

ONLINE APPENDIX FOR

Religion, Division of Labor and Conflict: Anti-Semitism in Germany over 600 Years

Sascha O. Becker[†]
University of Warwick and CAGE

Luigi Pascali[‡]
Pompeu Fabra University and Barcelona GSE

Appendix A: Data Appendix

City-level data

City-level data are compiled from various sources, described in the main text. Here, we provide further detail and bibliographic references for the sources, and we describe how we coded our variables of interest. Our two sources of data on Jewish communities, anti-Semitic acts, and Jewish lending activity are the multi-volume *Germania Judaica* (1963–2009) for the pre-Reformation period and Aliche (2008), which covers the whole period but is our only source for the post-Reformation period. Importantly, Aliche and *Germania Judaica* coincide in capturing pogroms in the pre-Reformation period, but *Germania Judaica* has additional detail on Jewish lending; therefore, we rely on it for all of the pre-Reformation period.

Figure Data.1 describes how we code Jewish presence, Jewish lending, and pogroms/conflicts using the example of the city of Schwabach:

[†] Department of Economics, University of Warwick, Coventry, CV4 7AL, United Kingdom; s.o.becker@warwick.ac.uk. Becker is also affiliated with CEPR, CESifo, CReAM, Ifo, IZA and ROA.

[‡] Department of Economics, Pompeu Fabra University, Barcelona, 08005, Spain; luigi.pascali@upf.edu. Pascali is also affiliated with CAGE, CEPR, and Barcelona IPEG.

1332 Schwabach

***Schwabach**

שװאַבאָך¹; Kr.Stadt am gleichnamigen Fließchen, 11 km südl. Nürnberg, Regbez. MittelFrank., BRDtdl.

In der den hohenzollernschen Mkggf v. Ansbach gehörenden Stadt² lebten Juden wohl schon vor M. 14. Jh.³. 1480 gab es in ihr 3 Judenhäuser⁴. Ein nach Schwabach benannter Jude wohnte 1461 in Nürnberg⁵. Ein mindestens zeitweilig in Schwabach ansässiger Jude hatte, vielleicht wegen einer Geldforderung, Streit mit einem Einwohner von Nürnberg (1442)⁶. Ein oder mehrere Schwabacher Juden liehen angeblich einem Christen v. Altenhann Geld auf gestohlene Pfänder (vor 1468/120)⁷. Schutzherr war der Stadtherr. Mkggf Albrecht Achilles (1440–86) bezeichnete einen Juden zu Schwabach als seinen Juden, und sein Amtmann und Ks. Friedrich III. intervenierten beim Rat v. Regensburg in einer familiären Sache dieses Juden (1478)⁸. Mkggf Friedrich d. Ä. (1486–1515) verwendete sich 1510 beim Rat v. Frankfurt/M. für einen Schwabacher Juden, dem man dort anlässlich der Pfefferkornaktion Bücher beschlagnahmt hatte, und erreichte deren Rückgabe an den Eigentümer⁹. Der gleiche Fst erteilte 1511 einer größeren Familie einen individuellen Schutzbrief¹⁰. 1384 Verfolgung in Schwabach, bei der Juden erschlagen wurden¹¹. Trotz wiederholten Vertreibungen (1560, 1585) mehr oder weniger kontinuierliche Judensiedlung bis 1938¹².

“Jews living in the city presumably since mid 14th century.”

community_1300_1400 = 2

“dispute due to outstanding debts”

lending_pre1500 = 2

“1384 persecution of Jews in Schwabach during which some Jews were killed”

conflicts_1300_1400 = 6

“Despite several expulsions (1560, 1585), more or less continuously existing Jewish settlement until 1938”

conflicts_1500_1600 = 4 , community_1500_1600 = 2

Figure Data.1: Example of coding of Jewish presence, Jewish lending, and pogroms/conflicts based on the *Germania Judaica* for the city of Schwabach.

We use four different values for the **presence** of a Jewish community in a century:

999 The town is in the book but there is no relevant information about this variable

0 No (explicitly mentioned that Jews are not present in the city in that century)

2 Any mention of Jewish presence in the city

Conflicts between Christians and Jews are coded as follows:

999 The town is in the book but there is no relevant information about this variable

0 No (evidence of a secure environment for the local Jewish community)

2 Small expulsion (single individuals or very few families)

4 Large expulsion (at least 3/4 of the community)

6 Some killings

8 Mass killings

In most of our analyses, we define pogroms as evidence of any expulsions or killings, so a value greater or equal than 2 in the categorization above.

Finally, evidence of **Jewish lending** is coded as follows:

999 The town is in the book but there is no relevant information about this variable

0 No (explicitly mentioned that Jews are not engaged in moneylending)

2 Jews explicitly mentioned to be engaged in legal lending

4 Jews explicitly mentioned to be engaged in illegal lending

In most of our analyses, we look at any evidence of Jewish lending, whether legal or illegal. Again, we want to stress a limitation of the data, namely that absence of proof is not proof of absence, but to our knowledge Germania Judaica is the best available data. Also note that we choose to code data century by century because the sources often do not give more precise information than that. In some cases, entries might just state that there is “evidence of a Jewish community during the x-th century”.

Similarly, we use Alicke (2008) to code up information on Jewish presence and on pogroms, as can be seen in Figure Data.2.

