Long live the Republic: The political consequences of revolutionary land redistribution

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Abstract

To be politically viable, a Revolution needs the support of key interest groups that benefit from the survival of the new regime. The redistribution of clergy property during the French Revolution created a group –the new owners of clergy assets- whose wealth depended on the Revolution's fate, thus increasing political support for the Revolution. In contrast, it weakened the Church's influence and further led it to side with anti-Republicans. Using data on elections during the beginning of the Third Republic, we show that the sale of clergy assets during the French Revolution substantially reduced support for anti-Republican candidates 80 years later. We trace this effect back to the dechristianization campaigns during the Revolution. The sale of Church assets reduced both the supply of and demand for Catholic worship, thus limiting the influence of priests. Predictably, it strengthened protestantism. Our results suggest that the liquidation of the Church's wealth helped Republicans prevail in the 1870s. Overall, interest group politics is key to understanding the political and religious legacy of the Revolution.

Keywords: Political Economy, French Revolution, land reform, redistribution.

JEL Codes: D72, D74, N33, P16.

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> Our whole Government is so completely null and insignificant that a Counter-Revolution should happen tomorrow if it weren't for the fact that at least half of the Republic's territory is in the hands of new proprietors who are interested in supporting and will continue to support the present order of things.
>
> Claude-Henry de Saint-Simon, August 1797.

> As long as there remains an inch of the sacred soil under our soles, we will firmly hold the glorious flag of the French Revolution.
>
> Léon Gambetta, *Proclamation au peuple français*, October 30, 1870.

1 Introduction

In his novel, *Eugénie Grandet*, Balzac describes his fictional character, Père Grandet, as one of the veterans of the 1789 Revolution. As a buyer of church assets, he was perceived as a revolutionary: "The inhabitants of Saumur were so little revolutionary that they thought Père Grandet a bold man, a republican, and a patriot with a mind open to all the new ideas; though in point of fact it was open only to vineyards. He was appointed a member of the administration of Saumur, and his pacific influence made itself felt politically and commercially." (p.7). By using the fictional character of Père Grandet, Balzac implicitly derides those who became "revolutionaries" by interest rather than by conviction. But Balzac also points to one of the most significant events of the Revolution: the redistribution of the Church's property following 1789.

It took French Revolutionaries only a few years to completely transform their country. Where a feudal regime held sway over France for more than a thousand years, the 1789 revolutionaries proclaimed equality before the law, equal access to government employment, established a parliament, and abolished privileges. Yet the "most significant event of the Revolution," as Lecarpentier (1908) called it, was the massive redistribution of church and aristocratic land holdings. On the brink of bankruptcy, the new regime decided to nationalize all Church properties and auction them off to the public. Those national assets, or *biens nationaux*, were supposed to solve the acute fiscal crisis of the *Ancien Régime*. Yet one other function of the *biens nationaux*

was political rather than financial. The new revolutionary government needed supporters to fight against the entrenched interests of the monarchy, the clergy, and the aristocracy. When the National Assembly decided on November 2, 1789, that "all ecclesiastical properties are at the disposal of the Nation," it sparked immense hope in rural areas (Teyssier, 2000). With the redistribution of Church assets, a new local elite attached to the Revolution's political and social reforms emerged and maintained its influence to varying degrees throughout the 19th century.

While the economic effects of the *biens nationaux* have been amply covered in the historical literature,[1] and to a lesser extent by economists (Finley et al., 2021; Deseau, 2023), the long-term political impact of the sale of national assets has received little attention. A notable exception is Hilaire (1977, p.145), who argues that during the early Third Republic (1870-1940), "The most faithful families to the liberal revolutionary and anticlerical tradition are the descendants of small buyers [of *biens nationaux*] because they feel threatened by the heirs of the former owners."[2] Nor have the effects of the *biens nationaux* on religion been explored. While historians have pointed to the political polarization of Catholicism in 19th France, the mechanisms behind this phenomenon have not previously been identified (Dumons, 2013).[3]

This paper studies the enduring ideological, religious, and political consequences of the redistribution of Church land during the French Revolution. We focus on the late 19th century, when the conflict between the Church and the Third Republic was the defining political debate. As Acemoglu et al. (2005) argue, shocks in the balance of power can lead to profound changes in political institutions, especially when they change the distribution of resources in society. In our case, the confiscation of Church land redistributed resources away from the Church, a central institution of the *Ancien Régime*, to the bourgeoisie and peasantry. Around 10% of French households bought Church assets, representing approximately 6.5% of the French

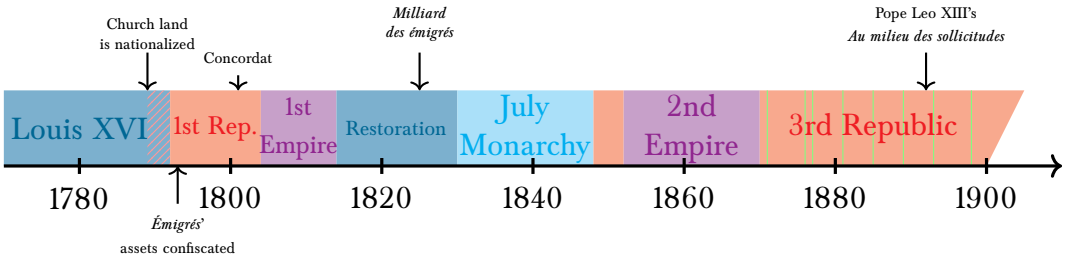
[1] Bodinier & Teyssier (2000) provide an extensive bibliography.

[2] Others have also hinted at an effect (Charreyron, 1990; Pilbeam, 1995), but less explicitly than Hilaire (1977), and "The relationship between permanent commitment to the Revolution and the purchase of *biens nationaux* is a very complex question and only the surface of it has been touched." (Pilbeam, 1995, p.270).

[3] Siegfried (1913) points to the influence of the Revolution on the conservative attitudes of Catholics during the 19th century. For some historians, the Revolution polarized Catholicism politically (Langlois, 1974; Tackett, 1986). For others, the Revolution merely revealed pre-existing contrasts that had been hidden by Catholicism's position as the official state religion (Pérouas, 1964; Lagrée, 1976).

territory, (Bodinier & Teyssier, 2000, p.439). These new owners became a key interest group that favored republicanism and viewed the organized Catholic Church with suspicion, as they sought to reduce the risk of expropriation by former owners. Tullock (1971) first pointed out that the logic of interest groups makes public interest an unlikely motivation for fighting revolutions: public interest is a public good. Revolutions thus need selective incentives directed to their supporters, as well as new constituencies to secure their survival. The *biens nationaux* empowered an already influential class of notables and, by doing so, altered the French political landscape.

Figure 1: Timeline (1774 - 1900).



Note: The dark blue color refers to the Bourbon dynasty being on the throne. The purple and light blue colors refer, respectively, to the Bonapartist and Orleanist dynasties. Orange refers to periods with republican institutions. The shaded orange/blue area refers to the early years of the Revolution. Green vertical lines represent elections during the early Third Republic.

The First Republic (1792-1804) did not survive Napoléon's rule. As the Bourbon monarchy was restored in 1814, the counter-revolutionary threat intensified existing political cleavages. In that context, the redistribution of land earlier during the Revolution was remarkably effective at spurring republican and democratic ideals later on in the 19^{th} century. Figure 1 shows the timeline of the events relevant to our paper. Church land was nationalized in 1789 and auctioned off, for the most part, in the following decade. While we focus on the electoral effects of this policy during the Third Republic, when universal suffrage became a lasting feature of French political life, we show that these effects structured French politics throughout the 19^{th} century.

While the power of financial incentives for analyzing historical change has been recognized in other contexts, from the English Civil War of 1642-1648 (Jha, 2015) to Scotland's union with England (Harvey, 2024), the expropriation risk faced by the owners of *biens nationaux* declined sharply after 1830. By then, reactionary political forces had failed to reverse the tide of social

and political reforms brought about by the Revolution. Yet the political effects of the *biens nationaux* persisted. In part, the expropriation risk lingered in people's minds. Still in 1877, conservative politicians complained that Republicans "came to tell peasants that if they voted for us, [...] [we would] take back their land and all the property whose origin came from what are called national assets."[4] Unlike the literature on financial incentives and institutional change cited above, however, our paper focuses on those incentives' long-run consequences. We trace the enduring effects of the *biens nationaux* back to changes in the religious market. Greater redistribution of Church wealth was associated with more dechristianizing activity during the Revolutionary Terror. More specifically, it led to greater adherence to the revolutionary Cult of Reason. After the Revolution, clergymen, deprived of much of their means of spiritual production, adopted a hostile attitude toward buyers of *biens nationaux*. This further raised the cost of Catholic worship for the new owners who wished to avoid the priests' forceful attempts to regain their wealth at their expense. In the words of McCloskey (2006, p.416), "The sacred and the profane are woven together." So are their histories.

Traditional theories of religious behavior have had only limited success in explaining secularization (Franck & Iannaccone, 2014) or why France is so uniquely irreligious (Franck & Johnson, 2016). Our findings point to France's historical roots as one explanation for its low level of religiosity (Barro et al., 2025). In addition, consistent with the view that Catholicism and anti-republican ideas were closely related, the relationship between the redistribution of Church land and lower support for Monarchists weakened after 1892, when Pope Leo XIII's *Au mileu des sollicitudes* encyclical called French Catholics to accept Republican institutions. On the other hand, we find little evidence that the alienation of church assets impacted politics by reducing

[4]These are the words of the Bonapartist Paul de Cassagnac in front of the parliament (*Journal Officiel*, n°318, November 20, 1877, p.7582). He then cited multiple cases of Republican newspapers alluding to the threat conservatives posed to the property-owning peasantry. For instance: "Many of the indifferent, who ordinarily did not vote, are outraged at the spectacle given by the Bonapartists who have become clericals: [...] Many are owners of former national properties, and, at the pace things are going, if the official candidates are nominated and pass laws in favor of the priests, one cannot tell how far the claims of the clericals—who have never ceased casting a covetous eye on the former national properties of the Church—may go." (p.7583, we indeed found this passage in *L'Avenir : journal démocratique du Gers*, n°277, September 29, 1877).

landed inequality, boosting industrialization, or fostering human capital.[5]

We test our hypothesis that the redistribution of Church land republicanized France using data on the value of the *biens nationaux* we collected from the *Archives Parlementaires*. One concern is that the prevalence of Church land in 1789 is correlated with important factors, such as the structure of the local economy, affecting the political support for republicanism. In particular, the rapid secularization of French society during the 18^{th} century (Blanc, 2021) and the protestant Reformation likely impacted the Church's wealth and ideology.

We tackle this problem by adopting multiple strategies. First, we include fixed effects for the 13 modern regions, thus showing that our results hold when accounting for region-specific factors influencing the political support for republicanism. Second, to further address endogeneity problems, we adopt two main instrumental variable strategies. We look at the prevalence of crusaders during the first four crusades —six hundred years before the Revolution— as a source of plausibly exogenous variation in Church wealth. As Baldwin (1969, p.256) notes, "Churches and monasteries benefited not only from the deaths of crusaders but also from vows made at moments of danger." The number of crusaders depended largely on geopolitical considerations, while their probability of dying in the Holy Land was not likely related to Republicanism during the Third Republic. To complement our first instrument, we also look at the presence of monasteries in the year 1200 —prior to the commercial revolution and the protestant Reformation. Third, we perform several placebo tests: the *biens nationaux* and our instruments are unrelated to political attitudes expressed in the 1789 grievances sent to the Estates-Generals, to whether politicians elected in 1791 were left-wing, to the number of radical political clubs before 1792, or to addresses of thanks and support sent to the National Assembly between the repeal of privileges (August 4, 1789) and the nationalization of Church property. By contrast, more *biens nationaux* are associated with more adherence to the Cult of Reason and with the creation of additional radical political clubs during the Terror. Fourth, we report difference-in-differences results showing that the *biens nationaux* spurred the creation of radical political clubs during the

[5]Montalbo (2023) argues greater landed inequality lowered support for Republicans during the Third Republic.

Terror, when dechristianization occurred. Finally, we develop other implications of our theory on religious behavior, which we test using novel historical data we collected on protestant places of worship in France before and after the 1789 Revolution. More specifically, the expropriation of Church assets, by reducing the influence of Catholicism, also increased the demand for substitutes to Catholicism. Consistent with this insight, our difference-in-differences results suggest that the sale of the Church's assets increased protestant religious activity.

Land reform has been a salient political issue, at least since the Gracchi brothers attempted to redistribute Roman public land to poor farmers in the 2^{nd}-century BC.[6] From Ancient Greece (Fleck & Hanssen, 2006) to 16^{th}-century England (Desierto et al., 2024) and modern Mexico (De Janvry et al., 2014), land and land policies have shaped political institutions and attitudes. Based on our estimates, a one standard deviation increase in the value of Church assets per capita sold during the Revolution reduced votes to anti-Republican candidates by 15.5-26.6%, and religiosity by between 15.6 and 27.8% during the last decades of the 19^{th} century.

The results in our paper are consistent with the literature on the political consequences of land reform. For instance, De Janvry et al. (2014) found that strengthening property rights over land in Mexico increased votes for the pro-market party. Similarly, Di Tella et al. (2007) found that squatters who were granted property rights in the outskirts of Buenos Aires were more likely to vote for politicians favoring free-markets.[7] During the early French Third Republic, "right-wing" politicians favored clericalism and monarchism, while most Republicans —except for socialists— were economic liberals and favored a market economy. Furthermore, the owners of formerly ecclesiastical assets formed patronage networks amplifying their political influence. In that sense, our contribution is related to Caprettini et al. (2021)'s, who provide evidence the 1950 Italian land reform generated a patronage network favoring Christian Democrats.

Land reforms can have substantial and lasting effects on economic activity. Heldring et al. (2021) show that the dissolution of English Monasteries after 1535 set the ground for the

[6] During the Revolution, Robespierre was compared to the Gracchi brothers by his enemies (Nippel, 2020).

[7] Albertus (2020) finds similar evidence for Peru. On land and politics also see Benson (2021) and Dower & Pfutze (2015).

Industrial Revolution. Goñi (2023) argues that landed inequality in 1870 England can be traced back to land redistribution following the 1066 Norman invasion, with higher land concentration reducing investment in public education. On the other hand, our paper focuses on the ideological consequences of land reform in the (not as) long run. Hence, our paper relates to the literature on the historical roots of ideology and culture. In some instances, those roots are centuries old (Becker & Voth, 2023; Voigtländer & Voth, 2012; Bazzi et al., 2020). In some other cases, persistence involves much shorter time periods (Cagé et al., 2023; Caprettini & Voth, 2023; Dippel & Heblich, 2021). For instance, Jha & Wilkinson (2023) link revolutionary activity during and after 1789 to the French soldiers who served during the American Revolution. In still other instances, past events may have effects that are dormant until triggered by circumstances (Fouka & Voth, 2023; Ochsner & Roesel, 2024). In the case of this paper, the French Revolution remained politically contentious until the end of the 19^{th} century. We provide evidence that the weakening of the Catholic Church strengthened republicanism 80 to 100 years later.

2 Historical context

2.1 The redistribution of Church assets during the Revolution

The nationalization and auctioning off of Church property by the new revolutionary government had the twin objectives of addressing the financial crisis and challenging the power of the Church over French society. Until the establishment of the Constituent Assembly in 1789, State finances remained, in theory, the exclusive prerogative of the King. In practice, the King was severely constrained by nobles, venal officers, and the clergy, all of whom had acquired privileges they wished to preserve.[8] By 1789, public debt was equal to 4.941 billion pounds (Braesch, 1934), which corresponded to more than 10 times annual revenue.[9]

Faced with an impossible fiscal situation, King Louis XVI decided to summon the Estates Generals for the first time in more than 170 years. The Estates Generals consisted of the three

[8] See Jaaidane et al. (2022), for instance, on rent-seeking and the *Ancien Régime* regional parliaments.

[9] This is accepting Necker's (1789) estimation of public revenue, which he evaluated at 475 million pounds.

estates of the realm: the First Estate (the Clergy), the Second Estate (the nobility), and the Third Estate (the commoners). On May 5, 1789, the finance minister, Jacques Necker, gave an alarmist opening speech about public debt. Yet, the Estates Generals quickly became bogged down in debates about which voting procedure should be followed, and this led the Third Estate to break away and form a "National Assembly" which the clergy and nobility later joined.

A "war of attrition" between different interest groups seeking to avoid bearing the costs of the needed fiscal adjustment erupted (White, 1995). Solving the "unpleasant fiscal arithmetic" (Sargent & Velde, 1995) meant the weakest interest group in the National Assembly, the clergy, suffered disproportionately. Dissensions between the high clergy (usually captured by aristocratic families) and the low clergy (identifying more closely to the Third Estate) made it impossible for the clergy to engage in successful collective action. Rapidly, members of the newly created National Assembly suggested that the Church's vast wealth should be seized.[10] As the largest landowner in France, the Church owned around 6.5% of the French territory and 10% of its agricultural landed area. The value of this land represented roughly 48% of GDP.[11] On November 2, 1789, the Assembly voted to nationalize ecclesiastical properties 568 votes to 346. The redistribution of those national properties or, in French, ***biens nationaux***, quickly became the most significant event of the French Revolution (Bodinier & Teyssier, 2000).

Although the main motivation for nationalizing Church property was to solve the fiscal crisis, "the revolutionaries of 1789 understood that a new social order can only be established upon new interests." (Cochut, 1848, p.821).[12] The law of May 14, 1790, outlining the terms of sales, already affirmed that the objectives of these sales were "the proper organization of finances and the happy increase, especially among rural inhabitants, of the number of property owners."

[10] In August 1789, the Marquis of Lacoste claimed that "The ecclesiastic assets belong to the Nation, whose duty is to revendicate them." Similarly, the Knight of Lameth told his peers: "I demand that we give the creditors of the State ecclesiastical goods as a guarantee of their debt." (Mavidal & Laurent, 1875, p.369-370). Yet it was the initiative of Charles Maurice de Talleyrand, himself a bishop, that would prove decisive on October 10, 1789.

[11] Toutain (1987) estimates French GDP for the 1781-1790 decade at 5,941 million pounds. Using our data from the *Archives Parlementaires* (t.42, p.77), Church properties were worth 2,866 million pounds. We exclude from this estimation the value of forestry and salt marshes, which were usually sold long after the Revolution.

[12] Other revolutionary policies, such as the widespread adoption of price controls favoring the urban population, can also be understood as attempts to form a coalition supporting the new revolutionary regime (Rouanet, 2022).

To survive politically, revolutionaries have to convince a sufficiently large and prominent segment of the population to support the new regime. Redistributing land can be an efficient way of doing so, whereas giving direct cash subsidies to elicit support usually will not do, first because people will only pretend to be revolutionaries to receive money, and second, because once the money is spent, nothing binds the recipients to the new regime.[13] An implicit contract in which the public receives cash in exchange for support is difficult to enforce and, therefore, unlikely to arise. Surely, giving cash may elicit support in the short run, but it is unlikely to create a durable interest group upon which a new regime can rely. The same logic applies as to why redistributing resources whose value does not fundamentally depend on which political regime is in place (either because they can be easily consumed or hidden from the taxing authority) is unlikely to build political support. Land has the advantage of being both a durable and immovable asset.

Building support also supposes avoiding further alienating important groups that might lose from the government's policies (Peltzman, 1976). During the French Revolution, the privileged orders were unlikely to ever favor enlightened and revolutionary ideas. Some clergymen (e.g., abbé Sieyès) and aristocrats (e.g., Lafayette) did support the Revolution early on, but the high clergy and nobility, who controlled vast resources, remained staunch absolutists. In that context, there was little support for the revolutionaries to lose from those groups. Still, attacking the aristocracy too virulently could have endangered the Revolution, as aristocrats controlled key positions in the military. Expropriating clergymen, in that sense, was politically less risky. Only in 1793 did the revolutionary government start expropriating nobles manifestly working against the Revolution. On the other hand, the Third Estate members' support was easier to secure but not guaranteed.[14] Here the *biens nationaux* played a key role.

As the Committee of National Properties argued in 1790, "The French Constitution, still in its cradle, essentially rests on the sale of national properties. It must be carried out, and it must be carried out irreversibly. Now, it will be irreversible if you interest many individuals in it [...],

[13] On why regulation, as opposed to cash payments, is often preferred by interest groups, see: Stigler (1971).
[14] Ideology during the Revolution was fluid and often responded to circumstances (Tackett, 2015).

[which] will render useless all the clergy's efforts to reclaim the properties it should never have possessed." (Lecarpentier, 1901, p.76). The historical record helps identify at least three separate channels through which land redistribution could have bolstered support for the Revolution.

The first channel, and the one for which we have the least evidence, as we will later see, is that the sale of the *biens nationaux* increased the number of small landowners. A recurrent policy implemented with limited success was to sell the *biens nationaux* in small plots.[15] On January 9, 1793, the interior minister, Roland, proposed selling national property in plots of less than six acres: "Both economy and politics desire it so; politics because it is important for the republican government to increase the number of property owners, as nothing attaches you more to the homeland, to respect for the laws, than property."[16] In 1793, the assets of those (mostly nobles) who emigrated were seized and added to the "national assets." Barrère, a prominent revolutionary, argued in front of the parliament:

> All our efforts must aim to multiply, as much as possible, the number of property owners, for when a person is attached to the land, they defend it. The division of the emigrants' properties is necessary for the stability of the new order of things. [...] [A] farmer, a poor man from the city who comes to cultivate a small plot of land made more accessible to him through your help, will defend his property as much as his life itself. Thus, the Revolution, consolidated by the interest of a multitude of small property owners, will be unshakable.[17]

Whether or not the *biens nationaux* reduced land inequality is open to debate. Deseau (2023) argues that the sale of Church properties had the opposite effect. While marginally more policies were implemented to divide land as the Revolution radicalized, those policies were not yet implemented during the early sales of church lands from 1790 to 1792.[18]

[15] For instance, the law of July 25, 1790, prescribed that land be divided "as much as the nature of the land allows it." An instruction to local administrations in August 1790 reiterates that "One cannot too strongly recommend [...] to facilitate small acquisitions; *as this is one of the main objectives of the operation.*" [emphasis added] (Bournisien, 1908, p.256).

[16] *Archives Parlementaires*, v.56, p.688.

[17] *Le Moniteur Universel*, March 20, 1793, n°79, p.741. Similarly, in September 1793, Roux-Fazillac, the representative in mission for the National Convention in Charente, proposed to the Committee of Public Safety to confiscate the property of anti-revolutionaries in order to create "an additional backing for our assignats and to interest, in spite of themselves, these bad citizens in the prosperity of the Republic." The *assignats* were the revolutionary currency "backed" by the national assets. For more details, see: Cutsinger et al. (2023); Crouzet (1993).

[18] We focus on "first-origin" national properties (expropriated Church assets) as opposed to "second-origin"

The second potential channel is religious. Owners of national properties not only had a stake in preventing the return of the *Ancien Régime* but also suffered from many priests' antagonistic behavior. In 1795, the theologian and Bishop of Boulogne Jean-René Asseline warned that knowingly profiting from nationalized Church and *émigrés* assets is sinful. To secure salvation, a purchaser of ***biens nationaux*** on his deathbed must, if he cannot immediately give the assets back, "(1) make no use of the said goods in the distribution of his estate; (2) declare, in the presence of a suitable number of persons gathered around him, that he dies with sincere regret for having made so culpable an acquisition; (3) inform his heirs of the obligation they are under, and exact from them the promise to restore, as soon as they can, to the legitimate owners both the property and the fruits received." (Asseline, 1795, p.39). In 1795, priests in the district of Coiron were refusing the last rites to buyers of national property: "Abbé Maurier demands, before confessing him (Dupré), that he renounce a portion of the Bousquet estate [...]. Dupré refuses and is not confessed." (Bodinier, 2005). Priests during the Empire (1804-1814) continued to pressure their parishioners to bequeath their national properties or face damnation. Others would refuse absolution to the owners of national properties.[19] This fierce hostility meant that many buyers abandoned practicing religion or became staunchly anticlerical.

national properties (those of emigrant nobles) for several reasons. First, all Church properties were confiscated without exception, unlike aristocratic properties. Both the decision by some nobles to emigrate and the decision to confiscate their assets were endogenous and depended particularly on the local administration's zeal. Emigrants and "second-origin" national properties seem particularly prominent in regions such as Vendée who revolted against the revolutionary government (Gain, 1929). Second, the redistribution of aristocratic landholdings was much more limited than that of Church land. Using data on 149 districts, Bodinier & Teyssier (2000, p.170) estimates they covered 3.2% of the territory —less than half the size of Church properties. Similarly, Gain (1929) estimated the specie value of second-origin national properties at 1.3 billion pounds, which is less than half the value of Church properties. See Appendix C for results consistent with our hypothesis using Bodinier & Teyssier's data on emigrants' properties.

[19]For instance, a mayor in the Pas-de-Calais complained about a priest who, before the Concordat, "forced individuals who acquired national properties, as a form of penance, to pay their value into the hands of a custodian responsible for [giving the money] to the clergy and nuns." (Chavanon & Saint-Yves, 1907, p.249). Similarly, Sageret (1917, p.15) points out that in Morbihan, "In 1800, many national assets reverted to their former owners [...]. Indeed, the ecclesiastics demanded, to absolve their penitents, the restitution of what they considered to be theirs." In 1804, the minister of police Fouché reported to Napoléon that some Vendean priests "induced farmers of national properties to stop paying rent to their owners." (Hauterive, 1908, p.103). Napoléon's government tried, with the help of Bishops, to avoid priests questioning the legitimacy of national properties. (See: Hauterive 1908, p.123 and Hauterive 1963, p.105). In 1805, Fouché reports that a vicar in the Côtes-du-Nord, "a list in his hands" refused the sacrament to owners of national properties: "You are an acquirer of national domains; I cannot admit you to celebrate your jubilee; it is forbidden to me." (Hauterive, 1908, p.388). In May 1807, a priest in the department of Lys refused the last sacrament to a dying man because he bought some ***biens nationaux*** (Hauterive, 1922, p.240).

The third and final potential channel relates to land redistribution stimulating political support for Republicans by generating new networks that could help political mobilization.[20] By July 1791, at least 921 cities had a "Jacobin" club supporting the Revolution. By 1794, several thousand were created across France (Kennedy, 1979). Brinton (1929, p.748) finds that in a sample of 13 cities, 21.4% of the members of the Jacobin's clubs were buyers of *biens nationaux*. These Jacobins represented 48.3% of buyers and acquired 70.1% of the *biens nationaux* in terms of value.[21] While the Jacobin clubs disappeared after 1795, the buyers of national properties continued to be involved in political clubs during the Directorial regime (1795-1799). In the department of Côte-d'Or, constitutional clubs were filled with owners of *biens nationaux*, who would gather in groups to preserve their property (Hugueney, 1905, p.227). Associations of national property owners emerged in several cantons of this department and proposed to create an insurance fund to support those facing lawsuits. They threatened to defend their property with their swords if needed (Hugueney, 1905).

2.2 The *biens nationaux* from the Restoration to the Third Republic

After the tumultuous events that led to Napoléon's demise and the restoration of the Bourbon monarchy in 1815, the conflict between former and new owners shaped much of political life: "One sensed there would be a fight, and each thought of having a small treasure," observed Stendhal (1838, p.285). Rumors circulated through the countryside about returning the *biens nationaux* to their "rightful owners" and the re-establishment of tithes (Higgs, 2019; Gain, 1929). After all, Louis XVIII had argued only a few years earlier, as did his late brother Louis XVI before him, that he would never accept "his" clergy and nobility to suffer from what he considered revolutionary spoliations. The King's January 1, 1814 declaration further worried the owners of national properties, as it expressed his wish to "encourage any voluntary transactions between former and new owners." "Encouragements" could very well mean turning a blind eye

[20] On the theory behind how politicians design networks to garner support, see: Murphy & Shleifer (2004).

[21] For another sample: "517 members of clubs in Beauvais, Chablis, Dijon, Le Havre, Vermenton, and Villeneuve-sur-Yonne out of a total membership of 2160 made purchases of national property." (Brinton, 1929, p.747). The most influential politicians in Paris' city government often owned national assets (Andrews, 1974).

to pressure or intimidation exerted by former proprietors. Yet the new regime could not ignore the "formidable coalition of interests" formed by the owners of national properties (Gain, 1929, p.92). Article 9 of the Charter of 1814 granted by Louis XVIII stipulates that "All properties are inviolable, without any exception, including those called national properties."

Although the King promised to protect the property rights of the new owners, he did so only reluctantly. While "lamenting this measure, [...] he was determined to uphold it," argued Count Ferrand (Gain, 1929, p.94). Immediately following the Restoration, the market value of national properties fell by a third (Agulhon, 1992, p.26).[22] In addition, senior officials of the Bourbon dynasty knew that owners of national properties were less likely to support the monarchy's restoration. Ultraroyalists called for the dismissal of mayors and local officials on ideological grounds. In the region around Toulouse, Higgs (2019, p.105) found in the family archives of the Ultra politician Joseph de Villèle a "List of persons [...] devoted to the family of the Bourbons." Men on this list were supposed to replace those described as "great fédérés brigands," "owners of biens nationaux," and those "faking royalism." Similarly, when a royal ordinance on March 25, 1816 excluded sixteen members of the Royal Court of Toulouse, one of them, Rabaly, "was particularly excoriated for his substantial holdings of *biens nationaux*" (Higgs, 2019, p.128).

Hilaire (1977) is unique among historians in pointing out the political and social consequences of the *biens nationaux* after 1815, and argues that in the region around Arras, those most favorable to the revolutionary and anti-clerical tradition during the Third Republic (1870-1940) were the descendants of those who had purchased national properties during the Revolution. Given the prevalence of political repression under the restored Bourbon monarchy, liberals created secret societies where the Jacobin tradition continued (Bouton, 1966). By 1820, liberal politicians such as Lafayette and Benjamin Constant no longer believed they could access power through entirely legal means and traveled to Sarthe and Maine-et-Loire to incite the creation of "secret societies." Those societies were composed, among others, of "many small owners wor-

[22]De Trumilly (1816, p.6) suggests in 1816 that "The assets of the clergy have a lower value compared to patrimonial assets, which can be evaluated, depending on the circumstances and localities, at 25, 20, 15, at least 12 per 100." Sarran (1821) and Nissan (1824) also mention that the *biens nationaux* sold at a lower price and were not accepted as collateral by lenders.

ried about threats against national property buyers." (Bouton, 1966, p.53). Those clubs would later, under the Third Republic, play an important role in Republican politics.

The religious intransigence of the regime after 1815 helped politicize Catholicism, and "Religion itself now appeared as an enemy, as it was being used as a political tool and associated with the passions and vengeance of the Royalists." (Bouton, 1966, p.19). In that context, the ideological awareness of the owners of *biens nationaux* intensified, further driving a wedge between them and the Bourbon monarchy. Liberal politicians used this key interest group to expand their political influence. Benjamin Constant for instance exclaimed in front of the parliament:

> They threaten to attack us because we intend to protect the peasant from the tithe, the Protestant from intolerance, *the purchaser of national property from spoliation*, thought from censorship, the citizen from the lettres de cachet, the army from insult and misery, the plebeian from the outrages of the privileged [...]. [emphasis added]. (cited in: Constant 1978, p.189).

The political chasm between the owners of *biens nationaux* and the Bourbons further widened when, in 1825, King Charles X promulgated a law giving one billion francs to the *émigrés* whose property had been confiscated during the Revolution.[23]

The July 1830 Revolution overthrew the Bourbon monarchy, and Louis-Philippe of Orléans became the "citizen King." Louis-Philippe's father had himself rallied to the First Republic during the Revolution, and the "July monarchy" was admittedly more liberal, both religiously and politically, than its predecessor. As a result, many bourgeoisie members felt perfectly comfortable supporting the new regime. As Tudesq (1956, p.393) argues, "In Haute-Garonne, the legitimists [those favoring the Bourbon dynasty] were very few in number [...] perhaps due to the presence of a wealthy land-owning bourgeoisie (land often acquired through the sale of national properties), who had rallied to the July Monarchy."

Although religious questions remained pervasive throughout the 19^{th} century, they were never as acute as after 1870. As religion became the most tendentious political issue, the divi-

[23] Appendix D provides econometric evidence that the *biens nationaux* strengthened the liberal opposition, using data from the 1827 and 1830 elections, as well as from the March 16, 1830 address to Charles X —an event that played a major role in triggering the Revolution later that year.

sions formed during the 1789 Revolution and the Restoration reappeared. In that context, the legacy of the *biens nationaux* was felt in ways that had not been experienced nearly as strongly before, especially during the Second Republic (1848-1852). As Fasel (1974, p.662) puts it, during 1848, "[M]onarchism rarely surfaced overtly. A restoration of either royal house seemed momentarily remote; notables and Orléanist *fonctionnaires* were quick to profess their allegiance to the Republic, and dyed-in-the-wool monarchists ran as republicans in the April election." In 1848, neither anti-clericalism nor the re-establishment of a monarchy were central to political debates —which, instead, focused on the increased prominence of the nascent socialist movement.[24]

In contrast, the birth of the Third Republic occurred in a context where the Catholic Church re-embraced traditionalism. In 1864, Pope Pius IX's "Syllabus of Errors" denounced rationalism and liberalism, argued against secular education, and opposed popular sovereignty. As the Church explicitly rejected republican ideology, French Republicans after 1870 were characterized by their strong opposition to religion. "Clericalism, that is the enemy," quickly became the rallying cry of Republicans.[25] As for practicing Catholics, they largely opposed republican institutions until Pope Leo XIII's 1892 encyclical calling them to rally the Republic.

In this morphed political landscape, the shadow of the French Revolution was cast wide over political debates of the Third Republic. In 1872, a legitimist propaganda leaflet still felt the need to deny Republican slanders according to which voting for Henry V meant voting "for the tithe, feudal rights, the restoration of national properties and confession tickets, the reign of the nobles and the priests." (Anonymous, 1872, p.3).[26] In 1877, after losing the election to Republicans, the Duc de Broglie griped in front of the parliament: "Is there a commune in France where

[24]Some Republicans during the Second Republic blamed conservatism's rise on the inability to do as the 1789 revolutionaries did with the *biens nationaux*. See, for instance, the article in: *Le Semeur*, t.19, n°24, June 12, 1850, p.188. Using data on the 1848 and 1849 legislative elections, we provide some evidence in Appendix E that more *biens nationaux* sold during the French Revolution translated to a higher vote share for radical Republicans, who called themselves "*Montagnards*" in direct reference to the radical Jacobins during the French Revolution.

[25]This sentence was pronounced by one of the most prominent Republican politicians, Léon Gambetta, in 1877. The Republicans tried most forcefully to eradicate the political and social influence of the Church. The 1881-1882 Jules Ferry laws made primary education mandatory and public schools free and secular, replacing religious education with moral and civic instruction. In 1880, Jesuits were expelled by Charles de Freycinet's Republican government. Between 1901 and 1904, religious orders were prohibited from teaching in private schools, their assets were liquidated, and finally, a law on the Separation of Church and State was passed in 1905.

[26]Henry V, the Count of Chambord, was the legitimist claimant to the throne until 1883.

the conservative candidate has not been accused, in no uncertain terms, of wanting to reinstate the tithe, forced labor, feudal rights [...] and national properties!"[27] Still in 1888, as the exiled Count of Paris, claimant to the French throne, supported General Boulanger, some Republicans called for confiscating his assets and making them *biens nationaux*. In front of the parliament, Félix Pyat declared about all claimants to the throne "that the Third Republic should do like the First, that it should declare their property, national property."[28] On the other hand, the clergy remained hostile to the Republic. As late as 1898, the dean of Laventie argued in reference to the *biens nationaux* that "Theft condemns many people [...] Often, a single injustice is enough to lead several generations to hell." (Hilaire, 1977, p.144).

3 Data

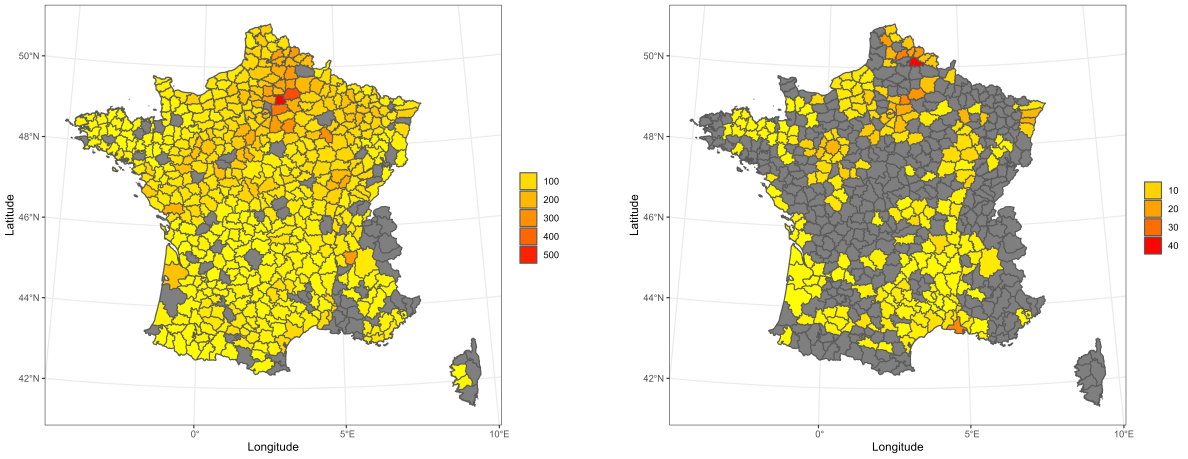
3.1 Data on the *biens nationaux*

The main challenge in assessing the political and ideological impact of the sale of the Church's assets following the French Revolution lies in finding sufficiently good data on the extent of their redistribution. Bodinier & Teyssier (2000) synthesized the data collected in various publications on the *biens nationaux* over more than a century.[29] Overall, Bodinier & Teyssier's dataset measures the prevalence of the *biens nationaux* by the percentage of land surface area they covered. It includes data on first-origin *biens nationaux* for only 216 districts —"first-origin" refers to expropriated Church properties while "second-origin" refers to the confiscated assets of the emigrant nobles. Since there were 556 districts in 1793, it means that Bodinier & Teyssier's (2000) data covers only 38.8% of all French districts.[30]

Thankfully, we could find data on the value (in pounds) of expropriated Church properties for 477 districts. On April 18, 1792, a report was presented by Cambon in front of the Legislative

[27] *Journal officiel de la République Française*, n°314, November 16, 1877, p.7450.
[28] *Le Petit Parisien*, July 20, 1888.
[29] We wish to thank Bernard Bodinier for sending his most updated data.
[30] Districts (renamed *arrondissements* after 1800) were the second largest administrative unit after "Departments." One additional 1793 district was later annexed to Switzerland, and 15 districts were annexed to Germany after 1870.

Figure 2: Geographic distribution of the nationalized church assets.



(Pound per capita) (% of land surface area)

Notes: The left panel represents the value per capita, in pounds, of the ***biens nationaux***. The right panel represents the percentage of each district covered by the ***biens nationaux***. Gray districts are missing observations.

Assembly, which summarized the estimated value of the confiscated Church assets per district (*Archives Parlementaires*, v.42 p.70-114). The report, divided into chapters, looks at the value of the ***biens nationaux*** sold before November 1, 1791 (Chapter I),[31] the estimated value of the ***biens nationaux*** whose sales had been ordered (Chapter III),[32] and the estimated value of the ***biens nationaux*** whose sale had been delayed (Chapter VII). This is the category for which the most observations —65 districts— are missing.[33] We calculate the value of the first-origin ***biens nationaux*** by summing up the values of the first, second, and third categories, which were equal to 1,450, 455, and 280 million pounds, respectively. In other words, about 66% of the estimated amount comes from the auction value of those ***biens nationaux***.

