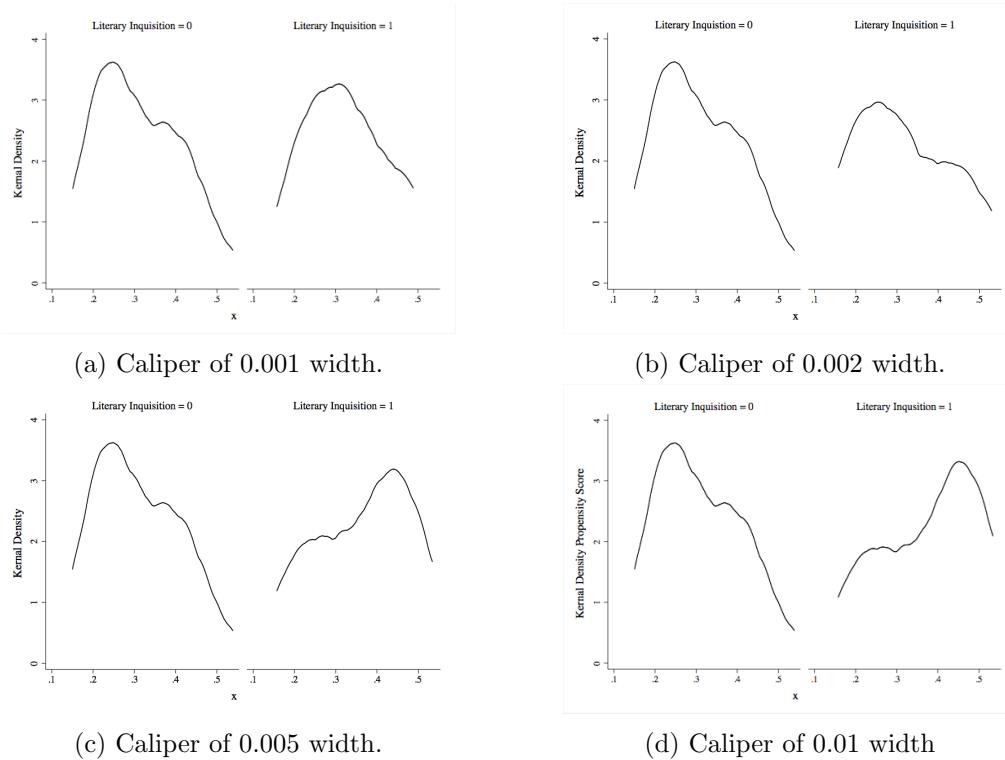


Table A.6: Balancedness of the Sample: Matching Covariates

(a) Before Matching					
Variables	No Literary Inquisition		Literary Inquisition		Diff. in Means
	Obs.	Mean	Obs.	Mean	
# Ming Degree Holders (<i>jinshi</i>)	208	2.652	57	4.544	-1.892***
Agricultural Suitability	208	3.760	57	4.368	-0.609**
Log Population Density in 1600	208	12.462	57	13.273	-0.811***
# Imperial Courier Routes	208	1.957	57	2.825	-0.868***
Ruggedness	208	5.915	57	4.176	1.739***
Northeast China	208	0.000	57	0.000	0.000
North China	208	0.125	57	0.140	-0.015
Northwest China	208	0.159	57	0.088	0.071
Upper Yangtze	208	0.096	57	0.018	0.079*
Middle Yangtze	208	0.130	57	0.211	-0.081
Lower Yangtze	208	0.101	57	0.246	-0.145***
Southeast Coast	208	0.058	57	0.140	-0.083**
Lingnan	208	0.115	57	0.158	-0.043
Other Regions	208	0.000	57	0.000	0.000
(b) Before Matching, Excl. Frontier					
Variables	No Literary Inquisition		Literary Inquisition		Diff. in Means
	Obs.	Mean	Obs.	Mean	
# Ming Degree Holders (<i>jinshi</i>)	161	2.831	56	4.539	-1.707***
Agricultural Suitability	161	3.733	56	4.357	-0.624**
Log Population Density in 1600	161	12.444	56	13.281	-0.837***
# Imperial Courier Routes	161	2.037	56	2.857	-0.820***
Ruggedness	161	5.492	56	4.159	1.333**
Northeast China	161	0.000	56	0.000	0.000
North China	161	0.161	56	0.143	0.019
Northwest China	161	0.205	56	0.089	0.116*
Upper Yangtze	161	0.037	56	0.018	0.019
Middle Yangtze	161	0.137	56	0.214	-0.078
Lower Yangtze	161	0.093	56	0.232	-0.139***
Southeast Coast	161	0.075	56	0.143	-0.068
Lingnan	161	0.149	56	0.161	-0.012
Other Regions	161	0.000	56	0.000	0.000
(c) After Matching					
Variables	No Literary Inquisition		Literary Inquisition		Diff.in Means
	Obs.	Mean	Obs.	Mean	
# Ming Degree Holders (<i>jinshi</i>)	90	3.786	19	3.828	-0.042
Agricultural Suitability	90	-4.944	19	-5.211	0.266
Log Population Density in 1600	90	12.946	19	12.882	0.065
# Imperial Courier Routes	90	2.400	19	2.263	0.137
Ruggedness	90	4.452	19	4.909	-0.457
Northeast China	90	0.000	19	0.000	0.000
North China	90	0.189	19	0.105	0.084
Northwest China	90	0.144	19	0.211	-0.066
Upper Yangtze	90	0.022	19	0.053	-0.030
Middle Yangtze	90	0.167	19	0.105	0.061
Lower Yangtze	90	0.133	19	0.105	0.028
Southeast Coast	90	0.122	19	0.158	-0.036
Lingnan	90	0.189	19	0.263	-0.074
Other Regions	90	0.000	19	0.000	0.000

This table reports differences between prefectures which experienced inquisitions and those that did not regarding their pre-treatment covariates. “Other Regions” refers to prefectures outside of Skinner’s socioeconomic macroregions.

Table A.7: Balancedness of the Sample: Other Pre-Treatment Characteristics

(a) Before Matching					
Variables	No Literary Inquisition		Literary Inquisition		Diff. in Means
	Obs.	Mean	Obs.	Mean	
# Local Charities by 1700	226	0.221	57	0.789	-0.568***
# Reputable individuals by 1700	226	13.186	57	52.421	-39.235***
Population Density in 1580	109	0.065	47	0.114	-0.049**
Urban Population in 1393	101	47.201	46	72.357	-25.156
# Buddhist Temples by 1700	226	6.960	57	12.491	-5.531***
# Funding Agencies by 1700	226	0.044	57	0.088	-0.043
# Conflicts 1644–1690	226	2.106	57	3.175	-1.069**
# Ming Academies	205	2.576	57	6.450	-3.875***
# Ming Loyalists	226	0.770	57	3.860	-3.090***
Linguistic Fragmentation Index	203	0.080	57	0.107	-0.027

(b) Before Matching, Exclu. Frontier					
Variables	No Literary Inquisition		Literary Inquisition		Diff. in Means
	Obs.	Mean	Obs.	Mean	
# Local Charities by 1700	161	0.292	56	0.786	-0.494***
# Reputable individuals by 1700	161	17.348	56	52.661	-35.313***
Population Density in 1580	89	0.069	46	0.114*	-0.045**
Urban Population in 1391	82	53.434	45	73.484	-20.050
# Buddhist Temples by 1700	161	7.913	56	12.518	-4.605***
# Funding Agencies by 1700	161	0.062	56	0.089	-0.027
# Conflicts 1644–1690	161	2.404	56	3.161	-0.757
# Ming Academies	157	2.904	56	6.440	-3.536***
# Ming Loyalists	161	1.037	56	3.929	-2.891***
Linguistic Fragmentation Index	157	0.091	56	0.099	-0.008

(c) After Matching					
Variables	No Literary Inquisition		Literary Inquisition		Diff.in Means
	Obs.	Mean	Obs.	Mean	
# Local Charities by 1700	90	0.46	19	0.474	-0.018
# Reputable individuals by 1700	90	19.93	19	19.579	0.354
Population Density in 1580	64	0.07	13	0.066	0.005
Urban Population in 1393	62	50.58	13	63.338	-12.763
# Buddhist Temples by 1700	90	9.778	19	8.05	1.725
# Funding Agencies by 1700	90	0.22	19	0.526	-0.304
# Conflicts 1644–1690	90	2.86	19	1.421	1.435**
# Ming Academies	90	5.94	19	5.316	0.629
# Ming Loyalists	90	1.13	19	1.474	-0.34
Linguistic Fragmentation Index	89	0.104	19	0.104	0

This table reports differences between prefectures which experienced inquisitions and those that did not regarding pre-treatment characteristics that are not used in the matching procedure. The initial levels of my dependent variables: the number of charities and the number of reputable individuals are included.

Figure A.9: Prefectures in the Matched Sample



Table A.8: Correlations Between Timing of Literary Inquisitions and Covariates

	Literary Inquisition	# Ming Jinshi	Agricultural Suitability	Log Population Density in 1600	# Imperial Courier Routes	Ruggedness
Literary Inquisition	1.0000					
# Ming Jinshi	-0.0251 (0.7954)	1.0000				
Agricultural Suitability	0.1092 (0.2585)	0.4195* (0.0000)	1.0000			
Log Population Density in 1600	0.0658 (0.4969)	0.3905* (0.0000)	0.4977* (0.0000)	1.0000		
# Imperial Courier Routes	-0.0190 (0.8442)	0.2721* (0.0042)	0.1232 (0.2018)	0.2570* (0.0070)	1.0000	
Ruggedness	-0.1275 (0.1863)	-0.4115* (0.0000)	-0.7565* (0.0000)	-0.5624* (0.0000)	-0.1581 (0.1006)	1.0000

This table reports the Pearson correlation coefficient between the timing of a literary inquisition and my main covariates on the matched sample.

Table A.9: Historical Panel: Coarsened Exact Matching (CEM)

	# Local Charities		
	(1)	(2)	(3)
Literary Inquisition	-1.047 ⁺ (0.625)	-1.047 ⁺ (0.699)	-1.015* (0.534)
Bootstrapped SE	No	Yes	No
CEM Weights	No	No	Yes
Baseline Controls \times FE	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes
N. of Periods	13	13	13
Observations	403	403	403
Adjusted R^2	0.778	0.272	0.381

This table reports difference-in-differences estimates of the effect of the Literary Inquisition on the number of local charities (1700–1830) on a sample of prefectures produced by Coarsened Exact Matching. I am left with 31 prefectures after using this matching algorithm. Baseline controls include the number of Ming degree holders (*jinshi*), log population density in 1600, latitude and longitude, and socioeconomic macroregion fixed effects. In all columns I use the same controls as in column 3 of Table 4. Column 2 reports bootstrapped standard errors. Column 3 reports DID estimates weighted by CEM weights. Robust standard errors are clustered at the prefecture level and are reported in parentheses. ⁺ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

sample is also balanced in terms of other pre-treatment characteristics (Table A.7).

B.1 Coarsened Exact Matching (CEM)

In addition to propensity score matching, I employ Coarsened Exact Matching (CEM) (Iacus, King, and Porro, 2011) for robustness. CEM bounds the degree of imbalance between treated and control groups and automatically restricts the data to the area of common support. CEM does not specify any structure on the covariates. Hence, it minimizes the problem of model dependence. When I employ CEM, my sample becomes smaller (31 prefectures). My estimates become slightly less precise, but coefficient estimates remain comparable in magnitude (Table A.9).

B.2 The Nature of Gazetteer Data

My charity data (Liang, 2001) are largely based on local gazetteers. Gazetteers were compiled by local gentry. They typically contain information about local affairs including local temples, information about what goods are produced in a region, famous individuals, and notable geographical features. Some prefectures have far more gazetteers from the Qing period than others. Also, gazetteers in some prefectures might have been more likely to have

prefectures in my sample.

survived than in others. Differences in gazetteer availability might cause some prefectures to have better data on charities than other prefectures. In a difference-in-differences setting, those prefectures without many gazetteers to record information on charities, might just not have much variation to exploit.