Schwabach (Mittelfranken/Bayern)

Die Wurzeln der jüdischen Gemeinde Schwabachs liegen im späten Mittelalter; 1337 wird erstmals die Existenz eines Juden in Schwabach erwähnt; 1384 soll es hier zu einem Pogrom gekommen sein.

In Schwabach konnte sich seit dem 16. Jahrhundert zunächst kaum jüdisches Leben etablieren; immer wieder setzte sich der Schwabacher Rat beim Markgrafen mit seiner Forderung durch, keine Juden in der Stadt dauerhaft ansiedeln zu lassen. Nach Ende des Dreißigjährigen Krieges erfolgte dann ein steter Zuzug jüdischer Familien nach Schwabach, der sich im 18. Jahrhundert noch verstärkte. Diese bildeten nun eine Kultusgemeinde. Die hiesigen Juden waren Händler mit weitreichenden Geschäftsbeziehungen.

Seit 1707 residierte in Schwabach der Landesrabbiner, was die Bedeutung Schwabachs als religiöses Zentrum der markgräflichen Landgemeinden zeigt.

An der Stelle eines älteren Synagogenbaus aus dem Jahre 1687 ließ die Schwabacher Judenschaft 1799 einen Neubau errichten.

“1337 first mention of a Jew’s existence in Schwabach.”

“A pogrom supposedly occurred here in 1384.”

“Jews began to continuously settle in Schwabach after the 30-years war with an increasing tendency in the 18th century.”

community_1600_1700 = 2
community_1700_1800 = 2
community_1800_1900 = 2

Figure Data.2: Example of coding of Jewish presence, Jewish lending, and pogroms/conflicts based on Alicke (2008) for the city of Schwabach.

Our source for further city-level data is the *Deutsches Städtebuch*. We use it to code up variables measuring the existence of a school (we note the first year a school is mentioned), a city's involvement in military conflict, important/salient industries in a city's economic activity, and population size. While it seems obvious how we code up the first year a school is mentioned (our measure of a city's human capital investments) and population size, in Figure Data.3 we illustrate how we code information on military activity and Figure Data.4 how we code up industrial structure:

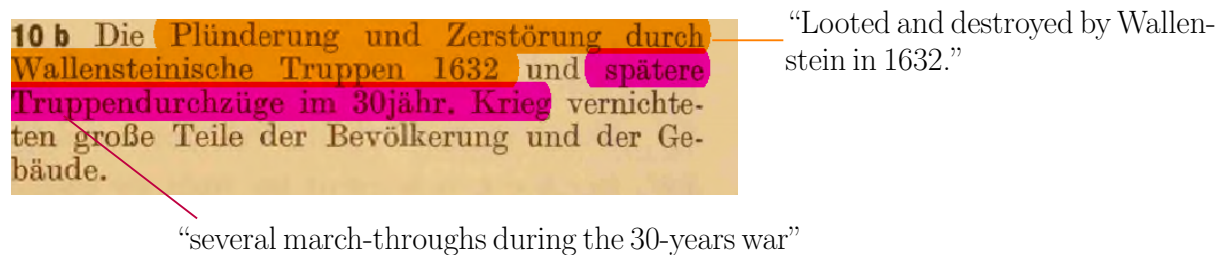


Figure Data.3: Example of coding of battles based on the *Deutsches Städtebuch* for the city of Schwabach.

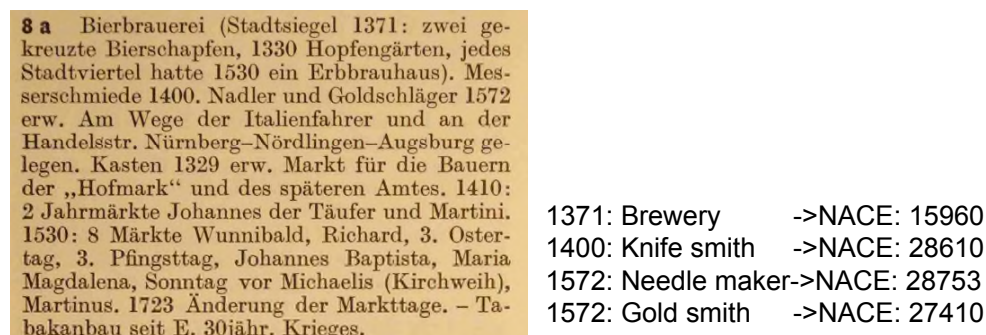


Figure Data.4: Example of coding of industries based on the *Deutsches Städtebuch* for the city of Schwabach using 5-digit NACE sector codes.

County-level data from Prussia

The county-level data available for Prussia in the 19th century are generally viewed as a unique source of highest-quality data for micro-regional analyses (Galloway, Hammel, and Lee (1994)). We have compiled the county-level data used in this paper from several censuses.

The 1882 Occupation Census

The 1882 Occupation Census (*Berufsstatistik vom 5. Juni 1882*) collected information on employment across two-digit sectors. Employment is listed separately for two groups: first, the self-employed and directors; second, administrative personnel and workers.

We calculate the share of the total labor force working in banking or in banking and insurance. We use the classification provided by the Prussian Statistical Office to classify the two sectors. We also calculate the share of the labor force in banking (or in banking and industry) who are Jews.