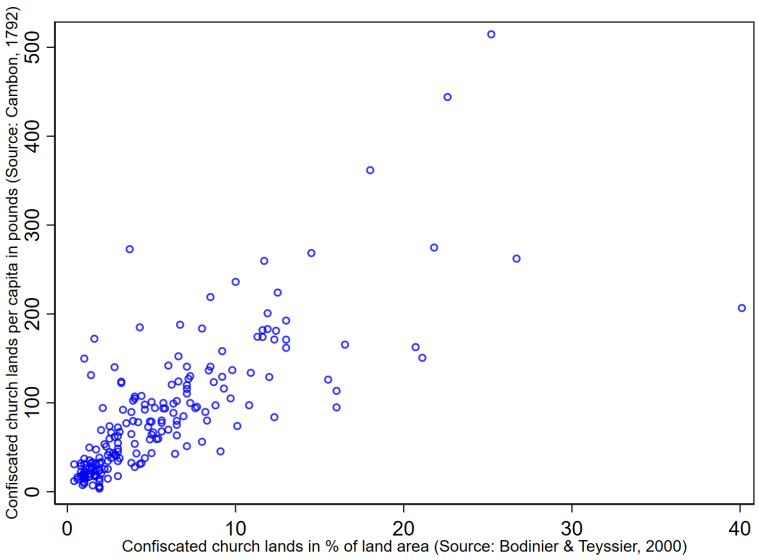
Figure 2 maps our data as well as Bodinier & Teyssier's (2000). To see if the two sources cor-

[31]The data in this first chapter also included the value of the productions of those ***biens nationaux*** appropriated by the Treasury. One limitation of this data is that we cannot know the sales timing. Before November 1791, the ***assignats*** depreciated relatively mildly but were nonetheless trading below par with species (122 pounds for 100 in species) (Crouzet, 1993). In Appendix B.2.1, we show that our results in Tables 1 and 5 are robust to adjusting this category for an effective depreciation of the ***assignats*** between 0 and 25%.

[32]The fourth chapter of this report estimates that the districts omitted 90 million pounds from the third chapter. Most of what was omitted were properties from the royal domain that were also nationalized, not Church properties.

[33]In Appendix B.2.2, we exclude this last category. Note that this last category accounts for only 12.8% of the total value of the ***biens nationaux*** estimated by this report. Also note that the correlation coefficient between a dummy for those missing observations and Bodinier & Teyssier's measure is negligible (-0.0673).

Figure 3: Correlation between Cambon's data and Bodinier's data.



roborate each other, Figure 3 plots the value of confiscated Church properties per capita (using 1793 population data) and the percentage of land area covered by those same properties. The correlation coefficient between the two variables is high (0.752).[34] We relegate the fascinating details about data collection to Appendix A.

3.2 Data on instrumental variables

We also collected data to build two instruments for the *biens nationaux*. First, we georeferenced 1,092 crusaders from the first four crusades using the data from Riley-Smith (1997), Phillips (2007), Bennett (2021), and Longnon (1978). Although our data certainly is not exhaustive since the names and geographical origin of foot soldiers are generally lost to history, it largely indicates whether liege lords, who were especially likely to donate to the Church, traveled to the Holy Land. Second, we collected data on the number of abbeys per capita in the year 1200, which predates the commercial revolution and the Reformation,[35] as an instrument to proxy for the *biens nationaux*. Bodinier & Teyssier (2000, p.338) argue that monasteries owned three-fifths

[34] If we remove the outlier on the right of Figure 3 (Cambrai), then the correlation coefficient increases to 0.795.

[35] Roover (1942) and Spufford (2002) both refer to the commercial revolution of the 13th century. Duby (1973, p.300) claims that "Around 1180, in all of Europe, the era of businessmen starts." The Renaissance is commonly described as the period between 1400 and 1700.

of ecclesiastical land area in 1789.

Despite the lack of a reference catalog for monasteries in medieval France, we compiled a reliable list of 2,543 male and female monasteries based on the works of Beaunier (1726) and Cottineau (1935-1970). In both cases, the data indicates the monastery's common name, its Latin designation, its evolution over the centuries, and its location. The reader can find further discussions over the choice of those variables in section 4.3.

3.3 Data on electoral outcomes

To measure adhesion to Republicanism or political conservatism in France in the 19^{th} century, we use the data made available by Piketty & Cagé (2023) for the 1848, 1849, 1876, 1881, 1885, 1889, 1893, and 1898 elections. The first two elections occurred during the Second Republic (1848-1852), while the last six were during the Third Republic (1870-1940).[36] Only the elections during the Third Republic are truly at the municipal level.

One issue is that the electoral districts in the late 19^{th} century do not correspond to the 1793 administrative districts. Since the Piketty & Cagé's (2023) data for the third Republic are reported at the city level, we re-aggregated them at the 1793 district level. We recreated the 1793 district borders using the *Projet Cassini* made available by EHESS.[37] This data reports the population of the almost 36,000 towns in France between 1793 and 2006, as well as their geolocalization, and the administrative subdivisions they belong to. We therefore matched each town to its 1793 district to calculate the anti-republican vote share at that level (Appendix A).

Calculating the anti-republican vote share also requires prior knowledge of political changes during the 19^{th} century. As we have alluded to earlier, the political identity of particular groups

[36]The data on the 1877 election was not collected by Piketty & Cagé (2023). The data on the 1871 election is very incomplete because the archives were partly damaged. In addition, the 1871 election occurred amid German occupation following the Franco-Prussian War of 1870. The Germans, who requested that an election be organized, were occupying 43 departments in which freedom of association was infringed. After Pope Léon XIII called for Catholics to rally the Republic in 1892, monarchism declined precipitously, and 1898 was the last time monarchist candidates earned more than 10% of the votes.

[37]Source: EHEESS. "Des villages de Cassini aux communes d'aujourd'hui. Index par départements." `http://cassini.ehess.fr/cassini/fr/html/6_index.htm` (last accessed December 12, 2023). We thank Cédric Chambru for sending us his web scrape of this data.

changed over time. Louis-Napoléon Bonaparte argued he would be respectful of republican institutions in 1848 before becoming Emperor Napoléon III in 1852. By 1850, his party started pursuing a pro-clerical policy and he wished to "consolidate his power by promoting a true Christian monarchy" (Boudon, 2007, p.79).[38] Bonapartism thus became pro-clerical, something it had not been during the Restoration.[39] Similarly, King Louis Philippe's Orleanist regime did not have a good relationship with the Catholic Church in the 1840s. However, by the 1870s, Orleanists fully supported the "moral order" government of President Mac-Mahon. We, therefore, categorize candidates as anti-republicans if they are Legimimists (favoring the return of the Bourbon monarchy), Orleanists (favoring the House of Orléans), Bonapartists (favoring a return to the Empire), or "Boulangists" during the 1889 and 1893 elections.[40]

3.4 Data on religiosity

Measuring religiosity in contemporary France is a difficult task in the absence of detailed official statistics (Poulat, 1956). This shortcoming led to a collective survey initiated by Le Bras (1931) and directed by Boulard during the second half of the 20^{th} century with the aim of measuring French religious practice. We use the original data published by Isambert et al. (1980); Boulard (1982); Boulard & Hilaire (1987); Boulard & Cholvy (1992) and Boulard & Delpal (2011). With the help of these sources, we get information about the share of *Pascalisants* in both the late 19^{th} century, 1919, and 1947. *Pascalisants* refers to Catholic devotees who attend Easter celebrations requiring prior confession. Using this measure of religiosity, we have data about 1,040 cantons (212 districts) in the late 19^{th}. The data relating to 1919 and 1947, on the other hand, are much more comprehensive. For 1947, it distinguishes between men and women.

We also collected data on Protestantism in France from the 16^{th} century to 1900. Due to persecutions, estimating the French Protestant population is extremely tricky (Benedict, 1991;

[38]The Falloux Law (1850) increased the Church's role in education, a policy summarized as "God in education. The Pope at the head of the Church. The Church at the head of civilization." (de Falloux, 1888, p.209).

[39]Nor were Napoléon I and the First Empire (1804-1814) particularly pro-clerical. Indeed, Napoléon I is often considered as "finishing the Revolution." Maurel (1975) contests that view.

[40]General Boulanger was a conservative political figure supported by the monarchists. Candidates described as "conservatives," "monarchists," "clericals," "antisemites" are also naturally included.

Chareyre, 2002). Nor is there a detailed account of Reformed worship in the 19^{th} century, even though Protestant religious observance was officially legalized under the Concordat of 1802 (Dargent & Dutreuilh, 2009). To provide accurate, consistent data on the geographical distribution of Protestant churches over time, we use the data in Mours (1957a,b,c, 1958). We compiled percentage of towns (*communes*) with an active temple in the 16^{th} century, during the 17^{th} century under the Edict of Nantes (1604-1685) and in the 19^{th} century. For each Protestant community in France, we use the date of foundation and the location of the temple where a regular pastor officiates. This work enabled us to map out the network of temples, which is a reliable indicator of the diffusion and extension of Protestantism in France.

3.5 Local characteristics

In addition to the data described above, we collected district and canton-level data including from archival documents, on four types of controls: geography, the economy, human capital, and ideology. Details are given in Appendix A and below when introducing our main results.

4 Evidence

4.1 Baseline results

Our data allow us to estimate the following equation for our baseline results:

$$M_{i,t} = \beta \times \texttt{log(biens nationaux per capita)}_i + \mathbf{X}_{i,t} + \delta_t + \zeta_i + \epsilon_{i,t} \tag{1}$$

where $M_{i,t}$ is the anti-republican vote share in district i at election t. Our main independent variable is the natural logarithm of the value of the national properties per capita sold during the French Revolution. $\mathbf{X}_i$ is a vector of control variables. δ_t and ζ_i are year and region fixed-effects. Table 1 reports the results from seven specifications—one for each election, as well as one pooling the elections from 1876 to 1889— estimated without fixed-effects (Panel A) and

with fixed effects for 13 regions (Panel B). Standard errors for the rest of the paper are clustered at the department level for cross-sectional data and at the district level when we use panel data.

Our interest lies mainly in the overall effect of the *biens nationaux* on the anti-republicanism (column 7), when monarchism remained a viable political force. We also examine how this relationship evolved during the early Third Republic (columns 1-6). The death of the Count of Chambord, the legitimist claimant to the throne, in 1883, or Pope Leo XIII's 1892 encyclical, which urged French Catholics to rally to the Republic, plausibly changed the studied relationship between electoral outcomes and the *biens nationaux*. The latter turning point is particularly relevant if the religious channel accounts for much of the observed relationship —further evidence for this mechanism is provided in Section 5. Since Table 1 shows that the anti-republican vote share collapsed after 1892, we focus primarily on elections between 1876 and 1889. Historians have long argued that Pope XIII's ralliement policy irremediably weakened Monarchists.[41] If the *biens nationaux* influenced elections by eroding Catholicism, a straightforward implication is that their impact should vanish after the ralliement.

Our results suggest that the *biens nationaux* exerted their strongest effect on the anti-republican vote share during the 1876 election (column 1), when the restoration of the monarchy still seemed within reach. The coefficients in column 1 are statistically significant at the 1% level regardless of whether region fixed-effects are included. The economic significance of these results is large, with a one standard deviation increase in our independent variable decreasing the anti-republican vote share by between 17.8 and 13.2%. Results for all elections from 1881 to 1889 also have the correct sign and are statistically significant at conventional levels.[42] The somewhat smaller effect in 1885 may reflect the distinctive list-voting rules used that year.

By contrast, the effect of the *biens nationaux* on the anti-republican vote share is lower in

[41]Dumont (2012, pp.8-9) stresses that before 1892 and the "policy of *ralliement*, doubt had no place for a segment of French Catholics: one was monarchist—often without hesitation—whether by family tradition or by personal conviction. With the ralliement, everything had to be reconsidered. The new papal directives disrupted local organizations and demoralized many activists who had been wholeheartedly devoted to the Catholic cause."

[42]Napoleon III's only son died in South Africa in 1879. Discouraged, conservatives refused to run candidates in nearly half of the electoral districts during the 1881 election, though they continued to perform strongly elsewhere. When districts with no anti-republican votes in 1881 are excluded, the estimates in column 2 move sensibly closer to those for 1876: -7.59 (p-value=0.0002) and -6.03 (p-value=0.013) for panels A and B, respectively.

1893 and 1898 (columns 5-6). For instance, the magnitude of our 1893 coefficient is less than half that of 1876. Panel B, which includes fixed effects for the 13 modern regions in France, reinforces this pattern. While the relationship between anti-republicanism and the *biens nationaux* holds when we account for region-specific unobserved heterogeneity prior to Pope Leo XIII's 1892 call for Catholics to rally the Republic, it does not after. This constitutes a first clue in favor of the religious channel.[43]

Each of the columns introduces 17 controls to account for other factors that likely play a role in explaining voting behavior and may be correlated with the redistribution of Church land. Three types of controls are included: geographic, economic, as well as controls related to human capital. The urbanization rate is probably the most recognized geographical determinant of anti-republicanism in 19^{th}-century France. The rural population, scattered in small villages, usually voted for monarchist candidates.[44] To further capture each district's embeddedness in the urban network at the time of the Revolution, we construct a measure of market access in 1793 using spatial data on the transportation network (Donaldson & Hornbeck, 2016).[45] Ruggedness and wheat suitability may also impact electoral outcomes as they influence both institutions and the structure of the local economy. Montalbo (2023) shows that rugged terrain reduced landed inequality and increased support for Republicans. The government likewise conscripted fewer soldiers from more rugged regions during the Napoleonic Wars (Rouanet & Piano, 2023). Finally, we include two variables capturing regional institutional diversity prior to the Revolution. The first is a dummy for districts belonging to a *pays d'État* —regions with greater experience with representative institutions and more autonomy in taxation (Mousnier, 1979). The second records whether a district applied written law, customary law, or a mixed system (le Bris, 2019).

We also include six economic and social controls. While economic variables are scarce

[43]Coefficients are slightly smaller once we include region fixed-effects. Note that they account for 52.1% of the variation in *biens nationaux*. With measurement error, fixed-effect models are notoriously susceptible to amplifying attenuation bias (Angrist & Pischke, 2009).

[44]We define the urbanization rate as the share of the population in towns over 2,000 inhabitants. Using alternative thresholds leaves results unchanged (Appendix B.3).

[45]For details, see Appendix A.7. We show that our measure closely predicts historical transportation costs.

Table 1: The effect of land redistribution on the anti-republican vote share (1876 to 1898)

Election:	1876	1881	1885	1889	1893	1898	1876 to 1889
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	PANEL A: *Baseline OLS regressions, no fixed-effects:*						
log(biens nationaux per capita)	-7.90587***	-6.81188***	-3.04072**	-5.11022***	-3.71458*	-4.11851**	-5.66958***
	(1.78141)	(2.09469)	(1.51585)	(1.85933)	(2.09802)	(1.99165)	(1.05699)
Observations	452	453	453	453	453	453	1811
Within R^2	0.22	0.23	0.24	0.24	0.20	0.18	0.19
Magnitude:							
Standardized coefficients	-7.04	-6.10	-2.72	-4.58	-3.33	-3.69	-5.07
Mean of dependent variable	39.61	24.52	45.91	45.04	17.22	12.92	38.77
	PANEL B: *OLS regressions including regions fixed-effects:*						
log(biens nationaux per capita)	-5.87862***	-4.60253**	-2.87921**	-3.72676**	-0.48534	-0.14211	-4.23972***
	(2.04916)	(2.30053)	(1.13705)	(1.82173)	(1.98489)	(1.77314)	(1.22039)
Observations	452	453	453	453	453	453	1811
Within R^2	0.09	0.09	0.14	0.08	0.04	0.05	0.06
Magnitude:							
Standardized coefficients	-5.23	-4.12	-2.58	-3.34	-0.43	-0.13	-3.79
Mean of dependent variable	39.61	24.52	45.91	45.04	17.22	12.92	38.77
log(Market access)	✓	✓	✓	✓	✓	✓	✓
Ruggedness	✓	✓	✓	✓	✓	✓	✓
Urbanization rate	✓	✓	✓	✓	✓	✓	✓
Wheat suitability	✓	✓	✓	✓	✓	✓	✓
Written law	✓	✓	✓	✓	✓	✓	✓
Pays d'Etats	✓	✓	✓	✓	✓	✓	✓
Forges per capita	✓	✓	✓	✓	✓	✓	✓
Average conscript height	✓	✓	✓	✓	✓	✓	✓
Below height requirement	✓	✓	✓	✓	✓	✓	✓
Revolts against Church (pre-1789)	✓	✓	✓	✓	✓	✓	✓
Revolts against Nobility (pre-1789)	✓	✓	✓	✓	✓	✓	✓
Revolts (pre-1789)	✓	✓	✓	✓	✓	✓	✓
Secular lycées (1789)	✓	✓	✓	✓	✓	✓	✓
Religious lycées (1789)	✓	✓	✓	✓	✓	✓	✓
STN books sold per cap.	✓	✓	✓	✓	✓	✓	✓
Banned books sold per cap.	✓	✓	✓	✓	✓	✓	✓
Encyclopedia subscriptions per cap.	✓	✓	✓	✓	✓	✓	✓
Election F.E.							✓
*** p<0.01, ** p<0.05, * p<0.1							

Note: Each observation is a district. The dependent variable is the anti-republican vote share. The table reports coefficients on the log of *biens nationaux* per capita (population in 1793). Panel A reports seven separate OLS regressions—one for each election from 1876 to 1898—and a final column pooling all elections before 1893. Panel B reproduces the specifications in Panel A while adding fixed effects for 13 regions. All regressions include 17 controls, whose inclusion is indicated by checkmarks. Standardized coefficients equal the coefficient multiplied by the standard deviation of the main regressor. Robust standard errors clustered at the department level (columns 1–6) and at the district level (column 7) are reported in parentheses.

before the Revolution, we use novel canton-level archival data on conscript heights and failures to meet the military's height requirement for the cohort born in 1799. Since adult height is primarily established from conception to two years old, "when nutritional requirements are greater than at any subsequent time and when infections [...] occur most frequently" (Perkins et al., 2016), height is a good proxy of standards of living during the Revolution.[46] To account for

[46]The incidence of stunting seems highest "from birth to the age of 3 months." (Benjamin-Chung et al., 2023).

industrialization, we geolocalized the data in Bourgin & Bourgin (1920) to measure the number of forges per capita at the beginning of the Revolution. Finally, we control for the pre-Revolution prevalence of collective action using Gay's (2025) data on revolts during the *Ancien Régime*. From this source, we build three variables on revolts against the Church, the nobility, and the total number of revolts between 1750 and the Revolution.

Human capital is also a significant determinant of voting behavior (Putnam, 1995; Campante & Chor, 2012). Lipset et al. (1960) hypothesized that a better-educated population is more likely to support democratic governance based on trade and voting. At the international level, higher human capital is associated with institutional improvements (Glaeser et al., 2004). We therefore add data on the number of secular and religious high schools in 1789 (Bonin & Langlois, 1987). Following Jha & Wilkinson (2023), we also control for the pre-Revolution's exposure to enlightenment ideology using three variables: knowledge elite subscriptions to the *encyclopédie* per capita (Squicciarini & Voigtländer, 2015), the number of books sold by the *Société typographique de Neuchâtel*, as well as the number of banned books sold from the same source per capita.

Results before the Third Republic. We run multiple tests attesting to the robustness of our results. First, while we focus on the Third Republic because it was the first time universal suffrage and a genuine political debate over whether to keep Republican institutions existed, our argument over the effects of the *biens nationaux* is more general.[47] Appendix D provides evidence that the *biens nationaux* is correlated with a higher vote share for the liberal opposition in the 1827 and 1830 elections. Members of parliament from electoral districts with more *biens nationaux* were also more likely to vote for the March 16, 1830, address to King Charles X, which precipitated the 1830 Revolution.

Municipality level results. Second, we use Bodinier's (1988) municipality-level data for the Eure department and show that the negative relationship between national assets and anti-

See also Black et al. (2013): "Almost all stunting takes place in the first 1000 days." Height has been widely used in economic history to analyze standards of living. See: Fogel (2004), Floud et al. (2011) and, Morin et al. (2017).

[47] Another reason for focusing on the Third Republic is that the data is available at the municipal level. For 1848, the data are truly at the department level, while for 1827, they are at the electoral district level, which is half the number of administrative districts.

republicanism replicates, even when controlling for electoral race fixed-effects (Appendix F).

Second-origin *biens nationaux*. Third, despite data limitations, the effect of church properties remains when controlling for the sale of the emigrants' properties during the Revolution (Appendix C). For regions that were not in open rebellion against the Revolution, confiscated emigrant properties also predict a lower anti-republican vote share.

Sensitivity analysis and spatial standard errors. Fourth, we assess the sensitivity of our estimates to the presence of omitted variables in Appendix B.1. The sensitivity test suggested by Imbens (2003) and Harada (2013) shows that relative to our covariates, unobservables would have to be substantially more correlated to both our dependent and independent variables for p-values to rise above 5%. The reported Oster's δ (Oster, 2019) and the sign-change breakdown point (Masten & Poirier, 2023) also suggest that, relative to observables, unobservables would need to be much more correlated with both the outcome and treatment to eliminate the effect or reverse its sign. To address spatial dependence, we report Moran's I on residuals and Conley (1999) standard errors for distances from 50 to 1,000km (Appendix B.4). Moran's I indicates some spatial correlation, yet coefficients remain significant and standard errors are often smaller.

Other robustness checks. Finally, Table B.10 confirms our results using the unlogged measure of national assets as well as the percentage of land surface area covered by Church properties (Bodinier & Teyssier, 2000). Appendix B.2 adjusts our favored measure of the value of church land from the *Archives Parlementaires* for the depreciation of the revolutionary paper money (the *assignats*) and reruns the results excluding the *biens nationaux* whose sale had been delayed in 1792. To further ensure our results are not driven by urbanization, Appendix B.3 reproduces our regressions using alternative measures of urbanization or excluding districts with an urbanization rate above one-third, thus cutting the number of observations by almost half. Our results are remarkably robust across all these appendices.

4.2 Controlling for ideology during the French Revolution

If regions with more Church land immediately before 1789 were also more (less) influenced by the Enlightenment and liberal principles, then our results reported in Table 1, may reflect that correlation and not the effect of land redistribution on political support for the Republic. We thus control for two events to proxy adherence to the Revolution: the prevalence of Jacobin clubs and the oath of the clergy to the Constitution. Table 2 reports the results.

In July 1790, the legislative assembly decreed the Civil Constitution of the Clergy, which extended the French government's power over the Church, and ordered clergymen to swear an oath of allegiance to the State. The oath-taking started in January 1791. Tackett (1986) collected district-level data on the percentage of the French clergy who swore an oath to the Constitution from January to November 1791. The oath "soon became a veritable obsession, unleashing emotional reactions and factional strife in parishes everywhere." (Tackett, 1986, p.4). By 1791, the oath was "the central public event" (Tackett, 1986, p.5) and "became a sort of indirect referendum for or against the religious politics of revolutionaries" (Langlois et al., 1996, p.32) as clergymen often could not resist popular pressure.[48]

Using the oath as a proxy is not without trade-offs and likely leads to overly conservative estimates of the effects of the *biens nationaux* for three reasons. First, the oath took place after the *biens nationaux* were nationalized and after many had already been sold. As Tackett (1986, p.183) explains, "in most departments the calendar for the auctioning of Church property closely coincided with the oath-taking crisis." Second, where monastic wealth was greater, the parish clergy tended to be poorer and relied on a very low wage paid by the high clergy (the *portion congrue*), since tithes were held by monasteries (De Vaissière, 1921; Gilles, 1984). Poorer

[48]The data on the oath could also shed light "on the inception of the 'Two Frances' —the clerical France and the anticlerical France— of modern times." (Tackett, 1986, p.xvi). Blanc (2021) and Squicciarini (2020) both use the oath to measure religiosity. Although Tackett himself certainly did not argue that the oath *only* measured religiosity, he was much more measured than Bois (1960) who argued that "The oath [...] could be construed as a plebiscite, a popular referendum on the *non-religious* innovations of the Revolution as a whole." [emphasis added] (Tackett, 1986, p.184). Tackett (1986, p.190-202) points out other (potentially) important secular determinants of the oath, such as resistance to centralization as well as tax reforms and the structure of landholdings. Overall, "That there was some kind of relationship between the various manifestations of counterrevolution and the geographic incidence of the oath seems scarcely to be denied." (Tackett, 1986, p.203).

priests were more likely to swear the oath because they materially gained from the State paying them a higher income under the Civil Constitution of the Clergy (Tackett, 1984). Since two-thirds of the *biens nationaux* were previously owned by monasteries (Bodinier & Teyssier, 2000, p.388), greater land redistribution was correlated with a higher share of clergymen swearing the oath. In that context, oath-taking not only reflects the ideological landscape during the early Revolution but also whether or not priests financially gained. Finally, when the regular orders were abolished in February 1790, monks had to choose between civilian life, emigration, or attempting to join the parish clergy. Those choosing to integrate the parish clergy were more likely to swear the oath.[49]

To address the limitations of our variable on the clergy's oath, we proxy for ideology using the prevalence of Jacobin clubs created before 1791 —i.e., before the sale of *biens nationaux*.[50] Those pro-Revolution political clubs radicalized the Revolution (Cochin, 1921, 1924; Rouanet, 2023), and reflect the political support for revolutionary principles. In Appendix B.5, we further use the number of revolts in 1789 and 1790, the prevalence of addresses of thanks and support to the National Assembly in 1789, and 32 variables created from the *cahiers de doléance* (Hyslop, 1934; Shapiro et al., 1998), which are the best source of information about ideology at the eve of the Revolution (Jha & Wilkinson, 2023).

Columns 1 to 8 in Table 2 replicate the main regressions from Table 1 while adding our two ideological proxies. The coefficients on our two proxies have the expected sign. For instance, a larger percentage of the clergy swearing an oath to the Constitution —which reflects higher adherence to the Revolution— predicts lower support for the anti-republicans during the Third Republic. Similarly, the greater prevalence of Jacobin clubs prior to 1791 is correlated with lower political support for monarchism during the Third Republic. Despite the likely downward bias when controlling for the clergy's oath, the coefficients on the log of the value of *biens nationaux*

[49]Data from Tackett (1986, p.41) suggest that monks were more likely to swear an oath than the rest of the clergy. A letter to the Department of Var's administration reports numerous requests by regular clergymen enthusiastic about swearing the oath in exchange for a position as a priest or vicar (*Archives Nationales*, D/XIX/2122).

[50]Very few *biens nationaux* were auctioned off before 1791. In the Gironde department, the first Church properties were sold in November 1790. Only 141 out of 10,525 were sold for the rest of the year (Marion et al., 1911).

per capita remain economically large and statistically significant in all columns, which indicates our results are robust to controlling for ideology in the 1790s.

Table 2: Controlling for adherence to the Revolution in the 1790s.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log(biens nationaux per capita)	-6.15635***	-6.10976***	-5.67141***	-4.21162***	-4.31904***	-4.16867***	-3.66482***	-2.79237**
	(0.87608)	(1.00123)	(1.05539)	(1.21304)	(0.93150)	(1.10729)	(1.13027)	(1.28381)
Jacobin Clubs (< 1791)	-2.07448**	-2.01024**	-1.50322*	-0.95300				
	(0.91199)	(0.88592)	(0.89954)	(0.81292)				
Clergy's Oath					-26.1010***	-24.8374***	-24.8550***	-11.3173***
					(3.07069)	(3.26119)	(3.23137)	(3.26187)
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓
Human capital controls			✓	✓			✓	✓
Region F.E.				✓				✓
Election F.E.	✓	✓	✓	✓	✓	✓	✓	✓
Observations	1855	1819	1811	1811	1719	1683	1683	1683
R-squared	0.26	0.28	0.30	0.40	0.32	0.33	0.36	0.42
Magnitude:								
Standardized coefficients	-5.60	-5.56	-5.07	-3.76	-3.79	-3.65	-3.21	-2.45
Mean of dependent variable	39.03	38.79	38.77	38.77	39.06	38.8	38.8	38.8
*** p<0.01, ** p<0.05, * p<0.1								

Note: An observation is a district for each election between 1876 and 1889. The dependent variable is the anti-republican vote share. All regressions are estimated using OLS. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Standard errors clustered at the district level are reported in parentheses.

4.3 Instrumental variables

Our OLS estimates in Sections 4.1 and 4.2 may be biased for several reasons. If the value of national properties is measured with error, our main results may suffer from downward bias, especially when fixed-effects are included. Moreover, both the supply of ***biens nationaux*** and voting behavior is likely correlated with unobserved characteristics. Two important political and religious changes from the 16^{th} to the late 18^{th} century, whose effects are plausibly persistent, stand out. The first of those changes is the Protestant Reformation. The Catholic Church was likely poorer in more Protestant regions, both because its market share declined and because religious wars led to the destruction of monasteries and other Church assets.[51] Since Protestants

[51]For instance, Cantoni et al. (2018) show that the Reformation redistributed resources from religious to secular purposes in Germany. The French State financed the Wars of Religion using the monasteries' resources (Becquart, 1974; Michaud, 1982). Monasteries lost an average of almost 15% of their assets during the 16^{th} century (Dinet,

were usually politically more liberal (see section 5.2), our OLS results may underestimate the political effect of the *biens nationaux*.

The second change was the rapid secularization of French society during the 18^{th} century, a trend described as "a veritable flood" by Tackett (1986).[52] Irreligion in the 18^{th} century likely impacted the Church's wealth negatively, as well as religiosity in the 19^{th} century. Since Catholicism and political conservatism were closely related, our main OLS results may suffer from downward bias here as well.

To overcome those issues, we use two main instruments. The first is the number of crusaders per capita during the first four crusades. The major role played by the crusades in the 12^{th} century monastic revival is well recognized by historians, thus insuring our instrument's relevance.[53] For instance, Murat (1997, p.311) explains that in the Nivernais region, the crusade was "the occasion for a vast transfer of property, the unquestionable beneficiary of which was the Church."[54] Similarly, Waquet et al. (2004) show that influxes of donations to monasteries coincided with the preparations of the crusades.

The sources of variations in the number of crusaders, on the other hand, were largely the result of noblemen's religious zeal, their quest for honor, and the geopolitical landscape at the time of the crusades. For instance, King Philip I of France did not participate in the First Crusade as he was excommunicated at the time for marital reasons. With the French monarchy relatively weak, powerful regional nobles led their own armies to the East.[55] On the other hand, King Louis VII went on the Second Crusade (1147-1149), which meant more crusaders came from the royal domain and the territories of his close allies. Similarly, while there had not been many crusaders from Normandy and the Angevin empire during the Second Crusade,

1999). This number was higher where Protestantism was strong as in the region around Nîmes Sauzet (1979, p.355).

[52]Blanc (2021) documents the rise of irreligion in 18^{th} century France and its consequences on fertility.

[53]Of course, our data covers almost exclusively the participation of nobles in the crusades, and the information about foot soldiers during the crusade is lost to history. For our purpose, it is not a problem since (a) in a feudal society, the decision of the liege lord takes precedence as vassals need to keep their vows and follow, (b) most of the donations to the Church were made by prominent noblemen.

[54]The same is true for other regions, whether it be Picardie (Fossier, 1968), Burgundy (Bouchard, 1991), etc.

[55]Other factors were very local. For instance, Count Helias of Maine refused to depart for the First Crusade "when he learnt that King William of England was determined to seize his county." (Riley-Smith, 2003, p.40).

there were many more during the Third Crusade (1189-1192) as Richard I Lionheart of England participated. Finally, no royal house took part in the Fourth Crusade (1202-1204), which was largely driven by Northern French noble houses.

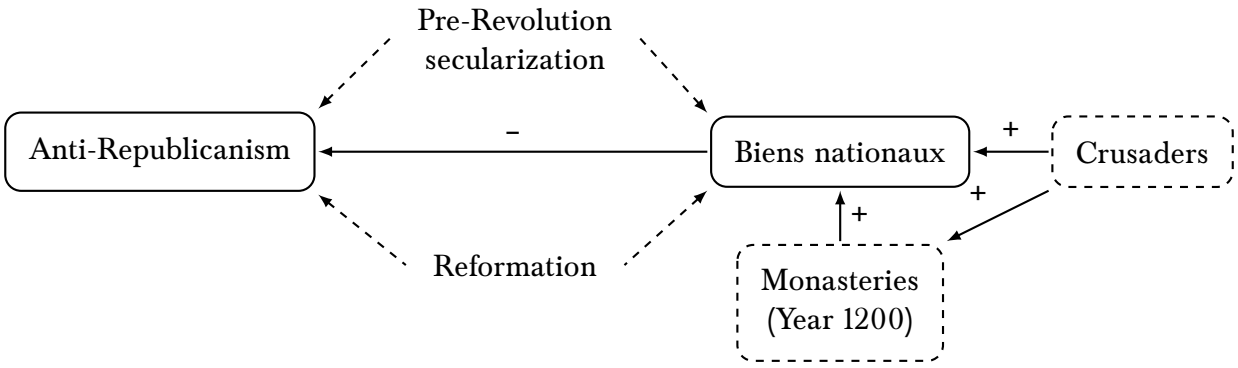
While geopolitical considerations played a major role in the nobles' decision to take the cross, Riley-Smith (2003, p.47) argues that "In the light of the evidence it is hard to believe that most crusaders were motivated by crude materialism." Instead, Riley-Smith points to piety as an important motive, while "A man might take the cross to acquire honour, or he might take it when his honor was impugned." (p.41). Since neither the piety of liege lords, nor their demand for honor, nor the complex web of 12^{th} Century feudal relationships and conflicts is related in any obvious ways to 19^{th} electoral outcomes or their determinants, the prevalence of crusaders is our preferred instrument. In addition, the many motives and events driving the crusaders to give resources to the Church were often unique. In some cases, crusaders promised donations to monasteries conditional on their dying during the Crusade (Bouchard, 1991, p.40). In other cases, mothers made donations for the safety of their sons (Riley-Smith, 2003, p.47), and crusaders' widows for the commemoration of their dead husbands (Riley-Smith, 2003, p.123-124). Certainly, from the point of view of 19^{th} century politics, the death of a crusader a few centuries earlier in Jerusalem can be treated as being as good as random.[56] While exogeneity cannot be directly tested without auxiliary assumptions, Appendix G.3 reports our IV estimates using each crusade as a separate instrument. Hansen-J overidentification test p-values range from 0.51 to 0.21, failing to reject the null hypothesis that the instruments are valid. Since the geographic sources of variation differed across Crusades, these results provide some confidence for our empirical strategy under the assumption that at least one of the instruments is valid.

Our second instrument is the number of monasteries in the year 1200 per capita as an instrument.[57] Figure 4 summarizes graphically our identification strategy. The idea behind using this instrument is that monasteries operating six centuries before the Revolution and, crucially,

[56] Crusaders also came back with relics (Riley-Smith, 2003) that may have boosted donations to the Church.

[57] In all cases, our per capita measures are using the population in 1793. Appendix G.2.3 reports the IV results using the raw number of monasteries and crusaders.

Figure 4: Identification strategy



Note: This diagram illustrates our identification strategy. Plain boxes represent our main dependent and independent variables. Dashed boxes indicate the instruments used in the paper. Dashed arrows represent potential confounders that may affect both anti-republican attitudes under the Third Republic and Church wealth in 1789.

before the development of the urban mendicant orders, were established for reasons orthogonal to other important determinants of political support for republicanism in the 19^{th} century. As for the Crusades, the decision to establish and maintain a monastery before 1200 preceded several major shocks to French society. These events include the Commercial Revolution, the Black Death, during which 40% of the European population perished (Jedwab et al., 2023), the Hundred Years' War (1337-1453), and the discovery of the Americas in 1492.

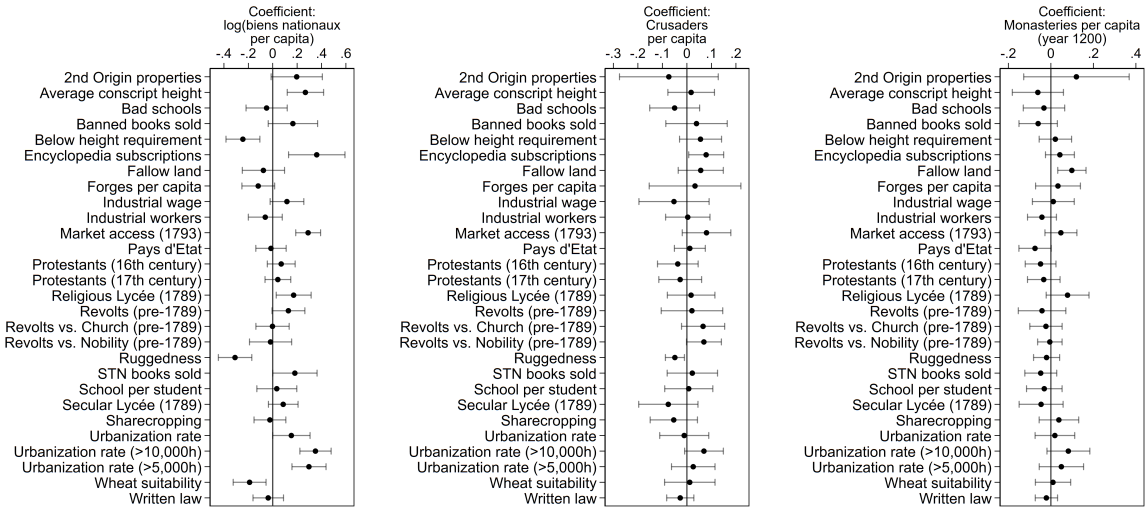
Figure 5 shows that our instruments are much more balanced across 29 covariates than the value of *biens nationaux*. In the left panel, our instrumented variable is correlated with important variables such as market access, conscripts' height, and urbanization. Oppositely, in the two panels on the right, our instruments are not systematically correlated with our covariates.[58]

Panel A and B in Table 3 present our reduced form and second stage results using our crusaders instrument (columns 1-4), our monasteries instrument (columns 5-8), and both combined (column 9).[59] The Kleibergen-Paap first stage F-statistic always exceeds 20 and the Anderson-

[58]Only the prevalence of fallow land (a sign of agricultural backwardness) is positively correlated with Monasteries per capita and passes the 5% significance level. Encyclopedia subscriptions, but not STN books sold, are positively correlated with the prevalence of crusaders. Places with more crusaders are also somewhat less rugged, although this works against our results since ruggedness seems to have benefited Republicans politically (Montalbo, 2023). The economic magnitudes of those coefficients are also small. In all cases, a one standard deviation increase in a control predicts a less than 0.1 standard deviation change in the prevalence of crusaders.

[59]Reduced-form regressions use more observations since the instrumented variable has missing observations.

Figure 5: Balance of covariates.



Note: Each coefficient in these panels represents a separate regression. The independent variable is either "log(***biens nationaux***) or one of our instruments. All variables are standardized. Each regression uses the same sample and includes region fixed-effects. We report confidence intervals at the 95% level using standard errors clustered at the department level.

Rubin statistics always have $p < 0.05$. As recommended by Lee et al. (2023), we report the VtF confidence intervals for our just-identified IVs. The magnitude of the effect using our instruments is higher than for our baseline OLS regressions in Table 1. Still, if we take column 8 and compare it to column 7 in Table 1, the OLS estimate is less than one standard error away from the IV estimate.[60] The coefficients are remarkably stable across specifications, and the overidentification test in column 9 fails to reject the hypothesis of instrument validity.

Saint-Bernard and Urban II's itineraries. Since our main instruments concern the growth of monasticism in the 12^{th} century, Appendix G.1 implements an additional strategy using the itineraries of Pope Urban II, who preached the First Crusade, and Saint-Bernard of Clairvaux, who was central to the rise of the Cistercian and Templar orders (Schenk, 2012) and an effective preacher of the Second Crusade.[61] Although weaker, these instruments yield results in Table G.22 that are virtually identical to those from our crusader instrument: with the full set of controls and region fixed-effects, coefficients match to the second decimal.

[60] In addition, the IV coefficients are stable when including region fixed-effects, while OLS estimates fall by 25%. This may be a sign that our OLS results are overly conservative because of attenuation bias.

[61] We owe this idea to Ennio Piano.