I show in Table A.10 that this is not an issue for my matched sample. There is no statistically significant difference in the number of county-level or prefecture-level gazetteers, between prefectures affected by the Literary Inquisition and those unaffected.

B.3 Linking the Past to the Present

To conduct my 20th century analysis, I match the administrative units of the Qing dynasty to modern day administrative boundary. There have been numerous boundaries changes since the end of the Qing in 1911. I assign the treatment to a modern prefecture when it overlaps with a historical prefecture by at least 75%.⁷¹ Following this approach, the percentage of the prefectures that are treated is fairly close to the percentage of the treated in the historical sample.

For the analysis of generalized trust, my sample has the same geographic coverage (i.e. matched sample) as in the historical panel.⁷² The percentage of the prefectures that are treated (16%) is similar to the percentage of the treated in the historical sample (17%).

For my analysis of basic education, the percentage of the prefectures that are treated (14%) is slightly below the percentage of the treated in the historical sample (17%).

Table A.10: Balancedness On Gazetteer Availability

	No Literary Inquisition	Literary Inquisition	Diff. in Means
1. All Gazetteers (CBDB)	7.989	7.000	0.989
2. All Gazetteers (FZK)	8.067	8.421	-0.354
3. Prefecture-Level Gazetteers (FZK)	1.822	1.684	0.138
4. County-Level Gazetteers (FZK)	6.244	6.737	-0.492

This table shows that within the matched sample, prefectures with or without literary inquisitions have a similar number of gazetteers from the Qing period. Measure I includes all gazetteers used by the Chinese Biographical Database (CBDB). Measure II includes all gazetteers included in zhongguo fangzhi ku (FZK). Measure III includes all prefecture-level gazetteers in FZK. Measure 4 includes all county-level gazetteers in FZK.

⁷¹I have experimented with alternative rules, such as matching prefectures that overlap by any positive amount or by at least 50%. It results in vastly different sized treatment groups across my historical and my contemporary samples.

⁷²The intersection of the CGSS sample (91 prefectures) and the matched historical sample includes 31 prefectures. 26 of the 31 prefectures contain responses to the questions I examine. Given the sample size, my results should be interpreted with caution. In Section VI.B, I use census data so as to attain a larger sample.

C Reputable Individuals

Recall that in the main text I estimate:

$$\# \text{Reputable Individuals}_{p,d} = \beta \text{Literary Inquisition}_{p,d} + \mathbf{X}'_p \boldsymbol{\Lambda}_d + \boldsymbol{\Omega}_p + \boldsymbol{\Lambda}_d + \epsilon_{p,d}, \quad (10)$$

where subscript p represents a prefecture and d , a decade. Literary Inquisition $_{p,d}$ is an indicator variable that becomes equal to one in the decade following the first literary inquisition case in prefecture p and decade d .⁷³ Prefecture fixed effects, $\boldsymbol{\Omega}_p$, absorb time-invariant prefecture-specific characteristics. Decade fixed effects, $\boldsymbol{\Lambda}_d$, capture common shocks. d is from 1700 to 1830. I include interactions between decade fixed effects and a range of time-invariant controls (\mathbf{X}'_p) to account for differential economic and political trends across prefectures.

To examine the effects of the first literary inquisition, I look at different age cohorts of reputable individuals. All specifications include decade and prefecture fixed effects and I interact decade fixed effects with the log of the population of a prefecture in 1600, the number of Ming degree holders (*jinshi*) during the Ming dynasty, Skinner's socioeconomic macroregion fixed effects, and latitude and longitude. I also control for the number of *jinshi* who obtained their degrees during that decade.

I expect to find a larger impact of literary inquisitions on those cohorts whose chance of becoming reputable was liable to be affected by the impact of an inquisition case ("more liable to be affected"). Consistent with this, I find a negative effect of literary inquisitions on individuals aged between 16–30 in the decade in which an inquisition took place (column 1). Exposure to literary inquisitions resulted in a 36% ($-0.36 = -0.903 \div 2.476$) decline in the number of reputable individuals in subsequent decades. When I turn on the treatment during the same decade as the first literary inquisition case, the coefficient estimate in column 1 is statistically significant and of a similar magnitude (-0.883).

Then I turn to older cohorts. Older individuals had probably achieved whatever success that got them listed as a reputable individual by the time of the shock. Compared to individuals aged between 16–30, they were "less liable to be affected". For older cohorts, the signs are negative, but the coefficient estimates are smaller and imprecisely estimated (columns 2 and 3). The coefficient estimate takes on the same sign and is of a similar magnitude for respective columns, when I turn on the treatment during the same decade as the first literary inquisition case.

As I do not observe the actual timing of an individual becoming reputable, I rely on their age as an approximation for treatment status. Note that my aged-based categorization is necessarily imperfect: some individuals aged over 30 in the decade of a persecution may not yet have achieved whatever accomplishments made them reputable. To the extent that this is the case, I may be underestimating the effects of literary inquisitions on the number of reputable individuals.

Also, when looking at more decades out, such approximation is less accurate. An individual who was 46-60 year old three decades after a prefecture's exposure to literary inquisitions, for example, would have been 16-30 at the time of literary inquisitions. His chance of becom-

⁷³For robustness, I also allow my treatment to turn on during the same decade as the occurrence of the first literary inquisition case. Results are similar in both sign and magnitude.

ing reputable might well have been affected by literary inquisitions (“treated”).

Table A.11: The Role of Reputable Individuals in Charity Formation

	# Local Charities		
	(1)	(2)	(3)
# Reputable Individuals	0.120*** (0.0314)	0.120*** (0.0345)	
# Degree Holders (<i>Juren</i>)		0.0123* (0.00654)	-0.00446 (0.00809)
Initial Pop. Density × FE	Yes	Yes	Yes
Ming Jinshi × FE	Yes	Yes	Yes
Latitude/Longitude × FE	Yes	Yes	Yes
Socioeconomic Macroregion × FE	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes
Observations	1417	1183	1183
Adjusted R^2	0.797	0.781	0.798

This table reports the panel estimates of the relationship between reputable individuals, gentry and charity formation. I employ *juren* as a measure of the gentry as these were graduates of the provincial level exams (see Figure A.4). Column 1 shows that the number of reputable individuals in adult years (aged 16 to 60) strongly predicts charity formation. Column 2 reports the relationship between the number of *juren* and charity formation. Column 3 shows that when both reputable individuals and *juren* are included in the same regression, it is the former than explains charity formation. Note that I obtain similar results if I use the number of *jinshi* as my measure of the gentry. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Was there any overlap between the type of individuals featured in Jiang (2005), and those who fell victim to literary inquisitions? The answer is yes. Most of the reputable individuals, just like those persecuted individuals, were part of the local gentry. The pattern I see in my data is consistent with the historical narrative: fear of persecution caused members of the gentry to retreat into their private worlds (Liu, Wang, and Wang, 2005). Wu Wei-Yeh, for instance, wrote that “each time a case of literary persecution erupted in the southeastern part of the realm, I apprehensively awaited the arrival of prosecutors indicting me for works of poetry or history I have written” (quoted in Wang, 2002, 611). Out of their instinct for self-preservation, intellectuals often avoided entire fields of inquiry.⁷⁴ This affected their ability to produce important works. Accompanying these developments was an overall decline in the social and political importance of the intellectual class in the Qing period. After 1840, the role of intellectuals recovered somewhat, due to the weakness of the Qing state.

The effects I find hold for the relatively short to medium run. I do not find an effect of literary inquisitions on the number of individuals becoming reputable in the very long run (~ 1900). One explanation is that over time, individuals switched to more private, less risky activities such as painting. A significant number of individuals became reputable

⁷⁴Much of the scholarly interest during that period was devoted to philology—a type of scholarship that minimized political risk.

for those reasons. Switching to “safe subjects” was common in Europe as Melzer (2014) shows; the same has been shown for Qing China (Wiens, 1969, 16). To reduce the risk of persecution intellectuals avoided activities that could be interpreted as constituting opposition to Qing rule; instead they “immersed themselves in the non-subversive ‘sound learning’ and engaged in textual criticism, bibliography, epigraphy, and other innocuous purely scholarly pursuits”. Unfortunately, due to data limitations, I cannot examine the breakdown of the type of activities for which they became reputable.

C.1 Reputable Individuals and Local Charities

Compared to the average local gentry, reputable individuals appeared to be more active in the community affairs. Table A.11 depicts the positive relationship between the number of reputable individuals and the number of local charities.

D Further Robustness Analysis: Historical Panel

D.1 50-Year Time Periods

In Table A.13 I collapse my decade-level data into five 50-year time periods. The 5 periods are: 1650-1700, 1700-1750, 1750-1800, 1800-1850, and 1850-1900. Using fewer time periods allows me to reduce serial autocorrelation, often an issue in panels with a large number of time periods, which also allows me to extend my analysis to the end of the 19th century. I show results consistent with my baseline estimates, both using the number of local charities and the change in the number of local charities as dependent variables.

D.2 A Broader Definition of Literary Inquisitions

First, in Table A.15, I report my results using a expansive list of persecution cases based on a much broader definition of a literary inquisition (Guo and Lin, 1990). This list has 180 cases, including a large number of cases which occurred during the Ming-Qing transition. Those cases are distinct from the rest, and often involved overt opposition. They do not fit the precise definition of literary inquisition. In columns 1 and 2, I restrict my attention to prefectures with at least one charity by 1820 and at least one degree holder (*jinshi*) by 1600. In columns 3 and 4, I restrict the sample to prefectures affected by literary inquisitions only. The coefficient estimates I obtain are consistently negative, but not as precisely estimated.

In terms of the geographic distribution of cases, there is a similar concentration of cases in the Lower Yangtze Region: a total of 16 out of 83 affected prefectures (19%) can be found in that region.

D.3 Varying the Sample

To ensure that my results are not driven by outliers, I examine different samples in Table A.19. In my main analysis, I focus on the period 1700-1830. For robustness, columns 1-4 employ a variety of different sample periods—extending the analysis out to 1840 and back to 1680. The results remain similar across specifications and are not sensitive to my choice of start date or end date.

In columns 5-8, I drop outlier prefectures. First, I drop prefectures with very few charities (columns 5-6). Then I drop prefectures with a very small gentry as these were unlikely to experience literary inquisitions (column 7). Finally, I drop prefectures which are reported as

being the recipient of immigrants (column 8). The coefficient I obtain remains negative and statistically significant.

D.4 Spatial Spillovers and Autocorrelation

As decisions concerning literary inquisitions were carried out within a centralized bureaucracy, there was no mechanism for cases to be geographically clustered, or to spread across prefectures. Moreover, although a specific case could make the emperor more suspicious, and perhaps more likely to punish individuals involved in future cases, it was more common to see cases being correlated in time, rather than in space.⁷⁵ I consider both possibilities in my robustness analysis.

To begin with I consider the possibility of spatial autocorrelation. One might suspect that fear of inquisitions spread from one prefecture to another then the number of charities may have fallen in neighboring prefectures even though they were not been exposed to literary inquisitions themselves. In considering this point, it is worth noting that such concerns are not supported by historical accounts.

Econometrically, in Table A.21 I employ Conley standard errors to correct for spatial autocorrelation in the error term. I vary the radius from 50 to 750km, within which I allow my standard errors to be spatially correlated.

One measure of spatial autocorrelation is the Moran statistic. The Z-score of the Moran Statistic is between -0.52 and 1.52 for the Literary Inquisition variable between 1700 and 1830. This reduces concern that my treatment variable suffers from spatial autocorrelation. A higher degree of spatial autocorrelation is present in *Local Charities*, with the Z-score of the Moran Statistic between 6.641 and 9.7. The practice of calculating the Moran statistic in suspicion of spatial autocorrelation is discussed in **kelly19**.