The source of the Occupation Census data are the Preussische Statistik (1884/85), Vol. 76c, pp. 284–386. Preussische Statistik (1884/85) Die Ergebnisse der Berufsstatistik vom 5. Juni 1882 im preussischen Staat. Preussische Statistik vol. 76. Berlin: Verlag des Königlichen Statistischen Bureaus.

1871 Population Census

The 1871 Population Census provides information on the share of different religious denominations – in particular, Protestants, Catholics, and Jews – in a county. In addition, the majority of our control variables is drawn from the 1871 Population Census, including a host of demographic characteristics, literacy rates (measured as the ability to read and write among the population aged 10 years or older), and shares of the population with physical or mental disabilities (blind, deaf-mute, and insane). The source of the 1871 Population Census data is Preussische Statistik (1875) Die Gemeinden und Gutsbezirke des Preussischen Staates und Ihre Bevölkerung: Nach den Urmaterialien der allgemeinen Volkszählung vom 1. December 1871. Berlin: Verlag des Königlichen Statistischen Bureaus.

1816 Population Census

The year 1816 is the earliest for which the Prussian Statistical Office, founded in 1805, collected detailed data at the county level. For our purposes, it provides information on the share of different religious denominations – in particular, Protestants, Catholics, and Jews – in a county.

The source of the 1816 Population Census data is Mützell, A. A. (1825), *Neues Topographisch-statistisch-geographisches Wörterbuch des Preussischen Staats*, Karl August Kümmel, Halle.

Reichstag Election results 1890, 1893 1898

Election results for the lower House of the German Empire Parliament (“Reichstag”) are available at the level of electoral precincts. Those precincts remained unchanged throughout the years 1871-1914. Typically, an election precinct comprises two Prussian counties. In exceptional cases, there are one or three. In our analysis, we assign the same precinct-level election results to the Prussian counties nested in it. We cluster standard errors at the precinct level.

The sources of the election results are as follows:¹

- a) For 1890: Monatshefte zur Statistik des Deutschen Reichs 1890, April, pp. IV.23-IV.43. Edited by Kaiserliches Statistisches Amt, Berlin: Puttkammer & Mühlbrecht.
- b) For 1893: Vierteljahreshefte zur Statistik des Deutschen Reichs, 1893, vol. 2, pp. IV.2-IV.33. Edited by Kaiserliches Statistisches Amt, Berlin: Puttkammer & Mühlbrecht.
- c) For 1898: Vierteljahreshefte zur Statistik des Deutschen Reichs, 1903, vol. 12, pp. III.42-III.102. Edited by Kaiserliches Statistisches Amt, Berlin: Puttkammer & Mühlbrecht.

¹ Election data were downloaded from the Galloway Prussia Database (Galloway, 2007).

Appendix B: Quotes from Encyclopaedia Judaica about Jews and moneylending in German history

The Encyclopedia Judaica (2nd edition) is a 22-volume English-language encyclopedia of the Jewish people and of Judaism. The quotes below refer to the two entries “Germany” (in vol. 7) and “Moneylending” (in vol. 14). They document that moneylending constituted the most salient occupation of Jews in the German lands throughout all centuries we analyze.

With reference to Middle Ages

"The city guilds forced the Jews out of the trades and the regular channels of commerce; this coincided with the stricter appliance of the church ban on usury in the 12th to 13th centuries. The combination of circumstances made moneylending and pawnbroking the main occupation of Jews in Germany." (vol. 7: pp. 519)

"However moneylending, conceived by the Church as usury, became the hallmark of Jewish life in Germany. About 100 to 150 years after usury became the main occupation of Jews in England and France, it became central to the livelihood of Jews in Germany also." (vol. 7: pp. 519)

"Even the source of livelihood that was forced upon the Jews -- lending money against interest -- came to be appreciated as an advantage since it left time to spare for Torah study. Moneylending also determined the artificial structure of Jewish life; the Jews derived their income mainly from non- Jews, and there was hardly any economic exploitation of one Jew by another. As a result, there was a large measure of social cohesion in the German communities." (vol. 7: pp. 520)

With reference to 14th century

"[.] the structure of Jewish life in Germany suffered a severe blow. Nevertheless, only a short while later, Jews were again permitted to take up residence in German cities, where there was no one else to fulfil their function in society of moneylenders." (vol. 7: pp. 522)

With reference to 16th century

"Jews were prohibited from practicing most occupations. Many now had to earn a livelihood from hawking haberdashery, peddling, moneylending, and pawnbroking in the small towns and villages." (vol. 7: pp. 524)

With reference to court Jews in 17th century and early 18th century

"A characteristic innovation of the era of absolutism and the mercantile system was the appearance of the Court Jews." (vol. 7: pp. 526)

"The rise of the absolute monarchies in Central Europe brought numbers of Jews, mostly of Ashkenazi origin, into the position of negotiating loans for the various courts, giving rise to the phenomenon of Court Jews. The most famous and most active of them in financial affairs were, in the second half of the 17th and the beginning of the 18th century, Leffmann Behrends in Hanover, Behrend Lehmann in Halberstadt, Bendix Goldschmidt in Hamburg, Aaron Beer in Frankfurt, and Samuel Oppenheimer and Samson Wertheimer in Vienna. Later Diego d'Aguilar, and the Arnstein and Eskeles families became prominent. In the early 18th century Joseph Suess Oppenheimer was the outstanding figure in southern Germany; his financial influence was widespread, especially in Wuerttemberg, until his fall and execution in 1738. Important court bankers around the end of the 18th century were Israel Jacobson in Brunswick, the Bleichroeder family in Berlin, Simon Baruch and Solomon Oppenheimer in Bonn, the Rothschilds in Frankfurt, the Reutlinger, Seligmann, and Haber families in Karlsruhe, the Kaulla family in Stuttgart, and Aron Elias Seligmann, later baron of Eichthal, in Munich." (vol. 14: pp. 440)