Table 3: Reduced-form and instrumental variables estimates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PANEL A: *Reduced-form:*								
Crusaders per capita	-6.20719***	-5.17696***	-4.94408***	-2.98788***					-2.64230***
	(1.08237)	(1.07167)	(1.02836)	(0.98537)					(0.97771)
Monasteries per capita (year 1200)					-83.0872***	-75.6950***	-63.2693***	-48.6092***	-43.4017**
					(20.1615)	(20.1437)	(19.6687)	(17.8124)	(17.7809)
Observations	2103	2067	2043	2043	2103	2067	2043	2043	2043
R-squared	0.23	0.26	0.29	0.40	0.23	0.26	0.28	0.40	0.40
	PANEL B: *Second stage:*								
log(biens nationaux per capita)	-10.8214***	-10.9803***	-11.7130***	-12.8555**	-7.69936***	-8.07149***	-6.74116**	-7.28566**	-8.71425***
	(2.46612)	(2.87007)	(3.02008)	(5.14349)	(2.36697)	(2.71502)	(2.76577)	(3.62899)	(3.25177)
Magnitude:									
Standardized coefficients	-9.84	-9.99	-10.47	-11.49	-7.00	-7.34	-6.02	-6.51	-7.79
Mean of dependent variable	39.03	38.79	38.77	38.77	39.03	38.79	38.77	38.77	38.77
AR p-value	0.000	0.000	0.000	0.010	0.002	0.003	0.016	0.047	0.011
VtF 95% CI	[-15.57;-6.12]	[-16.54;-5.50]	[-17.45;-5.96]	[-23.06;-3.52]	[-12.24;-3.16]	[-13.30;-2.87]	[-12.04;-1.46]	[-14.19;-0.43]	
Overidentification p-value									0.310
	PANEL C: *First stage:*								
Crusaders per capita	0.50561***	0.41814***	0.38741***	0.20449***					0.17132***
	(0.059757)	(0.049868)	(0.050154)	(0.042995)					(0.040751)
Monasteries per capita (year 1200)					9.32095***	8.19290***	7.72476***	5.37990***	5.07888***
					(1.00359)	(0.92532)	(0.91533)	(0.76959)	(0.76033)
Observations	1855	1819	1811	1811	1855	1819	1811	1811	1811
Partial R^2	0.13	0.11	0.10	0.04	0.15	0.15	0.14	0.10	0.13
First stage F-stat	71.59	70.31	59.67	22.62	86.26	78.39	71.22	48.87	32.86
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓	✓
Human capital controls			✓	✓			✓	✓	✓
Region F.E.				✓				✓	✓
Election F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1									

Note: An observation is a district for each election between 1876 and 1889 included. The dependent variable is the anti-republican vote share. Columns 1-4 use the number of crusaders per capita during the first four crusades as an instrument. Columns 5-8 use the number of monasteries in 1200 per capita –using 1793 population data. Column 9 uses the two instruments together. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Panel A, B, and C report our reduced-form, second stage, and first stage results, respectively. VtF confidence intervals are reported only for just identified IVs. Standard errors clustered at the district level are reported in parentheses.

Placebos. We run four placebo tests. Neither our instruments nor national assets are correlated with 1789 grievances sent to the Estates-Generals (Table H.26), including anti-clericalism in the *cahiers* or with the election of left-wing candidates in 1791 (Table H.27).[62] Next section adds two more tests: there is no visible correlation with addresses of thanks sent to the Assembly before the nationalization of Church assets (Tables 4), nor with the formation of revolutionary clubs prior to the dechristianizing phase of the Revolution (Table I.29).[63]

[62]If anything, national assets, but not our instruments, are slightly ***positively*** correlated with electing conservatives in 1791, implying our OLS estimates may understate the effect of Church land redistribution. Following Mitchell (1984), we also examine seven Legislative Assembly roll-call votes (voting no signals conservatism) and find no correlation with our instruments.

[63]Finally, our results hold when we choose any particular date between 1100 and 1500 to calculate monasteries per capita (Appendix G.2.1) or when we use a distance-weighted measure of proximity to monasteries to account for the possibility that abbeys owned properties in nearby districts (Appendix G.2.2).

5 Mechanisms and implications

5.1 Religiosity

5.1.1 Revolutionary dechristianization

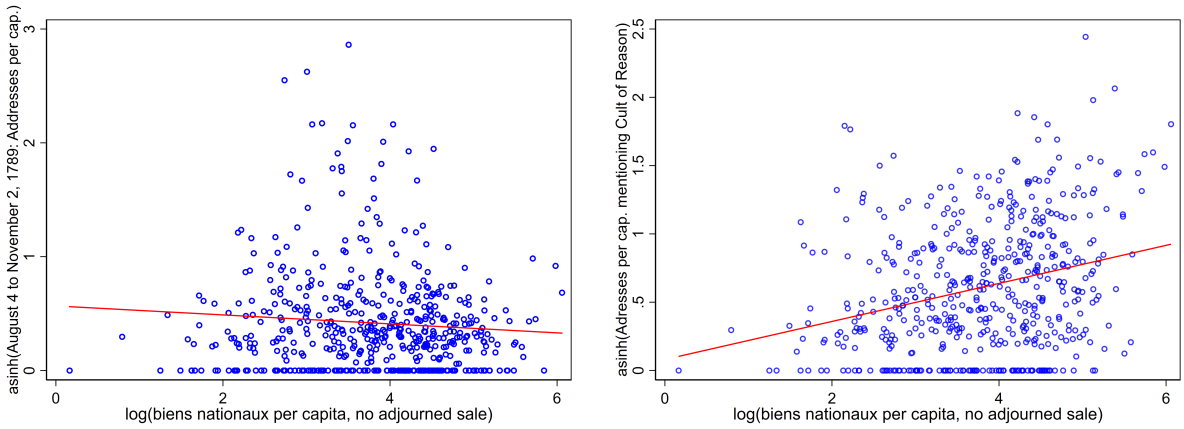
The French are not passively carried away by ideologies, whether it be Rousseauism, rationalism, etc. In their country as well, interest group politics plays a role and ideas are shaped by their supply and demand.[64] The transfer of *biens nationaux* birthed a new class of landowners, whose economic interests were linked to the Revolution's political legacy. Yet the evidence points to falling religiosity as the primary channel through which the *biens nationaux* persistently weakened political conservatism. On the demand side of the market for religion, priests were often hostile to the 600 to 700 thousand who bought national properties (Bodinier & Teyssier, 2003), thus increasing the opportunity cost of Catholic worship. Owners may also have become less religious as their investment conflicted with their faith. On the supply side, the Church had lost most of its means of spiritual production and prestige. Yet the *biens nationaux* also impacted religion by boosting dechristianization during the Revolution.

Dechristianization lasted from autumn 1793 to Robespierre's execution in July 1794. Priests abdicated, relics were desecrated, religious books were burnt, and for a moment it seemed most revolutionaries sought the eradication of the Catholic Church.[65] The consequence was "[A]n ineradicable break in mentality. [...] A 'Jacobin' France then began to take shape, in a spatial framework that was destined to have a long future." (Vovelle, 1991, p.175). We assess the effects of the *biens nationaux* on revolutionary dechristianization using two measures. The first is the prevalence of addresses to the National Assembly invoking the "Cult of Reason," a revolutionary cult intended to replace Catholicism. The second is the number of political societies, which played a central role spurring dechristianizing activities (Kennedy, 2000, p.151-175). Since dechristianization preceded the end of Church land sales, we exclude assets whose

[64] As a means of contrast, Hayek (1980) focuses his emphasis on the "false" individualism of the French Revolutionaries as opposed to the "true" individualism of the British.

[65] Vovelle (1991) estimated that 90% of priests who abdicated did so involuntarily.

Figure 6: Addresses to the National Assembly sent before the nationalization of Church property and in support of the Cult of Reason.



Note: The left panel plots the inverse hyperbolic sine transformation of the number of addresses sent to the National Assembly between August 4, 1789, and the nationalization of Church property on November 2, 1789, per 10,000 inhabitants. The right panel plots the same transformation for addresses supporting the Cult of Reason and sent between the first *fête de la Raison* on November 10, 1793, and the fall of Robespierre on 9 Thermidor, Year II (July 27, 1794), per 10,000 inhabitants.

sales were adjourned for later, most of which were sold under the Directory (1795–1799).[66]

Figure 6 and Table 4 (columns 5-8) show that there is a robust positive relationship between the amount of *biens nationaux* sold and the number of addresses per capita in favor of the Cult of Reason. To gain confidence that this correlation is not simply spurious, we also collected addresses of thanks and support to the National Assembly *before* the nationalization of the Church's wealth, but after the abolition of feudalism (August 4, 1789). The absence of any correlation with addresses before the *biens nationaux* further confirms that our results are not simply reflecting pre-existing adhesion to the Revolution. Instrumental variable estimates (Table I.28) are fully consistent with the OLS results in Table 4.

Contrary to our data on the Cult of Reason, we observe the number of radical political clubs annually between 1789 and 1794. We therefore estimate the an event-study specification, which rests on different identifying assumptions —most importantly, the assumption of parallel trends:

$$\texttt{Political Clubs}_{i,t} = \sum_{\tau \neq 1792} \beta_\tau \times \delta_\tau \times B_i + \mathbf{X}_i \times \delta_t + \delta_t + \alpha_i + \epsilon_{i,t} \tag{2}$$

[66] Figure I.26 shows that our results hold using our other measures, while Appendix I.7 shows that our difference in difference results do not depend on any specific observation.

Table 4: More ***biens nationaux*** predicts more support for the Cult of Reason but does not predict addresses of thanks and support to the National Assembly early during the Revolution.

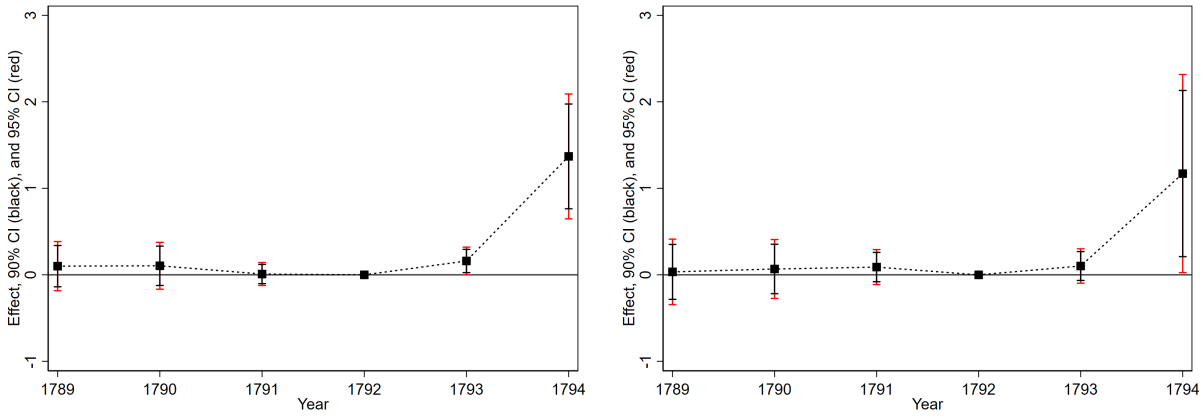
	1789 Addresses				*Cult of Reason Addresses*			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log(biens nationaux, no adjourned sales)	0.018470	0.020312	0.0016732	-0.10111	0.20616***	0.20729***	0.19412***	0.15501***
	(0.048971)	(0.049748)	(0.061604)	(0.061595)	(0.037897)	(0.046598)	(0.050510)	(0.055162)
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓
Human capital controls			✓	✓			✓	✓
Region F.E.				✓				✓
Observations	528	519	516	516	528	519	516	516
R-squared	0.09	0.10	0.11	0.37	0.19	0.21	0.21	0.35
Magnitude:								
Standardized coefficients	0.02	0.02	0.00	-0.09	0.19	0.19	0.17	0.14
Mean of dependent variable	.52	.52	.53	.53	.74	.74	.74	.74
*** p<0.01, ** p<0.05, * p<0.1								

Note: An observation is a district. All regressions are estimated using OLS. "log(biens nationaux, no adjourned sales)" is the natural log of the per capita value of national assets either sold or whose sale had been ordered in November 1791. It excludes ***biens nationaux*** whose sale had been adjourned at that date. The dependent variables are the number of addresses sent to the National Assembly between the abolition of privileges (August 4, 1789), and the nationalization of Church property (November 2, 1789), per 10,000 inhabitants (columns 1 to 4); and the number of addresses supporting the Cult of Reason and sent between the first ***fête de la Raison*** (November 10, 1793), and the fall of Robespierre on 9 Thermidor, Year II (July 27, 1794), per 10,000 inhabitants (columns 5-8). Geographic controls include: urbanization rate (in 1793); wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for ***pays d'Etat***. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Standard errors clustered at the department level are reported in parentheses.

where $\tau \in 1789, 1790, ...1794$ is the set of years, with 1792 as the omitted category. B_i denotes our measure of ***biens nationaux*** in district i. $\mathbf{X}_i \times \delta_t$ captures flexible trends, which include time invariant controls and region fixed effects interacted with year dummies. Finally, δ_t and α_i are year and district fixed effects, respectively.

Our results, reported in Table I.31 and illustrated in Figure 7, show that while the supply of national assets did not affect trends in club formation prior to the dechristianization period, districts with greater ***biens nationaux*** experienced a relative increase in political clubs during the dechristianization period. These findings are consistent with the OLS and IV results in Appendix I: neither national assets nor our instruments are correlated with clubs before dechristianization, but both predict more club formation in 1793/1794, as well as more Constitutional Circles, which continued to carry the Jacobin legacy during the Directory (1795-1799).

Figure 7: Event-study graphs of the effect of *biens nationaux* on political societies



(Results with controls) (Results with controls + Region flexible trends)

Note: These two figures report the results for our difference-in-differences strategy. The results graphed are from columns 4 and 5 in Table I.31. The dependent variable is the number of political societies for each year between 1789 and 1794. The coefficients reported are the natural log of per-capita *biens nationaux* sold or ordered to be sold in November 1791, interacted with year dummies. In both the left and right panels, flexible trends are included by interacting year fixed effects with the same set of controls as in Table 4. The right panel adds flexible trends for 13 regions. Standard errors are clustered at the district level. Confidence intervals at the 10 and 5% levels are indicated by the black and red colors, respectively.

5.1.2 Religiosity after the Revolution

We then test the hypothesis that the *biens nationaux*'s effects on religion persisted throughout the 19th century in Table 5. To measure religiosity, we collected data at the canton level on "*pascalisants*" in the late 19th century. *Pascalisants* refers to those who fulfilled their Easter religious duties —i.e., by going to communion and confessing when necessary.[67]

Our results suggest that the sale of *biens nationaux* reduced religious observance during the late 19th century. In all regressions, we use our index of religious progressivism in 1789 built from the *cahiers de doléances*. This index is negatively correlated to the percentage of Catholics fulfilling their Easter obligation. This suggests a certain persistence of religiosity over time. Despite likely being a bad control as explained in Section 4.2, adding the portion of the clergy who swore an oath to further account for religiosity at the time of the Revolution leaves our results intact. In all regressions, the magnitude of the effect of national properties on religiosity

[67]The percentage of *pascalisants* is widely used as a measure of religiosity by historians since the proposals of Le Bras (1931, 1937). See: Mornet (1934); Ferté (1962); Pérouas (1964); Marcilhacy (1964); Langlois (1974); Sauzet (1975), and Aulard (1925). This variable measures only adherence to Catholicism.

Table 5: More church land predicts lower religiosity in the late 19^{th} century.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
log(biens nationaux per capita)	-16.5587***	-13.0173***	-13.0358***	-13.6556***	-10.8679***	-10.4518***	-9.08620***
	(2.93238)	(2.38446)	(2.33564)	(2.58814)	(2.43546)	(2.34487)	(1.94343)
Religious progressivism (Hyslop)	-13.2221***	-12.2282***	-12.2230***	-12.2579***	-4.31323	-5.02119*	-3.98475
	(3.28388)	(3.46143)	(3.11380)	(3.28803)	(2.61961)	(2.70419)	(2.44617)
Clergy's Oath							-27.3748***
							(6.88829)
Geographic controls		✓	✓	✓	✓	✓	✓
Economic controls			✓	✓	✓	✓	✓
Human capital controls				✓	✓	✓	✓
Region F.E.					✓	✓	✓
Data type F.E.						✓	✓
Data decade F.E.						✓	✓
Observations	218	218	209	209	209	209	197
R-squared	0.41	0.51	0.58	0.58	0.77	0.78	0.83
Magnitude:							
Standardized coefficients	-14.69	-11.55	-11.56	-12.11	-9.64	-9.27	-8.01
Mean of dependent variable	52.9	52.9	51.27	51.27	51.27	51.27	51.36
*** p<0.01, ** p<0.05, * p<0.1							

Note: An observation is a district. This table reports the results for eight separate OLS regressions. The dependent variable is the percentage of ***pascalisants*** in the late 19^{th} century. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for ***pays d'Etat***. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Fixed effects for data type and the decade of data collection are included in columns 6-7. Standard errors clustered at the department level are reported in parentheses.

is large, with a one standard deviation increase in ***biens nationaux*** sold reducing the proportion of Catholics practicing their Easter duty by between 27.8 and 15.6%.[68]

We relegate our instrumental variable results to Appendix I.4. Our results are robust when weighting the data by the completeness of the data or when excluding districts for which the data is incomplete (Table I.32). Finally, the effect of the ***biens nationaux*** on religiosity seems to have persisted well into the 20^{th} century when using the same measure around 1919 and in 1947 (Tables I.33 and I.34).

5.2 Protestantism

An implication of our hypothesis —that the ***biens nationaux*** increased the cost of Catholic worship— is that the demand for substitutes to Catholicism increased. Some of these substitutes

[68]Since the data were collected in different years between 1870 and 1900, we include "Data decade" fixed effects to control for the collection period (columns 6-7). In a few cases, surveyors distinguished men and women; for those, we averaged their ***pascalisation*** rates and added a "Data type" dummy (columns 6-7).

are irreligious goods: the French became more secular. Another substitute is Protestantism. As Baubérot (1972, p.452) explains, 19^{th}-century evangelists attempted to take advantage of the non-theological anti-Catholicism of a segment of the French population to "bring them to the Gospel." In addition, social pressures against Protestants were likely weaker in less religious communities, thus lowering the cost of Protestant worship.

After the Revolution, Protestants were a small but growing religious minority (Perrenoud, 1889). Around 1850, they were around 850,000 —2.35% of the population (Encrevé, 1986, p.64). French Protestants largely supported the Revolution.[69] They were also important purchasers of Church assets after 1789.[70] During the 19^{th} century, Protestants were associated with political liberalism (Pic, 1994), and the Revolution was often seen as a "bourgeois and Protestant promotion." (Tudesq, 1956, p.398) in regions with a strong Protestant presence.[71]

To assess the effect of the ***biens nationaux*** on Protestantism, we collected data on Protestant temples (churches) from the 16^{th} century to 1900 and calculated the percentage of communes with a Protestant church in each district.[72] We use a difference-in-differences strategy to test if the sale of the ***biens nationaux*** increased protestant activity:

$$P_{i,t} = \sum_{\tau} \beta_{\tau} \times \delta_{\tau} \times B_i + \sum_{\tau} \chi_{\tau} \times \delta_{\tau} \times P_i^{pre18th} + \mathbf{X}_i \times \delta_t + \delta_t + d_i + \epsilon_{i,t} \tag{3}$$

where $\tau \in \{\text{Desert (1729-1763)}, 1780, ..., 1900\}$ is the set of pre and post-treatment dates. "Desert (1729-1763)" here refers to the prevalence of (illegal) Protestant churches starting with the first national synod in 1729. B_i is the (continuous) treatment —i.e. the value of the ***biens nationaux*** per capita sold in district i during the Revolution. $P_{i,t}$ is the percentage of towns in a district with a protestant church at time t, and $P_i^{pre18th}$ is a set of variables controlling for the

[69] On the Protestants' attitudes toward the Revolution, see: Béthoux (1989); Bolle (1989); Poujol & Cabanel (1989).

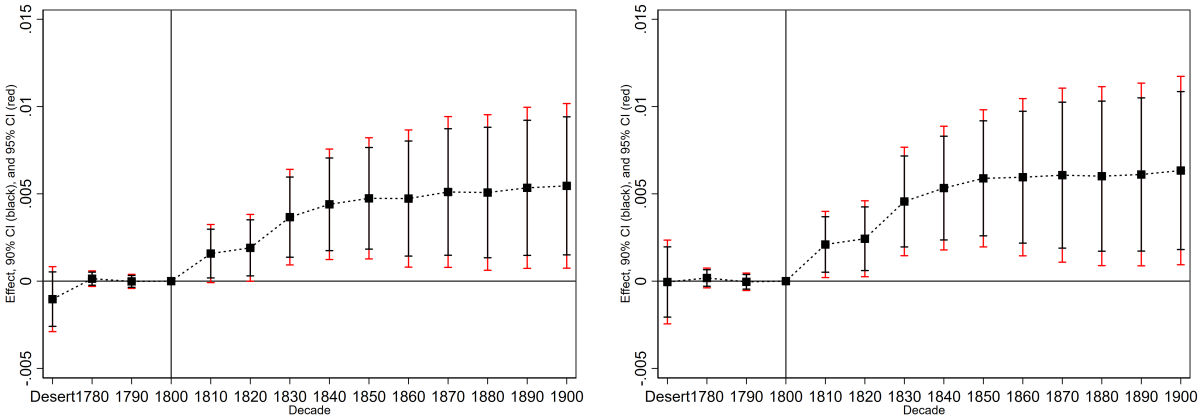
[70] See Bodinier & Teyssier (2000) for a summary of the Protestant's role as buyers of national properties. among local studies, see: (Armand, 1984, p.501-502) and Béthoux (1989). Pic (1994) notes that the redistribution of Church land often added to the conflicts between Catholics and Protestants. Controlling for Protestantism in the 16^{th} century does not change our results in Tables 1, 3, and 5.

[71] During the 1869 legislative election a Republican candidate was described by Bonapartists as follows: "Victor Robert is a Protestant, a Red, a Republican,... he is a parent of Robespierre" (Charreyron, 1990, p.49).

[72] Demographic data on Protestants across France prior to the Revolution is nonexistent. Even in the second part of the 19^{th} century, data on the Protestant population is notoriously unreliable (Dargent & Dutreuilh, 2009).

presence of protestant during the 16^{th} and 17^{th} centuries. $\mathbf{X}_i \times \delta_t$ is a set of flexible trends. δ_t and d_i are time and district fixed effects respectively.

Figure 8: Event-study graphs of the effect of the ***biens nationaux*** on Protestantism



(All districts) (Restricted sample)

Note: The left and right panels display the two-way fixed-effects regressions estimating equation 3 and reported in columns (3) and (5) of Table I.35, respectively. The left panel includes all districts, while the right panel restricts the sample to those with a Protestant presence in the 16^{th} or 17^{th} centuries. The data are organized as a district-level panel. "Desert" refers to the period 1726–1763 when Protestantism was illegal. The treatment variable is the per-capita value of ***biens nationaux***. All regressions include flexible trends for the share of municipalities where a Protestant church existed in the 16^{th} or 17^{th} centuries, where Protestantism was forbidden before the repeal of the Edict of Nantes, and where municipalities were designated as ***places de sûreté*** —protestant strongholds granted to Huguenots by the Edict of Saint-Germain (1570). They further include flexible trends interacting year dummies with geographic, economic, and human-capital controls. The district of Paris is excluded as it is only one municipality. In both panels, regressions are weighted by the number of municipalities in each district, and standard errors are clustered at the district level.

We introduce $P_i^{pre18th}$ interacted with time-dummies because the Revolution involved two distinct treatments regarding Protestantism: the sale of national properties, and the gradual legalization of Protestant worship. For most of the 18^{th} century, Protestants practiced clandestinely.[73] Their civil rights were only restored in 1787 with the Edict of Tolerance, and not until 1802 could they seriously rebuild churches and organize. Earlier Protestant presence raised the likelihood of church rebuilding in the 19^{th} century, as it persisted until the Revolution.

Our results, reported in Appendix I.6, Table I.35, indicate that the sale of the ***biens nationaux*** may have indeed strengthened Protestantism during the 19^{th} century. The results graphed in Figure 8 give more weight to districts with more municipalities, which are less susceptible to measurement error, especially as smaller districts can experience sudden changes in our mea-

[73] After the religious wars, the Edict of Nantes (1598) granted Huguenots limited rights, but it was repealed in 1685, outlawing Protestantism and following years of persecution (Carbonnier-Burkard & Cabanel, 1998).

sure of Protestantism when a church is built.[74] Overall, they are consistent with the historical literature which points to, the *Réveil*, a revival movement underlying the rapid growth of Protestantism in France during the first part of the 19th century (Bouquin, 1982, p.795).

Using the logged rather than the unlogged value of *biens nationaux* per capita as the treatment weakens the statistical significance of our results.[75] By contrast, all results become stronger and significant when excluding the Gard department. There are good reasons to do so. First, the Gard was exceptional, comprising over 25% of France's Protestant population in 1815 while representing only about 1% of the total population (Mours, 1958). No other region had such a high Protestant concentration—roughly one-third of its inhabitants. The intense Catholic-Protestant hostility there was fueled by the Revolution (Sottocasa, 2009; Johnson, 2014). It also persisted throughout the 19th century (Fitzpatrick, 2002). Second, because of this unique religious landscape, the administration sought to avoid civil strife and often restricted the construction of Protestant churches in the department (Sacquin, 1998). Third, districts with Protestant majorities naturally possessed fewer *biens nationaux*. The two westernmost districts, almost entirely Catholic, sold more than three times as many national assets as the rest of the department, where Protestants often formed a large majority.[76]

We also test whether the effect differs at the intensive and extensive margins by excluding the 145 districts without any organized Protestant churches before the 17th century, many of which remained without a Protestant presence until the late 19th century. Our results indicate that the impact of the *biens nationaux* was particularly strong on the intensive margin.[77] Overall, the effect on protestantism in Figure 8 is large: a one–standard deviation increase in *biens nationaux*

[74]The corresponding results remain significant for unweighted regressions, and the estimates are virtually identical, although p-values are somewhat higher (Table I.35). We excluded Paris from our regressions in Table I.35 as it is composed of only one municipality with many protestant churches and is therefore a clear outlier, certainly reflecting its unique status as France's largest city and capital.

[75]Using the raw number of protestant churches as opposed to the percentage of municipalities with one generally strengthens the statistical significance of our results (Table I.36). On the other hand, in the unweighted regression of column (9), Table I.35, which includes flexible trends for the full set of controls, post-treatment coefficients, though positive, are not significant at conventional levels.

[76]This issue—that Protestantism impoverished the Catholic Church—is far less pronounced elsewhere in France, where Protestants were a small minority. If anything, this bias should attenuate our results. Excluding Alsace and Lorraine, whose Protestant populations became German after 1871, does not change our results (Table I.35).

[77]As Encrevé (1985) notes, Protestant missionaries generally avoided proselytizing in wholly Catholic regions.

sold is associated with a 0.36–0.42 percentage point rise in the share of towns with a Protestant church in 1900 for a national average of 3.21%. Consistent with our other results, Protestants were an important Republican constituency, and Republican politicians like Gambetta carefully directed their anti-clericalism to the Catholic Church, arguing that while "there is a clerical problem, neither the Protestants nor the Jews are responsible for it." (Bouton, 1966, p.240).

5.3 Mediation analysis

To show evidence, as we did, that the redistribution of Church land impacted religion is different than showing that it is the main mechanism through which political support for conservatives was reduced. Other mechanisms could also possibly explain the negative relationship between the *biens nationaux* and conservative political attitudes. For instance, national assets could have spurred industrialization, which was associated with republicanism.[78] Similarly, they could have reduced landed inequality or feudal types of organizations in agriculture, thus weakening the influence of the landed elite. Finally, changes in education, a well-known determinant of secularization (Becker et al., 2017), may explain the negative relationship between the *biens nationaux* on the one hand and political and religious conservatism on the other.

Table 6 reports how our results change once 19^{th}-century variables accounting for each of these potential channels are included. None, except our late 19^{th} century religiosity measure, meaningfully changes our coefficients. For example, column 2 controls for landed inequality (in 1852). The corresponding coefficients are either slightly smaller or larger than those in the baseline (column 1), depending on whether region fixed effects are included. Controlling for the industrial wage and the share of industrial workers in the early 1860s negligibly reduces the coefficients on our measure of *biens nationaux* (column 3). The same holds true when controlling for the prevalence of sharecropping and fallow land during the mid 19^{th} century —two measures often used as indicators of agricultural backwardness (column 4) (Finley et al., 2021). Finally,

[78] Siegfried (1913, p.443-444) argues industrial workers during this period can be divided between those too poor to form political opinions and better-off workers who engaged in collective action. The former were susceptible to the influence of their (usually moderate Republican) bosses, while the latter adopted socialist ideas.

Table 6: Mediation analysis.

Mediation analysis:	Landed inequality, agriculture & Industry				Literacy & education		Religion	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	PANEL A: *Without regions fixed-effects:*							
log(biens nationaux per capita)	-5.66958***	-6.17586***	-5.18209***	-5.34186***	-5.24607***	-4.99775***	-6.36419***	-1.53696
	(1.05699)	(1.14588)	(1.05728)	(1.09847)	(1.22563)	(1.22557)	(1.82954)	(1.90952)
Observations	1811	1811	1811	1811	1415	1415	812	812
Within R^2	0.19	0.19	0.20	0.19	0.18	0.19	0.21	0.30
	PANEL B: *Including regions fixed-effects:*							
log(biens nationaux per capita)	-4.23972***	-4.19018***	-4.08164***	-4.05372***	-4.02180***	-4.06731***	-4.40514**	-2.10600
	(1.22039)	(1.28957)	(1.20718)	(1.22366)	(1.40322)	(1.44673)	(1.90223)	(1.82754)
Observations	1811	1811	1811	1811	1415	1415	812	812
Within R^2	0.06	0.06	0.07	0.07	0.04	0.05	0.09	0.12
Landed inequality		✓						
Industrial wage			✓					
Industrial workers per cap.			✓					
Sharecropping				✓				
Fallow land (%)				✓				
Conscripts' literacy (1827)						✓		
School per student						✓		
Bad schools (%)						✓		
Pascalisants (in %, Late 19^{th} century)								✓
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓	✓	✓	✓	✓
Human capital controls	✓	✓	✓	✓	✓	✓	✓	✓
Election F.E	✓	✓	✓	✓	✓	✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1								

Note: Each observation is at the district–election level for the period 1876–1893. The dependent variable is the anti-republican vote share. The table reports coefficients on the log of ***biens nationaux*** per capita (population in 1793). Panel A reports eight separate OLS regressions. Columns 1–4 use the same sample. Column 1 presents the baseline specification with the same set of geographic, economic, and human capital controls as in Table 1. Columns 2, 3, and 4 respectively add controls for landed inequality, industrial activity, and nineteenth-century agriculture (all post-Revolution). Column 5 re-estimates the baseline specification using the sample of column 6. Column 6 adds three post-Revolution measures of human capital: the literacy rate of conscripts in 1827 and two variables capturing the quality and quantity of schools in the second half of the nineteenth century. Column 7 re-estimates the baseline specification on the sample of column 8. Column 8 adds a measure of religiosity in the late nineteenth century: the percentage of ***pascalisants***. Panel B reproduces the specifications from Panel A while adding fixed effects for 13 regions. Robust standard errors clustered at the district level are reported in parentheses.

educational variables and outcomes —particularly the number of schools per student and the percentage of schools of poor quality (in 1873), as well as the literacy rate of conscripts (in 1827)— have inconsistent effects on the magnitude of our estimates. By contrast, controlling for religiosity (column 8) reduces the magnitude of our coefficients roughly fourfold in Panel A and more than twofold in Panel B.[79]

These results are consistent with our argument that the political effects of national assets operated largely through religiosity. On the other hand, we fail to find evidence that the ***biens nationaux*** decreased political support for conservatives by reducing landed inequality. This

[79]Similarly, using the share of ***pascalisants*** circa 1919 —a year with fewer missing values— the coefficient on the log of ***biens nationaux*** per capita is -2.05 (p-value=0.027) without fixed-effects and -1.19 (p-value=0.215) with fixed effects. In the same sample, omitting the 1919 religiosity control yields larger, significant coefficients of 5.49 and -4.18 (both $p < 0.001$).

likely speaks to the absence of consensus by historians on the topic.[80] While higher inequality in land ownership seems to have favored anti-republican politicians during the 19^{th} century (Montalbo, 2023), Church properties were usually sold without being divided, which meant there was no obvious decrease in land inequality following their sale. In addition, the effect of landed inequality on politics may be ambiguous, since collective action costs increase with the size of the interest group (Olson, 1965) —here, the owners of Church land. Finally, while a limitation when assessing the landowning inequality channel is the absence of data on this variable before 1789, the effect of national assets on landed inequality would have to be unbelievably large to explain a significant part of our results.[81]

6 Conclusion

Across many specifications and identification strategies, we find that the redistribution of Church land following 1789 transformed not only the French economy but also its ideological and religious character. This redistribution partly explains why 19^{th} century France became so uniquely secular. Furthermore, regions with more revolutionary land redistribution experienced greater electoral support for Republicans during the early Third Republic. Because redistributing Church land weakened conservative political forces, it likely helped prevent a return to a monarchy. By the late 19^{th} century, France was the poster child of economic and political liberalism (Thesmar & Landier, 2010), and the only major European power with Republican institutions. Consistent with the literature on persistence and on the importance of interest

[80] Tocqueville (1856, p.56) first argued that the Revolution did not reduce inequality in landownership ("the effect of the Revolution was not to divide the soil, but to liberate it for a time"). Historians since disagree. For Lefebvre (1928), the French Revolution considerably increased the number of landowners. In some departments such as Meurthe and Moselle, the increase was spectacular (Marion, 1908), with the number of owners increasing by 23% and 37% respectively in the ten years following 1789. On the other hand, Loutchisky (1897, 1913) argues that most buyers were already landowners, thereby increasing land ownership concentration. More recently, Deseau (2023) argues that the sale of the ***biens nationaux*** increased landowning inequality.

[81] Column 2 of Table 6 estimates $M_{i,t} = \beta_1 \times \texttt{log(biens nationaux per capita)}_i + \beta_2 I_i + \mathbf{X}_{i,t} + \delta_t + \zeta_i + \epsilon_{i,t}$. We observe 19^{th} century landed inequality (I_i), not the counterfactual I_i^C absent Church assets sales. If β_h is the causal effect of `log(biens nationaux per capita)` on inequality so that $I_i = I_i^C + \beta_h \times \texttt{log(biens nationaux per capita)}_i$, the "true" total effect is $\beta_1 + \beta_2\beta_h$. With region fixed effects, $\beta_2 = -1.08$. Even if a one-standard deviation increase in ***biens nationaux*** had shifted inequality by its sample mean ($\beta_h = \pm 0.358$), the overall effect would change by only ± 0.389 ($< 10\%$ of the baseline).

groups in economic development, this unique political equilibrium was shaped by the radical overthrow of the *Ancien Régime* and the largest privatization program in French history: the liquidation of the Church's wealth.

The problem of successfully transitioning to a new political regime is not specific to Revolutionary France. After the collapse of the Eastern Bloc in 1989, a small group of oligarchs amassed a large share of the means of production. Like Russia in 1989, France in 1789 was moving from a different economic and political order toward a market economy. Unlike post-1989 Russia, France's transition after the Revolution —long and turbulent though it was— ultimately succeeded. As such, Russian oligarchs were the only "feasible counterweight to the predatory and corrupt Russian bureaucracy" and a unique constituency "both willing and able to lobby for development of market institutions" (Guriev & Rachinsky, 2005, p.131). Similarly, the owners of *biens nationaux* after 1789 became a powerful group supporting progressive political and economic ideologies.

Several factors explain the success of the French transition where others failed. First, far more Frenchmen —roughly 10% of households— purchased *biens nationaux*, whereas few Russians retained shares in privatized firms.[82] Most Russians lacked a stake in a successful transition to a market economy. This likely contributed to a relapse into autocracy and extensive state intervention, while oligarchs lost political influence. Second, land is a highly durable asset, which meant that conflict over the titling of national assets remained salient. Third, as we have shown, redistributing Church land weakened the Catholic Church's political influence, even though it remained a powerful force favoring anti-republican politics in many regions. No comparable religious component existed in Russia after 1989, while even reactionary French monarchs before 1830 failed to reverse the Revolution's most consequential reforms.

[82]When Putin promised to curb the oligarchs' political power during the 2000 presidential campaign, he was certainly helped by "the median voter's support for expropriating the oligarchs." (Guriev & Rachinsky, 2005, p.146).

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Supplementary Online Appendix

A Data appendix

A.1 District shapefiles

Some of our district-level variables were extracted using a shapefile of the 1793 districts we constructed. This shapefile was made using the data from the "*Projet Cassini*" kept available by EHESS.[83] This data gives the coordinates of the almost 36,000 municipalities in France as well as information about which district they belonged to in 1793. We created 35,836 Voronoi polygons around each municipality, which we then merged to approximate each district's borders.[84]

We use our district polygons to calculate our "Ruggedness" and "Wheat suitability" variables. To calculate the Conley standard errors (Appendix B.4), we used the centroid of each polygon. Finally, some districts' borders changed after 1793.[85] Those changes were usually minor. Still, to minimize distortions, and since we have population data for each town, we re-aggregate variables at the 1793 district level, and especially our district-level variables on agriculture (in 1852) and industry (in 1865), by creating population-weighted variables:

$$V_{i,t} = \frac{\sum_c^N P_{i,c,t} \times V_{j,c,t}}{\sum_c^N P_{i,c,t}} \tag{4}$$

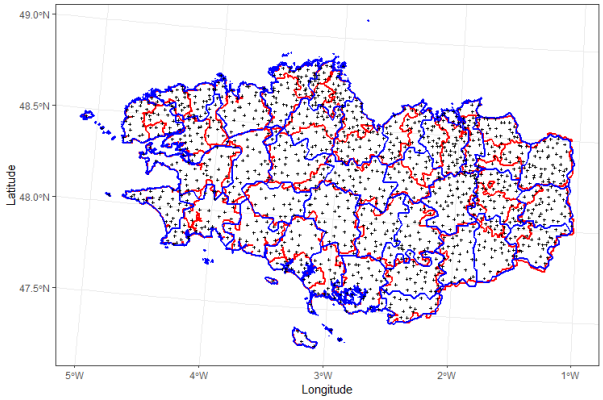
Where V_i is the variable of interest at time t in the 1793 district i. $P_{i,c}$ is the population of town c in 1793 district i at time t. Hence $\sum_c^N P_{i,c,t}$ is the population within the 1793 district borders at time t. Finally, $V_{j,c,t}$ is the variable of interest at time t in district j whose borders are contemporaneous. Overall, the changes using this procedure are minimal. Figure A.9 illustrates how the data were reconstructed using Brittany as an example.

[83] Source: EHEESS. "Des villages de Cassini aux communes d'aujourd'hui. Index par départements." `http://cassini.ehess.fr/cassini/fr/html/6_index.htm` (last accessed December 12, 2023).

[84] We transformed every spatial object using the "NTF (Paris) / Lambert zone II" projection (EPSG:27572). We visualized the data in QGIS to make sure that there were no mistakes. We found five minor mistakes in the Cassini project data, with towns being assigned to the wrong district. Saint-Pierre-sur-Orthe was in the district of "Evron," not that of "Ernée," in 1793. Saint-Pierre-la-Cour was confused with Saint-Pierre-sur-Orthe. Similarly, Saint-Jean-de-Marcel was part of the district of "Alby," not that of "Castres." Armous-et-Cau and Scieurac-et-Flourés were part of the "Mirande" district, not the "Nogaro" district.

[85] Districts were referred to as *arrondissements* after 1801. We continue referring to them as districts.

Figure A.9: Example of re-aggregation of the data at the 1793 district level.



Note: Each black dot refers to a city. The red lines refer to the 1876 electoral district borders. The blue lines represent the borders of the 1793 districts. As the map shows, electoral constituencies sometimes have very similar borders to the 1793 districts, although some significant differences exist. The electoral district shapefiles were built by Gay (2020).

A.2 Data on electoral outcomes.

We use data by Piketty & Cagé (2023) on electoral outcomes at the municipal level. The data includes the INSEE code, which we use in conjunction with the data from the *Projet Cassini* to get the geographical coordinates of each town. The categories used to build our "Anti-republican vote share" variable include candidates described as Clerical, Legitimist, Conservative, Monarchist, Bonapartist, Reactionary, Antisemite, or Boulangist. The data is explained in detail in the appendix of Piketty & Cagé (2023).

A.3 Data on crusaders

In this section, we present the historical sources used to construct the instrumental variable based on participation in the first four Crusades. We summarize the main databases and prosopographical works employed to identify and localize participants in the successive crusades.

All modern studies of crusaders build on the compilations by Röhricht (1893, 1904), whose *Regesta regni Hierosolymitani* and related bibliographies provided the first systematic collections of crusader names. Röhricht remains an indispensable point of reference, but his identifica-

tions—based on nineteenth-century philology—can no longer be used in isolation from more recent prosopographical research. Although it would be illusory to hope to trace the origins of all crusaders, given the fragmentary nature of medieval records, modern scholarship has considerably improved our knowledge of crusader recruitment. These studies, based on surviving documents such as charters, wills, and narrative accounts, provide only partial lists that mostly concern nobles and their entourages. Yet this limitation is not a major obstacle, since in a feudal society, vassals followed their liege lords, whose participation is more likely to be recorded.[86] Constable (1953) was among the first to systematize this approach. Following this line of research, modern scholarship now provides a broadly representative view of the main regional and social patterns of crusader recruitment.[87]

The identification of crusaders from the first two Crusades (1096-1099 and 1147-1149) rests on Riley-Smith (1997) and Phillips (2007). Both works provided the foundations for the *Database of Crusaders to the Holy Land, 1095–1149*, developed at the University of Sheffield. This database harmonizes the data, ensures consistency across sources, and remains the most reliable tool for identifying participants in the first two crusades.