Note that a 500 km radius I use for each cluster is large, encompassing as many of 1/3 of all observations (see Figure A.10). This reduces concerns that I are employing low cutoffs for the radius that I employ. The rule of thumb of using a radius encompassing 1/3 of all observations is discussed in **kelly19**.

Column 9 explicitly allows for spillover effects across prefectures. I construct a spatially weighted measure of all charities formed in all other prefectures. My coefficient of interest remains similar to my baseline estimate. The coefficient estimate of the spatially lagged variable is not statistically significant.

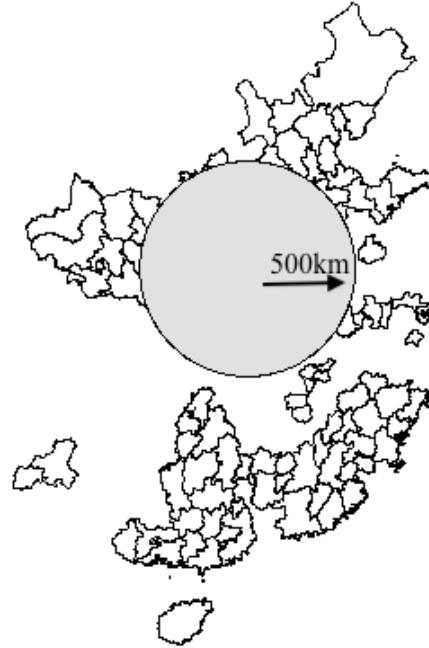
D.5 Per Capita Charities

In Table A.22 I normalize my measure of local charities. I divide the number of local charities by the population, using population estimates for the year 1776, which is the only prefecture-level population data available for the period of the Literary Inquisition.⁷⁶ Table A.22 replicates the structure of Table 4, with the number of local charities per capita as the

⁷⁵For example, the year 1761 saw five inquisition cases but these affected very disparate parts of the country. The distance between the first case and the second case was 824 km. 460 and 352 km respectively separated the second and third, and third and fourth cases that occurred that year, while the final case took place 1542 km away from the fourth case.

⁷⁶Natural disasters in imperial China frequently led to abnormal deaths. My natural disaster controls should partially account for the resulting population fluctuations (Table A.20).

Figure A.10: A 500 km Radius Relative to the Matched Sample



dependent variable. The coefficient estimate is comparable to that in my baseline analysis.

D.6 Dynamic Effects

I estimate the dynamic effects of persecutions on the number of local charities over time:

$$\#\text{Local Charities}_{p,d} = \sum_{\tau \in \{-4, \dots, 5+\}} \beta_\tau \text{Literary Inquisition}_{p,\tau} + \Omega_p + \Lambda_d + \sum_{d=1700}^{d=1820} \Lambda_d \mathbf{X}'_p + \epsilon_{p,d}. \quad (11)$$

$\text{Literary Inquisition}_{p,\tau}$ is a set of indicator variables that equal 1 if it has been τ decades since the first literary inquisition case, where $\tau \in \{-4, -3, -2, -1, 0, 1, 2, 3, 4, 5+\}$.⁷⁷ Using this fully flexible model, I obtain results that coincide in sign and significance level with the baseline estimates.

D.7 Differential Impact — Size of Gentry

Table A.23 explores the question whether the impact of the Literary Inquisition depended on the size of gentry. If the gentry played an important role in the provision of local charities, the impact of the Literary Inquisition could be magnified where there was a larger gentry. The gentry might also be more likely to be informed about literary inquisition cases.

My first proxy of the size of gentry is the total number of *jinshi* who received their degree during the Ming period. In column 1, I compare prefectures with an above-the-median

⁷⁷5+ refers to 5 periods or more.

number of Ming *jinshi* and those below the median, and find no differential impact of literary inquisitions. In column 2, I divide the total number of Ming *jinshi*, as well as that of local charities, by population in 1776, and compare prefectures with an above-the-median number of Ming *jinshi* per capita and those below the median. Again, I do not find a differential impact of literary inquisitions on local charities.

Columns 3-4 use a second proxy of the size of local gentry—the quota for lower level degree holders (*shengyuan*). An elaborate quota system controlled the number of degree holders who could pass at a particular level of imperial exams. For the lowest level exam, both county-level quota and prefecture-level quota applied. These two types of quota can be aggregated to the prefecture level. Bai and Jia (2016) were the first to use this data in economics research. This quota system was very stable for the majority of the Qing period before it was adjusted for the Taiping Rebellion. Having a larger number of *shengyuan* quota is associated with a larger effect of literary inquisitions on local charities, but the coefficient estimate is not precisely estimated.

Overall, I do not find that the size of local gentry was important in determining the impact of literary inquisitions on local charities. These results should, however, be interpreted with caution as I lack the statistical power to detect a three-way interaction effect.

D.8 Alternative Outcome Variables

I also consider the impact of literary inquisitions on the number of degree holders and on government-sponsored academies (Table A.24).

The Qing used government-sponsored academies to prepare examination candidates. When I use these government-sponsored academies as an alternative outcome variable, I find no effect. Note that these government-sponsored academies were distinct from the private academies that flourished in the Ming period (see Appendix 1.H). And my results are consistent with the historiography that emphasizes that Qing-era academies were not centers of intellectual discussion (Wakeman, 1998).

In Table A.24 I first demonstrate that literary inquisitions did not have a significant effect on the numbers of *jinshi* (column 1) or *juren* (column 2). Second, in column 3 of Table A.24 I report the effect of literary inquisitions on the number of Qing academies, the majority of which were government-sponsored, using the same specifications I have for local charities (Table 4). The number of government-sponsored academies should not be affected by literary inquisitions, since they did not depend on private initiatives. Government academies were seen to be “indispensable to provide classical education for a burgeoning pool of aspiring officials” (Elman, 2002b, 400).⁷⁸ Consistent with this, I find no relationship between literary inquisitions and government-sponsored academies.

The results on alternative outcome variables additionally suggest that literary inquisitions did not bring about a diminution of human capital, at least not at the top of the distribution. My main findings are therefore more consistent with the explanation that local gentry became less active in public affairs rather than that their size becoming smaller.

⁷⁸By the Qing period, even private academies had to take into consideration the attitude of the emperor as the previous independence of private academies had been curtailed (Wakeman, 1998).

Table A.12: The Impact of the Literary Inquisition on Reputable Individuals: Alternative Cutoffs

	# Reputable Individuals				
	11 to 20 yrs (1)	21 to 30 yrs (2)	31 to 40 yrs (3)	41 to 50 yrs (4)	51 to 60 yrs (5)
Mean of Dep. Var.	1.631	1.551	1.454	1.378	1.358
Literary Inquisition	-0.508 ⁺ (0.334)	-0.597** (0.269)	-0.342 (0.299)	-0.456 (0.317)	-0.287 (0.336)
Degree Holders (<i>Jinshi</i>)	Yes	Yes	Yes	Yes	Yes
Initial Pop. Density \times Decade FE	Yes	Yes	Yes	Yes	Yes
Ming Degree Holders (<i>Jinshi</i>) \times Decade FE	Yes	Yes	Yes	Yes	Yes
Latitude/Longitude \times Decade FE	Yes	Yes	Yes	Yes	Yes
Socioeconomic Macroregion \times Decade FE	Yes	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13	13
Observations	1417	1417	1417	1417	1417
Adjusted <i>R</i> ²	0.809	0.804	0.810	0.782	0.763

This table reports difference-in-differences estimates of the effect of the Literary Inquisition on the number of reputable individuals between 1700 and 1830. From columns 1 to 5, the dependent variables are the number of reputable individuals who were aged between 11–20, 21–30, 31–40, 41–50 and 51–60. The results suggest that the impact of the Literary Inquisition was concentrated on individuals who were young enough (age 30) to alter their career choice. All columns include degree holders (*jinshi*) by decade, log population density in 1600, the number of Ming-era degree holders (*jinshi*), latitude and longitude interacted with decade fixed effects, as well as socioeconomic macroregion, prefecture and decade fixed effects. Robust standard errors are clustered at the prefecture level and are reported in parentheses. ⁺ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.13: Historical Panel: 50-Year Time Periods, 1650 – 1900

	# Local Charities		Δ Local Charities	
	(1)	(2)	(3)	(4)
Literary Inquisition	-3.998** (1.753)	-4.029** (1.771)	-2.156* (1.152)	-2.134* (1.141)
Baseline Controls × Linear Trend	No	Yes	No	Yes
Baseline Controls × Decade FE	Yes	No	Yes	No
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
N. of Periods	5	5	5	5
Observations	545	545	545	545
Adjusted R^2	0.639	0.632	0.459	0.433

This table reports difference-in-differences estimates of the effect of literary inquisitions on the number of local charities (1650 – 1900) using 50-year time periods. Baseline controls include Ming degree holders (*jinshi*), log population density in 1600, latitude and longitude, and socioeconomic macroregion fixed effects measured at a 50-year interval. Columns 1 and 3 present estimates including the baseline controls interacted with decade fixed effects. Columns 2 and 4 interact baseline controls with a linear time trend. In columns 3-4, the dependent variables are new charities. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.14: Historical Panel: Alternative Treatment Timing

	# Local Charities			
	(1)	(2)	(3)	(4)
Literary Inquisition	-0.793* (0.432)	-1.039** (0.406)	-1.096** (0.474)	-1.096** (0.454)
Initial Pop. Density × FE	Yes	Yes	Yes	Yes
Ming Degree Holders (<i>jinshi</i>) × FE	No	Yes	Yes	Yes
Latitude/Longitude × FE	No	No	Yes	Yes
Socioeconomic Macroregion × FE	No	No	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
Clusters	Prefecture	Prefecture	Prefecture	Prefecture-Decade
N. of Periods	13	13	13	13
Observations	1417	1417	1417	1417
Adjusted R^2	0.779	0.793	0.828	0.828

This table reports difference-in-differences estimates of the effect of literary inquisitions on the number of local charities (1700 – 1830) using alternative treatment timing. The unit of observation is the prefecture-decade. The treatment turns on during the decade of literary inquisitions. All specifications otherwise are identical to those in Table 4. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.15: Historical Panel: With a Less Precise Measure of Literary Inquisitions

	# Local Charities			
	(1)	(2)	(3)	(4)
Literary Inquisition	-1.017 (0.917)	-1.374+ (0.943)	-1.724+ (1.073)	-1.155+ (1.031)
Initial Pop. Density \times FE	Yes	Yes	Yes	Yes
Ming Degree Holders (<i>jinshi</i>) \times FE	No	Yes	No	Yes
Latitude/Longitude \times FE	No	Yes	No	Yes
Socioeconomic Macroregion \times FE	No	Yes	No	Yes
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13
Observations	1664	1664	448	448
Adjusted R^2	0.351	0.458	0.279	0.370

This table reports difference-in-differences estimates of the effect of literary inquisitions on the number of local charities (1700 – 1830), using literary inquisition cases defined with imprecision. Columns 1-2 use a sample of all prefectures that had a positive number of *jinshi* by 1600, and at least one charity by 1830. Columns 3-4 use a sample of prefectures with a positive number of literary inquisition cases. Robust standard errors are clustered at the prefecture level and are reported in parentheses. + $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.16: Historical Panel: Initial Social Capital, Local Economy and the Presence of the State

Panel A: Initial Social Capital					
	# Local Charities				
	Charities by 1700 (1)	Buddhist Temples by 1700 (2)	Funding Agencies by 1700 (3)	Linguistic Fragmentation (4)	1st Principal Component (5)
Literary Inquisition	-0.927* (0.494)	-1.056** (0.523)	-1.024** (0.510)	-1.034** (0.491)	-0.892* (0.493)
Baseline Controls × FE	Yes	Yes	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13	13
Observations	1417	1417	1417	1404	1404
Adjusted R^2	0.841	0.827	0.826	0.829	0.833