"From the 17th century onward [...] in spite of occasional regressions, a gradual improvement of the position of the Jews in Western Europe became noticeable. Money-lending still remained one of their main occupations, but they also traded, sometimes simultaneously, in all kinds of merchandise, or they earned their living as craftsmen and artisans." (vol. 14: pp. 441)

With reference to late 18th century

"Jews were active in the economy of the country and some became leading bankers, industrialists, and businessmen; there were also a large number of Jews in the liberal professions." (vol. 7: pp. 528)

With reference to 19th century and early 20th century

"When Jews moved to western countries in the late 19th-early 20th centuries, moneylending was a frequent occupation, especially in the first and second generation, and the Jewish moneylender became a familiar stereotype." (vol. 14: pp. 443)

Appendix C: A case study on the Margraviate of Brandenburg: the rise in competition between Protestant and Jewish lenders and the subsequent expulsion of the Jews

Our hypothesis is that, before the Reformation, Jews dominated in the lending sector as a result of the Catholic usury ban and superior human capital. (We note in the main text that by no means Jews were the only group engaged in moneylending, but they did play a major role in the lending sector). The Reformation brought a change in the competitive environment between the Jewish minority and the Christian majority, that eventually translated into new tensions. Competition between Christians and Jews is a recurring theme in the work of the Jewish historian Salo Baron. He describes the competition between the Jewish minority and the Christian majority as ultimately fostering capitalism, and explicitly refers to competition between the two groups in banking and trade as a source of tensions: *“Protestants and Jews contributed much more than their share to the rise of capitalist institutions and the so-called capitalist spirit [...] These activities by bankers and merchants of both faiths may have stimulated competition and economic rivalries between them which at times created new tensions.”* (Baron, 1972, p. 451)

This section studies the history of the interaction between Christians and Jews in the Margraviate of Brandenburg to present anecdotal evidence on two important issues, that are closely related with our hypothesis: (1) The increase in competition between Christians and Jews in moneylending at the time of the Protestant Reformation. (2) The link between Jewish moneylending and the expulsion of Jews after the Reformation.

Backhaus (1987) describes the interactions between Christians and Jews in the Margraviate of Brandenburg, one of the most central geographic areas of the Protestant Reformation. Already before the Reformation, (Christian) knights in the Margraviate of Brandenburg put pressure on the Margrave to expel Jews because of excessive interest. Interestingly, the (Christian) knights appear to have started to engage in lending to the Margrave early in the 16th century (see Hahn, 1979). Backhaus describes the knights' requests as follows: *“The demand for their expulsion was therefore probably aimed at eliminating unpleasant competition as well as the political and financial weakening of the sovereign patron.”* Those demands were repeated over several decades but were very rarely met by local rulers.

The Reformation did bring two changes.

First, the Reformation directly increased competition between Christian moneylenders and Jewish moneylenders. A fascinating description showing how Protestant Christians moved into moneylending can be found in a letter written in 1555 by Joachim II Hector, Elector of Brandenburg (who introduced Protestantism in the Margraviate of Brandenburg in 1539) to the city of Frankfurt: “*With diminishment and corruption of the coin, usurpers and other unseemly quarrels and essays, Christians are now the masters of the Jews ...*” (Wolbe, 1937, p.44). Wolbe goes on to say: „*When Jewish usury was contained, Christian businessmen took the place of the Jews.*“ (Wolbe, 1937, p.46).

Second, once the Jews lost their prerogatives in the lending sectors, also their status in the society changed. “*The Reformation in Brandenburg removed bishops and abbey from the equation, and left the knights with a stronger role at estate meetings. Throughout the sixteenth century, the Brandenburg electors remained dependent upon the nobility to secure loans.*” (von Friedeburg, p.76). Ultimately, the demands of the knights were met, and Jews were expelled from Brandenburg in 1571 (to only return one hundred years later, in 1671).

Where did the Jews expelled from Brandenburg go? They most probably moved to Catholic areas, in which they could still enjoy their prerogatives as moneylenders. Specifically, the 16th century is a period when the (Catholic) Polish Kings protect Jews and a large number of Jews settle in Polish territories. We are not aware of sources that directly and explicitly link these two pieces of evidence, i.e. that those Jews expelled from Brandenburg are the ones who then settle in Polish territories. However, significant migration of Jews to Poland occurred during the fifteenth and sixteenth centuries ‘from the West’, establishing themselves in the western territories of the Polish Crown. But the fact that the territories ‘to the West’ are turning Lutheran during the 16th century suggests a link.

It is also important to note that, in Reformation times, expulsions are largely judicial acts and not spontaneous pogroms of an uncontrolled mob. While some readers may worry that Luther’s anti-Semitism might have had direct consequences, the only example of a direct link between Lutheran preaching and expulsion is Luther’s last sermon (15 Feb 1546), three days before his death, accidentally in his birth town of Eisleben. After finishing his sermon, on the gospel of Matthew chapter 11, verses 25-30, he goes on to ask the Duke of Mansfeld to expel Jews from his territory. While the Duke does not act right away, he does in fact expel the Jews from his territory

a year later, in 1547. Kaufmann (2011) considers this the *only* example of a direct link between Lutheran preaching and expulsion of Jews.