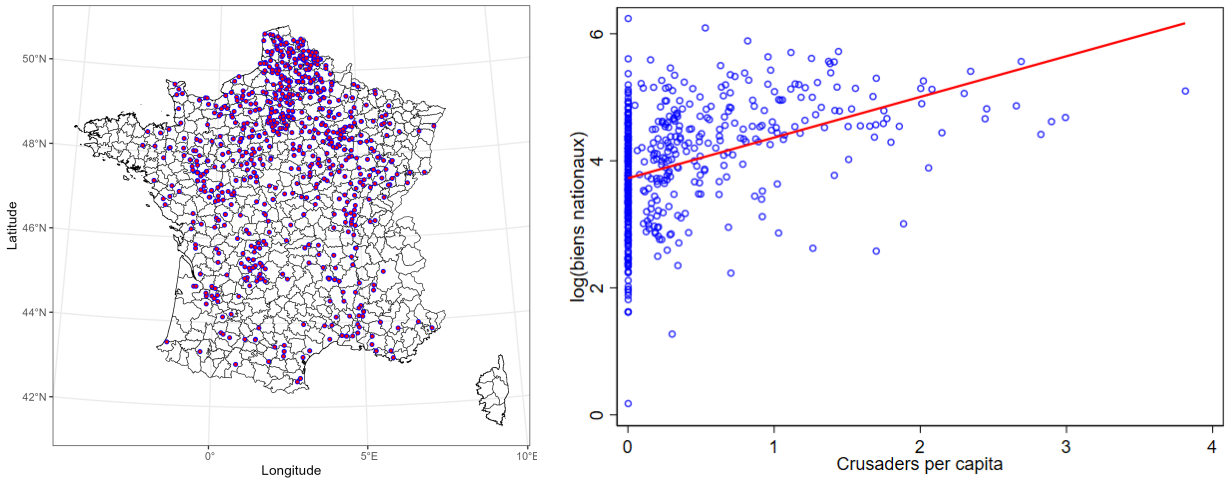
For the Third Crusade (1189-1192), we use the data collected by Bennett (2021), who catalogues nearly 600 participants and situates their involvement within familial, political, and religious networks. Bennett's study also provides biographical details, including on the crusaders' social network, offering by far the most comprehensive and reliable prosopographical account of the Third Crusade available so far.

Finally, the Fourth Crusade (1202-1204) is documented in great detail by Longnon (1978). Longnon critically assembled around 250 participants, working from Villehardouin, Robert de Clari, and a wide range of local and archival sources.

[86] In addition, donations to the Church were largely the deeds of powerful nobles who endowed new monasteries or made substantial donations to old ones.

[87] Riley-Smith (1997) stresses that he "cannot claim to have read everything, but I have seen enough, I think, to provide me with a reasonably sure grasp of what was going on" (p. 2). More recently, Bennett (2021) has adopted a similar stance, employing a network-based approach designed to "compensate for the fragmentary nature of the data" and to mitigate "the risk of distortions caused by incomplete data." He argues that his database, grounded in a prosopographic methodology, helps to reduce distortions and provides a reliable foundation for analysis (pp. 4–5).

Figure A.10: Map and scatterplot for crusaders per capita.



Note: In the left panel, each point represents the presence of a crusader during the first four Crusades. The right panel is a scatterplot between the log of *biens nationaux* per capita and the number of crusaders per capita —using 1793 population data. Each point represents a district.

Durkin (2019) has already attempted a large-scale reconstruction of crusader participation, and we have followed her methodological approach in designing our database. Unfortunately, her underlying data are not publicly available. In building our database, crusaders were localized by their fiefs, as indicated in the notices.[88] Figure A.10 maps the geographical distribution of crusaders for the first four crusades as well as the scatterplot visualizing the correlation between the *biens nationaux* and the prevalence of crusaders.

A.4 Data on monasteries.

This appendix describes the references used to establish a catalog of abbeys in France during the Middle Ages. We start with a short presentation of the regular clergy and the abbeys of the Old Regime, together with the bibliography used to compile a repertoire of male and female abbeys before 1500.

[88]Later crusades lack good quality data on their participants. Powell (1986) provides a list for the fifth crusade gotten from Röhricht, but the identification of the crusaders in that list, as well as their location, is much more uncertain.

Regular clergy and abbeys in the Middle Ages. Under the *Ancien Régime*, the Catholic Church's land holdings were considerable (Bodinier & Teyssier, 2000). Among Church possessions, the estates of the regular orders were predominant. The regular clergy, with its members bound to specific religious rule, differed from the secular clergy. On the other hand, priests, as members of the secular clergy, lived among the lay population under the authority of a bishop. Although monks could be ordained priests, regulars lived secluded from society in a monastery to devote their lives to God and prayer. Hence many abbeys were located in the countryside and not in cities. By the end of the Middle Ages, however, historians note a decline in the observance of monastic rules, which led contemporaries to question their role within the Christian society (Hours, 2018).[89]

Historians believe that the regulars' seclusion explains why they benefited from more land donations than secular priests. During the Middle Ages, the Church developed its landholdings by specializing in administering the spiritual needs of medieval society.[90] Regulars disproportionally benefited from more donations as they could privatize their intercession due to their isolation from society. By offering more land to regulars than to seculars, aristocratic lineages hoped to benefit from privileged intercession, as regulars committed themselves to praying on behalf of their donors (Rosenwein, 1989, p.48). Recurring gifts constituted assets for donors looking forward to gaining access to paradise.

Bodinier & Teyssier (2000, p.340) argue that monasteries held around 60% of church land. Religious orders were governed by the constitutions regulating relations among abbeys within the order. As such, monasteries could include dependencies known as priories. Bodinier & Teyssier (2000) note, however, that their influence was mainly exercised in the district where they

[89]Protestant Reformation as well as internal reform movements within the Catholic religious orders were responses to this crisis. See: Le Gall (2001).

[90]Duby (1973, p.68) explains that "the penetration of Christianity thus led to the establishment in society of a large group of specialists who took no part in working the land or in military plundering ventures, and who formed one of the most important sectors of the economic system. They produced nothing. They lived off the labor of others. In exchange for these services, they performed orations and other sacred gestures, for the benefit of the community of the people."

were located.[91] Our data covers only Abbeys. It does not cover priories and other dependencies.

From the end of the Middle Ages onward, civil authorities in France were careful to regulate the monasteries' land holdings. As ecclesiastical possessions were legally inalienable under canon law, the State was deprived of the taxes on land transfers. Moreover, the French Crown could not tax these estates in the northern half of the kingdom, where the *taille* was "personal" –i.e. was attached to non-noble individuals as opposed to land. In August 1749, an edict on the *gens de main-morte* formally prohibited making land donations to the Church. Previously, the State had either attempted to regulate donations to the Church by issuing case-by-case authorizations or forced the Church to dispose of its possessions. Following the *Concordat de Bologne* (1516), the State increasingly regulated monastic orders.

French abbeys in the Middle Ages. Most abbeys were founded from the fall of the Roman Empire to the 11^{th} or 12^{th} centuries. Many had to be rebuilt following the destruction caused by the Viking-Saracen invasions in the 8^{th} and 9^{th} centuries. Catalogs compiled under the *Ancien Régime* provide information on abbeys, including the religious order to which they belonged, their legal status, and their total income.[92] The best-known catalog is Beaunier (1726), which described 750 male abbeys and 255 female abbeys across France. It also includes some abbeys located abroad in cross-border dioceses (Trier or Pamplona, for example). Royal or church almanacs subsequently updated the information for the most important abbeys up to 1789. Although it is the best-known of the *Ancien Régime* catalogs, Beaunier's compendium appears to follow an earlier work published by Le Pelletier (1690), which already listed the Kingdom's abbeys. Similar information can also be found in earlier publications, such as *Le Grand Pouillé des Bénéfices de la France* (1626). While monastery catalogs published during the *Ancien Régime*

[91]Dinet (1999, p.260) and Nicolas (1978, p.139) confirm that the regular orders' estates were only located in villages where an abbey had been founded, as well as in their immediate periphery. As the distance grew, their influence steadily diminished, so that the regulars' estates in remoter villages were usually nonexistent.

[92]More recently, Deflou-Leca (2008) aims to build a comprehensive dataset on French medieval monasteries. A website provides access to 633 establishment records, mainly for central-western France and Burgundy. However, vast geographical areas such as Brittany and southwest France are not yet covered: https://monasteres.applirecherche.unilim.fr. A German research project catalogs women's monastic establishments: https://femmodata.uni-goettingen.de. Some thirty French monasteries are currently included in this dataset.

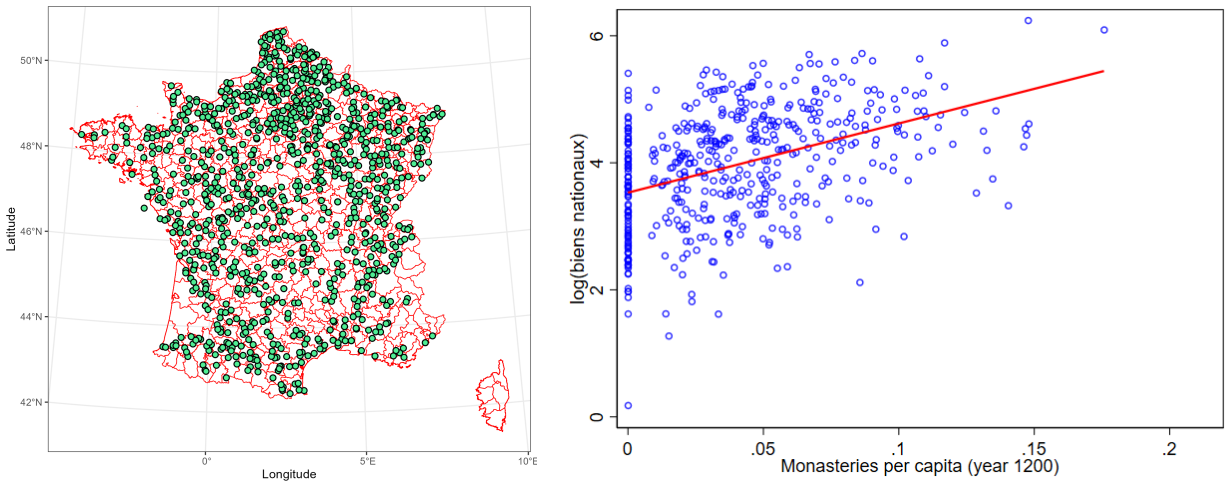
are valuable tools to study abbeys in the Middle Ages, we want to avoid omitting monasteries that previously existed but later shut down and are therefore likely ignored by those publications.

To compile a comprehensive list of medieval French abbeys (including those that have since disappeared), we first consulted the book series *Abbayes et prieurés de l'ancienne France. Recueil historique des abbayes et prieurés de France* compiled between 1905 and 1989. We also benefited from the parallel work of Cottineau (1935-1970). These sources mainly list Benedictine, Cistercian, Augustinian, and Premonstratensian establishments. The first work, which now includes 17 volumes, is based on Beaunier (1726), which it was intended to complete. However, Emery (1962) has shown that certain monasteries were not described. Not all Old Regime dioceses are covered either (notably the dioceses of Reims and several Burgundian dioceses, as well as the diocese of Besançon). Compared with this collection, Cottineau's work offers a complete coverage of France. It is a scholarly synthesis based on numerous other directories, notably the French *Pouillés* collection[93] and the historical research of the Benedictines of Saint-Maur. Still, it has the disadvantage of giving less information about each monastery due to the extent of its topographical coverage (it covers the whole of Europe, not just France) and the chronological scope of the work (there are gaps in most of the entries describing abbeys before the 10^{th} century). We have made further use of Outardel (1947), published in 1947, and the earliest dictionary by Montrond & Migne (1856), published in 1856. Janauschek (1877) provides a list of male Cistercian abbeys for medieval Europe. Finally, Lecestre (1902) provides a list of regular establishments subject to the *Commission des Réguliers* in 1766, which closed 458 monasteries. Only pre-Counter-Reformation male establishments were enumerated. Of course, the list does not provide information on abbeys that had already disappeared earlier at the time of the Commission. Secularized establishments are not described either.

We supplemented the data from the literature described above with more recent and specific inventories. For the Benedictine abbeys in the Diocese of Reims, we have used the work of Poirier-Coutansais (1974), while for those located in the south-west of France, we used the list

[93] A *pouillé* is an enumeration of all ecclesiastical assets located within a given area.

Figure A.11: Monasteries in 1200.



Note: In the left panel, each point represents a monastery in 1200. The right panel is a scatterplot between the log of *biens nationaux* per capita and the number of monasteries in 1200 per capita —using 1793 population data. Each point represents a district.

compiled by Gérard (1984, p.23–51). The Prémontré order benefits from a recent exhaustive catalog by Ardura (1993). We have also included in our database the Chartreux monasteries studied by Gruys (1976-1978). Finally, the publication by Marilier (1994), usefully fills the gap left by volume XI of Beaunier's repertory for the dioceses of Autun, Chalon, and Macon.

Our data. Our database includes the location, creation date, and, if any, the date of closure for each identified abbey.[94] The order to which the abbey belonged is specified, as is the type of abbey and the income and number of monks or nuns, if known on the eve of the Revolution.

From the data collected from the sources described above, we are able to map the geography of monasteries in 1200 and show the correlation between the log of the value of *biens nationaux* per capita and the number of monasteries per capita at that date (Figure A.11).

[94]We focus on non-mendicant orders, many of the latter adopting an itinerant lifestyle. The main mendicant orders were created after 1200 and therefore are not relevant for our instrumental variable —i.e., the prevalence of monasteries in 1200.

A.5 Data on catholic worship.

This appendix presents the Boulard survey data used to assess the evolution of religiosity in France over the 19^{th} and 20^{th} centuries. It first presents the context in which the survey was devised. It then describes the survey data used, especially regarding the evolution of the percentage of *Pascalisants*.

The Boulard Survey. Fernand Boulard was a French Catholic priest and sociologist (Sorrel, 2013) who conducted quantitative studies on the composition of the French clergy in the 19^{th} and 20^{th} centuries and is considered a pioneer of religious sociology in France. Along with Gabriel Le Bras, he published the first map of religiosity for contemporary France (Le Bras & Boulard, 1947). Their work revealed strong regional contrasts: territories where religious practice is high, and almost half of France, on a diagonal from the Landes to the Ardennes, which appears to be non-religious. The map also reveals strong intra-regional contrasts, with regions indifferent to religion just next to others with strong religious observance.

According to Julia (2006, p.404-407), Boulard's survey completed and extended earlier work by Le Bras (1931). The motivation for collecting this data was political, as those researchers wondered why Catholic voters were markedly more conservative.[95] Those researchers could not rely on French official statistics as they did not allow the measurement of the population's adherence to Catholicism (Poulat, 1956).[96]

In the 1960s, Boulard (1945) approached religious authorities to obtain reliable historical information about religious practices in France. With the agreement of the religious authorities, the data collected was later published by Isambert et al. (1980).[97] In the meantime, Boulard considerably broadened the historical scope of this original survey. He directed research in the

[95] Siegfried's (1913) pioneered French electoral studies and was Boulard's and Le Bras' main influence (Julia, 2006; Cuchet, 2018).

[96] Some census data based on baptism exist. Yet, since the overwhelming majority of Frenchmen were baptized, it does not properly measure religiosity.

[97] Data tables were, however, attached to the offprints for the first edition in 1947. Successive corrections were made to the data originally collected by Boulard. The 1980 edition is the first to make these data readily available. The 1947 Boulard map is updated on p.535 of the first volume of the ***Matériaux*** published in 1982. Boulard died in 1977 after ordering the materials for this first collection.

archives of every diocese in France, gathering first-hand data and exploiting all the bibliographies available at the time of publication. The results of these investigations have been published in four books (the *Matériaux*), providing the most extensive collection of detailed statistical data available on religious practice in France for modern times (Boulard, 1982; Boulard & Hilaire, 1987; Boulard & Cholvy, 1992; Boulard & Delpal, 2011). Each volume provides statistical data giving a precise idea of the population's adherence to the Catholic faith.[98]

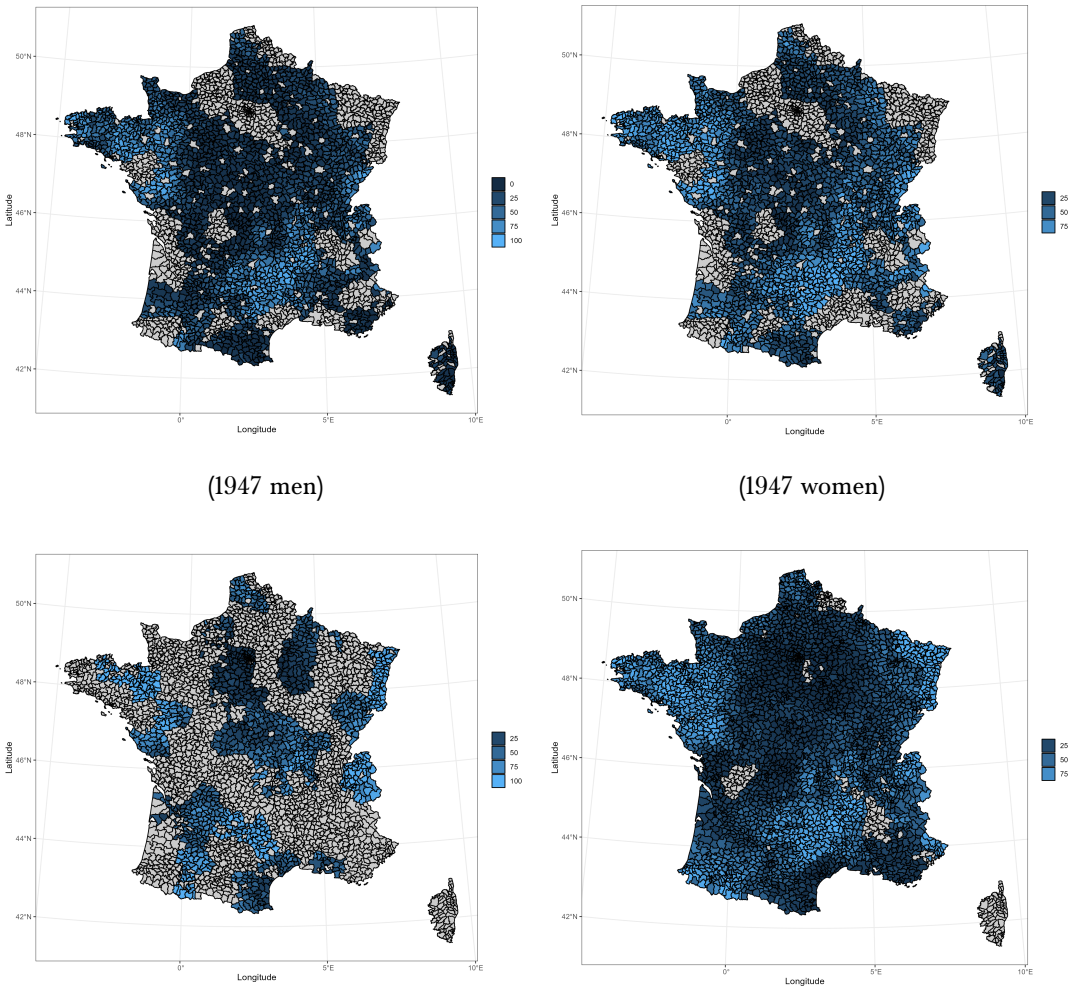
Measuring religious attendance. These data and documents covered many aspects of the religious and social life for Catholics in the 19^{th} and 20^{th} centuries. For the 1947 map, priests in active service were invited to reply to a questionnaire. The rest of the data comes from priests' answers to the questions asked during the pastoral visits regularly carried out by Bishops or Deans in accordance with Rome's prescriptions.[99]. Pastoral questionnaires, kept in diocesan archives, may differ as to their content. Continuous collections for most dioceses are rare (Boulard, 1982, p.14). Boulard homogenized the responses collected as part of his quantitative research. He also re-aggregated his data to the cantonal level using the 1954 cantons' borders. The aim of the survey was to be exhaustive. For all French dioceses, the *Matériaux* successively provide (1) a historical description of the diocese and (2) all the statistical data collected are presented in tabular form with an indication of sources and comments on any gaps or distinctive features identified during collection.

Among the historical documents presented by the *Matériaux*, we chose to use the data on the number of communicants active at the cantonal level, with a particular focus on the *Pascalisants*. During pastoral visits, diocesan authorities scrutinized attendance at religious services, partic-

[98]Each volume contains data for several dioceses: the first volume contains diocesan counts for the regions of Paris, Haute-Normandie, Pays de la Loire, and Centre; the second volume contains counts for the regions of Bretagne, Basse-Normandie, Nord-Pas-de-Calais, Picardie, Champagne, Lorraine, and Alsace; the third volume includes counts for Aunis, Saintonge, Angoumois, Limousin, Auvergne, Guyenne, Gascogne, Béarn, Pays de Foix, Roussillon and Languedoc; the latest volume, includes data for Burgundy, Franche-Comté, Lyonnais, Savoie, Dauphiné, Grand Midi and Algeria.

[99]Parish visits by Bishops and their agents are attested as early as the High Middle Ages. The practice waned in the 11^{th} and 12^{th} centuries, before resuming during the 16^{th} century, mostly due to the Protestant Reformation. Since then, pastoral visits have never ceased. Encouraged by Le Bras, historians have planned to compile directories of pastoral visits from the Middle Ages to the present day (Julia et al., 1969). To date, only one archival directory is available, covering the *Ancien Régime* (Venard & Julia, 1977).

Figure A.12: Pascalisants (%).



(1947 men) (1947 women)

(Late 19th century) (Around 1919)

ularly communion. The commemoration of the Last Supper was considered a good indicator of a parish's religious vitality, and our data systematically considered this indicator to provide a homogeneous measure of religiosity. *Pascalisant* specifically refers to participants in the Easter communion service.[100] This Eucharistic celebration, the most important in the Catholic liturgy, implied that the communicant had previously gone to confession.

The latter indicator measures the social influence of Catholicism. A *Pascalisant* is a communicant who agrees to confess before celebrating communion at Easter Mass. This submission

[100]The expression is attested to as early as the 19th century (Boulard, 1982).

testifies to the voluntary acceptance of the Catholic Church's religious disciplinary principles and is, therefore, a valuable indicator of its influence within society. This indicator is also available in the data published by Isambert et al. (1980). Data are not available for Charente, Landes, and Var departments alone. For all other departments, the number of *Pascalisants* within a canton is recorded at least once during a visit in the 19^{th} century. The available data do not generally differentiate between the sexes of communicants, except for the departments of Ain, Bouches-du-Rhône, Cher, Creuse, Deux-Sèvres, Drôme, Gers, Haute-Loire, Haute-Vienne, Indre, Loiret, Lot-et-Garonne, Seine-et-Marne, and Vienne. Data published in the *Atlas* for the post-World War II years also distinguish between the sexes for this indicator.

Our data. While the 1947 data was collected all at the same time and distinguishes between genders, this is not the case for the 19^{th} century data. There is no single data during which most of the diocese organized a survey, which means that we have the aggregate data from different years to build a comprehensive enough picture of religiosity during the late 19^{th} century. Since we are interested in effect of the *biens nationaux* on the ideological and religious landscape of the early Third Republic, we use the data from surveys made between 1870 and 1900.[101] When data for multiple dates are reported, we average them out. In the few cases the data was separated between men and women, we also took the average. Finally, we use the Boulard data on the *pascalisants* collected by Lacroix & Boix (2025) for yet another period —i.e. around 1919.

A.6 Data on Protestantism.

This appendix presents the data used to study the spread of Protestantism in France during the 19^{th} century. Given the lack of data about the protestant population, we use the founding and disappearance dates of Protestant temples to map the the influence of Protestantism in France from the *Ancien Régime* to 1900. The first part of this appendix presents the statistical

[101]Here are the dates of the survey indicated in Boulard (1982); Boulard & Hilaire (1987); Boulard & Cholvy (1992); Boulard & Delpal (2011): 1871, 1871-1881, 1872-1880, 1873-1879, 1874, 1875, 1876, 1877-1878, 1877-1889, 1878-1880, 1880, 1881-1886, 1883, 1883-1884, 1885-1893, 1886-1890, 1887-1889, 1888-1890, 1889, 1890-1896, 1890, 1891, 1891-1895, 1893, 1893-1901, 1894-1896, 1896, 1898, 1899, and 1900.

problems that historians identified in their studies of Protestantism. The second part describes how historians reconstructed the network of Protestant temples used for the present study.

Difficulties in quantifying Protestantism. Studying the influence of Protestantism in France is challenging. Due to the early secularization of public statistics in the modern era, the religious affiliations of French citizens are mostly missing from census data. Only a few surveys, notably in 1851 and 1872, provided statistical data on Protestant membership, but only at the departmental level. A further point to note is that these surveys do not provide an accurate count of the Protestant population. For the 1851 survey, the under-registration of the French Protestants appears to be significant, reflecting the reluctance of the (previously persecuted) Protestant minority to reveal their religious affiliation to the authorities (Dargent & Dutreuilh, 2009). Willaime (2021) also considers the fundamental disapproval of statistical surveys, a position observed by Protestants since the 16^{th}.

The French Protestant population is even more uncertain under the *Ancien Régime* (Benedict, 1991). For Chareyre (2002), the repression of Protestantism largely explains the limitations in the data. For example, the revocation of the Edict of Nantes in 1685 was an attempt to wipe out the Protestant population. It has therefore been impossible to establish accurate statistics due to persecution. During the Wars of Religion, Protestant counts were mainly carried out by members of the community (Fornerod & Benedict, 2009). With their increasing numbers, Protestants hoped to influence the balance of power with the State, and get their religion recognized. Between the Edict of Nantes and the reign of Louis XIV, there was no publicly available census of the Protestant population (Benedict, 1987). Although counts were made, they were never comprehensive (Chareyre, 2002). The few available statistics were usually aggregated at the diocesan or regional level (Orcibal, 1947).[102]

For the 19^{th} century, there are also documentation problems. In 1802, the French government drew up an estimate of the number of Protestants at the department level. D. Robert (1961)

[102]Similarly, the Huguenot Refuge database (Magdelaine, 2014), which provides the birthplaces and places of residence of Protestants who left France during the 18^{th} century, is difficult to interpret as the extent of the pressure exerted by government authorities varied over the territory, which can skew the available data.

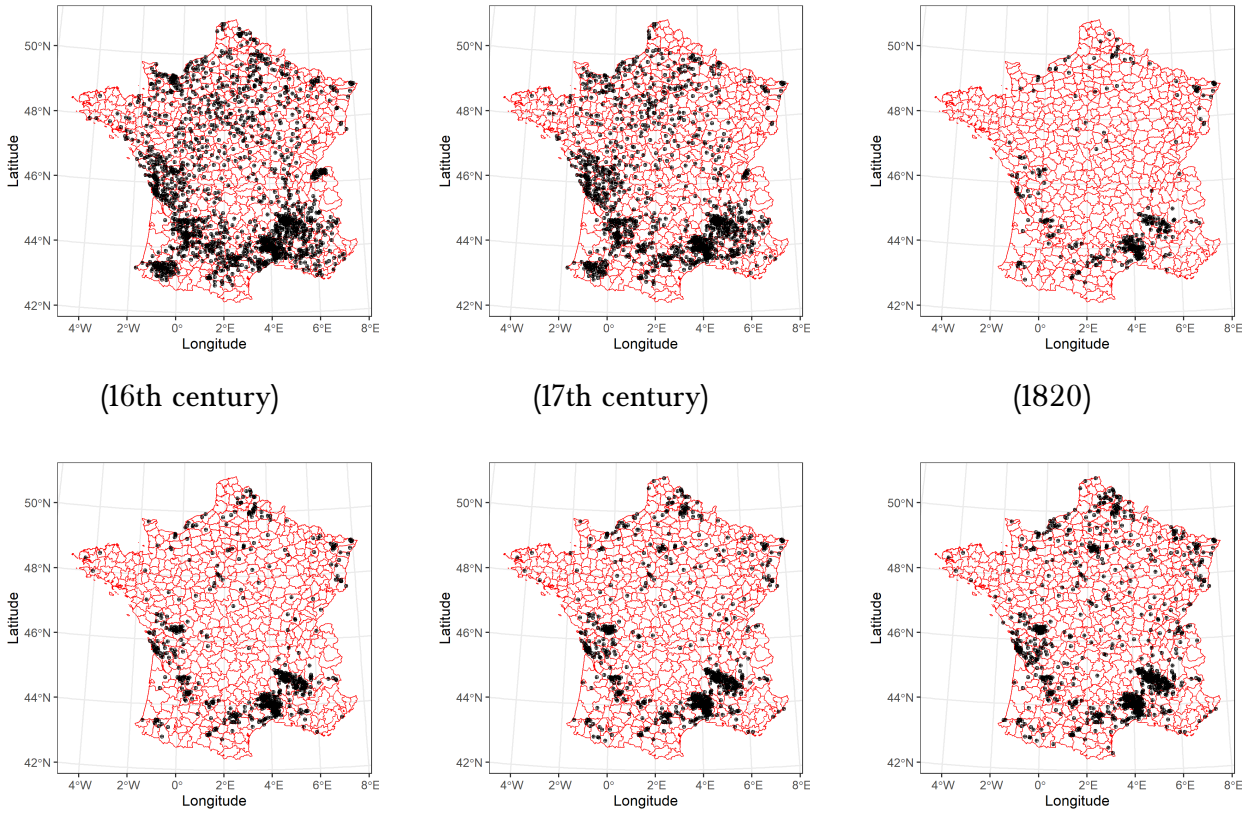
provides an estimate of the number of Protestants by consistory around 1815, as does Encrevé (1985) in 1850 and 1883. Unfortunately, their aggregated results are difficult to interpret due to the mismatch between consistory and administrative jurisdictions, as well as tax considerations that prompted consistories to declare a greater or lesser number of worshippers for clerical staff remuneration purposes. The censuses of 1851, 1866, and 1872 published by the *Statistique Générale de la France* provide the number of Protestants at the department level. Léonard (1956, p.40) considers this data of relatively poor quality.

The French Protestant Temples network. Our data on Protestantism is based primarily on the work of Samuel Mours, a pastor who compiled a chronological list of Protestant temples in France between the 16^{th} and 19^{th} centuries (Mours, 1957a,b,c, 1958). His work provides a detailed cartography of French Protestant worship. During the 16^{th} century, Mours counted 1,508 localities throughout France with a temple at one time or another. Although not all churches were in continuous activity, his count provides an accurate picture of the spread of Protestantism. Historians generally consider it to be reliable (Fornerod & Benedict, 2009).

Mours drew his information from all available documentation, principally from de Bèze (1580), the correspondence between the churches of France and Geneva, the acts of the provincial synods that have been preserved, and the documents published by the *Bulletin de la Société de l'histoire du protestantisme français*. For the 17^{th} century, he relied mainly on the published acts of Protestant synods and the documentation compiled by Haag & Haag (1846-1859). At that time, although the Protestant population remained relatively stable, the number of temples and the influence of Protestantism declined. Mours notes that this decline is reflected in the pastoral regrouping of communities under the combined effect of repression and insufficient resources.

The pressure exerted on Protestants resulted in restrictions on the public practice of their religion, as well as the closure or even destruction of temples when the State noticed the cessation of worship. These closures also led to the relocation of pastors and the population. Mours has indicated the churches whose worship was forbidden before 1685. Blet (1972) confirms most

Figure A.13: Geographic distribution of Protestant churches.



(16th century) (17th century) (1820)

(1850) (1870) (1900)

of these mentions and provides some additional data. In the 18^{th} century, these pressures limited the possibility of an accurate population count. Krumenacker (2008), who established a reference prosopography of French pastors in the 18^{th} century, notes that pastors were mobile and therefore had no fixed community. A list of temples created under the Concordat of 1802 is provided by Mours and Robert. While D. Robert (1961) studies the network of temples reconstituted after the Revolution up to 1830, Mours completes this list up to the 20^{th} century. Non-Concordat churches with permanent pastors are mentioned. We have included them in our database. The reconstruction of the network of Protestant temples thus provides localized and consistent data for analyzing the diffusion and extension of Protestant worship from the *Ancien Régime* to modern times.

Figure A.13 maps our data on Protestant temples in France. Using the *Projet Cassini*'s

information about the number of municipalities, including those that have since disappeared, we calculate the percentage of municipalities with a Protestant temple over time for each district.

A.7 Geographic controls.

Market access. We calculated a measure of market access in 1793 following the method used in Donaldson & Hornbeck (2016) and, in the context of the French Revolution, Finley et al. (2021). We rasterized the location of roads, inland waterways, and seas at the 1×1 km level to calculate the least cost travel path between any two districts' centroids —we do so using Dijkstra's algorithm.[103] The formula for market access is:

$$\texttt{Market Access}_i = \sum_{j \neq i} \frac{P_j}{C_{ij}^{\sigma}}$$

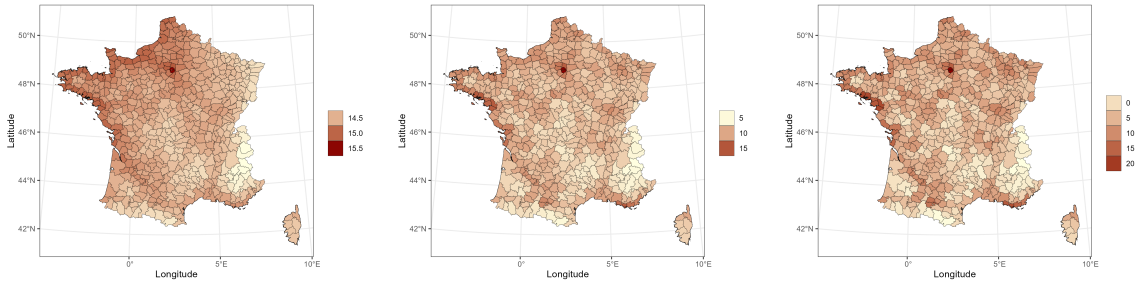
Where P_j is the population of district j in 1793, C_{ij} is the (lowest) travel cost between district i and district j's centroids, while σ is the elasticity of trade with respect to travel costs. Of course, districts closer to borders are more likely to trade internationally. Hence, we add Buringh's (2020) data on city population in 1800 for countries neighboring France.

We use the road network and waterways as published by Arbellot et al. (1987) and digitized by Arnaud (2021).[104] Following Bairoch (1988), we consider transportation on the main roads, inland water transportation, and maritime travel to cost only 81%, 21%, and 8% as much as other land transportation (portage). Ideally, we would estimate the "trade elasticity" (σ) parameter as it influences our measure of market access. Since we lack the data to do so, we report our measure for different values of σ (Figure A.14).

[103] To preserve distances as much as possible, we use the Lambert-93 (ESPG: 2154) projection.

[104] More precisely, we use the "routes de postes" as they existed in 1792 Arbellot et al. (1987, p.17) as well as navigable inland waterways between 1790 and 1812 (Arbellot et al., 1987, p.25).

Figure A.14: Measure of market access with different thresholds for σ.

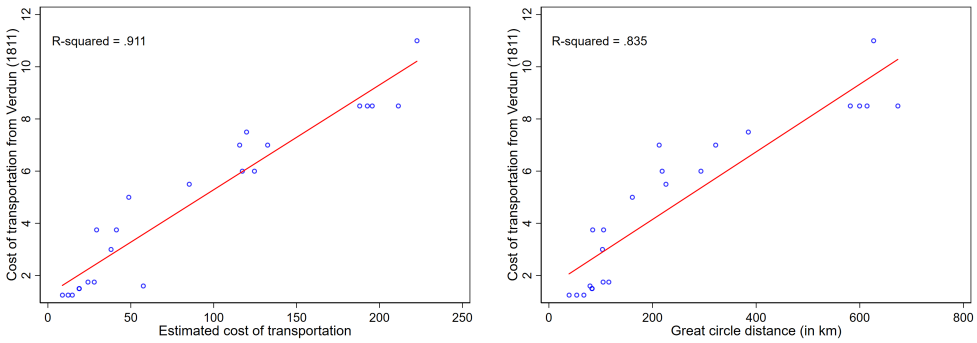


($\sigma = 1$) ($\sigma = 4$) ($\sigma = 8$)

Notes: This figure maps market access at the district level for different values of the "trade elasticity" (σ).

To validate our measure of transportation cost, we use data published by Conchon (2022) on transportation costs in 1811 from Verdun to 23 cities elsewhere in France. Figure A.15 graphs our results. Overall, our estimated cost of transportation explains 91.1% of the variance in the actual cost of transportation, which is more than the 83.5% explained by the great circle distance.[105] Overall, those results give us greater confidence that our estimated cost of travel is meaningful.

Figure A.15: Correlation between actual and estimated transportation costs.



Notes: The left panel is a scatterplot of the relationship between actual travel costs from Verdun to 23 cities in 1811 and our estimated travel cost between Verdun and those same cities. The right panel looks at the relationship between the great circle distance and actual travel costs. In both cases, the R-squared is reported on the top left.

Pays d'Etat. Is a variable equal to one if a district's centroid is in a *pays d'état* and zero otherwise. We use Gay et al.'s (2024) shapefiles to delineate the *pays d'états* and *pays d'élections*.

[105] While the document in Conchon (2022) gives data for 41 cities, the travel cost for 18 cities was handwritten and, despite some of those cities being quite far, referred only to the land transportation costs. For the other 23 cities we use, travel was done both by land and by navigation. Using the 41 cities gives us similar results, with our estimated cost of transportation explaining 79.5% of the variance in the actual cost of transportation, while the great circle distance explains 77.9% of that same variance.

Ruggedness. We extracted the average terrain ruggedness for each district polygon using Nunn & Puga's (2012) raster map.

Urbanization rate. All of our population figures are calculated using the data in the *Projet Cassini*. Our default measure of urbanization is the percentage of a district's population living in a town of more than 2,000 inhabitants.

Wheat suitability. We extracted the average wheat suitability for each district polygon using the following data: FAO, GAEZ v3.0. Crop suitability index (class) for intermediate input level rain-fed wheat.

Written law. France during the *Ancien Régime* had different legal institutions ranging from written to customary law, with some regions adopting a mixed system. "Written law" is a variable indicating whether each district's centroid is part of a region with written law, customary law, or a mixed system. In our regressions including "Written law," a dummy is included for each of these three categories. Here as well, we use Gay et al.'s (2024) shapefiles to extract our data.

A.8 Economic controls.

Conscript Height and height exemptions (1819). We collected and digitized the conscription records at the canton level from around 90 boxes in the *Archives Nationales*.[106] This data

[106]For each department, the respective archival codes are: Ain (F-9-150); Aisne (F-9-151); Allier (F-9-152); Ardèche (F-9-156); Ardennes (F-9-157); Ariège (F-9-158); Aube (F-9-159); Aude (F-9-160); Aveyron (F-9-161); Bas-Rhin (F-9-239); Basses-Alpes (F-9-153); Basses-Pyrénées (F-9-236); Bouches-du-Rhône (F-9-163); Calvados (F-9-164); Cantal (F-9-165); Charente (F-9-166); Charente-Inférieure (F-9-167); Cher (F-9-168); Corrèze (F-9-169); Corse (F-9-170(71)); Côte-d'Or (F-9-172); Côte-du-Nord (F-9-173); Creuse (F-9-174); Deux-Sèvres (F-9-251); Dordogne (F-9-176); Doubs (F-9-178); Drôme (F-9-179); Eure (F-9-181 et 182); Eure-et-Loir (F-9-183); Finistère (F-9-184); Gard (F-9-186); Gers (F-9-188); Gironde (F-9-189); Haut-Rhin (F-9-240-A); Haute-Garonne (F-9-187); Haute-Loire (F-9-204); Haute-Marne (F-9-216); Haute-Saône (F-9-243-bis); Haute-Vienne (F-9-259); Hautes-Alpes (F-9-154); Hautes-Pyrénées (F-9-237 et 238); Hérault (F-9-190 et 192); Ille-et-Vilaine (F-9-193); Indre (F-9-194); Indre-et-Loire (F-9-195); Isère (F-9-196); Jura (F-9-198); Landes (F-9-199 et 200); Loir-et-Cher (F-9-202); Loire (F-9-203); Loire-Inférieure (F-9-205); Loiret (F-9-206); Lot (F-9-207); Lot-et-Garonne (F-9-208); Lozère (F-9-209); Maine-et-Loire (F-9-211); Manche (F-9-212 et 213); Marne (F-9-215); Mayenne (F-9-217); Meurthe (F-9-218); Meuse (F-9-219); Morbihan (F-9-222); Moselle (F-9-223); Nièvre (F-9-225 et 226); Nord (F-9-227 et 228); Oise (F-9-229); Orne (F-9-230); Pas-de-Calais (F-9-232 et 234); Puy-de-Dôme (F-9-235); Pyrénées-Orientales (F-9-238-bis-ter); Rhône (F-9-241); Saône-et-Loire (F-9-244); Sarthe (F-9-245); Seine (F-9-246); Seine-et-Marne (F-9-249); Seine-et-Oise (F-9-250); Seine-Inférieure (F-9-247 et 248); Somme (F-9-251-bis); Tarn (F-9-252); Tarn-et-Garonne (F-9-253); Var (F-9-255); Vaucluse (F-9-256); Vendée

gives for the 1819 cohort the average height of conscripts as well as the number of conscripts failing to pass the army's height requirement. 1819 conscripts were born 20 years earlier during the Revolution.[107] We re-aggregate the data from the canton to the district level.