Panel B: Local Economy and the Presence of the State					
	# Local Charities				
	Ag. Suitability (6)	Urbanization (7)	Yangtze/Grand Canal (8)	Coast (9)	Courier Routes (10)
Literary Inquisition	-0.999* (0.508)	-1.663** (0.637)	-0.993** (0.475)	-1.120** (0.519)	-1.022** (0.505)
Baseline Controls × FE	Yes	Yes	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13	13
Observations	1417	975	1417	1417	1417
Adjusted R^2	0.831	0.823	0.830	0.828	0.830

This table reports difference-in-differences estimates of the effect of literary inquisitions on the number of local charities (1700–1830), controlling for initial social capital, as well as measures of the local economy and the presence of the state, interacted with decade fixed effects. Baseline controls include the number of Ming degree holders (*jinshi*), log population density in 1600, latitude and longitude, and socioeconomic macroregion fixed effects. All columns use the same controls as in column 3 of Table 4. Columns 1 to 5 control for the interactions between decade fixed effects and the number of local charities by 1700, the number of Buddhist temples by 1700, the number of funding agencies (to support examination candidates) by 1700, linguistic fragmentation and the 1st principal component of all the above measures of social capital. Columns 6 to 10 control for interactions between decade fixed effects and agricultural suitability, urbanization during the Ming Dynasty, whether a prefecture is located on the Yangtze River or the Grand Canal, whether a prefecture is on the coast, and distance to the nearest imperial courier route. In all specifications, robust standard errors are clustered at the prefecture level and reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.17: Historical Panel: Political Determinants of Literary Inquisitions

	# Local Charities		
	(1)	(2)	(3)
Literary Inquisition	-0.893* (0.533)	-1.004** (0.503)	-0.897* (0.534)
Conflicts 1644-1690 × FE	Yes	No	No
Ming Loyalists × FE	No	Yes	No
Ming-Era Academies × FE	No	No	Yes
Baseline Controls × FE	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes
N. of Periods	13	13	13
Observations	1417	1417	1417
Adjusted R^2	0.829	0.828	0.828

This table reports difference-in-differences estimates of the effect of literary inquisitions of the number of local charities (1700 –1830), controlling for political determinants of literary inquisition cases interacted with decade fixed effects. Baseline controls include Ming degree holders (*jinshi*), log population density in 1600, latitude and longitude, and socioeconomic macroregion fixed effects. All columns use the same controls as in column 3 of Table 4. Column 1 interacts the number of conflicts between 1644–1690, which took place as the Qing established control over China, with decade fixed effects. Column 2 includes an interaction term between the number of Ming loyalists and decade fixed effects. Column 3 adds an interaction term with the number of Ming-era academies and decade fixed effects. Robust standard errors are clustered at the prefecture level, and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

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Table A.18: Historical Panel: Conflict, Disaster and the Literary Inquisition

Panel A: Conflict and disaster do not predict literary inquisitions				
	Decade of a Literary Inquisition			
	(1)	(2)	(3)	(4)
Conflict	0.0106 (0.0140)	0.0114 (0.0150)		
Lag Conflict		0.00188 (0.00560)		
Disaster Intensity			0.00690 (0.0198)	0.00782 (0.0199)
Lag Disaster Intensity				-0.0319 (0.0199)
Baseline Controls \times FE	Yes	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13
Observations	1308	1199	1339	1339
Adjusted R^2	0.0230	0.0205	0.0204	0.0211

Panel B: Literary inquisitions do not predict conflict				
	# Conflicts			
	(1)	(2)	(3)	(4)
Literary Inquisition	0.0104 (0.0312)	0.00606 (0.0348)	0.00866 (0.0290)	0.00866 (0.0197)
Initial Pop. Density \times FE	Yes	Yes	Yes	Yes
Ming Degree Holders (<i>jinshi</i>) \times FE	No	Yes	Yes	Yes
Latitude/Longitude \times FE	No	No	Yes	Yes
Socioeconomic Macroregion \times FE	No	No	Yes	Yes
Clusters	Prefecture	Prefecture	Prefecture	Prefecture-Decade
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13
Observations	1308	1308	1308	1308
Adjusted R^2	0.0448	0.0415	0.0955	0.0955

Panel A shows that conflict and disaster did not have an effect on the timing of literary inquisitions (1700 – 1830). Conflict refers to revolts, rebellions, and violent protests. Baseline controls include Ming degree holders (*jinshi*), log population density in 1600, latitude and longitude, and socioeconomic macroregion fixed effects. All columns use the same controls as in column 3 of Table 4. Column 1 examines the relationship between literary inquisitions and the number of conflicts in the current period. Column 2 includes lagged conflicts. Column 3 considers the relationship between disaster intensity and the timing of a literary inquisition case. Column 4 includes disaster intensity in the previous decade. Panel B shows that literary inquisitions had no effect on the number of conflicts. For comparability, I replicate the structure of Table 4. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.19: Historical Panel: Varying the Sample

	Panel A: Varying the Sample by Period			
	# Local Charities			
	1690-1830 (1)	1710-1830 (2)	1700-1820 (3)	1700-1840 (4)
Literary Inquisition	-1.020* (0.526)	-1.039** (0.483)	-0.824* (0.449)	-1.222** (0.567)
Baseline Controls \times FE	Yes	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13
Observations	1526	1308	1308	1526
Adjusted R^2	0.805	0.856	0.823	0.829

	Panel B: Excluding Outlier Prefectures			
	# Local Charities			
	At Least One Charity by 1750 (5)	At Least One Charity by 1830 (6)	Bottom 10% Ming Jinshi (7)	Incoming Migration (8)
Literary Inquisition	-1.440* (0.784)	-1.456** (0.704)	-1.213* (0.624)	-0.879* (0.526)
Baseline Controls \times FE	Yes	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13
Observations	910	1040	1261	1365
Adjusted R^2	0.816	0.821	0.823	0.830

This table reports difference-in-differences estimates of the effect of literary inquisitions on the number of local charities (1700 – 1830). Baseline controls include Ming degree holders (*jinshi*), log population density in 1600, latitude and longitude, and socioeconomic macroregion fixed effects. All columns use the same controls as in column 3 of Table 4. Columns 1 to 4 vary the sample to ensure my results are not sensitive to the choice of period. Column 5 includes only prefectures which had at least one charity by 1750. Column 6 includes only prefectures that had at least one charity by 1820, the end of the sample period. Columns 7-8 drop prefectures that were in the bottom 10% in terms of Ming degree holders (*jinshi*, and those labeled as a recipient of any significant amount of incoming migrants, respectively. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.20: Historical Panel: Time-Varying Controls

	# Local Charities			
	(1)	(2)	(3)	(4)
Literary Inquisition	-0.892* (0.475)	-1.065** (0.517)	-1.003** (0.498)	-0.932* (0.489)
Disaster Intensity	Yes	No	No	Yes
Conflict	No	Yes	No	Yes
Degree Holder (Jinshi)	No	No	Yes	Yes
Baseline Controls \times FE	Yes	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13
Observations	1339	1308	1417	1236
Adjusted R^2	0.834	0.819	0.828	0.824

This table reports difference-in-differences estimates of literary inquisitions on the number of local charities (1700 – 1830), controlling for disaster, conflict and newly-minted *jinshi*. Baseline controls include Ming degree holders (*jinshi*), log population density in 1600, latitude and longitude, and socioeconomic macroregion fixed effects. All columns use the same controls as in column 3 of Table 4. Column 1 controls for disaster intensity. Column 2 controls for the number of conflicts. Column 3 controls for the number of newly-minted *jinshi*. Column 4 includes all controls at once. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.21: Historical Panel: Correcting for Spatial Autocorrelation

Panel A: Varying the Conley S.E Radius		# Local Charities				
		(1)	(2)	(3)	(4)	(5)
Literary Inquisition		-0.979*** (0.191)	-0.979*** (0.214)	-0.979*** (0.234)	-0.979*** (0.291)	-0.979*** (0.226)
Radius		50km	100km	250km	500km	750km
# Lags		5	5	5	5	5
Panel B: Varying the Number of Lags		(6)	(7)	(8)	(9)	(10)
		-0.979*** (0.291)	-0.979*** (0.291)	-0.979*** (0.291)	-0.979*** (0.291)	-0.979*** (0.291)
Radius		500km	500km	500km	500km	500km
# Lags		1	2	3	4	5
Panel C: Spatial Lags		(11)				
		-0.925* (0.546)				
Literary Inquisition		0.343 (0.248)				
Spatially Lagged Literary Inquisition						
Baseline Controls \times FE		Yes	Yes	Yes	Yes	Yes
Decade FE		Yes	Yes	Yes	Yes	Yes
Prefecture FE		Yes	Yes	Yes	Yes	Yes
N. of Periods		13	13	13	13	13
Observations		1417	1417	1417	1417	1417

Panels A and B report difference-in-differences estimates of the effect of literary inquisitions on the number of local charities (1700 – 1830) using Conley standard errors to adjust for spatial autocorrelations in the error term. I vary the radius within which I allow standard errors to be spatially correlated from 50 to 750 km, using a lag structure of 5 periods (columns 1-5). Columns 6-10 vary the lag structure from 1 to 5 keeping the radius constant at 500 km. In Panel C, I control for spatial lags of charities in other prefectures using a spatial weighting index. Baseline controls include Ming degree holders (*jinshi*), log population density in 1600, latitude and longitude, and socioeconomic macroregion fixed effects. All columns use the same controls as in column 3 of Table 4. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.22: Historical Panel: Local Charities Per Capita

	# Local Charities Per Capita			
	(1)	(2)	(3)	(4)
Literary Inquisition	-0.00533 (0.00415)	-0.00663 (0.00449)	-0.00729** (0.00306)	-0.00729** (0.00295)
Initial Pop. Density \times FE	Yes	Yes	Yes	Yes
Ming Degree Holders (<i>jinshi</i>) \times FE	No	Yes	Yes	Yes
Latitude/Longitude \times FE	No	No	Yes	Yes
Socioeconomic Macroregion \times FE	No	No	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
Clusters	Prefecture	Prefecture	Prefecture	Prefecture-Decade
N. of Periods	13	13	13	13
Observations	1404	1404	1404	1404
Adjusted R^2	0.0882	0.133	0.829	0.829

This table presents difference-in-differences estimates of literary inquisitions on the number of local charities per capita (1700 – 1830). For comparability, I replicate the structure of Table 4. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.23: Historical Panel: By *Jinshi* or *Shengyuan* Quota

	# Local Charities			
	(1)	(2)	(3)	(4)
Literary Inquisition	-1.151*	-0.00639*	-1.674**	-0.00946**
	(0.691)	(0.00358)	(0.655)	(0.00430)
Literary Inquisition \times Ming <i>Jinshi</i> ($>$ Median)	0.246	-0.00165		
	(1.012)	(0.00600)		
Literary Inquisition \times <i>Shengyuan</i> Quota ($>$ Median)			0.596	0.000427
			(0.986)	(0.00475)
Normalized by Population	No	Yes	No	Yes
Baseline Controls \times FE	Yes	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes	Yes
N. of Periods	13	13	13	13
Observations	1417	1404	1352	1339
Adjusted R^2	0.827	0.828	0.834	0.828

This table explores how the effect of literary inquisitions on charities (1700 – 1830) varied according to the size of gentry. Baseline controls include Ming degree holders (*jinshi*), log population density in 1600, latitude and longitude, and socioeconomic macroregion fixed effects. I also control for disaster intensity. All columns use the same controls as in column 3 of Table 4. Columns 1-2 shows that the coefficient on inquisitions is different for prefectures with greater than the median number of Ming degree holders. Column 2 normalizes the number of degree holders by population in 1776. Columns 3-4 similarly show that there was no differential effect according to whether a prefecture had a higher quota for the *shengyuan* exams. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.24: Historical Panel: No Impact on Degree Holders (*Jinshi* & *Juren*) or Government-Sponsored Academy

	Degree Holders <i>jinshi</i> (1)	Degree Holders <i>juren</i> (2)	Government-Sponsored Academies (3)
Literary Inquisition	0.753 (0.659)	5.887 (4.158)	0.0713 (0.329)
Initial Pop. Density \times FE	Yes	Yes	Yes
Ming Degree Holders (<i>jinshi</i>) \times FE	Yes	Yes	Yes
Latitude/Longitude \times FE	Yes	Yes	Yes
Socioeconomic Macroregion \times FE	Yes	Yes	Yes
Decade FE	Yes	Yes	Yes
Prefecture FE	Yes	Yes	Yes
Observations	1417	1183	1417
Adjusted R^2	0.823	0.799	0.954

This table demonstrates that there was no impact of literary inquisitions on the number of *jinshi* (column 1), *juren* (column 2), or government-sponsored academies (column 3), 1700 – 1830. For comparability, I replicate the structure of Table 4. In all specifications robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

E Further Robustness Analysis: Basic Education

For the historical panel I take the formation of charities as a summary measure of social capital. In my analysis of 20th century outcomes, I study the effect of Literary Inquisition on outcomes that are indirectly impacted via the effect on social capital. Social capital can be considered a mediator variable. To support my argument, I obtain a pattern of effects that are consistent with the hypothesized relationship between social capital and educational outcomes under different institutional arrangement while also disconfirming alternative explanations.