References:

- Backhaus, Fritz (1987) Judenfeindschaft und Judenvertreibungen im Mittelalter. Zur Ausweisung der Juden aus dem Mittelraum im 15. Jahrhundert, In: *Jahrbuch für die Geschichte Mittel- und Ostdeutschlands*. Vol. 46: pp. 276–332.
- Baron, Salo W. (1972) John Calvin and the Jews, in: *Ancient and Medieval Jewish History*, Rutgers University Press, Chapter 13, pp. 338–352.
- von Friedeburg, Robert (2016) *Luther's Legacy: The Thirty Years War and the Modern Notion of "State" in the Empire, 1530s to 1790s*, Cambridge: Cambridge University Press.
- Hahn, Peter-Michael (1979) *Struktur und Funktion des brandenburgischen Adels im 16. Jahrhundert* (= Historische und pädagogische Studien. Bd. 9). Colloquium-Verlag, Berlin.
- Kaufmann, Thomas (2011) *Luthers "Judenschriften"*, Mohr-Siebeck.
- Wolbe, Eugen (1937) *Geschichte der Juden in Berlin und in der Mark Brandenburg*, Verlag Kedem, Berlin.

Appendix D: Further Results using 19th-century Prussian county-level data

In this appendix, we add to the results in Section III.C. using 19th-century Prussian county-level data. We present important complementary pieces of evidence that support our theory.

The changes brought about by the Reformation meant that Jews faced an increasing competition in the moneylending sector in Protestant areas relative to Catholic areas. We would then expect them to reduce their specialization in the financial sector in Protestant areas and move out from those areas. We could not directly test this hypothesis using the city-level data in the centuries around the Reformation used in the rest of the paper, because data on Jewish lending at the city level are available only until 1519 (these data are collected from two sources, *Germania Judaica* 2 and *Germania Judaica* 3, that cover the history of Jewish communities in the German lands until 1519). However, the Prussian census of 1882 provides county-level information on the number of workers in different sectors of the economy by religious denomination. Using a pseudo-diff-in-diff framework, and a mix of pre-Reformation city-level data (aggregated to the Prussian county-level) and Prussian census data for 1882, we show here that the Reformation reduced the involvement of the Jews in the financial sectors in Protestant areas and moved them away from these areas. (Some IV estimates also complement the empirical analysis.)

We remind the reader that in the 1880s and 1890s, usury laws on Catholics had already been revoked and that, formally, Jews had equal rights to the majority population. This makes it likely that what we measure with the Prussian data is a reflection of a change in demography and occupational decisions, that followed the Reformation and persisted to the end of the 19th century.

D.1. Prussian county data at the end of the 19th century

For the post-Reformation period, we draw on Prussian census data (Becker et al. 2014). The county-level data available for Prussia in the 19th century are generally viewed as a unique source of highest-quality data for micro-regional analyses (Galloway, Hammel, and Lee (1994)). The Prussian Occupation Census of 1882 contains information on the number of Catholics, Jews, and Protestants in the population and in the work force in different occupations. The simplest and most obvious outcome is to look at the share of Jews in the county population to capture the residential pattern of Jewish communities at the end of the 19th century. This can be seen in Figure P.4. In contrast to our city-level dataset, for which we were only able to code binary indicators for

evidence of Jewish presence, the Prussian census data provides exact head counts.² The Occupation Census also allows us to compute market shares of various religious groups in different occupations. Our main outcome variable to capture Jewish dominance in finance is the share of those working in “banking and insurance” (briefly, finance) who were Jews, computed as $\#Jews(banking\&insurance)/\#All(banking\&insurance)$. We call this variable the Jewish “market share” in banking and insurance. Our hypothesis is that, after the Reformation, and over the long run, Jews lost their dominance in banking in Protestant areas.³

As the descriptive statistics in Table P.1, show, the average market share of Jews in finance across Prussian counties was 9.4 percent, which must be compared with the share of Jews in the Prussian population of only 1.1 percent. Figure P.5 displays the regional distribution of this variable. The Occupation Census gives separate data on banking and insurance and has two hierarchical levels: the higher hierarchical level is labeled “self-employed and directors,” and the lower level includes all other employees. Table P.1 reveals that the market share of Jews among the self-employed and company directors in banking was 27.5 percent, on average. Figure P.6 displays the regional distribution of this variable.

D.2. Results using Prussian county data at the end of the 19th century

We run cross-sectional regressions as follows:

$$Y_i = \alpha + \beta ShareProtestant_i + X_i\gamma + \varepsilon_i \quad (P.1)$$

The cross-sectional regressions at the end of the 19th century are interesting in their own right as they describe relevant patterns in the data. However, the cross-sectional nature of the data makes a causal interpretation of the link between Protestantism and the various outcomes less obvious. We pursue two ways to get closer to a causal interpretation, well aware that no identification strategy is perfect. First, we pursue a “pseudo difference-in-difference analysis” where we combine Prussian data at the end of the 19th century with pre-Reformation data. Second, we present

² We can use the Prussian Census data to check whether different data sources correspond to each other. In Table P.2, we regress the share of Jews in a Prussian county, according to Prussian census data, on the share of cities in the county which are listed in Alicke (2008) as having a Jewish community in 1800-1900. The results attest to the fact that both sources line up.