Sharecropping. Sharecroppers as a percentage of the total population. The data comes from the 1852 *Enquête agricole*, which was made available online by Marin & Marraud (2011).

Landed inequality. Our measure of landed inequality is the percentage of large landlords (both absent and on-site) as a percentage of the total number of landowners. The data comes from the 1852 *Enquête agricole*.

Fallow land. Fallow land as a percentage of cultivated area. The data comes from the 1852 *Enquête agricole*.

Industrial wage. The average industrial wage in each district. We take the average of the wage for men, women, and children, weighted by the number of workers in each of those categories. The data, collected by Chanut et al. (2000), comes from the *Enquête industrielle* of 1860-1865.

Industrial workers. Industrial workers as a percentage of the total population. The data, collected by Chanut et al. (2000), comes from the *Enquête industrielle* of 1860-1865.

Forges per capita. We geolocalized the data in Bourgin & Bourgin (1920) on 1,229 forges across France in 1789. Bourgin & Bourgin's data is largely based on a census by the *Bureau du Commerce* in 1788-1789 —i.e. just before the Revolution. We then calculate the number of forges per capita —using the 1793 population— for each district as a measure of industrialization.

(F-9-257); Vienne (F-9-258); Vosges (F-9-260); Yonne (F-9-261).

[107] The 1819 data was missing for four departments: Charente-Inférieure, Creuse, Deux-Sèvres, and Ille-et-Vilaine. We used the 1820 data instead in those cases.

Revolts (total, against the Church, and against Nobility) (pre-1789). We use the data on revolts in Gay (2025) to build three variables: the number of revolts between 1750 and 1789 in general and against the nobility or the Church in particular.

A.9 Human capital controls.

Bad school (%). This variable was collected by Squicciarini (2020) from archival sources and measures the "Share of building in bad conditions, computed as the number of school buildings in bad condition over the total number of school buildings" in 1873. We re-aggregated the data from the canton to the district level.

Conscript Literacy (1827). Our canton-level data for the percentage of conscripts who are literate comes from the same archival sources as our data on conscripts' height. We use the data for 1827.[108]

Encyclopedia subscriptions per cap. We use the data in Darnton (1973) on the subscriptions to the quarto encyclopedia, an edition launched by Duplain in 1776, who fortunately kept his subscription list.

Secular and religious lycées (1789). This variable measures the number of secular and religious high schools per district. We geolocalized the data from Bonin & Langlois (1987).

School per student. This variable was collected by Squicciarini (2020) from archival sources and measures the "total number of students over the total number of schools" in 1873. We re-aggregated the data from the canton to the district level.

STN books and banned books sold per cap. As in Jha & Wilkinson (2023), we use the number of books sold by a famous publisher and wholesaler, the *Société typographique de Neufchâtel* (STN). The dataset was built and made accessible by Burrows & Curran (2014) and tracks the

[108] Except for the department of Aube, for which we use 1828 since the 1827 data was missing.

movement of around 400,000 copies of 4,000 books across Europe between 1769 and 1794. Naturally, we only look at the number of books sold before the Revolution (1789). We also look specifically at the sales of banned books within that same database.

A.10 Other controls and outcome variables

Addresses in 1789. We measure the number of letters of thanks and welcome to the National Assembly from August 4, 1789, to November 2, 1789 (the date on which Church properties were nationalized). Our measure is based on volumes 8 and 9 of the *Archives Parlementaires*. At the beginning of each parliamentary session, the towns from which those addresses were sent were listed. We geolocated each address based on its provenance. The result is a dataset of 1,377 addresses across France. In a few cases, homonyms prevented us from identifying with certainty the location from which an address was sent. In those cases, we assigned $1/N$ to each municipality with the relevant name, where N is the number of homonyms.

Addresses supporting the Cult of Reason. We collected all addresses to the National Assembly that approvingly mentioned the Cult of Reason by reading volumes 78 to 95 from the *Archives Parlementaires*. The result is a collection of 1,978 addresses sent by political clubs, local administrations, and private individuals. The first address about the Cult of Reason is by the Parisian authorities, reporting the first *Fête de la Raison* on November 10, 1793, from which the Cult of Reason originated. We finish with volume 95, which ends close to the Fall of Maximilien Robespierre.

Cahiers de doléances variables. All variables about the *cahiers de doléances* sent to the Estates Generals in 1789 are built using the data in Hyslop (1934) and Shapiro et al. (1998). Hyslop (1934, p.8) lists the 234 electoral districts in 1789. We were able to reconstruct those districts' borders using Gay et al.'s (2024) geospatial data on each *bailliage* as well as various sources on which electoral district each *bailliage* belonged to. More specifically, we first utilize the information included in the January 24, 1789, royal regulation, as published in Brette (1907).

Unfortunately, various exemptions to this ruling were made, especially in the case of Brittany. We therefore used the first volumes of the *Archives Parlementaires* as well as the documents in Brette (1894) to get the exact map of the electoral districts. Finally, our index of religious progressivism sums the following four indicator variables from Hyslop (1934): whether a *cahier* showed anti-clericalism, showed secularism, demanded the democratization of the Clergy, and favored religious toleration.

Jacobin Clubs. We geolocalized the data in Boutier & Boutry (1992) and calculated the number of Jacobin club in 1789, 1790, 1791, 1792, 1793, and Year II (1793-1794). We also collected data from the same source on the *Cercles Constitutionels* —i.e., republican political clubs— during the Directorial regime.

Oath. We use the data reported by Tackett (1986) on the percentage of clergymen who swore an oath the the constitution in 1791. Whenever the data was given for several months, we averaged the number of priests who swore an oath.

Revolts in 1789/1790. We calculate the number of revolts between May 1789 and August 1790, this period covers the *Great Fear* of 1789 as well as its resurgence in the summer of 1790 (Lefebvre, 1983). We use the data made accessible by Chambru & Maneuvrier-Hervieu (2024).

A.11 Summary statistics

	Observations	Mean	Std. Dev.	Min	Max	p25	p50	p75
1789 addresses per cap.	4448	0.519	0.842	0.000	8.719	0.000	0.306	0.621
Addresses for Cult of Reason	4448	3.558	4.048	0.000	55.000	1.000	3.000	5.000
Address to Charles X (1830)	4352	63.932	45.045	0.000	100.000	0.000	100.000	100.000
Anti-republican vote share	3245	30.346	25.849	0.000	100.000	0.087	33.399	49.527
Anti-republican vote share (1876)	540	39.915	24.257	0.000	100.000	24.391	41.736	54.348
Anti-republican vote share (1881)	541	24.069	24.341	0.000	100.000	0.000	20.833	45.427
Anti-republican vote share (1885)	541	45.187	15.629	0.000	84.279	37.869	46.733	54.602
Anti-republican vote share (1889)	541	44.125	22.690	0.000	100.000	34.588	45.840	53.466
Anti-republican vote share (1893)	541	16.396	23.440	0.000	100.000	0.000	0.501	31.982
Anti-republican vote share (1898)	541	12.401	21.589	0.000	100.000	0.000	0.000	19.172
Average conscript height	4296	1.662	0.020	1.532	1.727	1.650	1.663	1.674
Bad schools (%)	4008	0.064	0.065	0.000	0.377	0.014	0.045	0.096
Below height requirement	4296	0.151	0.072	0.013	0.528	0.099	0.140	0.183
Banned books sold	4448	0.003	0.027	0.000	0.418	0.000	0.000	0.000
Biens nationaux per capita	3816	76.937	65.918	1.200	514.786	29.387	59.840	101.885
Biens Nationaux (% of land)	1728	5.636	5.619	0.300	40.100	1.900	3.900	7.150
Biens nationaux (2^{nd} Origin	1192	3.662	2.819	0.100	27.700	1.900	3.600	5.300
Clergy's Oath	3952	0.553	0.274	0.000	1.000	0.343	0.590	0.789
Conscripts' literacy (1827)	3632	42.768	19.430	6.053	90.182	27.072	41.815	57.143
Encyclopedia subscriptions	4400	0.000	0.001	0.000	0.010	0.000	0.000	0.000
Fallow land (%)	4448	0.208	0.102	0.000	0.493	0.136	0.211	0.274
Female pascalisants in % (1946)	3432	48.548	23.267	5.440	95.098	28.085	47.792	65.443
Forges per capita	4448	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Industrial wage	4448	100.317	55.739	0.000	294.016	59.346	99.535	138.629
Industrial workers	4448	0.034	0.034	0.001	0.305	0.012	0.021	0.047
Jacobin Clubs	4448	9.932	9.769	0.000	81.000	4.000	7.000	13.000
Landed inequality	4448	0.323	0.177	0.000	0.863	0.179	0.302	0.459
Left opposition (1827/1830)	4352	57.476	45.583	0.000	100.000	0.000	85.338	100.000
log(biens nationaux per capita)	3816	3.986	0.904	0.182	6.244	3.381	4.092	4.624
Market access (1793)	4448	12.768	0.198	12.288	13.719	12.626	12.772	12.896
Male pascalisants in % (1946)	3496	29.290	23.271	0.441	89.132	10.553	22.291	42.870
Monasteries per capita (year 1200)	4448	0.041	0.035	0.000	0.216	0.014	0.036	0.061
Monasteries per capita (year 1500)	4448	0.044	0.038	0.000	0.193	0.017	0.038	0.065
Montagne's vote share	1080	28.693	18.379	0.000	93.725	15.031	25.745	40.641
Number of monasteries (1200)	4448	2.027	1.900	0.000	11.000	1.000	2.000	3.000
Number of monasteries (1500)	4448	3.950	3.642	0.000	21.000	1.000	3.000	5.500
Pascalisants in % (Late 19th century)	2056	54.308	28.720	2.700	99.464	31.501	52.500	81.846
Pascalisants % around 1919	4272	40.711	27.097	3.135	98.154	17.891	34.650	62.773
Pays d'Etat	4320	0.335	0.472	0.000	1.000	0.000	0.000	1.000
Political progressivism (Hyslop)	4320	3.732	1.427	0.000	6.000	3.000	3.985	4.910
Political & Religious progressivism (Hyslop)	4320	4.600	1.833	0.000	8.681	3.464	4.820	6.000
Protestants (16th century)	4416	5.441	10.167	0.000	100.000	0.000	2.348	5.595
Protestants (17th century)	4416	4.286	9.621	0.000	100.000	0.000	1.439	3.704
Proximity to monasteries	4448	4.474	1.046	1.432	10.465	3.836	4.472	5.127
Religious Lycée (1789)	4448	0.372	0.617	0.000	3.000	0.000	0.000	1.000
Religious progressivism (Hyslop)	4320	0.868	0.734	0.000	3.000	0.095	0.974	1.165
Revolts (pre-1789)	4448	7.928	13.936	0.000	234.000	2.000	4.000	9.000
Revolts vs. Church (pre-1789)	4448	0.192	0.582	0.000	5.000	0.000	0.000	0.000
Revolts vs. Nobility (pre-1789)	4448	0.523	1.269	0.000	20.000	0.000	0.000	1.000
Ruggedness	4448	0.936	1.142	0.065	6.844	0.331	0.526	0.939
Secular Lycée (1789)	4448	0.811	0.951	0.000	10.000	0.000	1.000	1.000
School per student	4008	62.638	22.981	0.300	162.779	48.718	60.072	76.934
Sharecropping	4448	0.011	0.014	0.000	0.066	0.001	0.006	0.016
STN books sold	4448	0.008	0.053	0.000	0.765	0.000	0.000	0.000
Urbanization rate	4448	0.343	0.204	0.000	1.000	0.189	0.309	0.460
Urbanization rate (>5,000h)	4448	0.159	0.183	0.000	1.000	0.000	0.122	0.239
Urbanization rate (>10,000h)	4448	0.100	0.177	0.000	1.000	0.000	0.000	0.175
Urbanization rate (>20,000h)	4448	0.064	0.164	0.000	1.000	0.000	0.000	0.000
Vendean West	4448	0.146	0.353	0.000	1.000	0.000	0.000	0.000
Wage (fed men workers) (1852)	4448	0.782	0.249	0.000	1.500	0.620	0.806	0.970
Wheat suitability	4448	3.779	1.162	1.214	8.000	2.937	3.631	4.458

B Baseline results robustness

B.1 Sensitivity analyses

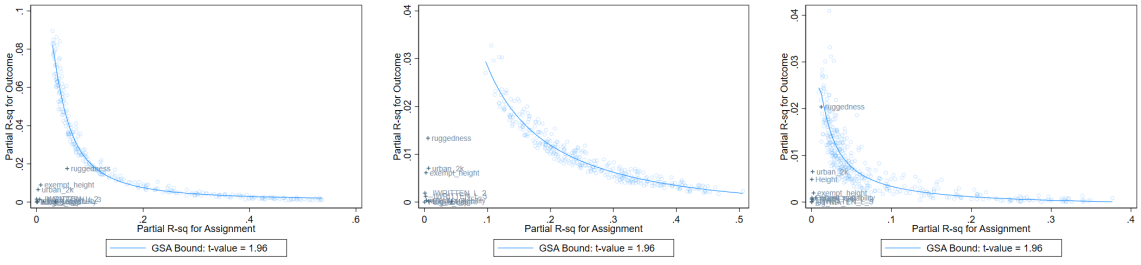
B.1.1 Generalized sensitivity analysis

To understand how much of our results' magnitude and statistical significance could be driven by omitted factors, we use the generalized sensitivity analysis developed by Imbens (2003) and Harada (2013). Figures B.16 and B.17 show how correlated an unobservable would need to be in order to decrease the significance of our main results below the 5% significance level for Tables 1, 5 and I.34, and 4.

Covariates are plotted based on their partial correlation with both the dependent variable (y-axis) and our main independent variable (x-axis). The points through which the lines are fitted are generated pseudo-unobservables. The blue lines represent the frontier beyond which unobserved covariates would have to be to reduce statistical significance below the 5% level.

Figure B.16 displays three panels for the three variants of our main independent variable in Table 1 and B.10. In all cases, the included covariates are much less correlated to both the anti-republican vote share and our measure of the *biens nationaux* than an unobservable would have to be in order to undo the statistical significance of our results at the 5% level.

Figure B.16: Sensitivity analysis (Table 1, column 7).

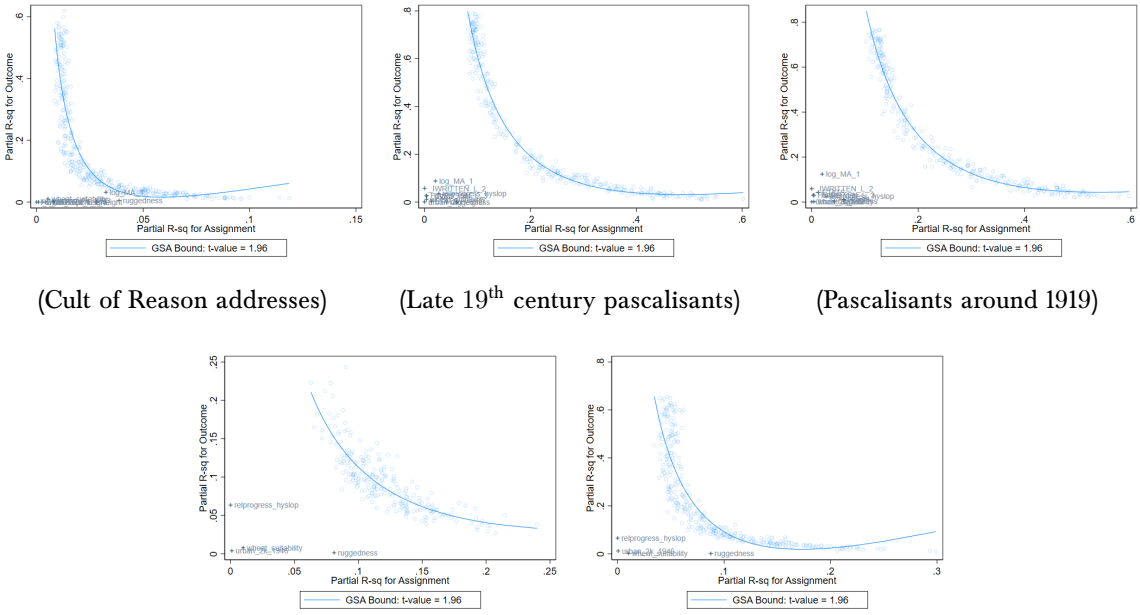


(log(*biens nationaux per capita*)) (*Biens nationaux per capita*) (*Biens nationaux* (% of land))

Figure B.17 reproduces the same analysis but for Tables 4, 5, I.33 and I.34 in which we look at the effect of the *biens nationaux* on the Cult of Reason during the Revolution of religiosity

at different dates. Here as well, an unobservable would have to explain a substantially larger portion of the variation than our controls to reduce significance below the 5% level.[109]

Figure B.17: Sensitivity analysis (Tables, 4, 5, I.33 and I.34).



(Cult of Reason addresses) (Late 19th century pascalisants) (Pascalisants around 1919)

(1947 male pascalisants) (1947 female pascalisants)

B.1.2 Selection of unobservables sensitivity analysis *à la* Oster (2019)

To further check whether our results are robust to potential selection on unobservables, we report Oster's δ for our main results in Tables B.7 and B.8. Oster's (2019) sensitivity analysis offers us a way to assess robustness to omitted variable bias. Oster's δ is a ratio of how strong the selection of unobservables would have to be compared to the selection of observables to get a zero effect —i.e. $\beta = 0$ in equation 1. For all our estimates in Tables B.7 and B.8, we use Oster's (2019) proposed rule of thumb that $R^2_{long} = 1.3 \times R^2_{med}$, which means that we assume that R^2 would rise by a maximum of 30% when controlling for all unobservables.

[109] With the possible exception of our market access measure which is close but below the frontier in the case of our results on the Cult of Reason. Note that removing "log(Market Access)" from the relevent regression would increase its economic and statistical significance.

Masten & Poirier (2023) point out that Oster's δ (the $\beta = 0$ "breakdown point") is different from the sign change breakdown point. Since our hypothesis is that the redistribution of Churchland ***reduced*** the political primacy of anti-republicanism, not that $\beta \neq 0$, we also report the results from Masten & Poirier's (2023) sensitivity analysis which indicate how much selection on unobservables would be required relative to the selection on observables for the sign to flip.

Masten & Poirier (2023) define β_{med} as the coefficient of interest when including observed covariates and β_{long} as the coefficient of interest when including both observed and unobserved covariates. They also define the largest difference between β_{med} and β_{long} as M. That is $M = |\beta_{long} - \beta_{med}|$. If $M = 0$, then obviously, no selection on unobservables can reverse the sign of our coefficient of interest. If M is set large enough, then it will not affect the results of our sensitivity analysis as the restriction will not bind. In the absence of a restriction on the value of M, the value of the sign change breakdown point estimate is always below 1 (Masten & Poirier, 2023). If we assume an upper bound on omitted variable bias, on the other hand, then the sign change breakdown point estimates can rise above unity. In the tables below, we restrict M to 5, 10, and 20 times β_{med}.

Table B.7: Sensitivity analysis for Table 1.

	Oster's δ	Masten & Poirier (2023)			
Breakdown point:	Explains away	Sign Change with M equal to:			
		$+\infty$	$5 \times \beta_{med}$	$10 \times \beta_{med}$	$20 \times \beta_{med}$
	(1)	(2)	(3)	(4)	(5)
			1876 election:		
log(biens nationaux per capita)	20.4372	0.9551	$+\infty$	6.6354	1.5620
			1881 elections:		
log(biens nationaux per capita)	3.7371	0.9030	3.7371	3.7371	1.7583
			1885 elections:		
log(biens nationaux per capita)	3.1475	0.8971	3.1475	3.1475	1.1421
			1889 elections:		
log(biens nationaux per capita)	3.9499	0.9130	3.9499	3.9499	1.3591
			1876 to 1889 elections:		
log(biens nationaux per capita)	3.8949	0.8891	3.8949	3.8949	1.1437

In Table B.7, we report the estimates of Oster's δ and of the sign change breakdown point for different thresholds of M. The observable covariates included are those listed in Table 1, column 7. The first column of Table B.7 suggests that the selection on unobservables would

have to be between 3.15 and 20.44 times larger than the selection on observables for the effect of *biens nationaux* on the anti-republican vote share to vanish. Column 2 reports the sign change breakdown point without any restriction on the magnitude of omitted variable bias. The values in column 2 are very close to 1, which is the maximum value this estimate can take. This suggests selection on unobservables is unlikely to change the sign of our main result, especially in 1876, when a return to the monarchy was most probably. When restricting the magnitude of omitted variable bias, as in columns 3 to 5, the selection on unobservables needed to change the sign is significantly larger than the selection on observables.

Table B.8: Sensitivity analysis for Tables 4, 5, I.33, and I.34.

	Oster's δ	Masten & Poirier (2023)			
Breakdown point:	Explains away	Sign Change with M equal to:			
		$+\infty$	$5 \times \beta_{med}$	$10 \times \beta_{med}$	$20 \times \beta_{med}$
	(1)	(2)	(3)	(4)	(5)
	Cult of Reason Addresses (Table 4):				
log(biens nationaux per capita, no withheld sales))	4.3514	0.9998	1.0048	1.0005	0.9998
	Late 19^{th} *century pascalisants* (Table 5):				
log(biens nationaux per capita)	2.6102	1.0000	$+\infty$	$+\infty$	1.8850
	Pascalisants around 1919 (Table I.33):				
log(biens nationaux per capita)	2.6247	1.0000	$+\infty$	$+\infty$	1.8058
	1947 pascalisants men (Table I.34):				
log(biens nationaux per capita)	4.9769	0.9997	5.9213	3.3356	1.7782
	1947 pascalisants women (Table I.34):				
log(biens nationaux per capita)	8.4084	0.9950	$+\infty$	3.7486	1.7656

Note: In each case, the full set of controls included in either Tables 4, 5, I.33, or I.34 is used.

Table B.8 reproduces the same results for religiosityand the Cult of Reason. In all cases, Oster's δ and all but one restricted sign change breakdown points are above one.

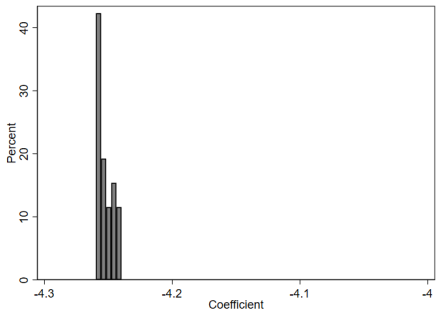
B.2 How robust is the measure from the *Archives Parlementaires*?

B.2.1 Accounting for the depreciation of the *assignats*

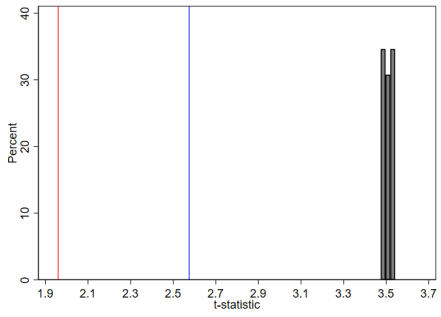
One potential issue with our main measure of the *biens nationaux* taken from the *Archives Parlementaires* is that it mixes the auctioned value of the Church assets already sold by November 1791 and the estimated value of the unsold Church assets —estimated at 22 times their 1790 income. Since the revolutionary paper currency was already depreciating —although mildly— in 1790 and 1791, we check if our results are sensitive to adjusting the auctioned value part of

our measure by some hypothetical *assignats* depreciation rates.[110] Since by November 1791, the *assignats* had depreciated by 18%, we recalculated the hypothetical real value of the auctioned Church assets prior to that date, assuming a depreciation rate between 0 and 25%.[111] Figure B.18 graphs our results, which are virtually unchanged for all *assignat* depreciation thresholds compared to our results in Tables 1 and 5.

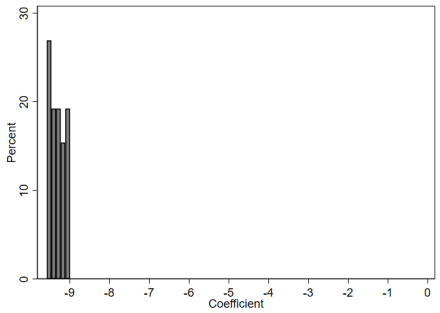
Figure B.18: Accounting for the depreciation of the *assignats*.



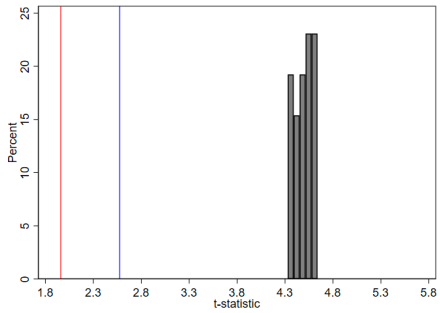
(Coefficients: Table 1, column 7)



(t-statistic: Table 1, column 7)



(Coefficients: Table 5, column 7)



(t-statistic: Table 5, column 7)

Note: These two figures graph the distribution of 25 coefficients on our recalculated *log(biens nationaux)* variable as well as their t-statistics for the same regressions as the last column in Tables 1 and 5.

B.2.2 Using a different measure from the *Archives Parlementaires*

We build a new measure of the *biens nationaux* from the *Archives Parlementaires* excluding the estimates of the value of the *biens nationaux* whose sale had been delayed in 1792. This is the

[110] They are hypothetical because we do not know the timing of the sales before November 1791.

[111] In other words our alternative measure of the *biens nationaux* is equal to (Auctioned $\times$ A + Estimated)/1793 Population, where $A \in (0.75, 1)$ is the price of one *assignat* in specie.

category for which the most observations are missing, as 65 districts had not yet estimated the value of those assets. This category accounts for only 12.8% of the total value of the ***biens nationaux*** estimated by the report from the *Archives Parlementaires* used.

Table B.9: OLS and instrumental variables results using a modified measure of ***biens nationaux***.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	PANEL A: *OLS*:						
log(biens nationaux, no adjourned sales)	-2.97736***	-6.11398***	-2.33908**	-5.93221***	-2.93824**	-5.23537***	-3.17791***
	(0.80500)	(0.79155)	(1.10132)	(0.93517)	(1.13891)	(1.00177)	(1.16744)
Observations	2055	2055	2055	2019	2019	2007	2007
R-squared	0.14	0.26	0.37	0.28	0.38	0.29	0.39
	PANEL B: *IV, crusaders per capita*:						
log(biens nationaux, no adjourned sales)	-5.32580***	-10.9142***	-11.5524**	-11.3293***	-11.0916**	-11.8638***	-14.1026***
	(1.54550)	(2.06127)	(4.61024)	(2.47990)	(4.34277)	(2.63443)	(4.83235)
AR p-value	0.000	0.000	0.006	0.000	0.007	0.000	0.002
First stage F-stat	132.34	86.82	31.44	80.56	32.94	68.13	26.24
	PANEL C: *IV, Monasteries per capita (year 1200)*:						
log(biens nationaux, no adjourned sales)	-5.84166***	-8.14422***	-8.01605**	-8.78520***	-8.99242***	-7.76137***	-8.70432**
	(1.90141)	(2.07956)	(3.45030)	(2.49258)	(3.42598)	(2.65038)	(3.51226)
AR p-value	0.002	0.000	0.017	0.000	0.007	0.003	0.011
First stage F-stat	122.89	106.18	53.11	93.65	59.25	80.03	57.65
Geographic controls		✓	✓	✓	✓	✓	✓
Economic controls				✓	✓	✓	✓
Human capital controls						✓	✓
Region F.E.			✓		✓		✓
Election F.E.	✓	✓	✓	✓	✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1							

Note: Observations are at the district–election level between 1876 and 1889 included. The same full set of controls as in Table 1 is utilized. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the number of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Panel A reports OLS regressions using our alternative measure of ***biens nationaux***, while Panels B and C report the instrumental variables estimates, using the number of crusaders per capita during the first four crusades and the number of monasteries in 1200 per capita as instruments, respectively. Robust standard errors, clustered at the district level, are reported in parentheses.

B.2.3 Alternative measures of *biens nationaux*

Table B.10: Baseline results using alternative measures of the *biens nationaux*.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Biens nationaux per capita	-0.072048***	-0.064268***	-0.057995***	-0.049453***				
	(0.011395)	(0.011833)	(0.011922)	(0.012603)				
Biens Nationaux (% of land)					-0.57232***	-0.41436**	-0.36468**	-0.54923**
					(0.18136)	(0.17579)	(0.17715)	(0.21650)
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓
Human capital controls			✓	✓			✓	✓
Region F.E.				✓				✓
Election F.E.	✓	✓	✓	✓	✓	✓	✓	✓
Observations	1855	1819	1811	1811	843	807	807	807
R-squared	0.24	0.26	0.29	0.40	0.24	0.30	0.31	0.41
Magnitude:								
Standardized coefficients	-4.74	-4.25	-3.84	-3.27	-3.17	-2.33	-2.05	-3.09
Mean of dependent variable	39.03	38.79	38.77	38.77	38.79	38.22	38.22	38.22
*** p<0.01, ** p<0.05, * p<0.1								

Note: Each observation is a district for each election between 1876 and 1889. The dependent variable is the anti-republican vote share. All regressions are estimated using OLS. The table reports coefficients for two measures of *biens nationaux*: their value per capita, using population in 1793 (columns 1-4), and the percentage of land area sold as national property (columns 5-8). Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Standard errors clustered at the district level are reported in parentheses.

B.3 Other urbanization thresholds or excluding urbanized districts

Table B.11: Table 1, column 7 results using different measures of urbanization or excluding most urban districts.

					Urbanization rate > 1/3 excluded. Defined as:			
					> 2,000h	> 5,000h	> 10,000h	> 20,000h
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log(biens nationaux per capita)	-4.23972***	-3.86221***	-3.79455***	-3.91382***	-4.64126***	-4.05807***	-4.22434***	-4.10330***
	(1.22039)	(1.20702)	(1.20826)	(1.20035)	(1.49301)	(1.41767)	(1.36725)	(1.34368)
Urbanization rate	-9.76209**				-5.80075			
	(3.81321)				(9.64134)			
Urbanization rate (>5,000h)		-15.9561***				-16.7069**		
		(3.78438)				(7.03754)		
Urbanization rate (>10,000h)			-13.1428***				-13.9463**	
			(3.84638)				(6.12833)	
Urbanization rate (>20,000h)				-13.1697***				-17.3073**
				(4.49219)				(8.41590)
Other controls	✓	✓	✓	✓	✓	✓	✓	✓
Observations	1811	1811	1811	1811	957	1519	1591	1627
R-squared	0.40	0.41	0.41	0.40	0.41	0.41	0.40	0.40
*** p<0.01, ** p<0.05, * p<0.1								

Note: An observation is a district for each election between 1876 and 1889. All regressions are estimated using OLS. The full set of controls from Table 1 is included in all regressions, with the exception of our measure of urbanization, which varies across columns. Columns 1 to 4 add different measures of urbanization, defined as the percentage of the population living in a town of more than 2, 5, 10, or 20 thousand inhabitants. Columns 5 to 8 exclude from the sample the observations with an urbanization rate above one-third, using the corresponding measures. Robust standard errors clustered at the district level are reported in parentheses.

B.4 Spatial standard errors

Table B.12: Spatial standard errors.

	Dep. var.: Anti-Republican vote share:.						
Election:	1876	1881	1885	1889	1893	1898	1876 to 1889
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A: Spatial standard errors.						
log(biens nationaux per capita)	-5.87862	-4.60253	-2.87921	-3.72676	-0.48534	-0.14211	-4.23972
Clustered s.e.	(2.04916)***	(2.30053)**	(1.13705)**	(1.82173)**	(1.98489)	(1.77314)	(1.22039)***
Cutoff:50km	[1.81529]***	[1.89542]**	[1.08576]***	[1.52255]**	[1.89222]	[1.67016]	[1.23101]***
Cutoff:100km	[1.85887]***	[2.11703]**	[1.15033]**	[1.57594]**	[2.00101]	[1.79640]	[1.34263]***
Cutoff:200km	[1.77751]***	[2.26810]**	[1.17045]**	[1.60852]**	[1.78593]	[1.72336]	[1.38290]***
Cutoff:300km	[1.70367]***	[2.38823]*	[1.12349]**	[1.57855]**	[1.76018]	[1.79896]	[1.38135]***
Cutoff:400km	[1.59759]***	[2.28141]**	[0.99894]***	[1.39027]***	[1.66097]	[1.70275]	[1.24672]***
Cutoff:500km	[1.56580]***	[2.04046]**	[0.90166]***	[1.18164]***	[1.51108]	[1.52353]	[1.11286]***
Cutoff:600km	[1.42076]***	[1.74265]***	[0.82335]***	[1.09695]***	[1.31002]	[1.32009]	[0.98585]***
Cutoff:700km	[1.23563]***	[1.51591]***	[0.73437]***	[1.07398]***	[1.16710]	[1.18808]	[0.87888]***
Cutoff:800km	[1.11385]***	[1.39007]***	[0.64688]***	[1.01024]***	[1.09467]	[1.10621]	[0.79269]***
Cutoff:900km	[1.04685]***	[1.31082]***	[0.59790]***	[0.96281]***	[1.03540]	[1.04832]	[0.74697]***
Cutoff:1000km	[0.99626]***	[1.24811]***	[0.57275]***	[0.91858]***	[0.98497]	[0.99553]	[0.71456]***
	Panel B: Moran's I.						
Cutoff:50km	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cutoff:100km	0.00138	0.08744	0.00000	0.01259	0.25317	0.07842	0.00000
Cutoff:200km	0.85669	0.39923	0.95430	0.79870	0.09533	0.62455	0.02513
Cutoff:300km	0.01135	0.54835	0.62489	0.88508	0.81071	0.20057	0.02004
Cutoff:400km	0.71991	0.94504	0.83248	0.17657	0.23431	0.04992	0.61446
Cutoff:500km	0.18951	0.34888	0.36475	0.32826	0.67232	0.42916	0.00001
Cutoff:600km	0.59684	0.26843	0.77383	0.28895	0.97782	0.00401	0.38923
Cutoff:700km	0.54488	0.52693	0.17959	0.01243	0.91019	0.24103	0.04138
Cutoff:800km	0.66606	0.23012	0.00469	0.09869	0.49377	0.03343	0.12711
Cutoff:900km	0.91514	0.54087	0.38686	0.27562	0.12328	0.48704	0.14726
Cutoff:1000km	0.46240	0.57974	0.81243	0.96640	0.56248	0.29322	0.79074
Observations	452	453	453	453	453	453	1811
Controls	✓	✓	✓	✓	✓	✓	✓
Election F.E							✓
*** p<0.01, ** p<0.05, * p<0.1							

Note: This table examines the robustness of our main results to spatial autocorrelation. An observation is a district for different elections between 1876 and 1898. All regressions are estimated using OLS. The controls are the same as in column 7 of Table 1 and include region fixed effects. Panel A reports clustered standard errors at the department level (columns 1–6), district level (column 7), and Conley (1999) standard errors correcting for spatial auto-correlation. Conley standard errors are presented under the coefficient estimates and assume correlation ranges of 50km, 100km, 200km, ... , 900km, and 1,000km with a linearly declining spatial weighing kernel. Panel B shows the p-values for Moran's I statistic for different cutoff values. The null hypothesis is the absence of spatial autocorrelation in the residuals from the regressions in Panel A.

Table B.13: Spatial standard errors for Late 19th century religiosity and the Cult of Reason.

Dep. var.	Pascalisants (Late 19th century)				Cult of Reason Addresses			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					Panel A: Spatial standard errors.			
log(biens nationaux per capita)	-13.4633	-14.2497	-15.2928	-11.6088	0.20616	0.20729	0.19412	0.15501
Clustered s.e.	(2.43203)***	(2.42129)***	(2.62048)***	(2.41496)***	(0.037897)***	(0.046598)***	(0.050510)***	(0.055162)***
Cutoff:50km	[1.97941]***	[2.28684]***	[2.45307]***	[2.22302]***	[0.035686]***	[0.040914]***	[0.043631]***	[0.049260]***
Cutoff:100km	[2.20925]***	[2.34116]***	[2.55785]***	[2.24607]***	[0.045988]***	[0.050255]***	[0.054323]***	[0.056636]***
Cutoff:200km	[2.13821]***	[2.04906]***	[2.33806]***	[2.42149]***	[0.049955]***	[0.052222]***	[0.058812]***	[0.066154]**
Cutoff:300km	[2.33635]***	[2.06815]***	[2.31864]***	[2.60307]***	[0.048484]***	[0.056401]***	[0.063073]***	[0.070063]**
Cutoff:400km	[2.36521]***	[1.89760]***	[2.14783]***	[2.57994]***	[0.043069]***	[0.054929]***	[0.060942]***	[0.069149]**
Cutoff:500km	[2.19789]***	[1.64743]***	[1.90937]***	[2.47575]***	[0.035950]***	[0.048904]***	[0.053978]***	[0.062931]**
Cutoff:600km	[1.93667]***	[1.43003]***	[1.72148]***	[2.29753]***	[0.031376]***	[0.045379]***	[0.050279]***	[0.056534]***
Cutoff:700km	[1.76484]***	[1.26313]***	[1.57622]***	[2.12198]***	[0.026990]***	[0.040816]***	[0.045822]***	[0.051014]***
Cutoff:800km	[1.66178]***	[1.17191]***	[1.47989]***	[1.98921]***	[0.024706]***	[0.037484]***	[0.042661]***	[0.047480]***
Cutoff:900km	[1.56704]***	[1.09196]***	[1.37524]***	[1.86829]***	[0.022915]***	[0.035005]***	[0.040333]***	[0.044836]***
Cutoff:1000km	[1.48663]***	[1.03563]***	[1.30437]***	[1.77244]***	[0.022386]***	[0.033333]***	[0.038259]***	[0.042561]***
Geographic Controls	✓	✓	✓	✓	✓	✓	✓	✓
Economic Controls		✓	✓	✓		✓	✓	✓
Human capital controls			✓	✓			✓	✓
Region F.E.				✓				✓
					Panel B: Moran's I.			
Cutoff:50km	.	.	.	.	.	.	.	.
Cutoff:100km	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02897
Cutoff:200km	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.78095
Cutoff:300km	0.02446	0.32430	0.27367	0.15698	0.29732	0.44197	0.98827	0.61356
Cutoff:400km	0.10656	0.47234	0.74501	0.08658	0.42046	0.21727	0.05458	0.84932
Cutoff:500km	0.00366	0.00228	0.00626	0.00522	0.01651	0.00766	0.02374	0.72734
Cutoff:600km	0.00000	0.00000	0.00000	0.02267	0.19565	0.15119	0.05765	0.92273
Cutoff:700km	0.08623	0.90570	0.88284	0.00002	0.38139	0.63205	0.65171	0.89500
Cutoff:800km	0.13647	0.21670	0.14203	0.03160	0.05512	0.04891	0.05792	0.03311
Cutoff:900km	0.18862	0.74118	0.52802	0.38203	0.00079	0.01212	0.46338	0.48998
Cutoff:1000km	1.00000	1.00000	1.00000	1.00000	0.00005	0.00401	0.61348	0.91744
Observations	218	209	209	209	528	519	516	516
*** p<0.01, ** p<0.05, * p<0.1								

Note: This table examines the robustness of our main results to spatial autocorrelation. An observation is a district. All regressions are estimated using OLS. The controls are the same as the geographic, economic, and human capital controls in Table 5 and 4. The dependent variable is the percentage of ***pascalisants*** during the late 19th century (columns 1–4) and the number of addresses supporting the Cult of Reason and sent between the first ***fête de la Raison*** (November 10, 1793), and the fall of Robespierre on 9 Thermidor, Year II (July 27, 1794), per 10,000 inhabitants (columns 5–8). The independent variable is the log of the per capita value of national assets (columns 1–4), or the natural log of the per capita value of national assets either sold or whose sale had been ordered in November 1791 (columns 5–8). This latter measure excludes ***biens nationaux*** whose sale had been adjourned at that date. Panel A reports clustered standard errors at the department level, and Conley (1999) standard errors correcting for spatial auto-correlation. Conley standard errors are presented under the coefficient estimates and assume correlation ranges of 50km, 100km, 200km, ... , 900km, and 1,000km with a linearly declining spatial weighting kernel. Panel B shows the p-values for Moran's I statistic for different cutoff values. The null hypothesis is the absence of spatial autocorrelation in the residuals from the regressions in Panel A.