In Table 5, I control for the stock of human capital as measured by the density of degree holders (*jinshi*). In Section E.1 below I include other measures of human capital. My estimates remain unaffected, suggesting that the effect of inquisitions indeed operated via social capital.

The results described in Section E.2 are also consistent with the hypothesized relationship between social capital and basic education: The Qing Literary Inquisition is associated with a weaker provision of basic education at the end of the Qing period, but not with less provision of higher education. This is inline with my hypothesis: it was basic education and not higher education that was the responsibility of the local gentry in the Qing period and thus basic education that I expect to be affected by lower levels of social capital.

Furthermore, I make use of the dramatic institutional changes that took place in China during the 20th century to further test my argument and to rule out competing hypotheses.

Specifically, if reduced social capital is a mediating variable, the effect of inquisitions on literary should be most evident when educational institutions were decentralized. Under centralization, local levels of basic education should no longer be affected by local levels of social capital.

Table 6 exploits variation over time in the extent to which basic education was centrally administered. As discussed in the main text, education was provided in a decentralized fashion in Qing China. Following the disruption that accompanied the demise of the Qing Empire in 1912, the provision of education remained highly decentralized. The later Republican period then saw a brief but intense phase of state building and investment in public goods (see Gao, 2015). In 1933 it became mandatory for local communities to provide primary school education. Between 1929 and 1936 primary school enrollment increased from 17% to 43%. This process of centralization continued during the Communist period and the 1950s saw centrally-directed anti-illiteracy campaigns (Peterson, 1994). The Cultural Revolution, however, was accompanied by the disruption of centralized educational institutions throughout China. Table 6 shows that this was attenuated for generations born after 1927 and before 1959 but visible for cohorts born after 1959 who were educated during the Cultural Revolution.

E.1 Additional Controls for Initial Conditions

In Table A.25, I include various controls for factors that might be correlated with literary inquisitions. Column 1 reports the baseline estimate from Table 5, column 4. In column 2, I control for the number of Ming *jinshi*. Column 3 controls for the number of Ming-era academies. Column 4 controls for the number of Ming loyalists. These are the same controls in Table A.17. My results remain robust after the inclusion of additional controls for initial conditions.

Table A.25: Basic Education in the Early 20th Century: Additional Controls For Initial Conditions

	Literate (0/1)			
	(1)	(2)	(3)	(4)
Mean of Dep. Var.	0.153	0.153	0.153	0.153
Literary Inquisition	-0.0524** (0.0220)	-0.0523** (0.0222)	-0.0525** (0.0229)	-0.0493** (0.0190)
# Ming Degree Holders (<i>jinshi</i>),		-0.0445*** (0.0164)		
# Ming Academies			0.00390 (0.00524)	
# Ming Loyalists				-0.00209 (0.0172)
Log Degree Holder (<i>jinshi</i>) Density	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
Contemporary Controls	Yes	Yes	Yes	Yes
Historical and Geographical Controls	Yes	Yes	Yes	Yes
Adjusted R^2	0.233	0.233	0.233	0.233
Observations	72659	72659	72659	72659

This table reports OLS estimates of the relationship between the Qing Literary Inquisition and literacy in early 20th century China with additional controls for initial conditions. The dependent variable is whether an individual was literate at the time of the survey. All individuals were over 70 when surveyed in 1982. All specifications include province fixed effects and socioeconomic macroregion fixed effects. Contemporary, historical, geographical, and individual controls are all the same as in Table 5. Column 1 replicates the baseline estimate from column 4 of Table 5. Column 2 controls for the number of Ming degree holders (*jinshi*). Column 3 controls for the number of Ming academies. Column 4 controls for the number of Ming loyalists. Contemporary, historical and individual controls are the same as in Table 5. There are 72 clusters. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

E.2 Middle and High School Education

Table A.26 shows that the Qing persecutions are associated with worse literacy outcomes for the cohorts born in the early 20th century, but not with middle school (columns 1-2) or high school (columns 3-4) education outcomes. This is true no matter whether I look at the full sample of individuals, or restrict attention to those who are literate and hence liable to go on to higher levels of education.

Basic education was the responsibility of the local gentry and later the village, rather than the state. Hence it is basic education that I expected to be affected by lower levels of local social capital. Middle and high schools were centrally funded and not dependent on local social capital.

F Basic Education in Early 20th Century China: Political and Demographic Shocks

China experienced several episodes of political turmoil between 1840 and 1982. If some of these events that affected literacy levels in the population, occurred in the same locations as

Table A.26: Basic Education in the Early 20th Century: No Effect on Middle or High School Education

	Middle School		High School	
	(1)	(2)	(3)	(4)
Mean of Dep. Var.	0.0269	0.175	0.00255	0.0166
Literary Inquisition	-0.00178 (0.00577)	0.0284 (0.0196)	0.000294 (0.00144)	0.00210 (0.00569)
Log Degree Holder (<i>jinshi</i>) Density	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
Contemporary Controls	Yes	Yes	Yes	Yes
Historical and Geographical Controls	Yes	Yes	Yes	Yes
Conditional on Literacy	No	Yes	No	Yes
Observations	72659	11137	72659	11137
Adjusted R^2	0.044	0.041	0.013	0.028

This table shows that the Qing Literary Inquisition is not associated with middle school education and high school education in early 20th century China. As these were the responsibility of central government this is further evidence that the Qing Literary Inquisition specifically reduced social capital. All specifications include province fixed effects and socioeconomic macroregion fixed effects. All columns use the same controls as in column 4 of Table 5. Columns 1–2 focus on individuals attending middle school. Columns 3–4 examine the effect on individuals attending high school. There are 72 clusters. Robust standard errors are clustered at the prefecture level and are reported in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.27: Basic Education During the 20th Century: Urban and Rural Samples

	Literate (0/1)			
	Urban Sample		Rural Sample	
	(1)	(2)	(3)	(4)
Literary Inquisition	0.00429 (0.00947)	-0.000876 (0.00964)	-0.100*** (0.0357)	-0.0976*** (0.0344)
Log Degree Holder (<i>jinshi</i>) Density	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
Contemporary Controls	Yes	Yes	Yes	Yes
Historical and Geographical Controls	Yes	Yes	Yes	Yes
Observations	353426	393532	1111213	1071107
Adjusted R^2	0.0464	0.0455	0.207	0.208

This table reports OLS estimates of the relationship between the Qing Literary Inquisition and literacy in 20th century China, split into urban and rural samples. The dependent variable is whether an individual was literate at the time of the survey. All individuals were at least 15 years old when surveyed in 1982. All specifications include province fixed effects and socioeconomic macroregion fixed effects. It shows that the negative association between literary inquisitions and literacy is driven by the rural prefectures where the provision of basic education was informal and decentralized. Columns 1-2 estimate the relationship between literary inquisitions and literacy on the urban sample. In column 1, I categorize individuals as urban, based on their industry. In column 2, I categorize them based on their occupation. In columns 3-4, I estimate the relationship between literary inquisitions and literacy on the rural sample. In column 3, I categorize individuals as rural based on their industry. In column 4, I categorize them based on their occupation. There are 72 clusters. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.28: Basic Education in the Early 20th Century: Controlling for Exposure to the Taiping Rebellion

	Literate (0/1)			
	Excl. Taiping			
	(1)	(2)	(3)	(4)
Mean of Dep. Var.	0.153	0.153	0.153	0.161
Literary Inquisition	-0.0547** (0.0226)	-0.0523** (0.0219)	-0.0578** (0.0238)	-0.0612** (0.0244)
Occupied by Taiping Troops	-0.0449 (0.0441)			
Months Occupied by Taiping Troops		0.000183 (0.000674)		
Log Months Occupied by Taiping Troops			-0.0470*** (0.0163)	
Log Degree Holders (<i>jinshi</i>) Density	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
Contemporary Controls	Yes	Yes	Yes	Yes
Historical and Geographical Controls	Yes	Yes	Yes	Yes
Observations	72659	72659	72659	63378
Adjusted R^2	0.233	0.233	0.234	0.240

This table reports OLS estimates of the relationship between the Qing Literary Inquisition and literacy in early 20th century China, controlling for whether a prefecture was occupied by the Taiping troops between 1850-1864 and the duration of it. The dependent variable is whether an individual was literate at the time of the survey. All individuals were over 70 when surveyed in 1982. All specifications include province fixed effects and socioeconomic macroregion fixed effects and the same controls as in column 4 of Table 5. Column 1 employs a binary measure of whether a prefecture was occupied by Taiping troops. Column 2 controls for the number of months a prefecture was occupied by Taiping troops. Column 3 controls for the natural log of the number of months a prefecture was occupied by Taiping troops. Column 4 excludes prefectures occupied by the Taping. There are 72 clusters. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

the Qing persecutions, my estimates may be biased. I check my results against three major historical events: the Taiping Rebellion, the exodus to Taiwan in 1949, and the Cultural Revolution.

F.1 The Taiping Rebellion

The Taping Rebellion took place between 1850 and 1864 and was perhaps the bloodiest pre-modern conflict with a reported 20 million deaths. The impact of the Taiping Rebellion on local society was two-fold: on the one hand, the Taiping Rebellion was associated with tremendous destruction—modern estimates suggest that the conflict caused the population to fall by as much as 20 million (Platt, 2012). On the other hand, areas that were affected by the Taiping Rebellion saw greater local autonomy in subsequent decades, as the Qing responded to the rebellion by empowering local gentry to raise taxes and armies to fight the rebels (see Kuhn, 1979).

Table A.29: Basic Education in the Early 20th Century: Controlling for the Exodus to Taiwan

	Literate (0/1)					
	(1)	(2)	(3)	(4)	(5)	(6)
Mean of Dep. Var.	0.153	0.153	0.153	0.153	0.153	0.153
Literary Inquisition	-0.0616*** (0.0222)	-0.0653*** (0.0227)	-0.0389* (0.0200)	-0.0709*** (0.0229)	-0.0669*** (0.0217)	-0.0424** (0.0167)
Log Degree Holder (<i>jinshi</i>) Density	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Contemporary Controls	Yes	Yes	Yes	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes	Yes	Yes	Yes
Migration Records	Certain	Log Certain	Binary Certain	Possible	Log Possible	Binary Possible
Observations	49414	49414	49414	49414	49414	49414
Adjusted R^2	0.212	0.212	0.213	0.212	0.212	0.213

This table reports OLS estimates of the relationship between the Qing Literary Inquisition and literacy in early 20th century China. I account for the impact of the exodus to Taiwan in 1949 on the composition of 70 year olds surveyed in 1982. The dependent variable is whether an individual was literate at the time of the survey. All individuals were over 70 when surveyed in 1982. All specifications include province fixed effects and socioeconomic macroregion fixed effects and the same controls as in column 4 of Table 5. As noted in Appendix Section F.2, individuals in Fujian and Guangzhou are excluded. There are 72 clusters. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

From Table A.13, I know that the gap in the number of local charities between affected and unaffected prefectures remained through the Taiping Rebellion period.