³ In an earlier version of the paper, we (mis-)labeled our measure as Jewish specialization in banking. Specialization, however, would be something different, namely $\#Jews(banking\&insurance)/\#Jews(work)$, the propensity of Jews to enter banking, which is not what our theory is about.

instrumental variables estimates, using distance to Wittenberg, the center of the Reformation in the predominantly Lutheran North of Germany, as an instrument.

In equation (P.1), Y_i can be an outcome $Y_{i,19C}$ measured at the end of the 19th century, using Prussian census data, or a pre-Reformation outcome $Y_{i,pre1500}$, for instance the presence of any Jewish community before 1500 in one of the Prussian counties.⁴ We combine outcomes post- and pre-Reformation to form a long difference, which mimics a fixed effects regression and is the closest equivalent to the difference-in-differences regressions we used in the main analysis on city-level data:

$$Y_{i,19C} - Y_{i,pre1500} = \alpha + \beta \text{ShareProtestant}_i + X_i\gamma + \varepsilon_i \quad (\text{P.2})$$

Since outcomes at the end of the 19th century are generally share variables whereas pre-Reformation outcomes are binary variables, we standardize both of them to have mean zero and standard deviation one before taking the first difference. As a result of the standardization, the magnitude of coefficients in the long difference regressions is not directly comparable to the cross-sectional estimates.

Regressions results are illustrated in Table P.3.

The first four columns illustrate the relationship between the Reformation and Jewish demography. Column 1 displays the results from a bivariate regression of the share of Jews in 1882 on the share of Protestants in a county in the same year. The coefficient of -0.00874 indicates that, on average, all-Protestant counties have a Jewish population that is 0.874 percentage points smaller than all-Catholic counties.⁵ Comparing this to a Jewish population share of 1 percent in the average Prussian county, this is a considerable difference and indicates that 350 years after the Reformation, Jews in Prussia are much more likely to co-reside with Catholics. Column 2 adds a list of control variables: the share of the population aged below 10, the share of females, the share born in the municipality, the share of Prussian origin, average household size, log population size, a dummy variable for counties that were part of Posen,⁶ and the share of the county population living in urban areas. The estimated coefficient on the share of Protestants is still negative and

⁴ We map the city-level data from Germania Judaica into the Prussian counties using ArcGIS.

⁵ Using data from the first-ever Prussian census of 1816, when Prussia consisted of 304 counties, show a similarly negative relationship: on average, all-Protestant counties have a Jewish population that is 1.42 percentage points smaller than all-Catholic counties.

⁶ Posen was included into Prussia in the early 19th century. Before that, Posen was part of the Polish-Lithuanian Commonwealth and it was an important center of Jewish communities that were not specialized at all in money lending. We thank a referee for suggesting this variable.

statistically significant, although its magnitude drops by a third. Column 3 runs a Placebo regression and uses as dependent variable an indicator variable equal to one if there was any Jewish community in the Prussian county before 1500. We find a negative coefficient again, but the magnitude of this coefficient (-0.051) is now small and close to zero, if we compare it to the mean of the dependent variable (0.601). Finally, column 4 uses the long difference as a dependent variable and estimates equation (7). The negative coefficient is consistent with a lower Jewish presence in Protestant areas at the end of 19th century compared to pre-Reformation times, although the coefficient is not statistically significant at conventional levels.

The second part of the table illustrates the relationship between the Reformation and the role of the Jews in the financial markets. In columns 5 and 6, the dependent variable is the market share of Jews in banking and insurance in 1882. As expected, this share is lower in Protestant areas at the end of the 19th century compared to Catholic areas.⁷ Specifically, the market share of Jews in banking and insurance is 8.8 percentage points lower in all-Protestant counties compared to all-Catholic counties⁸ and this result is only marginally affected when we add our set of controls.⁹ Column 7 runs a Placebo regression: the dependent variable is an indicator variable equal to one if there was any evidence of Jewish lending in the Prussian county before 1500. As can be seen the estimated coefficient is positive and not statistically significant at conventional levels. So, if anything, before the Reformation Jews were slightly more involved in lending in areas that became Protestant. Finally, column 8 uses the long difference as a dependent variable and estimates equation (7). The negative coefficient is consistent with a lower Jewish dominance of the financial markets in Protestant areas at the end of 19th century compared to pre-Reformation times, although the coefficient is not statistically significant at conventional levels.

⁷ In the working paper version of the paper, we document that this is true both when looking separately at specialization in banking, or in insurance, as well as for both sectors combined.

⁸ Table P.4 replicates the results of the last 4 columns of Table P.3 with the only difference that the measure of Jewish involvement in finance in 1882 is the Jewish share among the self-employed and company directors in banking and insurance (“upper hierarchy” level). The estimated coefficients in the OLS regressions are even larger. The estimates reported in column 1 implies that Jews have a 14 percentage points lower market share in upper hierarchy positions in all-Protestant counties compared to all-Catholic counties.

⁹ The results also hold, with smaller coefficient estimates, when we control for the size of the Jewish population. However, econometrically Jewish population is a “bad control”, given that we document a lower presence of Jews in earlier columns.