B.5 Further controlling for ideology around 1789

Table B.14: Further controlling for ideology around 1789.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
log(biens nationaux per capita)	-5.69694***	-4.24997***	-5.68096***	-4.25499***	-5.70791***	-4.11378***	-5.66459***	-4.17375***	-5.10453***	-3.69654***	-4.78130***	-3.25604**
	(1.05585)	(1.21828)	(1.06103)	(1.22627)	(1.05917)	(1.22671)	(1.05477)	(1.22482)	(1.10269)	(1.29180)	(1.13040)	(1.33057)
Revolts (1789/1790)	-0.20972	-0.21434										
	(0.15046)	(0.14603)										
asinh(Revolts (1789/1790))			-0.19733	-0.17133								
			(0.87075)	(0.86996)								
1789 addresses per cap.					-1.50094**	1.35368						
					(0.69197)	(0.84873)						
asinh(1789 addresses per cap.)							-2.77087*	2.67528*				
							(1.47216)	(1.41047)				
Cahiers (Hyslop, 23 var.)									✓	✓	✓	✓
Cahiers (Shapiro, 9 var.)											✓	✓
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Human capital controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Region F.E.		✓		✓		✓		✓		✓		✓
Election F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	1811	1811	1811	1811	1811	1811	1811	1811	1763	1763	1715	1715
R-squared	0.30	0.40	0.30	0.40	0.30	0.41	0.30	0.41	0.33	0.41	0.35	0.42
Magnitude:												
Standardized coefficients	-5.09	-3.80	-5.08	-3.80	-5.10	-3.68	-5.06	-3.73	-4.58	-3.32	-4.31	-2.94
Mean of dependent variable	38.77	38.77	38.77	38.77	38.77	38.77	38.77	38.77	39.32	39.32	39.56	39.56
				*** p<0.01, ** p<0.05, * p<0.1								

Note: An observation is a district for each election between 1876 and 1889. The dependent variable is the anti-republican vote share. All regressions are estimated using OLS. The same full set of controls as in Table 1 is included to which are added the following variables controlling for ideology at the time of the Revolution: the number of revolts in 1789 and 1790 during the Great Fear (columns 1-4); the number of addresses of thanks and support sent to the National Assembly between August 4, 1789 and the nationalization of Church properties (columns 5-8); 23 variables on the *cahiers de doléances* from Hyslop (1934) (columns 9-10) to which we add 9 others from Shapiro et al. (1998) (columns 11-12). Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. The *cahiers de doléances* controls, constructed using the data in Hyslop (1934) and Shapiro et al. (1998), are: Anti-clericalism, Democratization of the Clergy, Etatism as regards the Church, Hostile to papal influence, Pronounced gallicanism, Regeneration of the moeurs, Religious toleration, Secularism, Against feudal justice, Asked for equal taxes/no privileges, Equality before the law, Freedom of the press, Strongly democratic, Abolish serfdom, Appealing to French traditions, Favors the suppression of gilds, Liberal economic demands, Mentions national character, Patriotism primarily toward the Nation, Reform or abolish feudal dues, Showed marked individualism, Tendency toward state socialism, Traditional patriotism toward the King, Complaints about seigneurial rights (Markoff), Abolish Thithes (Markoff), Alienate the Church (Markoff), Immorality mentioned (Markoff), Abolish censorship (Markoff), Abolish lettres de cachet (Markoff), Establish constitutional monarchy (Markoff), Establish Habeas Corpus (Markoff), Separation of powers (Markoff). Standard errors clustered at the district level are reported in parentheses.

C Second-origin *biens nationaux*

The Revolution led to the exodus of more than 100,000 individuals, most of whom were aristocrats (Greer, 1951). Some of those emigrant nobles joined the ranks of the enemy, creating their own armies across the Rhine to fight the new regime. Yet other emigrant nobles joined the insurgency in the western regions surrounding Vendea. With the oath of the clergy, the problem of emigration became one of the most salient political issues of the Revolution (Tackett, 2015).

The Legislative Assembly started discussing the fate of *émigrés*' properties in January 1792.

Yet it was only after the war against Austria was declared that their expropriation was seriously considered. Ordered by a decree on July 27, 1792, their sale was to make those responsible for the war pay for it. On August 14, the principle of parceling out these properties was adopted as legislators feared peasant riots. By the end of the summer, the sale of emigrants' properties was suspended. It was only resumed with the laws of June 3 and July 25, 1793. From that date onwards, the emigrants' properties were referred to as "second-origin properties," while the Church's assets were referred to as "first-origin properties."

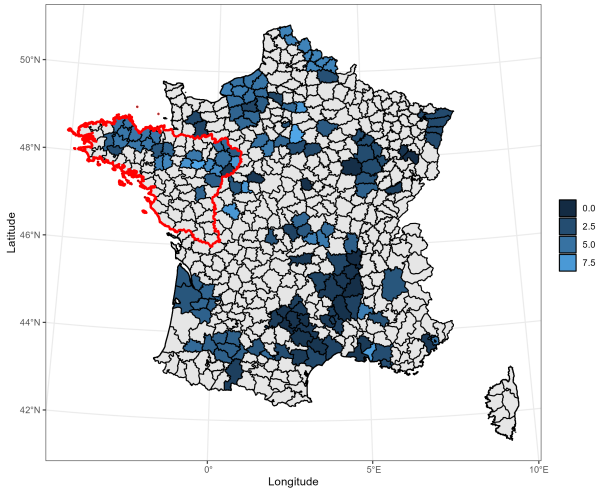
Other than the need for public funds, Revolutionaries favored the expropriation of the emigrants' properties on the ground that it would bind the many buyers of those assets to the fate of the Republic. This motivation was particularly obvious in the Ventôse decrees (February 26 and March 3, 1794), inspired by Saint-Just, which ordered the free distribution of both emigrants' and suspects' properties to patriots. Saint-Just thought that "To reform morals, one must begin by satisfying needs and interests; everyone must have some land." (Saint-Just, 1908, p.513). The Revolution should be steered, Saint-Just argued, "to the benefit of those who support it and to the ruin of those who oppose it." (Mathiez, 1928, p.203). According to Albert Mathiez (1928), the three main players in the Committee of Public Safety, Robespierre, Saint-Just, and Couthon, were convinced that they could only establish the Republic by creating a new social class from scratch that would owe its existence to it.[112]

One potential worry with our results in the body of the article is that confiscated emigrant properties are correlated with both the confiscated Church properties and political outcomes. Figure 5 shows that there is no apparent correlation between the *biens nationaux* of first and second origins. We used Bodinier & Teyssier's (2000) data about emigrants' properties for 149 districts —around 27% of their total number. As can be seen in Figure C.19 with the many (grey) missing observations, the data on the second-origin *biens nationaux* is much more incomplete.

Data incompleteness is not the only reason we do not use the expropriated emigrants' assets

[112]Most of the policies aimed at redistributing land to the poor were quickly repealed and never implemented (Bodinier, 2005). While the assembly ordered "second-origin properties" to be split into parcels to favor small owners, many buyers bought all parcels to keep the properties intact. See the many examples in Marion et al. (1911).

Figure C.19: Second origin *biens nationaux* according to Bodinier & Teyssier (2000) (% of land).



Notes: For the map, but not for the econometric results), we excluded one district in the department of Sarthe where second origin *biens nationaux* covered more than 27% of the land surface area. The red border represents the Vendean West as described by Hargenvilliers (Vallée, 1937). Grey cells represent missing observations.

in our main analysis. Another problem is that while the expropriation of the Church was a comprehensive national policy, the expropriation of nobles varied depending on: a) whether nobles opposed the Revolution enough to leave, and b) the actions of the local administration. As Tackett (2015, p.76) points out, in the prosecution of emigrants, "local authorities might drag their feet or devise policies of their own for political or ideological reasons." Regions in open revolt against the Republic naturally had more emigrants and were more likely to vote against Republican candidates later on in the 19th century. This endogeneity of emigration likely leads us to understate the effect of the second-origin national properties on the formation of a Republican coalition.

This problem is particularly acute in the region around the Vendée. Here, many nobles joined the rebellion, and more second-origin national assets likely reflected greater anti-Republicanism. So great was the potential for an insurgency that even in 1804, the "Vendean West" (signaled by the red border in Figure C.19) still benefited from partial exemptions to conscription (Vallée, 1937; Piano & Rouanet, 2020).[113] On average, second-origin *biens nationaux*

[113]The head of the conscription division during Napoléon's rule, Hargenvilliers, made this distinction between

covered 5.8% of the territory in the Vendean West, compared to 3.1% in the rest of France.[114]

Table C.15: Our results are robust to accounting for second origin ***biens nationaux***

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2nd Origin × Not Vendean West	-0.14516	-1.72064**	-1.45980*	-1.48368*	-1.96220***	-1.05450	-0.88475	-1.91973**
	(0.70362)	(0.73953)	(0.78776)	(0.79357)	(0.72764)	(0.89121)	(0.88836)	(0.74394)
2nd Origin × Vendean West	0.22690	0.26371	0.26913	0.34269	0.37717	0.46733	0.46293	0.44012
	(0.41273)	(0.39920)	(0.39246)	(0.37896)	(0.44243)	(0.45001)	(0.46446)	(0.42219)
Vendean West	16.3425***	10.2643*	6.78496	5.71739	7.25105	14.8322	15.4017	6.68630
	(5.23484)	(5.91204)	(6.76961)	(6.56795)	(7.92647)	(9.18940)	(9.40302)	(8.38495)
log(biens nationaux per capita)						-6.51888**		
						(2.58468)		
Biens nationaux per capita							-0.069914***	
							(0.020814)	
Biens Nationaux (% of land)								-0.25439
								(0.18909)
Geographic controls		✓	✓	✓	✓	✓	✓	✓
Economic controls			✓	✓	✓	✓	✓	✓
Human capital controls				✓	✓	✓	✓	✓
Region F.E.					✓	✓	✓	✓
Year F.E.	✓	✓	✓	✓	✓	✓	✓	✓
Observations	575	575	539	539	539	479	479	515
R-squared	0.24	0.38	0.41	0.42	0.47	0.48	0.48	0.48
*** p<0.01, ** p<0.05, * p<0.1								

Note: Observations are at the district-election level. The dependent variable is the anti-republican vote share between 1876 and 1889. All regressions are estimated using OLS. As in Table 1, Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for ***pays d'Etat***. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Standard errors clustered at the district level are reported in parentheses.

Using this distinction between the Vendean West and the rest of France, we show in Table C.15 that, as expected, there is a ***positive*** relationship between the anti-republican vote share and the amount of emigrant land expropriated and sold in the Vendean West, but a ***negative*** relationship in the rest of France. This relationship is statistically significant at the 10% level or better in all but 3 specifications. We include our different measures of expropriated Church assets in columns 6 to 8. Despite the data limitations, all of the coefficients on those measures are negative and all except Bodinier's (1988) measure (the percentage of land area covered by Church property) ($p = 0.181$) are significant at the 5% level or better.

Finally, while the magnitude of the second-origin ***biens nationaux*** relative to those of first-

the Vendean West and the rest of France based on the conscription statistics he compiled.

[114]On the other hand, in our data, expropriated Church assets covered on average 4.9% of the territory in the Vendean West and 5.8% in the rest of France.

origin appears greater in column 8, the standard deviation is three times greater for the latter than for the former in non-Vendean France. Similarly, in columns 6 and 7, a one standard deviation increase in our measures of *biens nationaux* reduces the anti-republican vote share by more than twice as much as a one standard deviation increase in second-origin national properties. Overall, our results are robust to accounting for the sale of emigrants' properties.

D The 1827 election and the coming of the 1830 Revolution

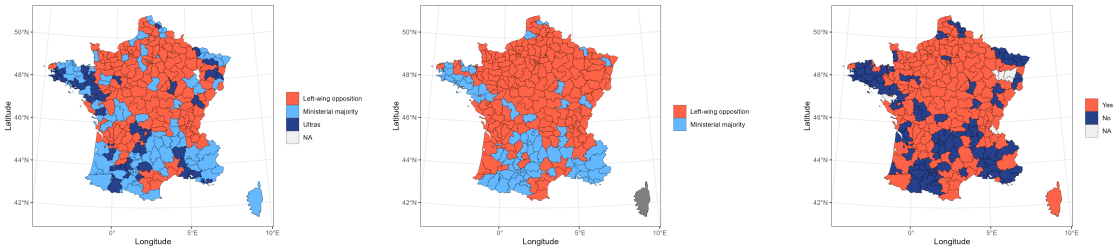
This appendix analyzes the 1827 and 1830 elections to look at the impact of the *biens nationaux* on the Restoration's political landscape. In addition to occurring during the resolutely reactionary Charles X's reign (1824-1830), the reasons for starting with the 1827 election are twofold: (a) it was the first time since 1820 there was a substantial liberal opposition, and (b) the Fourth Legislature (1827-1830) played a major role in the unfolding of the 1830 Revolution that overthrew the Bourbon dynasty.[115]

Political participation after the restored Bourbon monarchy in 1815 was reserved for a small elite—fewer than 100,000 voters in a country of around 30 million. The first election under King Louis XVIII, held during the "White Terror," produced a parliament entirely dominated by ultra-royalists. The chamber's refusal to accept any of the reforms adopted since the 1789 Revolution led the ultras, against the wishes of King Louis XVIII, to adopt a series of intransigent measures, including a ban on the tricolor flag. But what most alarmed Louis XVIII's government, as well as the allied forces occupying France, was the parliament's opposition to the sale of 400,000 acres of biens nationaux—wooded lands that had belonged to the Church before the Revolution (Corciulo, 1981). Instead, Kergolay and other ultras proposed returning those properties to the Church. From the outset of the Restoration, then, the fate of the biens nationaux was politically contentious. So were the laws that revived the clergy's influence over French society, including those facilitating land donations to the Church and permitting it to purchase property (January

[115] Additionally, elections between 1816 and 1820 occurred every year and renewed only one-fifth of the seats, which makes it difficult to use their results. As for the 1824 election, almost all the seats were won by the ultras due to prefects pressuring voters on behalf of the government.

25), as well as proposals to return to priests the responsibility of maintaining civil registry records and to abolish divorce (Corciulo, 1981).

Figure D.20: 1827 and 1830 parliamentary elections results and the vote of the March 16, 1830, address against Charles X.



(1827 election results) (1830 election results) (1830 address to Charles X)

Note: The left and middle panels map the electoral results for the 300 electoral districts in 1827 and 1830. The right panel maps the members of parliament who voted for the *addresse des 221*, which expressed the chamber's lack of confidence toward the Polignac government nominated by the King.

Under pressure, Louis XVIII dissolved the assembly in 1816.[116] The conflict between those seeking to preserve the Revolution's reforms and reactionaries intensified after Charles X ascended the throne in 1824, and especially after nobles who had left France during the Revolution were indemnified with the *milliard des émigrés* (1825). In the words of Pilbeam (1982, p.355), "Compensation for loss of land, secured by the floating of a state loan in 1825, created suspicion and uncertainty among new owners, and opposition to the law of indemnification helped to identify and unite liberals." Figure D.20 maps the 1827 electoral results as well as the votes for the defiant March 16, 1830, address to Charles X that ultimately led to the demise of the regime later that year.[117]

The influence of the 1789 Revolution remained strong during the 1827 election. Among

[116] In August 1815, Fouché—still Minister of Police—reported to the King that, should civil war break out, the royalists would be defeated, observing that "one can find among Frenchmen scarcely one-tenth who want to go back to the Old Regime and hardly a fifth who are frankly devoted to royal authority." He recommended that royalists rally former Republicans "by a decided and unreserved adherence to the principles of 1789" (de Bertier de Sauvigny, 1966, p.121).

[117] The data for the 1827 and 1830 elections are from A. Robert & Cougny (1889) and completed with the data in two newspapers, *Le Moniteur Universel*, and *Le Constitutionnel*, as well as the data in Braun (1829). For the March 16, 1830, address, we collected the data in the *Biographie impartiale de 221 députés: précédée et suivie de quelques documents curieux* (1830) and Jauffret (1830). The 1827 and 1830 electoral districts were reconstructed using Gaudillère (1995). We reaggregated the data at the 1793 district level following the formula given in Appendix A.1.

Table D.16: The effect of land redistribution on the support for the Left during the 1827/1830 elections and the 1830 address

						Weighted	1827	1830
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	PANEL A: *1827 and 1830 election results:*							
log(biens nationaux per capita)	16.6757***	10.8693***	11.2200***	10.7871***	10.1328***	9.99667***	13.5385***	6.78437**
	(1.61243)	(1.86981)	(2.05700)	(2.16211)	(2.59550)	(2.85529)	(3.47755)	(3.39418)
Observations	952	952	934	930	930	928	464	466
R-squared	0.15	0.23	0.24	0.26	0.34	0.34	0.32	0.40
Magnitude:								
Standardized beta coefficients	15.08	9.83	10.15	9.59	9.01	8.89	12.05	6.03
Mean of dependent variable	67.18	67.18	68.06	68.24	68.24	68.18	59.95	76.50
	PANEL B: *March 16, 1830, address:*							
log(biens nationaux per capita)	13.6810***	8.14358**	10.2566***	10.0305***	12.0660***	12.0171***		
	(3.25322)	(3.44422)	(3.21999)	(3.30984)	(3.89489)	(3.60253)		
Observations	475	475	466	464	464	464		
R-squared	0.08	0.15	0.19	0.22	0.29	0.30		
Magnitude:								
Standardized coefficients	12.39	7.38	9.29	8.93	10.74	10.70		
Mean of dependent variable	66.09	66.09	66.22	66.29	66.29	66.29		
Geographic controls		✓	✓	✓	✓	✓	✓	✓
Economic controls			✓	✓	✓	✓	✓	✓
Human capital controls				✓	✓	✓	✓	✓
Region F.E.					✓	✓	✓	✓
	*** p<0.01, ** p<0.05, * p<0.1							

Note: An observation is an administrative district. For Panel A, the data is a panel where the dependent variable is the percentage of deputies belonging to the liberal/constitutional opposition during the 1827 or 1830 election. The last two columns give the results for each election separately. The dependent variable in Panel B is the percentage of deputies who voted in favor of the address against the Polignac government on March 16, 1830. In most cases, the dependent variable is equal to 0 or 1. Regressions in columns 1 to 5 are estimated using OLS. To account for the different levels of aggregation between the dependent and independent variables, the two regressions in column 6 are weighted by the inverse of the number of administrative districts that make up each electoral district —each of the 556 administrative districts belonging to one of 300 electoral districts. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. All regressions in Panel A include election year fixed effects. Robust standard errors clustered at the district level for our panel data results in Panel A and at the department level for all other cross-section regressions are reported in parentheses.

those seated in the Fourth Legislature (1827–1830), 31 were born in the 1750s or earlier, 111 in the 1760s, 198 in the 1770s, and 142 in the 1780s or later. All members of this legislature had lived through the Revolution, and several elected candidates had been members of the Estates-General and sat with the left-wing opposition to the conservative Villèle government. For instance, Alexandre de Lameth, mentioned in section 2 as one of the first politicians to propose nationalizing the Church's assets, was elected in the first district of Seine-et-Oise. The Marquis de Lafayette, a longtime proponent of constitutional monarchy, also sat with the Left. Alongside Lafayette, three other parliamentarians belonging to the constitutional opposition—Mathieu Dumas, as well as Alexandre and Charles Lameth—had previously served in the American War

of Independence, which itself had played a major role in spreading revolutionary ideas during the French Revolution (Jha & Wilkinson, 2023). In addition, both Lameth brothers and Dumas had served as presidents of the Constituent and Legislative Assemblies, respectively, during the Revolution. Other revolutionary politicians included the Girondin Pierre Daunou, who was able to run as a candidate in 1827 only because he had voted against the death of Louis XVI, along with many other lesser-known figures.[118]

Table D.16 reports the OLS results using either the 1827/1830 electoral outcomes or whether deputies voted for the March 16, 1830 *adresse des 221*, which opposed the ultra-royalist policies of the Polignac government. In all cases, a greater volume of ***biens nationaux*** sold during the French Revolution predicts both a higher likelihood of electing a deputy aligned with the liberal opposition and a higher likelihood of that deputy supporting the *adresse des 221* —an important marker of political progressivism. All coefficients in Table D.16 are significant at least at the 5% level, while the standardized coefficients attest to the economic significance of our results.

Table D.17: Instrumental variables estimates for the 1827/1830 elections and the 1830 address

Instruments:	*Crusaders per capita*						*Monasteries per capita (year 1200)*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	PANEL A: *1827/1830 election results:*											
log(biens nationaux per capita)	24.0161***	15.1290***	13.2411**	14.5576**	14.2195	20.2521*	19.5931***	12.1036**	11.9877**	10.2228*	11.9576	13.7920*
	(3.53217)	(4.97504)	(5.66043)	(6.17370)	(11.2011)	(11.4637)	(4.16358)	(4.92711)	(5.37175)	(5.67819)	(7.52182)	(7.42612)
Observations	952	952	934	930	930	928	952	952	934	930	930	928
First stage F-stat	109.24	64.61	67.42	55.44	22.09	24.14	100.23	84.99	81.49	71.42	54.95	48.30
AR p-value	0.000	0.003	0.026	0.024	0.221	0.092	0.000	0.015	0.027	0.077	0.116	0.073
VtF 95% CI	[17.09;30.94]	[5.65;24.66]	[2.44;24.05]	[2.83;26.30]	[-6.31;34.46]	[-0.73;41.10]	[11.59;27.61]	[2.66;21.54]	[1.70;22.27]	[-0.63;21.08]	[-2.30;26.21]	[-0.23;27.83]
	PANEL B: *March 16, 1830, adress:*											
log(biens nationaux per capita)	27.7246***	21.0330**	22.3841**	26.0929**	41.1075*	38.3847**	15.9845***	9.45383*	9.24385	8.25073	10.9068	15.4283*
	(6.05512)	(8.60618)	(9.84701)	(10.6186)	(21.1541)	(17.8511)	(5.06202)	(5.68920)	(6.11833)	(6.71437)	(9.29179)	(9.14691)
Observations	475	475	466	464	464	464	475	475	466	464	464	464
First stage F-stat	70.80	40.88	54.82	46.66	20.19	21.40	67.44	65.38	68.66	65.92	69.18	60.82
AR p-value	0.000	0.018	0.034	0.020	0.070	0.036	0.005	0.103	0.140	0.235	0.252	0.099
VtF 95% CI	[16.16;39.31]	[4.88;37.32]	[3.67;41.11]	[6.03;46.24]	[2.78;80.65]	[5.96;73.17]	[6.33;25.64]	[-1.39;20.35]	[-2.44;20.97]	[-4.58;21.07]	[-6.85;28.65]	[-2.00;32.92]
Geographic controls		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Economic controls			✓	✓	✓	✓			✓	✓	✓	✓
Human capital controls				✓	✓	✓				✓	✓	✓
Region F.E.					✓	✓					✓	✓
*** p<0.01, ** p<0.05, * p<0.1												

Note: An observation is a district. The data is a panel in Panel A and cross-sectional in Panel B. The dependent variable is the percentage of deputies belonging to the liberal/constitutional opposition during the 1827 and 1830 elections (Panel A) or the percentage of deputies who voted in favor of the address against the Polignac government on March 16, 1830 (Panel B). Controls are the same as in Table D.16. Election year fixed effects are included in Panel A. Robust standard errors clustered at the district (Panel A) or department (Panel B) level are reported in parentheses.

[118]Other members of parliament between 1827 and 1830 who had served in the National Assembly before 1795—i.e., in the Constituent Assembly, the Legislative Assembly, or the Convention—include René Eschasseriaux, Nicolas Tronchon, Despatys de Courteille, Dufour de Pradt, Joseph de Verneilh-Puyraseau, Jean-Baptiste Voysin de Gartempe, François Pougeard-Dulimbert, and Louis Becquey. Ten out of twelve members of the Fourth Legislature (1827–1830) who had also been members of parliament before 1795 were part of the liberal opposition.

Finally, the instrumental variables results in Table D.17 yield estimates with the same signs and generally similar magnitudes as the OLS coefficients. While their p-values are larger, a large majority of them (19 out of 24) meet the 10% significance threshold, and all but one specification has an Anderson–Rubin p-value below 0.25. Overall, these results are consistent with the interpretation that the sale of *biens nationaux* reduced the influence of conservatives in the French political landscape.

E What about the Second Republic (1848-1852)?

Under Louis-Philippe (1830-1848), relations between the Church and the government had been strained. In 1848, many clerics joined Republicans in welcoming the King's flight and the Second Republic's advent (Cobban, 1942; Duroselle, 1948; Lalouette, 2004). Priests blessed "liberty trees" planted all across France. Royalism seemed vanquished. On February 27, 1848, a prominent clerical newspaper, *L'Univers*, asked, "Who is thinking today in France of supporting the Monarchy?" (Cobban, 1942, p.334).

Following the 1848 Revolution, almost all religious authorities rallied to the Republic. For example, on February 27, 1848, the Archbishop of Lyon enjoined priests to give "the faithful the example of obedience and submission to the Republic. You have often vowed to enjoy the freedom that makes our brothers in the United States so happy: this freedom you shall have. If the authorities wish to display the flag of the nation on religious buildings, lend yourselves with alacrity to the desire of the authorities. The flag of the Republic will always be a protective flag for religion." Likewise, the ecclesiastical authorities relayed the appeal of the provisional government which, on February 29, requested that priests call "for divine blessing on the work of the people" by reciting a *Domine, salvam fac Republicam* at the end of the Sunday mass. In addition, the 1848 Constitution starts with: "In the presence of God and in the name of the French People..." which breaks with the anti-religiousness of the Jacobin First Republic.[119]

[119] Christophe (1998) gives numerous other examples of the clergy's support to the Republic right up to the elections of April 23 and 24, 1848.

Table E.18: The effect of land redistribution on the 1848 and 1849 legislative elections.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
log(biens nationaux per capita)	0.21024	2.70743***	2.04260*	3.61175***	3.12495**	2.82804***	3.19981**
	(0.81515)	(0.84635)	(1.13248)	(1.01224)	(1.23834)	(1.07552)	(1.30350)
Geographic controls		✓	✓	✓	✓	✓	✓
Economic controls				✓	✓	✓	✓
Human capital controls						✓	✓
Region F.E.			✓		✓		✓
Election F.E.	✓	✓	✓	✓	✓	✓	✓
Observations	944	944	944	926	926	922	922
R-squared	0.05	0.18	0.37	0.22	0.39	0.25	0.40
Magnitude:							
Standardized coefficients	0.19	2.45	1.85	3.27	2.83	2.52	2.85
Mean of dependent variable	28.4	28.4	28.4	28.39	28.39	28.51	28.51
*** p<0.01, ** p<0.05, * p<0.1							

Note: Each observation is a district. The dependent variable is the radical Republican (*Montagnard*) vote share during the 1848 or 1849 elections. All regressions are estimated using OLS. All regressions include the same 17 controls as in Table 1, capturing geography, the economy, and human capital: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*; forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789); the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Robust standard errors clustered at the district level are reported in parentheses.

In addition, the conservative *Parti de l'Ordre* during the Second Republic was a patchwork of Bonapartists, Legitimists, Orleanists, and conservative Republicans (such as Alexis de Tocqueville). In 1849, more than 60% of conservative deputies were Orleanists, who had supported a regime with strained relationships with the Catholic Church (Chevallier, 2021). During the 1848 election, Louis Napoléon Bonaparte, future emperor Napoléon III, presented himself as a Republican respectful of institutions (Encrevé, 2004). As Fasel (1974, p.662) puts it, during 1848, "[M]onarchism rarely surfaced overtly. A restoration of either royal house seemed momentarily remote; notables and Orléanist *fonctionnaires* were quick to profess their allegiance to the republic, and dyed-in-the-wool monarchists ran as republicans in the April election."

In a context where neither anti-clericalism nor the re-establishment of a monarchy were central to political debates —which, instead, focused on the increased prominence of the nascent socialist movement— we should expect the sale of the *biens nationaux* half a century earlier to have a weaker effect on electoral outcomes in 1848 and 1849.[120]

[120] As Lalouette (2004) puts it, "[R]eligious affairs of the nation were clearly not considered a priority."

Table E.19: Reduced-form and instrumental variables estimates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PANEL A: *Reduced-form:*								
Crusaders per capita	1.56279	0.91012	0.20265	0.51872					0.21518
	(1.11224)	(1.05541)	(1.05640)	(0.92770)					(0.91379)
Monasteries per capita (year 1200)					53.4336***	50.6031**	40.4560*	35.4391*	34.9805*
					(19.7957)	(19.8238)	(20.7264)	(18.5027)	(18.4947)
Observations	1070	1052	1040	1040	1070	1052	1040	1040	1040
R-squared	0.19	0.22	0.24	0.41	0.19	0.23	0.24	0.41	0.41
	PANEL B: *Second stage:*								
log(biens nationaux per capita)	2.07490	1.27296	-0.29182	0.022285	4.39882*	4.73846*	3.69626	4.38773	3.40720
	(2.38261)	(2.65302)	(2.94001)	(4.66034)	(2.27267)	(2.54452)	(2.73035)	(3.50728)	(3.16768)
Magnitude:									
Standardized coefficients	1.88	1.15	-0.26	0.02	3.99	4.30	3.29	3.91	3.03
Mean of dependent variable	28.4	28.39	28.51	28.51	28.4	28.39	28.51	28.51	28.51
AR p-value	0.394	0.637	0.922	0.996	0.050	0.059	0.175	0.214	0.435
VtF 95% CI	[-2.46;6.62]	[-3.80;6.33]	[-5.86;5.28]	[-8.52;8.49]	[0.04;8.78]	[-0.14;9.62]	[-1.52;8.95]	[-2.26;11.04]	
Overidentification p-value									0.380
	PANEL C: *First stage:*								
Crusaders per capita	0.47092***	0.40304***	0.36584***	0.19966***					0.16180***
	(0.058598)	(0.049524)	(0.049465)	(0.043086)					(0.040464)
Monasteries per capita (year 1200)					9.09688***	8.28110***	7.75581***	5.60489***	5.29703***
					(0.98153)	(0.91726)	(0.90545)	(0.76224)	(0.75855)
Observations	944	926	922	922	944	926	922	922	922
Partial R^2	0.11	0.10	0.09	0.04	0.15	0.15	0.14	0.11	0.14
First stage F-stat	64.58	66.23	54.70	21.47	85.90	81.51	73.37	54.07	34.96
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓	✓
Human capital controls			✓	✓			✓	✓	✓
Region F.E.				✓				✓	✓
Election F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1									

Note: An observation is a district for the 1848 and 1849 elections. The dependent variable is the radical Republican (*Montagnard*) vote share. Columns 1 to 4 use the number of crusaders per capita during the first four crusades as an instrument. Columns 5 to 8 use the number of monasteries in 1200 per capita –using 1793 population data. Column 9 uses the two instruments together. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Panel A, B, and C report our reduced-form, second stage, and first stage results, respectively. VtF confidence intervals are reported only for just identified IVs. Standard errors clustered at the district level are reported in parentheses.

An additional issue is that Piketty & Cagé's (2023) data on the 1848 and 1849 legislative elections are not directly at the local level. They are department-level data that were disaggregated using the results from the 1848 presidential election.[121] Still, our results in Tables E.18 and E.19 confirm that while the *biens nationaux* may have had an effect on electoral outcomes, this effect was smaller than for the Third Republic. We look at the electoral results for the *Montagnards*, who were the most likely candidates to be openly anti-clerical. Table E.18 gives

[121]The discrepancies using Piketty & Cagé's method can be quite large for the *Parti de l'Ordre*, and seem less distortive for the results concerning the *Montagnards*. To give only one example, that of the Morbihan, aggregating the municipal data available on the *Histoire du conflit politique* website indicates 85,545 votes cast, of which 15,200 were for the *Montagnards*, 35,439 for the conservative Republicans, and only 21,277 for the *Parti de l'Ordre*. Consulting the archival photos on the same website reveals that the *Parti de l'Ordre* obtained significantly higher scores, particularly since the entire conservative list was elected. For example, Dahirel, a Legitimist and head of the list, received 61,701 votes. The *last* candidate elected from the conservative list still obtained 53,065 votes.

the baseline OLS results for the 1848 and 1849 elections. A one standard deviation increase in the (logged) value of *biens nationaux* per capita is associated with a less than 8% increase in the vote share for radical Republicans (the *Montagnards*). Our instrumental variable results (Table E.19), are consistent with our OLS estimates when using Monasteries per capita in 1200, but often insignificant. The results are even weaker using our crusader instrument, and in two cases coefficients are virtually zero. The weak effect of the *biens nationaux* on electoral outcomes in 1848/49 is consistent with the historical accounts of the Second Republic, according to which neither monarchism nor clericalism was campaigned on during the legislative elections of 1848 and 1849. It is also consistent with the religious channel emphasized in the text, as religious affairs were not a priority during either the 1848 or 1849 elections (Lalouette, 2004).[122]

F Municipality level results: the Eure department

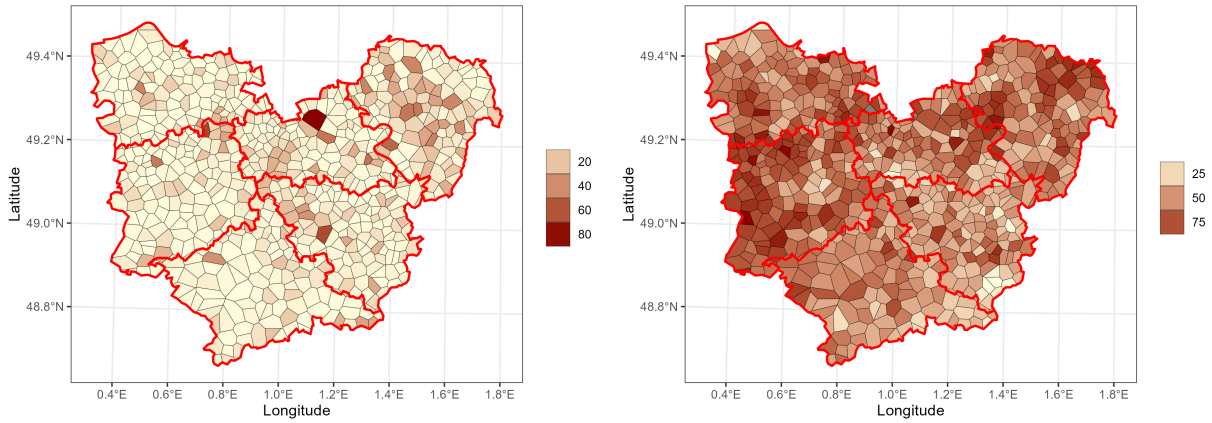
This appendix presents results on the relationship between the *biens nationaux* and voting at the municipal level using Bodinier's (1988) data. Figure F.21 maps the data we digitized.

Reproducing the results at the municipality level enables us to control for electoral race–specific factors that may have been correlated with both the *biens nationaux* and the share of votes received by anti-republican candidates. For instance, some electoral districts had only two candidates competing, while others had more; the personal characteristics of candidates may also have mattered. Hence, Table F.20 examines within–electoral district variation for each election by including fixed effects at the electoral district–by–election year level.

Our main variable of interest in Table F.20 is the percentage of land area covered by *biens nationaux* of first origin. We also control for the percentage of land area covered by second origin national properties —those of the *émigrés*. Because national assets in smaller municipalities were more likely to be purchased by individuals living elsewhere —and because these municipalities are also more likely to be outliers— we also report results from population-weighted

[122]This is reflected in the fact that there is a weak *negative* correlation (-0.129) between our measure of religiosity in the 19th century and the *Parti de l'Ordre*'s vote share. Religiosity thus failed to boost political conservatism during the Second Republic as the religious cleavage was not politically salient in 1848-49.

Figure F.21: First origin *biens nationaux* and 1885 electoral results for the departement of Eure.



(First origin biens nationaux - % of land) (1885 election)

Note: The left panel maps at the municipality level the percentage of land surface area covered by first origin *biens nationaux*. The right panel maps at the municipality level the anti-republican vote share (in %) for the 1885 election. The red borders delineate the electoral districts.

regressions.

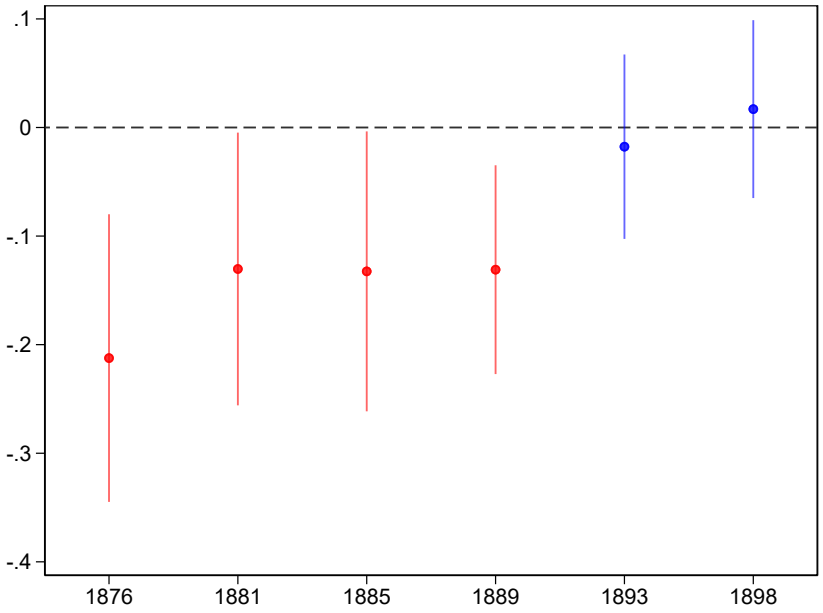
As expected in the presence of spillover effects, the magnitude of the coefficients for first-origin *biens nationaux* is much smaller than in Table 1 at the district level. Spillover effects may also explain why the coefficients in the population-weighted regressions are larger, since more of these spillovers are internalized in larger agglomerations. While we find a statistically significant relationship between Church properties sold following the Revolution and the anti-republican vote share in the elections from 1876 to 1889, we do not find a similar relationship for the second-origin *biens nationaux*. As discussed in Appendix C, this may be the result of reversed causality: more second-origin assets may have signaled lower adherence to the Revolution. In addition, if our main proposed mechanism (lower religiosity) is correct, then the effect of the *biens nationaux* should be most pronounced for those of first origin. Finally, Figure F.22 shows that, as in Table 1, the effect of the *biens nationaux* on conservative support vanishes after Pope Leo XIII asked French Catholics to rally the Republic.

Table F.20: Results at the municipality level for the Eure department

				Population weighted		
	(1)	(2)	(3)	(4)	(5)	(6)
First-origin (% of land)	-0.12811**	-0.11108**	-0.10091*	-0.32591***	-0.20865***	-0.15133***
	(0.057971)	(0.055009)	(0.054176)	(0.075135)	(0.051500)	(0.045949)
Second-origin (% of land)	-0.032189	-0.024603	-0.0074494	-0.0080561	0.012690	0.040534
	(0.045827)	(0.045819)	(0.044636)	(0.062422)	(0.059993)	(0.055946)
log(population)		✓	✓		✓	✓
District capital			✓			✓
Canton capital			✓			✓
log(Market access)			✓			✓
Ruggedness			✓			✓
Wheat suitability			✓			✓
Electoral district × Year F.E.	✓	✓	✓	✓	✓	✓
Observations	2688	2688	2688	2688	2688	2688
R-squared	0.67	0.68	0.70	0.63	0.65	0.68
Magnitude:						
Standardized coefficients	-1.32	-1.14	-1.04	-3.35	-2.15	-1.56
Mean of dependent variable	45.94	45.94	45.94	45.94	45.94	45.94
*** p<0.01, ** p<0.05, * p<0.1						

Note: Observations are at the municipality–election level in the Eure department between 1876 and 1889. The dependent variable is the anti-republican vote share. Regressions in columns 1–3 are estimated using OLS, while those in columns 4–6 are weighted by their 1793 population. All controls are measured at the municipality level, and include the log of population, indicators for whether a municipality is the district (*arrondissement*) or canton capital, logged market access, average terrain ruggedness, and wheat suitability. All regressions include electoral race (district–year) fixed effects. Robust standard errors, clustered at the municipality level, are reported in parentheses.