Data on whether and for how long a prefecture was occupied by Taiping troops during the Taiping Rebellion (1850-1864) is from Hua (1991). In Table A.28 I first include a dummy variable that takes the value of one if a prefecture was occupied by Taiping troops between 1850 and 1864 (column 1). Column 2 controls for the number of months Taiping troops occupied a prefecture. Finally, column 3, includes the log of months occupied. There is some evidence that the Taiping Rebellion had a negative impact on long-run literacy outcomes, but this effect is independent of that of the Literary Inquisition. Regardless of the specifications, controlling for the Taiping Rebellion does not affect my coefficient of interest.

F.2 The Exodus to Taiwan

Next I deal with the exodus to Taiwan just prior to the establishment of the Communist government, and its effect on literacy. In the wake of the fall of the Nationalist government in 1949, many wealthy, educated, and high-status individuals fled mainland China. One of the main destinations for migrants was Taiwan. I provide a crude estimate of the share of the population who migrated to Taiwan using data from the Taiwan Family Genealogy Catalogue Database (TFGCD). The data is available at

<http://rarebook.ncl.edu.tw/rbook.cgi/frameset5.htm>.

This database aggregates information from a range of sources, the most important of which

is the Taiwan special collection maintained by the Genealogical Society of Utah (GSU). The GSU was founded in 1894 by members of the Church of Jesus Christ of Latter-Day Saints to preserve historical records for genealogical research and it collects sources from across the world. Since 1976, the GSU has collaborated with academic institutions in Taiwan to locate microfilm and other privately owned genealogical sources.

The measure I obtain from this database is the number of lineages (proxied by number of family trees) by prefecture who migrated to Taiwan in the late 1940s. I normalize my out-migration measure by prefecture-level population in 1953 census. I use the 1953 census as this data is the closest available to the time at which the majority of migration took place. I distinguish between the records originally obtained from the GSU from those records collected from other libraries that are also available in the TFGCD. This provides me with two measures of out-migration to Taiwan.

I remove duplicates (i.e. where the same family is recorded by more than one library) and only include records for families for whom I have information on their known residence in mainland China. Guangdong and Fujian had large-scale migration to Taiwan well before 1949 that can contaminate my measure. I drop those two provinces.

Table A.29 shows that my results are similar no matter which measure of out-migration I use. The negative relationship between the Qing persecutions and literacy of 70 years olds or older (as surveyed in 1982) continues to hold, when I correct for exodus to Taiwan around 1949.⁷⁹

F.3 The Cultural Revolution

Table A.30 employs data from Walder (2014) to account for the impact of the Cultural Revolution. The Cultural Revolution was extremely violent, and its victims were more likely to be the educated. Although the Cultural Revolution cannot have affected the “true” level of literacy in the early 20th century China, it could affect my coefficient estimates of the Qing persecutions, if the Qing persecutions were positively correlated with the number of deaths during the Cultural Revolution, I might overestimate the negative effect of the former.

Walder’s estimates for the number of deaths and victims in the Cultural Revolution are based on comparing officially published numbers for entire provinces against tabulations from all of that province’s local gazetteers. Walder (2014) estimates that there were 273,000 reported deaths and 13.4 million victims. The data was made available through National Science Foundation Grant SBS-1021134, “Political Movements in an Authoritarian Hierarchy,” (Andrew G. Walder, Principal investigator). This data is based on 2,213 county or prefecture gazetteers and records information on the imprisonment, persecution, victimization, and execution of individuals during the Cultural Revolution between 1966 and 1971.

Walder (2014) contain a variety of prefecture-and county-level data. To aggregate these estimates to the prefecture level I employ two methods. Method 1 prioritizes prefecture-level sources, only sources aggregated at the county-level sources when prefecture-level sources are

⁷⁹The size of each family that migrated is unknown. But this is unlikely to be a source of bias, as there is no reason to think that there would be systematic differences in the size of families that migrated. Moreover, differences in family sizes are likely absorbed by province and sociomacroeconomic region fixed effects and various controls.

Table A.30: Basic Education in the Early 20th Century: Correcting for the Number of Deaths During the Cultural Revolution

	Literate					
	Method I			Method II		
	(1)	(2)	(3)	(4)	(5)	(6)
Literary Inquisition	-0.0485** (0.0214)	-0.0495** (0.0214)	-0.0641*** (0.0226)	-0.0456** (0.0208)	-0.0476** (0.0216)	-0.0524** (0.0223)
Cultural Revolution Deaths P.C	-0.0005*** (0.0002)	-0.0005** (0.0002)		-0.0004** (0.0001)	-0.0005*** (0.0002)	
Cultural Revolution Deaths Abs. N.			-0.0093*** (0.0025)			0.0001 (0.0051)
Crude Death Rate		-0.0053 (0.0113)			-0.0249** (0.0096)	
Log Degree Holder (<i>jinshi</i>) Density	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Contemporary Controls	Yes	Yes	Yes	Yes	Yes	Yes
Historical and Geographical Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	72658	72658	72658	72658	72658	72658
Adjusted R^2	0.234	0.234	0.234	0.233	0.233	0.233

This table reports OLS estimates of the relationship between the Qing Literary Inquisition and literacy in early 20th century China. I account for the impact of deaths during the Cultural Revolution on the composition of 70 year olds surveyed in 1982. The dependent variable is whether an individual was literate at the time of the survey. All individuals were over 70 when surveyed in 1982. All specifications include province fixed effects and socioeconomic macroregion fixed effects and the same controls as in column 4 of Table 5. Method I aggregates county-level sources to create a prefecture-level measure when prefecture-level sources are unavailable. Method 2 uses only prefecture-level data that are aggregated from county-level sources. Columns 1–2 shows that the impact of literary inquisitions survives controlling for per capita Cultural Revolution deaths based on Method I. Column 3 controls for the absolute number of deaths using Method I. Columns 4–5 uses per capita Cultural Revolution deaths using Method II. Column 6 uses the absolute number of Cultural Revolution deaths using Method II. There are 72 clusters. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

unavailable. I also employ a second method, Method 2, which discards all prefecture-level sources and instead, aggregates information from county-level sources to generate prefecture-level measures.

G Basic Education in Early 20th Century China: IV Estimates

Controlling for the major historical shocks experienced by China since 1840 has no material impact on my results. Nevertheless, literary inquisitions might still be correlated with unobserved characteristics of a prefecture. In the historical panel analysis, I exploit variation in the first occurrence of a literary inquisition in a prefecture for identification, and rely on prefecture fixed effects to absorb time-invariant, prefecture-level characteristics such as family structure or the presence of the state. These are not available in a cross-sectional analysis, although I do include province fixed effects. I construct two instrumental variables

to circumvent omitted variable bias and to establish causality.

Recall that variation in the probability that a prefecture would experience a literary inquisition can be broken into three components. First, there are factors such as prefecture-level literacy that were systematically correlated with the probability of having a literary inquisition and with social capital. Second, there were factors that may have been systemically related to the probability of having a literary inquisition but orthogonal to my 20th century outcome variables of interest. These are not a source of bias. Third, there were random shocks to the probability of having a literary inquisition.

I can also leverage the second set of factors to conduct an instrumental variable analysis. My first instrument is based on distance to Shenyang which affected the probability of interacting with Manchus prior to the Qing take-over. The second instrument is based on the location of Qing army bases.

As discussed in Section III, an important cause of literary inquisitions and the intensification of autocratic rule was ethnic distrust between Manchus and Chinese. Literary inquisition cases were replete with misunderstandings and misapprehensions. The emperor and the imperial bureaucracy often did not have sufficient information to judge a case. And when a case originated from a place that was unfamiliar, this problem was exacerbated.⁸⁰ Given that the emperor's primary concern was signaling strength and deterring potential opposition, this might incline the emperor to greater severity: "just to be on the safe side."

My first instrument relies on the fact that prior to the Qing conquest, people from some parts of China had more interactions with the Manchus than did people from other parts of China. In prefectures where there was less of a history of such interactions, there may have been fewer opportunities for inter-ethnic trust to build up. Chinese from parts of China with little interactions with the Manchus prior to the Qing Conquest, also had greater distrust and antipathy to Qing rule. In contrast, Chinese in Shandong displayed markedly different attitudes towards the Manchus. The two peoples traded with one another in the period before the Qing conquest (Wakeman, 1985a).

I construct this instrument based on distance to Shenyang (Mukden), a city in Manchuria that had been an important center for the Manchus and their ancestors for centuries. Upon the formation of a Manchu state in the early 1600s, Shenyang became the capital. Hence the logic behind this instrument is that Chinese closer to Shenyang were more likely to be culturally and ethnically familiar to Manchus and vice versa. In particular, those who lived in the proximity of Shenyang had a higher chance of interacting with the Manchus prior to the Qing takeover. Distance to Shenyang thus provides a relevant source of exogenous variation in the level of historical interaction between Chinese and Manchus.⁸¹ In considering the validity of this instrument, note that there was obviously no reason for social capital in those prefectures to be systematically correlated with their distance to Shenyang, other than through literary inquisitions. Once the Manchus invaded China in 1644, they moved their capital to Beijing. As it was outside of China proper, Shenyang exerted little influence on

⁸⁰This problem also applied to the imperial bureaucracy in which Manchus often occupied the highest positions within the bureaucracy as they were trusted more (see Xi, 2018).

⁸¹I conduct my IV analysis using the matched sample. Hence what matters is the relevance of the instrument for the likelihood of a literary inquisition among prefectures in the matched sample.

Han Chinese.

My second instrument exploits a different source of variation in the probability of a literary inquisition case: the ability of the Qing state to crack down, in the event that revolts were instigated by anti-Manchu ideology. To construct this instrument, I collect data on the locations of the 31 army bases staffed by the Manchu Eight Banners—the only units fully trusted to subdue revolts.⁸²

The median distance of a prefecture to the nearest Eight Banner army base in my sample is 150km, whereas the maximum distance is 400 km. If the revolt was around 150 km away, they could reach the location within 2-3 days, but if the revolt was around 400 km away, it would take as long as 10 days to reach.⁸³

Revolts in prefectures within a few days' march of the Eight Banners were easier to subdue, whereas revolts in more distant locations would have more time to ferment and to gather supporters. All else equal, when dealing with incidents originating from prefectures closer to Eight Banner bases, the emperor had less need to send out a costly signal in order to deter opposition, and he would have felt safer “letting incidents go” for which he lacked the precise information.

Table A.31 reports results using (a.) distance to Shenyang (columns 1–2); (b.) distance to the nearest Eight Banner base (columns 3–5); and (c.) both instruments (columns 6–8). In the first stage, distance to Shenyang and distance to the nearest Eight Banner base both increase the probability of literary inquisitions. In columns 5 and 8, I also control for distance to the nearest Ming army base, a measure of whether a location was militarily significant, and my coefficient of interest remains unchanged. Across the specifications, I find a strong and consistently negative effect of the Qing persecutions on literacy. Coefficient estimates are slightly larger than those I obtain using OLS, but remain comparable. By using two instruments, I can employ the Sargan-Hansen test of overidentifying restrictions to test their validity. The Hansen J-statistic does not reject the null (columns 6–8), giving me increased confidence in the validity of the instruments.⁸⁴

One potential concern is that distance to the nearest Eight Banner base captures the level of state capacity or the ability to exert political control. However, in China the presence of a military base was distinct from state control *per se* as imperial China was governed by a centralized civilian bureaucracy. The Eight Banners had their own laws and did not govern

⁸²The Eight Banners were the most effective component of the Qing army. They received higher pay and were highly trusted by the Qing emperors. According to Kuhn (1979, 10): “The Eight Banners could of course be expected to render the most undeviating loyalty to the throne; descendants of the original Manchu conquerors and their Chinese allies, they had been brought under the close political control of the royal family”. There was also the Green Standard Army, made up of Chinese, which was much larger but less trusted by the Qing emperors.