Using distance to Wittenberg as an instrumental variable

A caveat of the pseudo-diff-in-diff approach is that, since we have only one pre-Reformation period, we cannot test the parallel trends assumptions, as we do in the two main results parts of the paper. For this reason, here, we also conduct an IV analysis using distance to Wittenberg as an instrument for the share of Protestants in a Prussian county.

Note that distance to Wittenberg is used to predict the Lutheran variant of Protestantism that spread (mostly) across the Northern part of the Holy Roman Empire, i.e. in what became Prussia. Distance to Wittenberg is not necessarily appropriate for the rest of Germany, as the Reformed version of Protestantism arrives mainly from Switzerland (Calvin, Zwingli). We see this IV as perfectly suited for the Prussian context, but (a) do not think it is appropriate for Germany at large (outside Prussia) and also (b) not necessary as the d-d setup at the city-level is sensible in the long-panel context. This explains the asymmetry between the identification strategy used in the two main parts of the paper and to the one used here, where we complement the pseudo-diff-in-diff approach with cross-sectional IV estimates. Becker and Woessmann (2009) propose distance to Wittenberg as an instrument for the share of Protestants in 19th century Prussia, exploiting the concentric spread of the Reformation from Wittenberg, the birthplace of the Lutheran variant of Protestantism. The first stage equation, complementing equation (6) is the following:

$$ShareProtestant_i = \delta + \theta \cdot distWittenberg_i + X_i\eta + \vartheta_i \quad (P.3)$$

Table P.5 column 1 shows the first stage results: the share of Protestants falls rapidly with distance to Wittenberg: every 100 km of distance to Wittenberg is associated with a drop of 9.2 percentage points in the share of Protestants. Using the exogenous variation in the share of Protestants generated by distance to Wittenberg, we confirm the negative effect of the share of Protestants on the share of Jews (see column 2). These results are confirmed in columns 3 and 4, where we add the same control variables used in Table P.1.

Table P.6 goes beyond the banking results in Table P.3 in two ways. First, it probes the robustness of the results when considering counties with a certain minimum number of employees in banking and insurance. It is important to note that the banking and insurance sectors were quite small in 1882. On average, 0.07 percent of the labor force worked in banking and insurance.¹⁰ Several counties did not have a single employee (or only one, two, or three) in banking and

¹⁰ For comparison, the financial sector in Germany today employs approximately 2.5 percent of the workforce.

insurance. It is therefore a useful exercise to consider the subset of counties with at least one, two, three, or four employees. The results in panel A confirm the previous findings: there is a stronger Jewish specialization in banking and insurance in Catholic areas. In panel B, we repeat the analysis of panel A using distance to Wittenberg as an instrument for the share of Protestants in a county. The results are broadly confirmed, although at a somewhat lower level of statistical significance.

D.3 Summary of Prussian Results

We can summarize the results in this section as follows.

First, the OLS regressions show that 1) the Jewish share of the population is lower in Protestant areas than in Catholic areas, 2) the market share of Jews in banking is higher in Catholic areas than in Protestant areas.

Second, a mix of pseudo-diff-in-diff regressions and IV regressions suggests that these two facts are a result of the Reformation, which continued to exert a long shadow on Jewish history 350+ years after the Ninety-five Thesis of Martin Luther were posted on the door of All Saints' Church in Wittenberg.

Overall, the results illustrated in this appendix are consistent with the interpretation that the Reformation reduced the complementarities between the Jewish minority and the majority population. We interpret them as further evidence that the Reformation increased the competition in the financial sectors and this resulted in Jews reducing their share of the population, and losing their market dominance of the financial sector.

A Additional Tables and Figures

Table A.1: Descriptive Statistics

	Mean	Median	StdDev	Min	Max	N
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Observations: city X century (1300–1700)</i>						
Acts of Antisemitism (expulsions or killings)	.13	0	.34	0	1	5,192
Evidence of Jewish Presence	.69	1	.46	0	1	5,192
Presence of a school	.41	0	.49	0	1	5,192
Military Conflict: Battle near the city	.009	0	.09	0	1	5,192
Military Conflict: City besieged	.03	0	.18	0	1	5,192
Military Conflict: City sacked	.12	0	.32	0	1	5,192
Military Conflict: City partially destroyed	.03	0	.16	0	1	5,192
Military Conflict: City completely destroyed	.03	0	.18	0	1	5,192
Military Conflict: City occupied	.07	0	.25	0	1	5,192
Military Conflict: City involved in war	.03	0	.16	0	1	5,192
Population $\in [0; 5,000)$	.95	1	.22	0	1	4,653
Population $\in [5,000; 10,000)$	.03	0	.16	0	1	4,653
Population $\in [10,000; 15,000)$	.01	0	.11	0	1	4,653
Population $\in [15,000; 20,000)$	.004	0	.06	0	1	4,653
Population $\in [20,000; 25,000)$	.004	0	.06	0	1	4,653
Population $\in [25,000; 30,000)$	.002	0	.04	0	1	4,653
Population $\in [30,000; 35,000)$	.0004	0	.02	0	1	4,653
Population $\in [35,000; 40,000)$	.0002	0	.01	0	1	4,653
Population $\in [40,000; 45,000)$	.001	0	.04	0	1	4,653
Population $\in [45,000; 50,000)$	.0004	0	.02	0	1	4,653
<i>Panel B: Observations: cities</i>						
Protestant ruler in 1546	.51	1	.50	0	1	1,298
Protestant ruler in 1650	.61	1	.49	0	1	1,298
Jewish Lending before 1500	.25	0	.43	0	1	1,298
Number of sectors before 1500	1.37	1	2.19	0	21	1,298
Number of trade or trade-related sectors (before 1500)	.23	0	.52	0	4	1,298
<i>Panel C: Observations: city X decade in printing cities (1450–1600)</i>						
Number of anti-Jewish book titles	.11	0	.59	0	9.00	1,456
Share of anti-Jewish book titles	.003	0	.02	0	.33	523
Median prob. of anti-Jewish book title	.01	0	.03	0	.19	1,456
Number of books	40.20	0	144.44	0	1433.00	1,456