Figure F.22: The effect of the *biens nationaux* in Eure taking each year separately



Note: This figure graphs the results for six separate population-weighted regressions. The dependent variable is the anti-republican vote share. The coefficients plotted are for our "First-origin (% of land)" variable. Each regression includes the full set of controls from Table F.20 and electoral district fixed effects. Standard errors are clustered at the electoral district level. The red and blue coefficients are those before and after the Pope *ralliement* policy.

G Instrumental variables robustness

G.1 Bernard of Clairvaux and Urban II instruments

Saint Bernard of Clairvaux was one of the most famous preachers of the 12^{th} century. As a founding father of the Cistercian order, he played a key role in the monastic revival of his era, and, as Vacandard 1895, p.392 points out, "Bernard's frequent journeys, his long travels in France and abroad, were not without benefit to his monastic work. Seldom [...] did he return home empty-handed." His preaching of the Second Crusade further increased his fame, and with it the growth of the Cistercian order. His eloquence was such that, according to his biographer, "mothers hid their sons and wives their husbands in order to keep them safe from the Saint's recruiting efforts, which brought a constantly overflowing population to his beloved Clairvaux" (Lekai, 1977, p.37).

We geolocated the itineraries of Saint-Bernard of Clairvaux and Pope Urban II in Vacandard (1895). Table G.21 shows evidence that Saint Bernard's visits were associated with an increase in the number of monasteries during his lifetime, but not before. Naturally, Bernard was not the only preacher of the Crusades. We therefore also use the itinerary of Pope Urban II, who "was at the forefront of the preaching of the First Crusade" (Durkin, 2019, p.13). Using our crusader data, Urban II's visits are correlated with more crusaders during the First Crusade but not during subsequent ones.[123]

Because the count of visits has a long right-tail, we take the inverse hyperbolic sine (asinh) of the number of visits in each district. In addition, the geolocalization of medieval itineraries naturally records mainly the principal cities, rarely the smaller localities, while proximity to those routes likely matters more than the exact visit location. We thus also consider visits within 50km of a district —roughly one travel day.[124] The results are reported in Table G.22.

[123]In regressions of the number of crusaders on the inverse hyperbolic sine transformation of Urban II's visits, the coefficient is 0.90 (p-value=0.001) for the First Crusade; 0.20 (p-value=0.110) for the Second; -.025 (p-value=0.884) for the Third; and -.181 (p-value=0.231) for the Fourth.

[124]For Saint Bernard, the asinh of visits within each district has a slight positive correlation with urbanization (0.10), whereas the asinh of visits within 50km is negatively correlated with urbanization (-0.13). We use 50km because visits within x km by Saint Bernard or Urban II explain the most variance in our measure of the ***biens***

Table G.21: Saint-Bernard of Clairvaux's visits are correlated with an increase in the number of monasteries during his life but not before.

Dep. var.:	Δ *Monasteries (1100 to 1150)*		Δ *Monasteries (1050 to 1100)*	
	(1)	(2)	(3)	(4)
Saint-Bernard visits (asinh)	0.22423***		0.00102	
	(0.07810)		(0.04514)	
Saint-Bernard visits <50km (asinh)		0.15046**		0.03430
		(0.06056)		(0.02233)
Within-R^2	0.014	0.017	0.000	0.004
Observations	556	556	556	556
Region F.E.	✓	✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1				

Note: An observation is a district. The dependent variable for columns 1-2 is the change in the number of monasteries between 1100 and 1150 (during Saint-Bernard's adult life). The dependent variable in columns 3-4 is the change in the number of monasteries between 1050 and 1100 (before Saint-Bernard's adult life). Standard errors are clustered at the departement level.

Table G.22: Using St-Bernard of Clairvaux and Urban II's itineraries as IVs.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	PANEL A: *Second stage:*									
log(biens nationaux per capita)	-14.1244***	-17.6671***	-17.1194***	-12.8165**	-12.8456***	-12.8346***	-14.8801***	-15.0095***	-11.8804***	-12.2206***
	(3.02672)	(4.54621)	(5.51990)	(6.31090)	(4.70779)	(1.81028)	(2.56481)	(2.72305)	(4.09575)	(3.42319)
Magnitude:										
Standardized coefficients	-12.85	-16.08	-15.30	-11.45	-11.48	-11.67	-13.54	-13.41	-10.62	-10.92
Mean of dependent variable	39.03	38.79	38.77	38.77	38.77	39.03	38.79	38.77	38.77	38.77
AR p-value	0.000	0.000	0.002	0.052	0.034	0.000	0.000	0.000	0.005	0.002
Overidentification p-value	0.240	0.407	0.345	0.417	0.710	0.135	0.390	0.309	0.183	0.412
	PANEL B: *First stage:*									
Saint-Bernard visits (asinh)	0.43963***	0.30907***	0.26670***	0.15679***	0.13303***					
	(0.052135)	(0.051337)	(0.053470)	(0.047759)	(0.049251)					
Urban II visits (asinh)	0.26421**	0.27786***	0.21296**	0.28708***	0.23896***					
	(0.11092)	(0.10238)	(0.10323)	(0.081695)	(0.081492)					
Monasteries per capita (year 1100)					3.69871***					4.32408***
					(0.90940)					(0.86071)
Saint-Bernard visits <50km (asinh)						0.39233***	0.30125***	0.28171***	0.16492***	0.16591***
						(0.030713)	(0.028334)	(0.029187)	(0.030218)	(0.029623)
Urban II visits <50km (asinh)						0.18378***	0.19408***	0.17352***	0.18221***	0.18176***
						(0.053549)	(0.052759)	(0.052127)	(0.048952)	(0.048534)
Observations	1855	1819	1811	1811	1811	1855	1819	1811	1811	1811
Partial R^2	0.09	0.06	0.04	0.04	0.07	0.24	0.17	0.15	0.08	0.12
First stage F-stat	37.60	21.38	13.88	11.12	14.26	82.57	57.07	46.75	20.18	21.74
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓	✓		✓	✓	✓	✓
Human capital controls			✓	✓	✓			✓	✓	✓
Region F.E.				✓	✓				✓	✓
Election F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1										

Note: An observation is a district for each election between 1876 and 1889 included. The dependent variable is the anti-republican vote share. Columns 1 to 5 use the hyperbolic inverse sine transformation of the number of visits by Saint-Bernard of Clairvaux and Pope Urban II. Columns 6 to 10 use the same transformation, but for visits within 50km of a district. Columns 5 and 10 add the number of monasteries in 1100 per capita to the two other instruments. The full set of controls is the same as in 1. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Panel A and B report our second stage and first stage results respectively. Standard errors clustered at the district level are reported in parentheses.

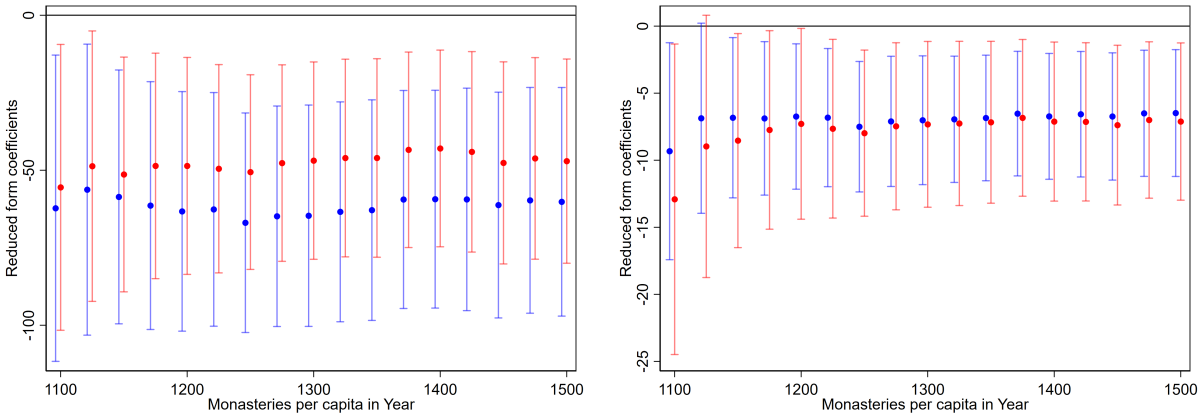
nationaux at that radius.

G.2 Sensitivity of our results to changes in our instruments

The instrumental variable used in the main text is the number of monasteries in the Year 1200 per capita. Appendix G.2.1 looks at different year thresholds with and without region fixed effects —signaled by the color red and blue respectively. All reduced form coefficients are significant at the 5% level and are incredibly stable. IV coefficients are all significant except for monasteries per capita in 1125, which comes close but fails the 5% significance threshold ($p = 0.057$ and 0.072 without and with region fixed-effects, respectively). Appendix G.2.2 reconstructs our instrument as the sum of the inverse distances to monasteries. Appendix G.2.3 uses the raw number of crusaders or of monasteries in 1200 instead of the per capita version of those variables.

G.2.1 Different year thresholds

Figure G.23: Our results are robust to using different year thresholds for our IV.



Note: The left panel uses Monasteries per capita at different years (1100, 1125, ..., 1500) in the same reduced form regression as in Table 3, column 7 (blue coefficients) and 8 (red coefficients), which includes our geographic, economic, and education controls. Red coefficients include region fixed effects, while blue coefficients do not. The right panel uses Monasteries per capita at the same year thresholds to assess how sensitive our instrumental estimates are to changes in the chosen date. The figure reports the 95% confidence intervals for standard errors clustered at the district level.

G.2.2 Using proximity to monasteries as IV

We measure the proximity to monasteries as:

$$P_i = \sum_j \frac{1}{1 + D_{ij}} \tag{5}$$

Where P_i is our distance-weighted measure of proximity to monasteries existing in 1200 for district i. D_{ij} is the distance between district i's centroid and monastery j. We add 1 to D_{ij} in the denominator to avoid dividing by very small distances. The results using this instrument are presented in Table G.23.

Table G.23: IV estimates using our distance weighted measure of proximity to monasteries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	PANEL A: *Reduced-form:*						
Proximity to monasteries	-2.51398***	-8.40547***	-5.64960***	-8.21138***	-5.64596***	-8.03635***	-5.48839***
	(0.70663)	(0.84906)	(1.06561)	(0.82771)	(1.06677)	(0.90217)	(1.10193)
Observations	2163	2103	2103	2067	2067	2043	2043
R-squared	0.14	0.30	0.39	0.31	0.40	0.33	0.40
	PANEL B: *Second stage:*						
log(biens nationaux per capita)	-6.64208***	-14.0705***	-16.3808***	-16.4827***	-16.1517***	-15.6408***	-16.6954***
	(1.32060)	(1.55927)	(2.99024)	(2.14308)	(3.25469)	(2.10606)	(3.36545)
AR p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	PANEL C: *First stage:*						
Proximity to monasteries	0.59787***	0.61118***	0.37375***	0.51776***	0.37627***	0.50286***	0.35640***
	(0.044576)	(0.055996)	(0.055531)	(0.044978)	(0.052518)	(0.040301)	(0.049149)
Geographic controls		✓	✓	✓	✓	✓	✓
Economic controls				✓	✓	✓	✓
Human capital controls						✓	✓
Region F.E.			✓		✓		✓
Year F.E.	✓	✓	✓	✓	✓	✓	✓
Observations	1855	1855	1855	1819	1819	1811	1811
Partial R^2	0.45	0.36	0.13	0.28	0.13	0.26	0.12
F-stat	179.89	119.13	45.30	132.51	51.33	155.69	52.58
*** p<0.01, ** p<0.05, * p<0.1							

Note: Observations are at the district–election level between 1876 and 1889. The dependent variable is the anti-republican vote share. The instrument used is the distance-weighted measure of proximity to monasteries existing in 1200. All regressions include the same set of controls as in Table 3. We report reduced-form (Panel A), second-stage (Panel B), and first-stage results (Panel C). Standard errors, clustered at the district level, are reported in parentheses.

G.2.3 Raw number of crusaders or monasteries in 1200 as IVs

Table G.24: Reproducing Table 3 using the raw number of crusaders and monasteries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PANEL A: *Reduced-form:*								
Number of crusaders	-1.07401***	-0.86470***	-0.73465***	-0.55992***					-0.42450**
	(0.21535)	(0.20656)	(0.19480)	(0.19835)					(0.20573)
Number of monasteries (year 1200)					-1.62772***	-1.35753***	-0.89233**	-0.90449***	-0.70494**
					(0.36895)	(0.36383)	(0.36285)	(0.33300)	(0.35168)
Observations	2103	2067	2043	2043	2103	2067	2043	2043	2043
R-squared	0.23	0.26	0.28	0.39	0.23	0.26	0.28	0.39	0.40
	PANEL B: *Second stage:*								
log(biens nationaux per capita)	-9.62498***	-10.3146***	-10.0626***	-15.5857**	-8.36016***	-9.32030***	-6.79322**	-8.44258**	-9.28932***
	(2.23238)	(2.89397)	(3.06835)	(6.58613)	(2.14814)	(2.80738)	(3.05692)	(3.64124)	(3.56873)
Magnitude:									
Standardized coefficients	-8.75	-9.39	-8.99	-13.93	-7.60	-8.48	-6.07	-7.54	-8.30
Mean of dependent variable	39.03	38.79	38.77	38.77	39.03	38.79	38.77	38.77	38.77
AR p-value	0.000	0.000	0.001	0.014	0.000	0.001	0.030	0.019	0.012
VtF 95% CI	[-13.88;-5.36]	[-15.88;-4.81]	[-15.91;-4.27]	[-31.22;-4.40]	[-12.57;-4.15]	[-14.67;-3.96]	[-12.60;-1.00]	[-15.29;-1.61]	
Overidentification p-value									0.227
	PANEL C: *First stage:*								
Number of crusaders	0.096904***	0.073479***	0.065750***	0.032146***					0.014832
	(0.011471)	(0.0093905)	(0.0092983)	(0.0095695)					(0.0091604)
Number of monasteries (year 1200)					0.17711***	0.13624***	0.12162***	0.097297***	0.090250***
					(0.016893)	(0.016270)	(0.016444)	(0.015216)	(0.015788)
Observations	1855	1819	1811	1811	1855	1819	1811	1811	1811
Partial R^2	0.14	0.10	0.08	0.03	0.17	0.12	0.10	0.09	0.10
First stage F-stat	71.37	61.23	50.00	11.28	109.91	70.12	54.70	40.89	21.73
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓	✓
Human capital controls			✓	✓			✓	✓	✓
Region F.E.				✓				✓	✓
Election F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1									

Note: An observation is a district for each election between 1876 and 1889 included. The dependent variable is the anti-republican vote share. Columns 1 to 4 use the number of crusaders during the first four crusades as an instrument. Columns 5 to 8 use the number of monasteries in 1200. Column 9 uses the two instruments together. The full set of controls is the same as in 1. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Panel A, B, and C report our reduced-form, second stage, and first stage results, respectively. VtF confidence intervals are reported only for just-identified IVs. Standard errors clustered at the district level are reported in parentheses.

G.3 IV results using each crusade separately

Table G.25: Using each of the fourth first crusades as a separate instrument

	(1)	(2)	(3)	(4)	(5)	(6)
	PANEL A: *Second stage:*					
log(biens nationaux per capita)	-4.65759***	-9.45429***	-8.94981***	-9.27307***	-9.98147**	-8.02127**
	(1.61411)	(2.14657)	(2.57160)	(2.64597)	(4.94384)	(3.20726)
AR p-value	0.015	0.000	0.001	0.000	0.064	0.042
Overidentification p-value	0.486	0.243	0.238	0.211	0.458	0.505
	PANEL B: *First stage:*					
Crusaders per cap. (1st crusade)	0.42348***	0.32355***	0.34835***	0.35324***	0.23912***	0.18522**
	(0.13707)	(0.11748)	(0.098344)	(0.097422)	(0.074219)	(0.077412)
Crusaders per cap. (2nd crusade)	0.65311**	0.56198**	0.70685***	0.58706***	0.42083***	0.36918**
	(0.28748)	(0.25136)	(0.21786)	(0.21918)	(0.15533)	(0.14786)
Crusaders per cap. (3rd crusade)	0.50627***	0.31930***	0.11856	0.050281	0.041640	0.017131
	(0.12691)	(0.11286)	(0.094631)	(0.095250)	(0.087611)	(0.081189)
Crusaders per cap. (4th crusade)	1.18475***	0.99146***	0.76403***	0.76271***	0.27850***	0.28313***
	(0.19100)	(0.16509)	(0.14622)	(0.14919)	(0.098331)	(0.095557)
Monasteries per capita (year 1200)						5.08355***
						(0.76205)
Observations	1855	1855	1819	1811	1811	1811
Partial R^2	0.21	0.15	0.13	0.13	0.05	0.14
First stage F-stat	30.01	20.18	20.15	17.25	7.19	14.91
Geographic controls		✓	✓	✓	✓	✓
Economic controls			✓	✓	✓	✓
Human capital controls				✓	✓	✓
Region F.E.					✓	✓
Election F.E.	✓	✓	✓	✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1						

Note: An observation is a district for each election between 1876 and 1889 included. The dependent variable is the anti-republican vote share. Columns 1 to 7 uses four instruments —i.e. the number of crusaders per capita for each of the first four crusades separately. Columns 8 and 9 adds the number of monasteries in 1200 per capita as instrument. The full set of controls is the same as in Table 1. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Panel A, B, and C report our reduced-form, second stage, and first stage results, respectively. Standard errors clustered at the district level are reported in parentheses.

H Placebos

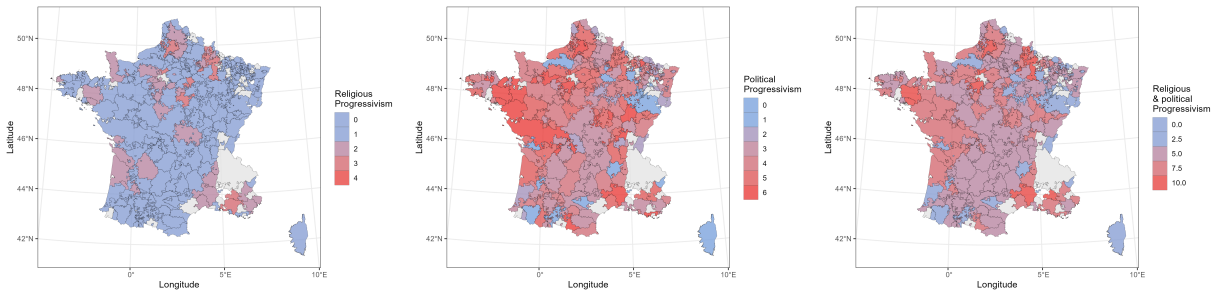
H.1 *Cahiers de doléances*

Table H.26: Religious and political progressivism in the *cahiers de doléances* are not related to national assets or our IVs

Dep. var.:	*Cahiers religious progressivism*				*Cahiers political progressivism*				*Cahiers religious & political progressivism*			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	PANEL A: *log(biens nationaux per capita):*											
log(biens nationaux per capita)	0.0076040	-0.042839	-0.0090655	-0.10337	0.036436	0.033865	0.062994	0.21022	0.044040	-0.0089741	0.053929	0.10685
	(0.062413)	(0.067536)	(0.072626)	(0.071458)	(0.096624)	(0.10315)	(0.11052)	(0.13654)	(0.13187)	(0.13698)	(0.14756)	(0.15408)
Observations	441	432	430	430	441	432	430	430	441	432	430	430
R^2	0.09	0.10	0.12	0.28	0.19	0.19	0.19	0.30	0.20	0.20	0.21	0.28
Magnitude:												
Standardized beta coefficients	0.01	-0.04	-0.01	-0.09	0.03	0.03	0.06	0.19	0.04	-0.01	0.05	0.09
Mean of dependent variable	0.88	0.90	0.90	0.90	3.91	3.93	3.94	3.94	4.79	4.83	4.84	4.84
	PANEL B: *Crusaders per capita:*											
Crusaders per capita	0.13409	0.11137	0.13086	0.057904	0.021252	0.0088556	0.012521	0.15221	0.15535	0.12023	0.14338	0.21011
	(0.081607)	(0.082204)	(0.086200)	(0.070829)	(0.12015)	(0.11932)	(0.12104)	(0.10509)	(0.16361)	(0.16319)	(0.17083)	(0.14613)
Observations	496	487	481	481	496	487	481	481	496	487	481	481
R^2	0.09	0.09	0.11	0.26	0.19	0.19	0.17	0.29	0.20	0.19	0.19	0.26
Magnitude:												
Standardized coefficients	0.08	0.07	0.08	0.03	0.01	0.01	0.01	0.09	0.09	0.07	0.09	0.13
Mean of dependent variable	0.90	0.91	0.91	0.91	3.89	3.90	3.94	3.94	4.78	4.82	4.85	4.85
	PANEL C: *Monasteries per capita (Year 1200):*											
Monasteries per capita (year 1200)	-0.84625	-1.16880	-0.85020	-1.35391	-0.13067	-0.31833	-0.56454	0.32171	-0.97692	-1.48712	-1.41474	-1.03220
	(1.07629)	(1.07218)	(1.12589)	(1.17581)	(1.66422)	(1.65364)	(1.55455)	(1.49948)	(2.01675)	(2.04204)	(2.03841)	(2.15609)
Observations	496	487	481	481	496	487	481	481	496	487	481	481
R^2	0.08	0.08	0.11	0.26	0.19	0.19	0.17	0.29	0.20	0.19	0.19	0.26
Magnitude:												
Standardized beta coefficients	-0.03	-0.04	-0.03	-0.05	-0.00	-0.01	-0.02	0.01	-0.03	-0.05	-0.05	-0.04
Mean of dependent variable	0.90	0.91	0.91	0.91	3.89	3.90	3.94	3.94	4.78	4.82	4.85	4.85
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓		✓	✓	✓
Human capital controls			✓	✓			✓	✓			✓	✓
Region F.E.				✓				✓				✓
*** p<0.01, ** p<0.05, * p<0.1												

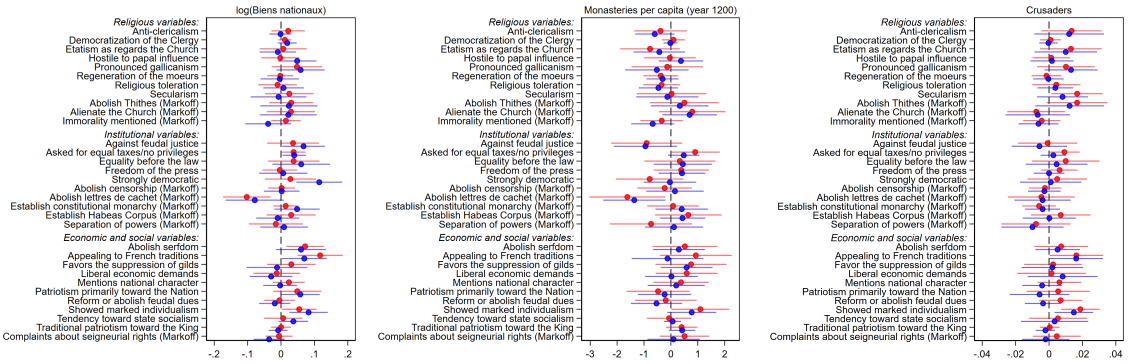
Note: Each observation is a district. The dependent variables are indexes of religious (columns 1-4) and political (columns 5-8) progressivism as well as both combined (columns 9-12) in the Third Estates' *cahiers de doléances*. The data is from Hyslop (1934). 'Cahiers religious progressivism' is a sum of the following four indicator variables: whether a *cahier* showed anti-clericalism, showed secularism, demanded the democratization of the Clergy, and favored religious toleration. 'Cahiers political progressivism' is a sum of the following six indicator variables: whether a *cahier* advocated abolishing, reforming, or diminishing feudal justice; whether it demanded equal tax liability or renunciation of privileges; whether it demanded the same law for all classes; whether it demanded freedom of the press; whether it was strongly democratic; and whether it showed marked individualism. 'Cahiers religious & political progressivism' is the sum of the previous 10 indicators mentioned. Panels A, B, and C use, respectively, the log of biens nationaux per capita, the number of crusaders during the first four crusades per capita, and the number of monasteries in 1200 per capita. All regressions include either geographic, economic, and human capital controls as well as region fixed-effects, whose inclusion is indicated by checkmarks. The full set of controls is the same as in Table 1. Robust standard errors clustered at the department level are reported in parentheses.

Figure H.24: Political and religious progressivism expressed in the *cahiers de doléances*



Note: The panel on the left maps an index of religious progressivism in the grievances sent to the Estates Generals in 1789. It sums the following four indicator variables: whether a *cahier* showed anti-clericalism, showed secularism, demanded the democratization of the Clergy, and favored religious toleration. The panel in the center maps an index measuring political progressivism. It sums the following six indicator variables: whether a *cahier* advocated abolishing, reforming, or diminishing feudal justice; whether it demanded equal tax liability or renunciation of privileges; whether it demanded the same law for all classes; whether it demanded freedom of the press; whether it was strongly democratic; and whether it showed marked individualism. The panel on the right maps the sum of the previous 10 indicators mentioned.

Figure H.25: Grievances sent to the Estates Generals, the *biens nationaux*, and our IVs



Note: Observations are at the district level. Each panel reports the regressions between one of 32 indicators built using the data from the *cahiers de doléances* and our instrumented/instruments. The red coefficients are the results of univariate regressions, while the blue coefficients include region fixed-effects. 95% confidence intervals are reported using standard errors clustered at the department level.

H.2 1791 election

Table H.27: Electoral outcomes for the 1791 legislatives are not related to our IVs while national assets sometimes predict *greater* conservatism, which would suggest our OLS results are biased *against* our hypothesis.

Dep. var.:	*Share of right-wing elected in 1791*				*Share of left-wing elected in 1791*				*Percentage of 'No' to roll call votes*			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	PANEL A: *log(biens nationaux per capita):*											
log(biens nationaux per capita)	2.49562***	1.81257*	2.00960*	0.71583	-0.64911	-0.25666	-0.14534	-0.0093799	3.26187*	2.85004*	2.95650*	0.83397
	(0.87802)	(1.05395)	(1.13157)	(0.99760)	(1.22502)	(1.20111)	(1.29887)	(1.38169)	(1.75842)	(1.63332)	(1.72763)	(1.70060)
Observations	477	468	466	466	477	468	466	466	477	468	466	466
R^2	0.09	0.11	0.12	0.27	0.05	0.08	0.11	0.20	0.04	0.05	0.06	0.14
Magnitude:												
Standardized coefficients	2.26	1.64	1.79	0.64	-0.59	-0.23	-0.13	-0.01	2.95	2.58	2.63	0.74
Mean of dependent variable	9.18	9.14	9.11	9.11	11.81	11.83	11.81	11.81	37.99	37.80	37.90	37.90
	PANEL B: *Crusaders per capita:*											
Crusaders per capita	1.73456	1.28109	1.26904	0.42508	1.07608	1.43210	1.26132	1.20726	0.21656	-0.076275	-0.37340	-1.94140
	(1.73315)	(1.78389)	(1.78499)	(1.47197)	(1.47154)	(1.40315)	(1.44203)	(1.38651)	(1.79977)	(1.66669)	(1.62543)	(1.78814)
Observations	540	531	525	525	540	531	525	525	540	531	525	525
R^2	0.05	0.09	0.10	0.26	0.06	0.09	0.13	0.22	0.02	0.03	0.05	0.14
Magnitude:												
Standardized coefficients	1.02	0.76	0.75	0.25	0.63	0.85	0.75	0.72	0.13	-0.05	-0.22	-1.15
Mean of dependent variable	9.07	9.04	8.95	8.95	11.74	11.75	11.70	11.70	37.70	37.53	37.79	37.79
	PANEL C: *Monasteries per capita (Year 1200):*											
Monasteries per capita (year 1200)	18.3207	11.7083	11.7882	3.29064	-15.1392	-6.64185	-7.23988	-1.17566	10.6401	1.65750	-7.31640	-24.2683
	(16.1866)	(15.6028)	(15.0449)	(15.5303)	(17.6861)	(16.3461)	(16.3267)	(13.4754)	(29.3865)	(28.8488)	(27.3062)	(25.6934)
Observations	540	531	525	525	540	531	525	525	540	531	525	525
R^2	0.05	0.09	0.10	0.26	0.06	0.09	0.12	0.22	0.02	0.03	0.05	0.14
Magnitude:												
Standardized coefficients	0.65	0.42	0.42	0.12	-0.54	-0.24	-0.26	-0.04	0.38	0.06	-0.26	-0.86
Mean of dependent variable	9.07	9.04	8.95	8.95	11.74	11.75	11.70	11.70	37.70	37.53	37.79	37.79
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓		✓	✓	✓
Human capital controls			✓	✓			✓	✓			✓	✓
Region F.E.				✓				✓				✓
*** p<0.01, ** p<0.05, * p<0.1												

Note: Each observation is a district. The dependent variables are the share of politicians elected to the parliament in 1791 that are right-wing (columns 1-4), left-wing (columns 5-8), and the percentage of 'no' votes from politicians during the seven roll call votes for which we have data (columns 9-12). An increase in the value of this last measure signals greater political conservatism. The data is from https://www2.assemblee-nationale.fr/sycomore/liste/(legislature)/2 and the ***Tableau comparatif des sept appels nominaux*** (1792). 'Share of right(left)-wing elected in 1791' is the percentage of a department's members of parliament elected in 1791 that are right(left)-wing. Panels A, B, and C use, respectively, the log of biens nationaux per capita, the number of crusaders during the first four crusades per capita, and the number of monasteries in 1200 per capita. All regressions include either geographic, economic, and human capital controls as well as region fixed-effects, whose inclusion is indicated by checkmarks. The full set of controls is the same as in Table 1. Robust standard errors clustered at the department level are reported in parentheses.

I Robustness checks for mechanisms and implications

I.1 IV results for the Cult of Reason

Table I.28: Reduced-form and IV estimates for addresses to the National Assembly.

	1789 Addresses				*Cult of Reason Addresses*			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	PANEL A: *Reduced-form, crusaders per capita:*							
Crusaders per capita	0.033055	0.025003	0.018291	0.037471	0.23281***	0.20661***	0.19530***	0.13318**
	(0.058723)	(0.057636)	(0.060954)	(0.034020)	(0.061436)	(0.059820)	(0.062192)	(0.052031)
Observations	540	531	525	525	540	531	525	525
R-squared	0.10	0.11	0.12	0.36	0.16	0.19	0.19	0.34
	PANEL B: *Second stage, crusaders per capita:*							
log(biens nationaux, no adjourned sales)	0.029578	0.026155	0.012108	0.13251	0.41541***	0.44693***	0.47187***	0.57539**
	(0.10844)	(0.12557)	(0.14567)	(0.13980)	(0.11839)	(0.13605)	(0.15502)	(0.23605)
AR p-value	0.789	0.839	0.936	0.364	0.000	0.001	0.003	0.015
VtF 95% CI	[-0.17;0.24]	[-0.21;0.27]	[-0.26;0.29]	[-0.12;0.39]	[0.19;0.64]	[0.19;0.71]	[0.18;0.77]	[0.14;1.03]
	PANEL C: *First stage, crusaders per capita:*							
Crusaders per capita	0.53386***	0.44462***	0.40181***	0.22219***	0.53386***	0.44462***	0.40181***	0.22219***
	(0.078527)	(0.057226)	(0.054775)	(0.044621)	(0.078527)	(0.057226)	(0.054775)	(0.044621)
Observations	528	519	516	516	528	519	516	516
Partial R^2	0.13	0.12	0.10	0.05	0.13	0.12	0.10	0.05
First stage F-stat	46.22	60.36	53.81	24.80	46.22	60.36	53.81	24.80
	PANEL D: *Reduced-form, monasteries per capita (year 1200):*							
Monasteries per capita (year 1200)	0.45292	0.26845	-0.015884	0.16634	3.18202***	2.84297***	2.58837**	1.77090*
	(0.83540)	(0.85533)	(0.82197)	(0.90486)	(0.99384)	(1.03316)	(1.02202)	(0.97364)
Observations	540	531	525	525	540	531	525	525
R-squared	0.10	0.11	0.12	0.36	0.15	0.18	0.18	0.33
	PANEL E: *Second stage, monasteries per capita (year 1200):*							
log(biens nationaux, no adjourned sales)	0.064676	0.063345	0.038289	0.16004	0.34461***	0.35749***	0.36983***	0.35094**
	(0.078888)	(0.088872)	(0.097746)	(0.13494)	(0.092936)	(0.10859)	(0.12336)	(0.16855)
AR p-value	0.430	0.494	0.705	0.258	0.001	0.004	0.007	0.049
VtF 95% CI	[-0.09;0.22]	[-0.11;0.23]	[-0.15;0.23]	[-0.10;0.42]	[0.17;0.52]	[0.15;0.57]	[0.13;0.61]	[0.03;0.67]
	PANEL F: *First stage, monasteries per capita (year 1200):*							
Monasteries per capita (year 1200)	9.79111***	8.59200***	7.81291***	5.77353***	9.79111***	8.59200***	7.81291***	5.77353***
	(1.17700)	(0.96261)	(0.90850)	(0.66666)	(1.17700)	(0.96261)	(0.90850)	(0.66666)
Observations	528	519	516	516	528	519	516	516
Partial R^2	0.16	0.16	0.14	0.12	0.16	0.16	0.14	0.12
First stage F-stat	69.20	79.67	73.96	75.00	69.20	79.67	73.96	75.00
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓
Human capital controls			✓	✓			✓	✓
Region F.E.				✓				✓
*** p<0.01, ** p<0.05, * p<0.1								

Note: An observation is a district. Panels A, B, and C report the reduced form, second stage, and first stage estimations using the number of crusaders per capita as an instrument. Panels D, E, and F report those same results but using the number of monasteries in 1200 per capita as the instrumental variable. "log(biens nationaux, no adjourned sales)" is the natural log of the value per capita of national assets either sold or whose sale had been ordered in November 1791. It excludes *biens nationaux* whose sale had been adjourned at that date. The dependent variables are the number of addresses sent to the National Assembly between the abolition of privileges (August 4, 1789), and the nationalization of Church property (November 2, 1789), per 10,000 inhabitants (columns 1 to 4); and the number of addresses supporting the Cult of Reason and sent between the first *fête de la Raison* (November 10, 1793), and the fall of Robespierre on 9 Thermidor, Year II (July 27, 1794), per 10,000 inhabitants (columns 5-8). Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Standard errors clustered at the department level are reported in parentheses.

Table I.29: More *biens nationaux* predicts more political clubs during the Terror and more Constitutional Circles during the Directory, but not more clubs created before 1792.

	Clubs founded before 1792				*Clubs founded in 1793/Year II*				*Constitutional Circles*			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	PANEL A: *Inverse hyperbolic sine:*											
log(biens nationaux, no adjourned sales)	0.052057	0.027130	-0.042900	0.010733	0.29470***	0.27686***	0.21586***	0.19635**	0.10650***	0.11039**	0.073385	0.11853**
	(0.043887)	(0.044680)	(0.046197)	(0.055295)	(0.063777)	(0.074207)	(0.065289)	(0.091499)	(0.034554)	(0.051359)	(0.052137)	(0.051996)
Observations	528	519	516	516	528	519	516	516	528	519	516	516
R-squared	0.25	0.28	0.33	0.39	0.18	0.21	0.25	0.37	0.07	0.08	0.12	0.18
Magnitude:												
Standardized coefficients	0.05	0.02	-0.04	0.01	0.27	0.25	0.19	0.17	0.10	0.10	0.07	0.11
Mean of dependent variable	1.18	1.19	1.2	1.2	2.23	2.23	2.24	2.24	.36	.36	.36	.36
	PANEL B: *Number of clubs:*											
log(biens nationaux, no adjourned sales)	0.15875	0.067776	-0.078739	0.065492	2.01096***	1.83762***	1.36885***	1.17057*	0.14689***	0.16122**	0.11625	0.18564**
	(0.11720)	(0.11954)	(0.13211)	(0.16162)	(0.44337)	(0.50238)	(0.47127)	(0.66353)	(0.049897)	(0.080715)	(0.081752)	(0.078370)
Observations	528	519	516	516	528	519	516	516	528	519	516	516
R-squared	0.23	0.26	0.30	0.35	0.15	0.17	0.20	0.29	0.06	0.07	0.10	0.18
Magnitude:												
Standardized coefficients	0.14	0.06	-0.07	0.06	1.82	1.66	1.22	1.04	0.13	0.15	0.10	0.16
Mean of dependent variable	1.99	2.01	2.02	2.02	7.24	7.28	7.32	7.32	.45	.46	.46	.46
Geographic controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Economic controls		✓	✓	✓		✓	✓	✓		✓	✓	✓
Human capital controls			✓	✓			✓	✓			✓	✓
Region F.E.				✓				✓				✓
*** p<0.01, ** p<0.05, * p<0.1												

Note: An observation is a district. "log(biens nationaux, no adjourned sales)" is the natural log of the per capita value of national assets either sold or whose sale had been ordered in November 1791. It excludes *biens nationaux* whose sale had been adjourned at that date. The dependent variables are inverse hyperbolic sine transformation (Panel A) or the number (Panel B) of political clubs created before 1792 (columns 1 to 4), in 1793/Year II (columns 5-8), as well as of Constitutional Circles during Year VI/VII (1797-1799) (columns 9-12). Geographic controls include: urbanization rate (in 1793); wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Standard errors clustered at the department level are reported in parentheses.

Table I.30: Reduced-form and instrumental variables estimates for political clubs.

	Clubs founded before 1792		*Clubs founded in 1793/Year II*		*Constitutional Circles*	
	(1)	(2)	(3)	(4)	(5)	(6)
	PANEL A: *Reduced-form, crusaders per capita:*					
Crusaders per capita	0.068976	0.058030	0.29733***	0.22136***	0.090426*	0.16100***
	(0.060439)	(0.053372)	(0.085951)	(0.078248)	(0.046906)	(0.047880)
Observations	525	525	525	525	525	525
R-squared	0.33	0.40	0.25	0.36	0.10	0.17
	PANEL B: *Second stage, crusaders per capita:*					
log(biens nationaux, no adjourned sales)	0.17429	0.26202	0.74833***	0.99844***	0.22572**	0.73252***
	(0.14565)	(0.22742)	(0.23404)	(0.36797)	(0.10961)	(0.21505)
AR p-value	0.246	0.274	0.001	0.006	0.060	0.001
VtF 95% CI	[-0.10;0.45]	[-0.16;0.68]	[0.30;1.19]	[0.32;1.73]	[0.02;0.43]	[0.34;1.16]
	PANEL C: *First stage, crusaders per capita:*					
Crusaders per capita	0.40181***	0.22219***	0.40181***	0.22219***	0.40181***	0.22219***
	(0.054775)	(0.044621)	(0.054775)	(0.044621)	(0.054775)	(0.044621)
Observations	516	516	516	516	516	516
Partial R^2	0.10	0.05	0.10	0.05	0.10	0.05
First stage F-stat	53.81	24.80	53.81	24.80	53.81	24.80
	PANEL D: *Reduced-form, monasteries per capita (year 1200):*					
Monasteries per capita (year 1200)	-0.16870	-0.43685	2.85607**	2.20187*	1.46950*	1.64649**
	(0.81939)	(0.89192)	(1.22813)	(1.20552)	(0.82674)	(0.81837)
Observations	525	525	525	525	525	525
R-squared	0.33	0.40	0.24	0.35	0.10	0.17
	PANEL E: *Second stage, monasteries per capita (year 1200):*					
log(biens nationaux, no adjourned sales)	0.015236	-0.028420	0.43047***	0.48756**	0.20272*	0.30806**
	(0.10576)	(0.15605)	(0.15238)	(0.20021)	(0.12072)	(0.15289)
AR p-value	0.889	0.861	0.006	0.016	0.073	0.042
VtF 95% CI	[-0.19;0.22]	[-0.33;0.27]	[0.14;0.72]	[0.10;0.87]	[-0.03;0.43]	[0.02;0.60]
	PANEL F: *First stage, monasteries per capita (year 1200):*					
Monasteries per capita (year 1200)	7.81291***	5.77353***	7.81291***	5.77353***	7.81291***	5.77353***
	(0.90850)	(0.66666)	(0.90850)	(0.66666)	(0.90850)	(0.66666)
Observations	516	516	516	516	516	516
Partial R^2	0.14	0.12	0.14	0.12	0.14	0.12
First stage F-stat	73.96	75.00	73.96	75.00	73.96	75.00
Controls	✓	✓	✓	✓	✓	✓
Region F.E.		✓		✓		✓
*** p<0.01, ** p<0.05, * p<0.1						

Note: An observation is a district. Panels A, B, and C report the reduced form, second stage, and first stage estimations using the number of crusaders per capita as an instrument. Panels D, E, and F report those same results but using the number of monasteries in 1200 per capita as the instrumental variable. "log(biens nationaux, no adjourned sales)" is the natural log of the value per capita of national assets either sold or whose sale had been ordered in November 1791. It excludes *biens nationaux* whose sale had been adjourned at that date. The dependent variables are: the inverse hyperbolic sine transformation of the number of political clubs created before 1792 (columns 1–2), the same transormation for the number of political clubs created in 1793/Year II (columns 3–4), and the number of *Cercles Constitutionels* during the Directorial regime (1795–1799) (columns 5–6). Controls include: urbanization rate (in 1793); wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*; forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789); the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Standard errors clustered at the department level are reported in parentheses.