⁸³For a discussion of the speed of movement of premodern armies I am indebted to Andrea Matranga. The key constraints were (1) whether sufficient fodder was available on route; otherwise cavalry mounts needed many hours a day to graze; (2) the size of the force; larger armies necessarily moved more slowly because of the limited width of roads. The cost of moving a body of soldiers is non-linear.

⁸⁴The Sargan-Hansen test is a test of overidentifying restrictions. The joint null hypothesis is that the instruments are valid, i.e., uncorrelated with the error term, and that the excluded instruments are correctly excluded from the estimated equation. If the null hypothesis is rejected, then at least one instrument is not valid.

Table A.31: Basic Education in the Early 20th Century: IV Estimates

	Shenyang & Eight Banners							
	Shenyang				Eight Banners			
	Literate		Shenyang & Eight Banners					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Literary Inquisition	-0.0939 ⁺ (0.0604)	-0.116** (0.0578)	-0.0790*** (0.0301)	-0.101*** (0.0342)	-0.109*** (0.0362)	-0.0838*** (0.0316)	-0.106*** (0.0304)	-0.1112*** (0.0309)
Log Degree Holder (<i>jinshi</i>) Density	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Distance to Nearest Ming Army Base	No	No	No	No	Yes	No	No	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Contemporary Controls	No	Yes	No	Yes	Yes	No	Yes	Yes
Historical and Geographical Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: First Stage IV Estimates								
Log Distance to Shenyang	1.0771*** (0.323)	1.0175*** (0.299)	0.0024*** (0.001)	0.0025*** (0.001)	0.0024*** (0.001)	0.0021*** (0.003)	0.8154*** (0.254)	0.7710*** (0.256)
Distance to Nearest Eight Banners							0.0021*** (0.002)	0.0022*** (0.002)
Log Jinshi Density	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Distance to Nearest Ming Army Base	No	No	No	No	Yes	No	No	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Contemporary Controls	No	Yes	No	Yes	Yes	No	Yes	Yes
Historical and Geographical Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kleibergen-Paap Wald rk F Statistic	11.10	11.58	11.45	10.45	9.87	10.90	9.85	9.54
Hansen J Statistic	0.00	0.00	0.00	0.00	0.00	0.059	0.054	0.011
Observations	72659	72659	72659	72659	72659	72659	72659	72659

This table reports IV estimates of the relationship between the Qing Literary Inquisition and literacy in early 20th century China. The dependent variable is whether an individual was literate at the time of the survey. All individuals were over 70 when surveyed in 1982. All specifications include province fixed effects and socioeconomic macregion fixed effects. Columns 1–2 report results using log distance to Shenyang as an instrument. Columns 3–5 employ distance to the nearest Eight Banner army base as an instrument. Columns 6–8 include both instruments. Distance to nearest Ming army base is controlled for in columns 5 and 8. Columns 2, 4 and 7 have the same controls as in column 4 of Table 5. I report the Kleibergen-Paap Wald F statistic, the value of which suggests that the instruments are not weak. For columns 6–8, we report the Hansen J Statistic. The corresponding p-values (0.81, 0.82 and 0.92) do not reject the null that both instruments are valid. Robust standard errors clustered at the prefecture level are reported in parentheses. + $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Chinese (Elliott, 2001).

In Table A.32, I explore the relationship between my instruments and other outcome variables such as population density, agricultural suitability, and the prefectoral quota. My first instrument, based on distance to Shenyang is correlated with some of these variables. This, however, is not a problem with my second instrument. Distance to the nearest Eight Banner base is uncorrelated with any of the variables I consider.

G.1 Individualism vs. Collectivism

Table A.35 shows that my results cannot be explained by the divide between individualism and collectivism. Collectivism and individualism are widely used syndromes that psychologists have used to conceptualize differences in cultural values (see Triandis, Bon-tempo, Villareal, Asai, and Lucca, 1988; Rhee, Uleman, and Lee, 1996). In individualist societies, people are supposed to look after themselves and their immediate family only. In collectivist societies, people belong to large in-groups that take care of them in exchange for loyalty. This raises the concern that differences in individualism/collectivism might affect levels of communal engagement.

Columns 1-2 show that there is no relationship between literary inquisitions and whether “in the past year your friends, colleagues and neighbors have been willing to listen to your personal problems”. Columns 3-4 show that there is no relationship between literary inquisitions and whether “in the past year your friends, colleagues and neighbors have provided financial support”. In columns 5-6 I find that there is no relationship between literary inquisitions and whether “in the past year your friends, colleagues and neighbors have done chores for you”.

Table A.32: Basic Education in the Early 20th Century: Main Correlates of Instrumental Variables

	Log Distance to Shenyang					Distance to Nearest Eight Banner Army Base				
	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
	Prefectural Quota	Per Capita Taxation	Population Density 1820	Treaty Port	Agricultural Suitability	Prefectural Quota	Per Capita Taxation	Population Density 1820	Treaty Port	Agricultural Suitability
Instrument	0.608** (0.304)	0.122 (0.419)	1.389** (0.576)	-0.372 (0.489)	1.641* (0.982)	0.000385 (0.000516)	-0.000260 (0.000601)	0.000508 (0.00107)	0.000390 (0.000269)	0.000331 (0.00140)
Log <i>Jinshi</i> Density	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Contemporary Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Historical and Geographical Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	72660	72660	72660	72660	72660	72660	72660	72660	72660	72660
Adjusted <i>R</i> ²	0.915	0.862	0.769	0.585	0.912	0.910	0.862	0.755	0.844	0.913

This table examines main correlates of instrumental variables: prefecture-level quota in 1820, population density in 1820, agricultural suitability, and treaty ports. Robust standard errors clustered at the prefecture level are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.33: Authoritarian Resilience: Urban Sample

	Political Apathy				Volunteering on Local Committees		Making Suggestions to Local Committees	
	OLS				Logit			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean of Dep. Var	3.473	3.478	2.631	2.630	0.0601	0.0578	0.111	0.110
Literary Inquisition	0.246*** (0.0807)	0.185* (0.0931)	-0.135* (0.0721)	-0.126+ (0.0748)	-0.955* (0.565)	-1.744** (0.821)	-0.904*** (0.240)	-1.216*** (0.264)
Contemporary Controls	No	Yes	No	Yes	No	Yes	No	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2 /Pseudo R^2	0.0525	0.0574	0.0145	0.0143	0.0568	0.0994	0.0531	0.0664
Observations	2011	1916	2005	1909	1981	1886	1941	1845

This table reports estimates of the relationship between the Qing Literary Inquisition and modern political participation within the urban sample. Otherwise all specifications are the same as Table 7. + $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.34: Authoritarian Resilience: Alternative Explanations for Low Political Participation

	Policy-Making is Too Complex	No Ability To Participate	Qualified to Govern	Lacking Confidence in Discussing Politics	The Party Recruits People like Me
	(1)	(2)	(3)	(4)	(5)
Literary Inquisition	-0.0255 (0.0910)	0.00378 (0.0745)	0.00459 (0.0715)	0.00779 (0.0608)	0.0705 (0.0868)
Contemporary Controls	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.0966	0.103	0.119	0.0379	0.105
Observations	3233	3227	3235	3200	3205

This table reports OLS estimates of the relationship between literary inquisitions and other reasons for political apathy. These results suggest that my findings on political participation are not driven by individuals' confidence about discussing politics or access to information. All specifications include socioeconomic macroregion fixed effects. Column 1 examines the relationship between literacy inquisitions and the answers to the statement: "Policy-making is so complex that people like me won't understand". Column 2 finds no relationship between literary inquisitions and responses to the statement: "I have the ability to participate in politics." Column 3 examines responses to the statement: "If I were the head of the government, I would govern just as well." Column 4 examines responses to: "I have no confidence when I discuss politics with others." Column 5 find no relationship between literary inquisitions and responses to: "The Communist Party is willing to recruit people like me to be members." The answers to these questions are on a 1-5 scale, from completely disagree to completely agree. Individual controls include fixed effects for gender, age, and education. Contemporary controls are the same as in Table 1 and include log GDP per capita, log total population, years of schooling, share of urban population and share of agricultural workforce, all from 2010. Robust standard errors are clustered at the prefecture level and reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.35: Authoritarian Resilience: Collectivism

	Personal Problems		Financial Support		Helping with Chores	
	(1)	(2)	(3)	(4)	(5)	(6)
Literary Inquisition	-0.0448 (0.113)	0.00452 (0.149)	0.126 (0.135)	0.0198 (0.167)	0.0539 (0.173)	-0.0507 (0.209)
Contemporary Controls	No	Yes	No	Yes	No	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.0561	0.0580	0.0390	0.0442	0.0282	0.0515
Observations	1087	1053	1087	1053	1087	1053

This table shows the absence of a relationship between the Qing Literary Inquisition and collectivism. All specifications include socioeconomic macroregion fixed effects. I use the extent to which individuals rely on the support from friends and neighbors as a proxy for collectivism. Columns 1-2 show that there is no relationship between literary inquisitions and “whether in the past year your friends, colleagues and neighbors have been willing to listen to your personal problems”. Columns 3-4 show that there is no relationship between literary inquisitions and “whether in the past year, your friends, colleagues and neighbors have provided financial support”. Columns 5-6 show that there is no relationship between literary inquisitions and “whether in the past year your friends, colleagues and neighbors have done chores for you”. Individual controls include sex, age and the level of education. Contemporary controls are the same as in Table 7, including log GDP per capita, log total population, years of schooling, share of urban population and share of agricultural workforce, all from 2010. Robust standard errors are clustered at the prefecture level and are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figure A.11: A Snapshot of the Charity Data from Liang (2001).

苏 苏州	长洲	广仁堂	1737
川 重庆	江北厅	体仁堂	1741
滇 云南	富明	掩骼所	1743
苏 苏州	虎阜	积德堂	1743
甘 兰州	皋兰	掩骼社	1752
苏 太仓	宝山	罗店施棺局	1752
苏 苏州	虎阜	永仁堂	1752
川 重庆	巴县	敦义堂	1753
苏 苏州	昆山	崇善堂	1753
浙 杭州	海宁	同仁局	1757

H Main Dependent Variables

H.1 Local Charities

Data for my main dependent variable, the number of local charities in the Qing period, comes from Liang (2001). This is regarded as the definitive compilation of charitable organizations in the Qing dynasty. It is based on her systematic and comprehensive survey of over 2,000 gazetteers. It draws on the work of other prominent scholars working on this topic such as Fuma (1986).

Liang (2001) provides information on local charities in each county between 1415 and 1985, though the data for the period after 1920 is highly fragmentary. This data is based on information on charities compiled by local gazetteers.⁸⁵ Local gazetteers generally record information on when a charity was established and the name of the charity. But they do not provide more details on the day-to-day management of these organizations. There are 5,412 charities in the entire dataset. The date of foundation is known for 3,901 charities. An example of what this data looks like is provided in Figure A.11. In this study, I rely on Wang Daxue's digitization of this data source.

H.2 Reputable Individuals

Jiang (2005) is my source for data on reputable individuals in the Qing period. Jiang (2005) has information on approximately 25,000 reputable individuals in Chinese history. This includes individuals who were well known for being public figures or for their scholarly achievement. Of these 25,000 individuals, my dataset has year of birth for 19,780 of them. In my main analysis, I focus on individuals born between 1640 and 1819 from prefectures in my matched sample. The resulting dataset comprises 3,509 individuals. The source also contains information on their ancestral home (*jí guàn*). Figure A.12 depicts this data.

H.3 Literacy Data

my individual-level literacy data come from IPUMS. The IPUMS data provide a series of individual-level controls including gender, ethnicity, number of married couples in the

⁸⁵Table A.10 shows that my matched sample is balanced in terms of gazetteer availability.