I.3 Additional results for political clubs

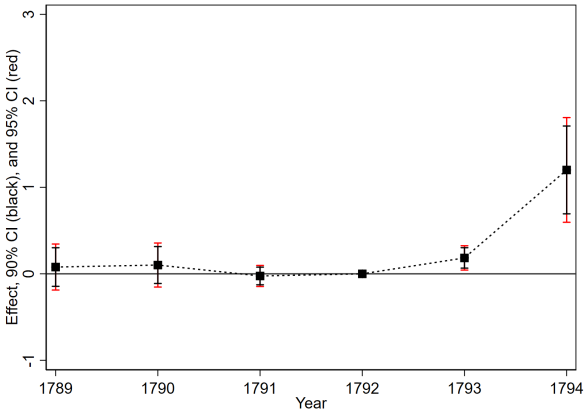
Table I.31: Event-study for the effect of ***biens nationaux*** on political clubs creation.

						weighted
	(1)	(2)	(3)	(4)	(5)	(6)
log(biens nationaux, no adjourned sales) × 1789	0.17995	-0.28115**	-0.10393	0.10010	0.033882	-0.29652
	(0.10954)	(0.12307)	(0.13981)	(0.14476)	(0.19272)	(0.26474)
log(biens nationaux, no adjourned sales) × 1790	0.18105*	-0.20764*	-0.051145	0.10454	0.067409	-0.19845
	(0.097813)	(0.10946)	(0.13004)	(0.13801)	(0.17333)	(0.22188)
log(biens nationaux, no adjourned sales) × 1791	0.092036*	-0.16047***	-0.065651	0.0090596	0.089561	0.0066450
	(0.055200)	(0.056186)	(0.066522)	(0.067373)	(0.10298)	(0.10383)
log(biens nationaux, no adjourned sales) × 1793	0.027816	0.20141***	0.21288***	0.15987*	0.10190	0.16956
	(0.051565)	(0.060840)	(0.079234)	(0.081696)	(0.10121)	(0.10541)
log(biens nationaux, no adjourned sales) × 1794	0.99539***	2.01096***	1.83762***	1.36885***	1.17057**	2.26870**
	(0.34287)	(0.32360)	(0.36036)	(0.36739)	(0.58301)	(0.94903)
Observations	3168	3168	3114	3096	3096	3096
R^2	0.60	0.67	0.68	0.69	0.72	0.73
Year FE						
× Geographic controls		✓	✓	✓	✓	✓
× Economic controls			✓	✓	✓	✓
× Human capital controls				✓	✓	✓
× Region F.E.					✓	✓
Year F.E.	✓	✓	✓	✓	✓	✓
District F.E.	✓	✓	✓	✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1						

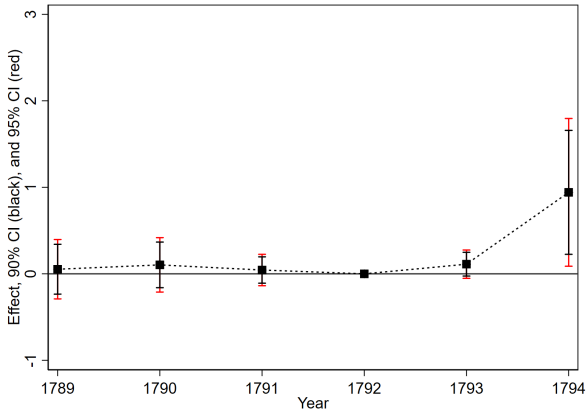
Note: The dependent variable is the number of political clubs at different dates: 1789, 1790, ..., 1794. The independent variables of interest are year dummies interacted with the natural log of per-capita ***biens nationaux*** sold or ordered to be sold in November 1791. It excludes ***biens nationaux*** whose sale had been adjourned at that date. 1792 is the baseline year. All columns include district and year fixed effects. Geographic controls include urbanization (1793), wheat suitability, average terrain ruggedness, log market access, dummies for written law, customary law, and mixed systems, and an indicator for ***pays d'État***, each interacted with year dummies. Economic controls are forges per capita, average conscript height (1819), the share failing the height requirement (1819), the share of towns with a Protestant church in the 17th century, the number of revolts against Church authorities, against the nobility, and in general (1750–1789), each interacted with year. Human capital controls include the number of secular and Catholic high schools, per-capita STN volumes, illegal STN books, and encyclopedia subscriptions, each interacted with year dummies. Column (5) adds region times year flexible trends; column (6) additionally applies 1793 population weights. Standard errors, clustered by district, are in parentheses.

Figure I.26: Results in Table I.31 (columns 4 and 5) using alternative measures of *biens nationaux*

PANEL A: log(biens nationaux sold before November 1791 per capita):

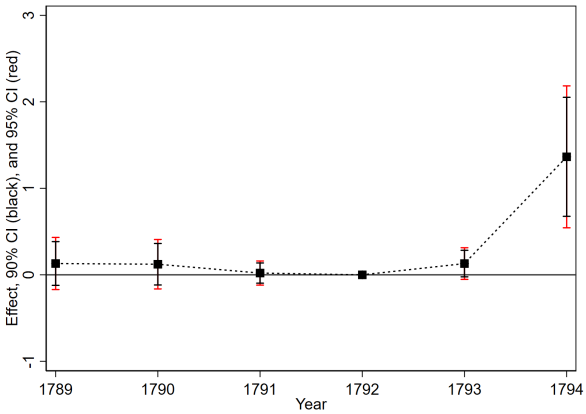


(Results with controls)

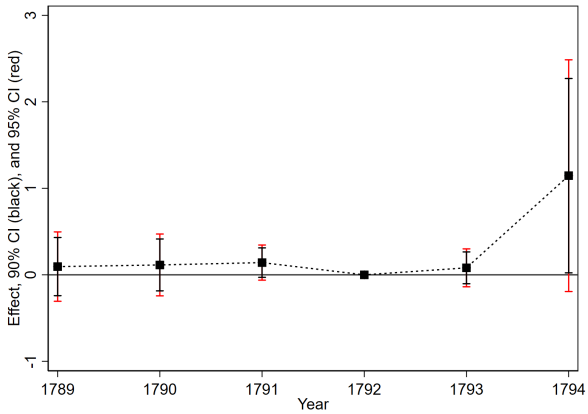


(Results with controls + Region flexible trends)

PANEL B: log(biens nationaux per capita):



(Results with controls)



(Results with controls + Region flexible trends)

Note: The results graphed reproduce columns 4 and 5 in Table I.31 but using two alternative measures of *biens nationaux*. The first (in Panel A) is the natural log of per-capita *biens nationaux* sold before November 1791. The second (Panel B) is the natural log of per-capita *biens nationaux*, without any restrictions (and as in Table 1. The dependent variable is the number of political societies for each year between 1789 and 1794. In both the left and right panels, flexible trends are included by interacting year fixed effects with the same set of controls as that in Table 4. The right panel adds flexible trends for 13 regions. Standard errors are clustered at the district level. Confidence intervals at the 10 and 5% levels are indicated by the black and red colors, respectively.

I.4 Additional results on late 19th century religiosity

Table I.32: IV results and other robustness checks for 19th century pascalisants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	*First stage*
PANEL A: *WLS, Weighted by % of district population for which we have data*								
log(biens nationaux per capita)	-15.4720***	-12.0519***	-10.7344***	-11.7980***	-9.18447***	-8.68936***	-8.30518***	
	(3.31700)	(2.94082)	(2.87051)	(3.17236)	(2.31253)	(2.17840)	(2.01318)	
Observations	218	218	209	209	209	209	197	
R-squared	0.38	0.47	0.55	0.56	0.80	0.81	0.86	
PANEL B: *OLS, only districts with full data:*								
log(biens nationaux per capita)	-14.4779***	-11.3809***	-9.08762**	-10.7699**	-10.1044***	-8.38438***	-9.54021***	
	(4.29450)	(3.81479)	(3.73126)	(4.02523)	(2.56241)	(2.18688)	(2.35911)	
Observations	128	128	125	125	125	125	119	
R-squared	0.30	0.42	0.50	0.51	0.82	0.83	0.89	
PANEL C: *Reduced-form & First-stage, crusaders per capita:*								
Crusaders per capita	-17.1031***	-13.9596***	-11.6725***	-12.2371***	-8.61722***	-8.61308***	-7.81160***	0.18043***
	(2.62162)	(2.39352)	(2.38704)	(2.48206)	(2.26840)	(2.39655)	(2.04033)	(0.053967)
Observations	256	246	237	237	237	237	223	209
R-squared	0.32	0.46	0.53	0.54	0.75	0.77	0.82	0.04
First stage F-stat								11.18
PANEL D: *Instrumental variable, crusaders per capita:*								
log(biens nationaux per capita)	-26.9737***	-27.6737***	-30.3663***	-36.1536***	-39.5715***	-39.7964***	-39.7065***	
	(5.38223)	(6.51336)	(8.41061)	(10.0336)	(14.4094)	(13.4930)	(12.2948)	
AR p-value	0.000	0.000	0.000	0.000	0.002	0.002	0.000	
VtF 95% CI	[-37.66;-16.89]	[-42.61;-15.89]	[-48.02;-14.66]	[-57.58;-17.49]	[-75.64;-14.25]	[-73.26;-16.38]	[-73.16;-18.81]	
First stage F-stat	38.78	20.37	27.12	24.05	11.78	11.18	9.52	
Observations	218	218	209	209	209	209	197	
PANEL E: *Reduced-form & First-stage, Monasteries per capita (year 1200):*								
Monasteries per capita (year 1200)	-215.492***	-196.928***	-197.805***	-205.981***	-135.498***	-145.167***	-114.388***	4.18406***
	(46.6079)	(43.7746)	(33.2148)	(33.3002)	(36.3135)	(37.4455)	(32.9222)	(0.92641)
Observations	256	246	237	237	237	237	223	209
R-squared	0.25	0.43	0.53	0.54	0.75	0.77	0.82	0.08
First stage F-stat								20.40
PANEL F: *Instrumental variable, Monasteries per capita (year 1200):*								
log(biens nationaux per capita)	-24.4440***	-24.7614***	-26.8144***	-30.7904***	-33.6486***	-34.2724***	-31.1933***	
	(5.67760)	(6.68813)	(6.76635)	(7.36764)	(11.4321)	(10.7119)	(10.8715)	
AR p-value	0.001	0.001	0.000	0.000	0.002	0.001	0.002	
VtF 95% CI	[-35.37;-14.18]	[-37.70;-12.47]	[-40.68;-14.15]	[-45.78;-17.10]	[-58.05;-12.83]	[-56.92;-14.72]	[-56.63;-11.72]	
First stage F-stat	20.40	26.29	30.22	29.55	19.81	20.40	14.23	
Observations	218	218	209	209	209	209	197	
Religious progressivism (Hyslop)	✓	✓	✓	✓	✓	✓	✓	✓
Clergy's oath							✓	
Geographic controls		✓	✓	✓	✓	✓	✓	✓
Economic controls			✓	✓	✓	✓	✓	✓
Human capital controls				✓	✓	✓	✓	✓
Region F.E.					✓	✓	✓	✓
Data type F.E.						✓	✓	✓
Data decade F.E.						✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1								

Note: An observation is a district. The dependent variable is the percentage of ***pascalisants*** in the late 19th century, except for the first stage column where the dependent variable is the instrumented variable. Panel A reports OLS regressions weighted by the share of the district population for which we have data, thus down-weighting –but not excluding– districts with incomplete data. Panel B reports OLS regressions for districts with complete data for the entire district. Panels C and E present reduced-form regressions (columns 1 to 7) for our two instrumental-variable strategies, with first-stage estimates in the last column. The R-squared in the last column is the partial R-squared on the excluded instruments. Panels D and F report instrumental-variables estimates for seven specifications. The control sets match those in Table 5. Geographic controls include: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for ***pays d'Etat***. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Fixed effects for data type and for the decade of data collection are included in columns 6, 7, and in the first-stage column. Standard errors are clustered at the department level and reported in parentheses.

I.5 Results using 1919 and 1947 data on pascalisants

Table I.33: OLS and IV results for 1919 pascalisants

	(1)	(2)	(3)	(4)	(5)	(6)	*First stage*
	PANEL A: *OLS results:*						
log(biens nationaux per capita)	-12.1379***	-10.2380***	-12.0269***	-11.0812***	-10.8270***	-6.04922***	
	(2.39783)	(2.54415)	(2.63990)	(2.72934)	(2.18269)	(1.90654)	
Observations	453	453	444	444	444	412	
R-squared	0.21	0.29	0.33	0.35	0.60	0.73	
	PANEL B: *Reduced-form & First-stage, crusaders per capita:*						
Crusaders per capita	-17.8392***	-15.4847***	-14.1946***	-13.7275***	-9.74105***	-7.65667***	0.20334***
	(2.22266)	(2.19511)	(2.14217)	(2.17437)	(1.81113)	(1.63970)	(0.045552)
Observations	522	506	497	497	497	457	444
R-squared	0.22	0.31	0.33	0.36	0.60	0.73	0.04
First stage F-stat							19.93
	PANEL C: *Instrumental variable, crusaders per capita:*						
log(biens nationaux per capita)	-28.9478***	-34.1283***	-35.8503***	-36.8240***	-47.4075***	-41.8223***	
	(4.25300)	(6.03568)	(6.04012)	(6.49611)	(12.9876)	(14.6666)	
AR p-value	0.000	0.000	0.000	0.000	0.000	0.000	
VtF 95% CI	[-37.03;-20.86]	[-46.52;-22.79]	[-47.51;-24.43]	[-49.53;-24.53]	[-77.70;-23.26]	[-81.81;-14.70]	
First stage F-stat	62.48	36.50	50.14	45.52	19.93	12.29	
Observations	453	453	444	444	444	412	
	PANEL D: *Reduced-form & First-stage, Monasteries per capita (year 1200):*						
Monasteries per capita (year 1200)	-232.872***	-188.991***	-178.267***	-174.615***	-126.832***	-81.0300***	5.38716***
	(39.4772)	(36.4397)	(31.9182)	(31.5347)	(27.3942)	(21.9658)	(0.71862)
Observations	522	506	497	497	497	457	444
R-squared	0.16	0.27	0.29	0.33	0.59	0.72	0.11
First stage F-stat							56.20
	PANEL E: *Instrumental variable, Monasteries per capita (year 1200):*						
log(biens nationaux per capita)	-21.0785***	-20.5703***	-21.4454***	-21.3760***	-22.0960***	-16.4167***	
	(3.45433)	(4.40618)	(4.30192)	(4.41981)	(5.59576)	(5.27073)	
AR p-value	0.000	0.000	0.000	0.000	0.000	0.001	
VtF 95% CI	[-27.66;-14.51]	[-28.97;-12.22]	[-29.74;-13.25]	[-29.91;-12.96]	[-32.70;-11.42]	[-26.63;-6.45]	
First stage F-stat	62.62	53.59	61.49	60.04	56.20	42.54	
Observations	453	453	444	444	444	412	
Religious progressivism (Hyslop)	✓	✓	✓	✓	✓	✓	✓
Clergy's oath						✓	
Geographic controls		✓	✓	✓	✓	✓	✓
Economic controls			✓	✓	✓	✓	✓
Human capital controls				✓	✓	✓	✓
Region F.E.					✓	✓	✓
*** p<0.01, ** p<0.05, * p<0.1							

Note: An observation is a district. The dependent variable is the percentage of *pascalisants* around 1919, except for the first stage column where the dependent variable is the instrumented variable. Panel A reports the OLS results. Panels B and D present reduced-form regressions (columns 1-6) for our two instrumental-variable strategies, with first-stage estimates in the last column. The R-squared in the last column is the partial R-squared on the excluded instruments. Panels C and E report instrumental-variables estimates for six specifications. The control sets match those in Table 5. Geographic controls include: urbanization rate (in 1921); wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Standard errors are clustered at the department level and reported in parentheses.

Table I.34: More church land predicts lower religiosity in 1947.

	Men:						Women:					
	(1)	(2)	(3)	(4)	(5)	*First stage*	(6)	(7)	(8)	(9)	(10)	*First stage*
PANEL A: *OLS*:												
log(biens nationaux per capita)	-6.72069***	-8.80999***	-7.68960***	-5.00107**	-1.54509		-7.00134***	-9.52566***	-8.91595***	-5.33333**	-1.53505	
	(2.12934)	(2.42669)	(2.53009)	(2.22593)	(2.01345)		(2.23674)	(2.72293)	(2.91219)	(2.23398)	(1.95423)	
Observations	365	356	354	354	331		358	349	347	347	324	
R-squared	0.26	0.31	0.35	0.58	0.67		0.29	0.34	0.35	0.58	0.68	
Magnitude:												
Standardized beta coefficients	-6.10	-8.01	-6.83	-4.44	-1.37		-6.35	-8.65	-7.91	-4.73	-1.36	
Mean of dependent variable	29.4	28.31	28.39	28.39	28.48		29.12	28	28.09	28.09	28.15	
PANEL B: *Reduced-form & First-stage, crusaders per capita:*												
Crusaders per capita	-9.18874***	-8.89086***	-8.09187***	-4.52493***	-3.42188**	0.17978***	-10.2868***	-10.2324***	-9.76142***	-6.32128***	-5.30178**	0.18197***
	(1.88890)	(1.97462)	(1.91246)	(1.46373)	(1.53619)	(0.054797)	(2.06509)	(2.18216)	(2.23783)	(1.92986)	(2.07447)	(0.054481)
Observations	412	403	397	397	367	354	404	395	389	389	359	347
R-squared	0.28	0.32	0.37	0.58	0.67	0.04	0.33	0.35	0.37	0.60	0.69	0.04
First stage F-stat						10.76						11.16
PANEL C: *Instrumental variable, crusaders per capita:*												
log(biens nationaux per capita)	-18.5927***	-22.8107***	-22.0427***	-23.2847**	-18.3884		-20.2323***	-25.8045***	-25.8029***	-31.8570**	-28.4888*	
	(4.10137)	(5.26907)	(5.34354)	(11.3966)	(12.1043)		(4.67261)	(6.07994)	(6.34631)	(15.4000)	(17.2102)	
AR p-value	0.000	0.000	0.000	0.008	0.061		0.000	0.000	0.000	0.005	0.033	
VtF 95% CI	[-26.73;-10.92]	[-32.91;-12.84]	[-32.49;-12.00]	[-54.51;-3.78]	[-55.84;1.40]		[-29.53;-11.51]	[-37.53;-14.29]	[-38.14;-13.87]	[-73.99;-4.95]	[-81.95;-0.33]	
First stage F-stat	35.50	45.53	38.60	10.76	7.71		36.07	45.44	39.55	11.16	8.00	
Observations	365	356	354	354	331		358	349	347	347	324	
PANEL D: *Reduced-form & First-stage, Monasteries per capita (year 1200):*												
Monasteries per capita (year 1200)	-152.676***	-146.388***	-143.296***	-88.4591***	-62.2641***	4.79566***	-150.736***	-147.158***	-146.630***	-82.7929***	-59.9618**	4.96877***
	(38.7906)	(36.5752)	(32.7623)	(25.0347)	(22.1567)	(0.83974)	(38.8139)	(36.3886)	(34.8358)	(26.4897)	(24.0680)	(0.84512)
Observations	412	403	397	397	367	354	404	395	389	389	359	347
R-squared	0.28	0.31	0.37	0.58	0.68	0.09	0.31	0.33	0.36	0.59	0.68	0.09
First stage F-stat						32.61						34.57
PANEL E: *Instrumental variable, Monasteries per capita (year 1200):*												
log(biens nationaux per capita)	-17.4526***	-19.4530***	-19.4172***	-15.6722***	-14.0668**		-16.2612***	-18.4111***	-18.8661***	-13.8694**	-12.0173**	
	(4.61945)	(5.23394)	(5.26832)	(5.73063)	(6.29872)		(4.32048)	(4.81714)	(4.94285)	(5.50913)	(5.73363)	
AR p-value	0.000	0.000	0.000	0.004	0.010		0.000	0.000	0.000	0.011	0.023	
VtF 95% CI	[-26.15;-8.78]	[-29.50;-9.61]	[-29.78;-9.54]	[-27.01;-4.94]	[-27.54;-2.41]		[-24.40;-8.14]	[-27.44;-9.35]	[-28.16;-9.62]	[-24.36;-3.57]	[-23.79;-1.41]	
First stage F-stat	41.90	41.60	34.85	32.61	25.07		42.95	42.67	36.65	34.57	26.63	
Observations	365	356	354	354	331		358	349	347	347	324	
Religious progressivism (Hyslop)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Clergy's oath					✓						✓	
Geographic controls		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Economic controls			✓	✓	✓	✓			✓	✓	✓	✓
Human capital controls				✓	✓	✓				✓	✓	✓
Region F.E.				✓	✓	✓				✓	✓	✓

*** p<0.01, ** p<0.05, * p<0.1

Note: An observation is a district. The dependent variable is the percentage of ***pascalisants*** in 1947 for men (columns 1 to 5) and women (columns 6 to 10). The dependent variable in the two first stage columns is the instrumented variable. Panel A reports the OLS regressions. Panels B and D present reduced-form regressions (columns 1 to 8) for our instrumental-variable strategies, with first-stage estimates in fourth and last columns. The R-squared in the first stage columns is the partial R-squared on the excluded instruments. Panels C and E report instrumental-variables estimates for ten specifications. Geographic controls include: urbanization rate (in 1946); wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for ***pays d'Etat***. Economic controls include: forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789). Human capital controls include: the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. Standard errors are clustered at the department level and reported in parentheses.

I.6 Baseline results on Protestantism

Table I.35: The effect of land redistribution on Protestantism.

Treatment:	*Biens nationaux × Year:*							*log(Biens nationaux) × Year:*					
	Whole sample			*Restricted sample*		*Without Alsace-Loraine*	*Without Gard*	*Whole sample*			*Restricted sample*		*Without Gard*
			Weighted		Weighted					Weighted		Weighted	
Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Desert (1726-1763)	0.00264	-0.00071	-0.00103	0.00087	0.00001	-0.00081	0.00020	0.14946	-0.10370	-0.05855	0.03968	0.08350	-0.09019
	(0.00258)	(0.00139)	(0.00095)	(0.00175)	(0.00122)	(0.00141)	(0.00116)	(0.19208)	(0.14770)	(0.11884)	(0.20869)	(0.16896)	(0.11311)
1780	0.00011	0.00027	0.00014	0.00039	0.00018	0.00020	0.00008	0.01409	0.03743	0.01959	0.05828	0.03014	0.01467
	(0.00016)	(0.00025)	(0.00023)	(0.00031)	(0.00029)	(0.00026)	(0.00024)	(0.01624)	(0.02762)	(0.02182)	(0.03556)	(0.02762)	(0.02483)
1790	0.00007	0.00015	-0.00001	0.00021	-0.00004	0.00016	-0.00003	0.01312	0.02684	0.00410	0.04115	0.00674	0.00339
	(0.00015)	(0.00025)	(0.00021)	(0.00029)	(0.00025)	(0.00025)	(0.00023)	(0.01612)	(0.02705)	(0.01978)	(0.03441)	(0.02385)	(0.02396)
1810	0.00291	0.00147	0.00158*	0.00239*	0.00215**	0.00141	0.00177	0.16738	0.03200	0.12680	0.11540	0.22361*	0.14010
	(0.00206)	(0.00116)	(0.00085)	(0.00134)	(0.00097)	(0.00118)	(0.00112)	(0.14295)	(0.13257)	(0.11338)	(0.16539)	(0.13363)	(0.10069)
1820	0.00303	0.00186	0.00191*	0.00275*	0.00248**	0.00182	0.00215*	0.17706	0.06363	0.15547	0.15124	0.25454*	0.17375*
	(0.00200)	(0.00124)	(0.00097)	(0.00143)	(0.00111)	(0.00127)	(0.00117)	(0.14064)	(0.13832)	(0.12461)	(0.17177)	(0.14752)	(0.10491)
1830	0.00390**	0.00361**	0.00367***	0.00513***	0.00460***	0.00363**	0.00351***	0.20823	0.16280	0.31585*	0.30814	0.47104**	0.25191**
	(0.00188)	(0.00158)	(0.00139)	(0.00183)	(0.00158)	(0.00161)	(0.00136)	(0.15129)	(0.18227)	(0.16807)	(0.22833)	(0.20287)	(0.12715)
1840	0.00423**	0.00379**	0.00440***	0.00530***	0.00536***	0.00373**	0.00413***	0.24091	0.17988	0.39806**	0.31909	0.57434**	0.32260**
	(0.00188)	(0.00169)	(0.00161)	(0.00192)	(0.00181)	(0.00172)	(0.00152)	(0.15131)	(0.20070)	(0.19960)	(0.24866)	(0.23799)	(0.14704)
1850	0.00432**	0.00380**	0.00474***	0.00556**	0.00591***	0.00374*	0.00426***	0.25818	0.15994	0.42519*	0.33535	0.65380**	0.33553**
	(0.00192)	(0.00188)	(0.00177)	(0.00216)	(0.00200)	(0.00191)	(0.00164)	(0.16377)	(0.22703)	(0.22227)	(0.28689)	(0.26735)	(0.16291)
1860	0.00440**	0.00353*	0.00473**	0.00522**	0.00597***	0.00343	0.00432**	0.26534	0.11268	0.42610*	0.27651	0.66643**	0.34843*
	(0.00204)	(0.00205)	(0.00200)	(0.00240)	(0.00229)	(0.00209)	(0.00182)	(0.17781)	(0.25243)	(0.25640)	(0.32471)	(0.31481)	(0.18393)
1870	0.00477**	0.00404*	0.00511**	0.00533**	0.00608**	0.00385*	0.00494**	0.29573	0.13909	0.46539*	0.27614	0.68740*	0.40633**
	(0.00224)	(0.00229)	(0.00220)	(0.00268)	(0.00254)	(0.00233)	(0.00200)	(0.19621)	(0.27770)	(0.28089)	(0.36067)	(0.35094)	(0.20268)
1880	0.00523**	0.00420*	0.00508**	0.00536*	0.00602**	0.00403*	0.00518**	0.34503*	0.17215	0.48629*	0.30186	0.70037*	0.45609**
	(0.00238)	(0.00236)	(0.00227)	(0.00275)	(0.00261)	(0.00240)	(0.00209)	(0.20271)	(0.28197)	(0.29147)	(0.36644)	(0.36299)	(0.20860)
1890	0.00596**	0.00469*	0.00534**	0.00531*	0.00612**	0.00453*	0.00579**	0.39259*	0.18965	0.49514*	0.28321	0.69679*	0.48910**
	(0.00271)	(0.00256)	(0.00235)	(0.00280)	(0.00266)	(0.00259)	(0.00231)	(0.21580)	(0.29152)	(0.29747)	(0.37326)	(0.36991)	(0.21622)
1900	0.00626**	0.00489*	0.00546**	0.00564*	0.00634**	0.00477*	0.00585**	0.40572*	0.18612	0.47000	0.30476	0.68362*	0.46345**
	(0.00289)	(0.00263)	(0.00240)	(0.00287)	(0.00274)	(0.00267)	(0.00241)	(0.22513)	(0.29156)	(0.30237)	(0.37379)	(0.38002)	(0.22393)
Observations	6636	6510	6510	4872	4872	6328	6412	6636	6510	6510	4872	4872	6412
R-squared	0.88	0.90	0.88	0.91	0.89	0.90	0.88	0.88	0.90	0.88	0.91	0.89	0.88
Controls		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
16th century × year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17th century × year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Place Sureté × year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Forbidden × year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
District F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*** p<0.01, ** p<0.05, * p<0.1

Note: The dependent variable in this table is the percentage of municipalities with a protestant church. The data is a panel at the district level. The first date ('Desert (1726-1760)') refers to the Churches of the Desert —1726 and 1763 refer to the first and last national synod. Thus the first observation for each district is the number of municipalities with an (illegal) Church. The panel otherwise reports the data for each decade between 1780 and 1900. The coefficients are reported for 'biens nationaux per capita' (columns 1-6) and the log of that measure (columns 7-11) and interacted with year dummies. 1800 is the omitted year. All regressions include district and year fixed effects and control for the prevalence of protestantism before the 17^{th} century using the following variables interacted with year dummies: The percentage of municipalities with a protestant church in the 16^{th} century, the 17^{th} century, the percentage of municipalities where protestantism was banned, and the percentage of municipalities that were considered *place de sureté*. Controls include flexible trends for the following variables: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*; forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789); the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. The restricted sample uses districts in which there were Protestant churches after the Reformation (during the 16^{th} or 17^{th} centuries). We exclude the district of Paris because it was composed of only one municipality. Columns 3, 5, 9 and 11 are weighted by the number of municipalities. Column 6 excludes the districts part of Alsace-Loraine. Columns 7 and 13 exclude districts part of the Gard department. Standard errors are clustered at the district level.

Table I.36: Reproducing Table I.35 using the raw number of protestant churches.

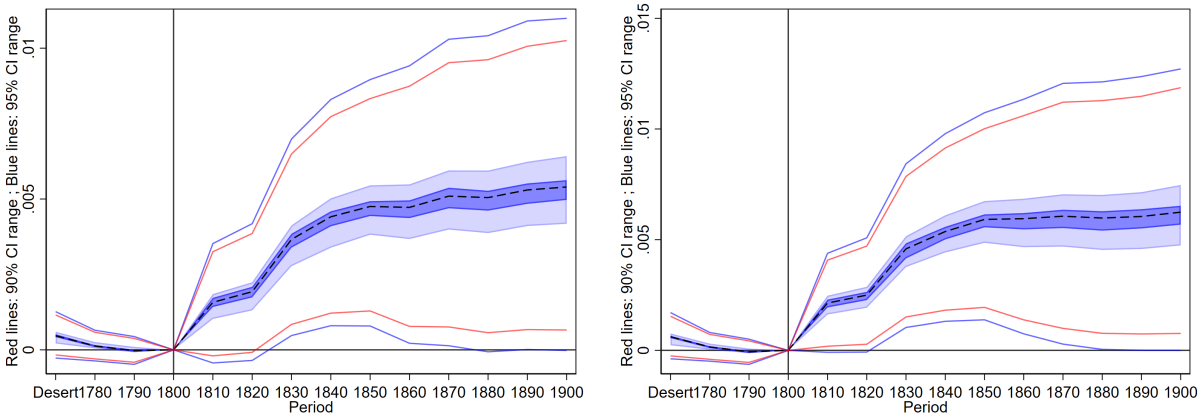
Treatment:	*Biens nationaux* × *Year:*							*log(Biens nationaux)* × *Year:*					
	Whole sample			*Restricted sample*		*Without Alsace-Loraine*	*Without Gard*	*Whole sample*			*Restricted sample*		*Without Gard*
			Weighted		Weighted					Weighted		Weighted	
Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Desert (1726-1763)	-0.00075	-0.00083	-0.00107	-0.00063	-0.00072	-0.00115	-0.00074	-0.05221	-0.01677	-0.05133	0.00725	-0.00802	-0.04537
	(0.00057)	(0.00080)	(0.00098)	(0.00086)	(0.00105)	(0.00077)	(0.00080)	(0.06251)	(0.09077)	(0.11977)	(0.09983)	(0.12886)	(0.09034)
1780	-0.00008	0.00017	0.00008	0.00018	0.00008	0.00007	0.00011	-0.00537	0.02474	0.01694	0.02984	0.02151	0.01521
	(0.00015)	(0.00023)	(0.00030)	(0.00025)	(0.00033)	(0.00021)	(0.00022)	(0.01081)	(0.02014)	(0.02716)	(0.02241)	(0.03034)	(0.01907)
1790	-0.00012	0.00002	-0.00014	0.00001	-0.00017	0.00003	-0.00003	-0.00591	0.01024	-0.00550	0.01240	-0.00475	-0.00065
	(0.00014)	(0.00021)	(0.00025)	(0.00022)	(0.00027)	(0.00021)	(0.00020)	(0.01053)	(0.01810)	(0.02152)	(0.01977)	(0.02359)	(0.01583)
1810	0.00024	0.00101	0.00148*	0.00126*	0.00173**	0.00093	0.00109*	0.01559	0.07386	0.14375	0.10165	0.18415	0.14896**
	(0.00055)	(0.00073)	(0.00086)	(0.00076)	(0.00088)	(0.00075)	(0.00060)	(0.05607)	(0.09310)	(0.11637)	(0.09755)	(0.11719)	(0.06913)
1820	0.00045	0.00132	0.00185*	0.00155*	0.00213**	0.00124	0.00141*	0.03616	0.10574	0.18969	0.13099	0.23178*	0.18613**
	(0.00065)	(0.00086)	(0.00105)	(0.00090)	(0.00108)	(0.00089)	(0.00073)	(0.06053)	(0.10321)	(0.13731)	(0.10822)	(0.13838)	(0.08003)
1830	0.00120	0.00268**	0.00338**	0.00303**	0.00367**	0.00268**	0.00270**	0.08208	0.20864	0.34111**	0.24549*	0.38881**	0.30281***
	(0.00090)	(0.00118)	(0.00143)	(0.00124)	(0.00146)	(0.00122)	(0.00106)	(0.08546)	(0.13245)	(0.16457)	(0.13941)	(0.16790)	(0.10386)
1840	0.00190*	0.00332**	0.00438**	0.00379***	0.00476***	0.00322**	0.00353***	0.14753	0.27407*	0.45127**	0.32243*	0.51770**	0.39068***
	(0.00106)	(0.00140)	(0.00173)	(0.00144)	(0.00174)	(0.00143)	(0.00132)	(0.09559)	(0.15883)	(0.21072)	(0.16480)	(0.21087)	(0.13440)
1850	0.00205*	0.00346**	0.00463**	0.00407**	0.00513***	0.00337**	0.00372***	0.17118	0.28044	0.45707**	0.34814*	0.55096**	0.42017***
	(0.00123)	(0.00153)	(0.00184)	(0.00158)	(0.00184)	(0.00157)	(0.00143)	(0.10991)	(0.17715)	(0.22950)	(0.18313)	(0.22587)	(0.14599)
1860	0.00222	0.00334*	0.00459**	0.00403**	0.00521**	0.00321*	0.00365**	0.19355	0.26299	0.45060*	0.33640	0.55308**	0.43087***
	(0.00144)	(0.00173)	(0.00207)	(0.00179)	(0.00208)	(0.00178)	(0.00158)	(0.12457)	(0.20027)	(0.26151)	(0.20764)	(0.25842)	(0.16297)
1870	0.00260	0.00363*	0.00473**	0.00418**	0.00522**	0.00342*	0.00402**	0.23090*	0.28720	0.48118*	0.35066	0.57000**	0.47562***
	(0.00161)	(0.00190)	(0.00224)	(0.00196)	(0.00226)	(0.00194)	(0.00171)	(0.13809)	(0.21712)	(0.27990)	(0.22647)	(0.28052)	(0.17635)
1880	0.00295*	0.00364*	0.00453*	0.00423**	0.00510**	0.00343*	0.00403**	0.27737*	0.30932	0.48189	0.37106	0.57267*	0.50486***
	(0.00172)	(0.00196)	(0.00231)	(0.00202)	(0.00231)	(0.00200)	(0.00178)	(0.14360)	(0.22501)	(0.29527)	(0.23375)	(0.29298)	(0.18331)
1890	0.00344*	0.00396*	0.00484**	0.00443**	0.00539**	0.00381*	0.00439**	0.31544**	0.32248	0.50986*	0.38370	0.60828**	0.52516***
	(0.00185)	(0.00204)	(0.00239)	(0.00209)	(0.00239)	(0.00207)	(0.00187)	(0.15013)	(0.23140)	(0.30479)	(0.23979)	(0.30264)	(0.18899)
1900	0.00370*	0.00413**	0.00517**	0.00476**	0.00587**	0.00403*	0.00454**	0.32202**	0.30873	0.49482	0.38903	0.61731**	0.50533***
	(0.00192)	(0.00209)	(0.00243)	(0.00216)	(0.00246)	(0.00214)	(0.00192)	(0.15473)	(0.23340)	(0.31106)	(0.24330)	(0.31333)	(0.19280)
Observations	5600	5502	5502	4872	4872	5362	5404	5600	5502	5502	4872	4872	5404
R-squared	0.85	0.87	0.86	0.87	0.86	0.87	0.85	0.85	0.87	0.86	0.87	0.86	0.85
Controls		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
16th century × year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17th century × year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Place Sureté × year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Forbidden × year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
District F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*** p<0.01, ** p<0.05, * p<0.1

Note: The dependent variable in this table is the number of protestant churches. The data is a panel at the district level. The first date ('Desert (1726-1760)') refers to the Churches of the Desert —1726 and 1763 refer to the first and last national synod. Thus the first observation for each district is the number of municipalities with an (illegal) Church. The panel otherwise reports the data for each decade between 1780 and 1900. The coefficients are reported for 'biens nationaux per capita' (columns 1-6) and the log of that measure (columns 7-11) and interacted with year dummies. 1800 is the omitted year. All regressions include district and year fixed effects and control for the prevalence of protestantism before the 17th century using the following variables interacted with year dummies: The number of protestant churches in the 16th century, the 17th century, the number of municipalities where protestantism was banned, and the number of municipalities that were considered *place de sureté*. Controls include flexible trends for the following variables: urbanization rate; wheat suitability; average terrain ruggedness; log market access; dummies for written law, customary law, and mixed systems; an indicator for *pays d'Etat*; forges per capita; average conscript height in 1819; the share of conscripts failing the height requirement in 1819; the number of revolts against Church authorities, against the nobility, and in general (1750–1789); the numbers of secular and Catholic high schools; and per-capita sales of STN books, banned STN books, and encyclopedia subscriptions. The restricted sample uses districts in which there were Protestant churches after the Reformation (during the 16th or 17th centuries). We exclude the district of Paris. Column 6 excludes the districts part of Alsace-Loraine. Columns 7 and 13 exclude districts part of the Gard department. Standard errors are clustered at the district level.

I.7 Leave-one-out confirmation routine

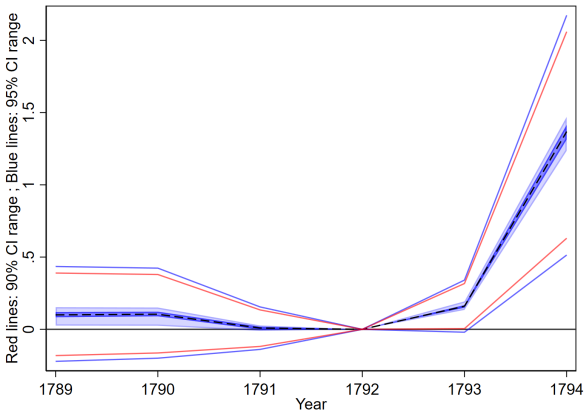
Figure I.27: Leave-one-out results (Table I.35, column 3 & 5).



(Whole sample) (Restricted sample)

Note: Each regression reproduces the regression in Table I.35, column 3 (left panel) & 5 (right panel) while leaving one observation each time. 99% of the coefficients fall within the dark blue range, and all coefficients fall within the light blue range. The black dashed line represents our original results in Table I.35, column 3 or 5. The red (blue) lines mark the minimum lower bound and maximum upper bound of the 90% (95%) confidence intervals obtained from the N leave-one-out regressions.

Figure I.28: Leave-one-out results (Table I.31, column 4).



Note: Each regression reproduces the regression in Table I.31, column 4 while leaving one observation each time. 99% of the coefficients fall within the dark blue range, and all coefficients fall within the light blue range. The black dashed line represents our original results in Table I.31, column 4. The red (blue) lines mark the minimum lower bound and maximum upper bound of the 90% (95%) confidence intervals obtained from the N leave-one-out regressions.

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