Figure A.12: An example of the data on reputable individuals.

姓 名	生 卒 年	字 号	籍 贯	出 处
丁 桐	乾三一一道 三 (1766 — 1823)	孝继 学阳 嗜庭	福建侯官	丁芸《丁桐年谱》
丁 晏	乾五九一光 一 (1794 — 1876)	俭卿 柏堂 柏唐	江苏山阳	《清史列传》69 本传 ^①
丁 峻	道 九一 ? (1829 — ?)	潜生	江西南昌	《中国美术家人名辞典》
丁 鮑	顺 五一 ? (1648 — ?)	息园 蓬累子	浙江山阴	丁甡《泊如轩文·寄赠方其旋七袞序》(南京图书馆藏稿本) ^②
丁 涣	道一〇一宣 一 (1830 — 1909)	文伯 济卿	江苏泰县	《江苏艺文志·扬州卷》
丁 煦	乾二六一嘉二一 (1761 — 1816)	曜天 双湖	浙江钱塘	张延济《桂馨堂集·感逝诗》
丁 培	嘉一二一光一三 (1807 — 1887)	芸石 植卿	江苏无锡	《锡山历朝书目考》9
丁 清	乾三八一 ? (1773 — ?)	子澄 澄人	江苏常熟	丁清《续古章堂解愁吟》2《壬辰元日》

household, and marital status.

H.4 Generalized Trust

To measure contemporary trust, I use two variables from the Chinese General Social Survey (CGSS). The CGSS was launched in 2003 and it is the earliest national representative continuous survey project run by academic institutions in China.

<http://www.chinagss.org/index.php?r=index/index>

For Table 1, I focus on generalized trust and trust within the family. For these two questions, answers are on a 1-5 scale, where 1. represents totally agree and 5., totally disagree.

H.5 Political Participation

To measure contemporary attitudes and behavior related to political participation, I use the Chinese General Social Survey (CGSS). In Table 7, my dependent variables are statements of the following form: whether individuals agree or disagree with the statement: “People like me won’t have any influence on how the government makes its decisions” (columns 1-2); “My suggestions to the government will be adopted” (columns 3-4). Answers for those questions are on a 1-5 Likert scale, where 1. represents totally agree and 5., totally disagree. The question in columns 5-6 is whether individuals have volunteered to work on local committees. Columns 7-8 ask whether individuals make suggestions to local committees. Both are binary measures of political behavior.

Table A.34 uses the following questions to rule out other reasons for low political participation in affected prefectures. “Policy-making is so complex that people like me won’t understand” (column 1). “I have the ability to participate in politics” (column 2). “If I were the head of the government, I would govern just as well” (column 3). “I have no confidence when I discuss politics with others” (column 4). “The Communist Party is willing to recruit people like me to be members” (column 5). Answers are on a 1-5 Likert scale, where 1. represents totally agree and 5., totally disagree.

In Table A.35, I investigate the relationship between literary inquisitions and the extent to which individuals rely on others. I use the following questions/statements. “Whether

in the past year, your friends, colleagues and neighbors have been willing to listen to your personal problems” (columns 1-2). “Whether in the past year, your friends, colleagues and neighbors have provided financial support” (columns 3-4). “Whether in the past year, your friends, colleagues and neighbors have done chores for you” (columns 5-6).

H.6 Attitudes Towards Autocracy

The Chinese Political Compass (CPoC) is a version of the Political Compass, a widely used model that organizes political ideologies along a two-dimensional axis based on responses to survey questions. The survey for 2014 is the only year of data that is currently available. This source has been used by Pan and Xu (2017) who demonstrate that it is a representative sample. I locate respondents by their IP addresses, excluding those from outside of China.

I focus on three statements. Question 4: “Western-style multi-party systems are not suitable for China”. Question 5: “Free speech is a Western concept and will only lead to chaos”. Question 43: “Modern China needs to be guided by the wisdom of Confucius/Confucian thinking”.

I Main Control Variables

In this section I provide further information on my main control variables.

I.1 Socioeconomic Macroregions

I use socioeconomic macroregion fixed effects in all regressions to capture the effect of observed and unobserved regional characteristics. The definition of a socioeconomic macroregion is from Skinner, Henderson, and Berman (2013). Skinner (1977) argued that China was neither a single national economic system, nor a set of separate provincial economies, but rather, consisted of a number of macroregions of trade, commerce, and population activity.

I.2 Urbanization and Population Data

Urbanization and population density are widely used proxies for economic development in the premodern period. I employ estimates of the urban population and urbanization rates for 1393 from Cao (2015). This is the only estimate for urban population prior to 1820 (Skinner, 1977). Urbanization data are available for 75 out of 109 prefectures. I also use estimates of population density for 1580 from Cao (2000).

*I.3 Degree Holders (*Jinshi*)*

To measure the pre-existing stock of human capital, I use the number of *jinshi* from the previous Ming dynasty (1368-1644) from Zhu and Xie (1980), a directory that contains information on all *jinshi*. *Jinshi* were the graduates of the highest level of the examination system. I use the same data source to generate a time-varying control for human capital during the Qing period. It is the number of newly-minted *jinshi* per decade.

In my analysis of 20th century China, I employ the density of *jinshi*. This is obtained by dividing the number of *jinshi* by population in 1820.

I.4 Climatic Shocks

Climatically, the High Qing period was a relatively stable period in Chinese history. Nevertheless, I explicitly control for climatic shocks. My data on extreme floods and droughts

is from Central Meteorological Bureau of China (1981), and has been used by other papers in the literature (e.g. Jia, 2014b). Central Meteorological Bureau of China (1981) assigned every prefecture a score: 5 “extreme drought”, 4 “drought”, 3 “normal”, 2 “flood”, 1 “extreme flood”. I transform this score into a three-point scale. A prefecture receives two points if it experiences a severe flood or drought, one point if it experiences a less severe flood or drought, and zero points if there is no flood or drought. I aggregate yearly data to a decadal level, to obtain a measure of disaster intensity for each prefecture-decade unit.

I.5 The Grand Canal

The Grand Canal and the Yangtze River formed the major trade network in imperial China. The Grand Canal was first built in the Sui Dynasty (581-618 CE). Due to congestion in the river bed and the impact of natural disaster, the course of the canal changed in small ways over the centuries. I observe whether a prefecture was on Grand Canal in the Yuan Dynasty based on CHGIS (2014).

I.6 Conflicts

Data on conflicts are from Chen (1939). It includes revolts, rebellions, and violent protests. I distinguish between conflicts in the period of 1644–1690 in early Qing and conflicts in the period of my analysis. The Qing faced considerable resistance in taking over China. There was substantial variation in this resistance. Some parts of China experienced a relatively peaceful transition of power; other parts launched determined moves to resist the Qing invaders, such as famous battles in Yangzhou (“ten-day massacre in Yangzhou”) and in Jiading (“Three massacres in Jiading”). The last waves of military resistance only ended in the late 1680s. I create a measure for resistance to Qing based on the number of conflicts in the period of 1644–1690.

I also have a time-varying measure of conflicts during the High Qing period. Note that Qing China was largely peaceful during this period. The only external wars took place far from China proper, such as the Dzungar-Qing Wars, and did not affect society at large.

I.7 Buddhist Temples

Buddhist temples are used by Martinez-Bravo, Padró-i-Miquel, Qian, Xu, and Yao (2017) as a measure of social capital. Furthermore, Buddhism offered an alternative ideology to that of Confucianism. Information on the location of Buddhist temples are from:

<http://www.fas.harvard.edu/chgis/data/chgis/downloads/v4/>.

I create a variable for the number of Buddhist temples before 1700, as one of proxies for initial social capital.

I.8 Examination Funding Agencies

During the Qing period, there began to be local organizations that funded exam candidates to travel to exam sites. Those organizations accepted donations. Steles were often erected to thank the donors. Data on funding agencies (*bin xing*) for the imperial examination system are from Mao (2014).

I.9 Linguistic Fragmentation Index

I use the measure of linguistic fragmentation employed by Bai and Jia (2016). This is similar to the ethno-linguistic fragmentation (ELF) measure proposed by Alesina and La Ferrara (2005): $ELF = 1 - \sum_{i=1}^N s_i^2$ where s_i represents the share of dialect i over the total area in a prefecture. Bai and Jia (2016) use modern data to proxy for linguistic fragmentation in the Qing period.

I.10 Imperial Courier Routes

Imperial China had a system of courier routes and courier stops. Conveyors and messengers, who were typically state employees, used those routes to deliver urgent news (Yang, Huang, and Cheng, 2006). G.W. Skinner and Zumou Yue (2011) compiled spatial information for imperial courier routes and courier stops in the Late Qing (1800-1893). Those data are available at the G.W. Skinner Data Archive:

<http://www.gis.harvard.edu/services/products/gis-data-portals/g-w-skinner-data-archive>.

As a measure of state capacity, I control for a prefecture's proximity to the nearest imperial courier route. Those courier routes formed a network that the imperial state used to govern the empire.

I.11 Government-Sponsored Academies and Private Academies

Data on Ming- and Qing-era academies are provided by Yu Hao and were coded from Ji (1996).

I.12 Ming Loyalists

Information on the number of Ming loyalists is coded from Sun (1985). I geo-coded this data, assigning the number of Ming loyalists to prefectures based on their place of origin.

I.13 Treaty Ports

Treaty ports were important for early industrialization and modernization. Treaty ports were established after 1840 in four waves. Jia (2014a) finds a long-lasting impact of treaty ports established in the 19th century on economic growth in contemporary China.

I.14 Eight Banner Army Bases

I collect new data on the location of the Eight Banners who comprised the Manchu core of the Qing army. I use distance to the nearest Eight Banners army base as an instrumental variable. My source for data on the Eight Banners is Weng (1876 [2002]).

I.15 Controls for Analysis of Generalized Trust and Political Attitudes in Modern China

For my analysis of generalized trust, political participation and attitudes towards autocracy in modern China (based on CGSS and CPoC), I obtain contemporary controls from the 2010 census (population in 2010, years of schooling, share of urban population and share of agricultural workforce) and the city statistics yearbooks (GDP per capita). For census data, I aggregate the data from the county to the prefecture level.

Table A.36: Overview of my Main Variables and Controls

Variable	Description/Sources
Literary Inquisition	Indicator variable. 1 for each decade after a prefecture was affected by a literary inquisition case. Source: Zhang and Du (1991).
Reputable Individuals	Source: Jiang (2005).
Local Charities	Source: Liang (2001).
Time-Invariant Controls	
Log Population Density in 1600	Source: Klein Goldewijk, Beusen, Drecht, and Vos (2011).
Latitude & Longitude	Source: CHGIS (2011).
Agricultural Suitability	Source: Fischer, Nelthuizen, Shah, and Nachtergael (2002).
Grand Canal & Yangtze	Source: CHGIS (2014).
# Imperial Courier Routes	Source: Skinner and Yue (2011).
Urbanization in 1393	Source: Cao (2000, 2015)
Population Density in 1580	Source: Cao (2000, 2015)
Linguistic Fragmentation Index	Source: Bai and Jia (2016)
# Ming <i>Jinshi</i>	Source: Zhu and Xie (1980)
# Buddhist Temples	Source: Berman (2011).
# Ming Academies	Source: Ji (1996).
# Ming Loyalists	Source: Sun (1985).
% Manchu	Source: IPUMS 1982 & 2000 Census.
Distance to Nearest Eight Banner Army Base	Source: Weng (1876 [2002]).
Socioeconomic Macroregion	Source: Skinner, Henderson, and Berman (2013).
Time-Varying Controls	
# Conflict	Source: Chen (1939)
Qing <i>Jinshi</i>	Source: Zhu and Xie (1980)
Disaster Intensity	my measure of natural disasters distinguishes between an extreme drought or extreme flood (2); a mild drought or mild flood (1) or normal (0). Source: Central Meteorological Bureau of China (1981)

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