Notes: Panel A shows descriptive statistics for the set of 1,298 cities in the Deutsches Städtebuch over four centuries used in the main regressions, using city by century variation. Panel B shows descriptive statistics for variables for which we use no variation over time. Panel C shows descriptive statistics for the set of 91 cities in Germany with printing of German and Latin books in the period 1450–1600 that are used in Table 2.

Table A.2: Descriptive Statistics by Century

	c1300-1400	c1400-1500	c1500-1600	c1600-1700
	(1)	(2)	(3)	(4)
<i>Panel A: 1,298 cities in the Deutsches Städtebuch used in the main regressions</i>				
Acts of Antisemitism (expulsions or killings)	.28	.11	.09	.03
Evidence of Jewish Presence	.58	.65	.68	.83
Presence of a school	.13	.29	.47	.77
Military Conflict: Battle near the city	.007	.005	.005	.02
Military Conflict: City besieged	.02	.04	.02	.05
Military Conflict: City sacked	.01	.04	.09	.32
Military Conflict: City partially destroyed	.01	.01	.02	.07
Military Conflict: City completely destroyed	.02	.03	.02	.06
Military Conflict: City occupied	.02	.03	.05	.18
Military Conflict: City involved in war	.04	.04	.03	.003
<i>Panel B: 664 cities with a Protestant ruler in 1546</i>				
Acts of Antisemitism (expulsions or killings)	.27	.10	.12	.03
Evidence of Jewish Presence	.58	.66	.69	.84
Presence of a school	.12	.27	.46	.82
Military Conflict: Battle near the city	.008	.005	.006	.02
Military Conflict: City besieged	.03	.04	.02	.04
Military Conflict: City sacked	.009	.04	.06	.30
Military Conflict: City partially destroyed	.005	.01	.01	.06
Military Conflict: City completely destroyed	.01	.03	.02	.06
Military Conflict: City occupied	.02	.03	.03	.16
Military Conflict: City involved in war	.04	.05	.03	.002
<i>Panel C: 634 cities with a Catholic ruler in 1546</i>				
Acts of Antisemitism (expulsions or killings)	.29	.13	.06	.03
Evidence of Jewish Presence	.59	.64	.67	.82
Presence of a school	.15	.32	.47	.72
Military Conflict: Battle near the city	.006	.006	.005	.02
Military Conflict: City besieged	.009	.04	.02	.05
Military Conflict: City sacked	.02	.05	.12	.35
Military Conflict: City partially destroyed	.02	.01	.03	.08
Military Conflict: City completely destroyed	.03	.03	.02	.06
Military Conflict: City occupied	.02	.02	.06	.20
Military Conflict: City involved in war	.03	.03	.02	.005

Notes: Panel A shows descriptive statistics by century for the set of 1,298 cities in the Deutsches Städtebuch used in the main regressions. Panel B is for set of 664 cities that have a Protestant ruler in 1546. Panel C is for set of 634 cities that have a Catholic ruler in 1546.

Table A.3: Length of entry (# pages) in the Deutsches Städtebuch: Protestant vs Catholic cities

	Mean	5th	25th	50th	75th	95th	N
		percentile					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Cities with Catholic ruler in 1546	3.29	1.00	2.00	2.00	4.00	8.00	634
Cities with Protestant ruler in 1546	3.05	1.00	1.00	2.00	3.00	8.00	664
All cities	3.16	1.00	2.00	2.00	3.00	8.00	1,298

Notes: Table shows descriptive statistics of time-constant variables for the set of 1,298 cities in the Deutsches Städtebuch used in the main regressions.

Table A.4: Anti-semitism before and after Protestant Reformation: cities with a Jewish community before the Reformation

	(1)	(2)	(3)
Dependent variable:	Pogrom happened in the century		
Protestant X After	0.066 (0.027)	0.072 (0.027)	0.077 (0.028)
Century Dummies	✓	✓	✓
Presence of School (and interact. with After)	✓		
Military Conflicts (and interact. with After)		✓	
Population brackets (and interact. with After)			✓
Mean Dep. Var.	0.203	0.203	0.183
R ² (within)	0.208	0.203	0.218
Observations	3,164	3,164	2,720
Number of Cities	791	791	707

Notes: Sample of cities with a Jewish community before the Reformation (i.e. city in Germania Judaica vol 2 or 3). The sample period is 1300–1700. The table reports estimates from panel regressions with city fixed effects. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities that had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level.

Table A.5: Anti-semitism before and after Protestant Reformation: different types of standard errors

Dependent variable: Sample:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Pogrom happened in the century						
	Main sample		Cities with Jews <1500		Main sample		
Protestant 1546 X After	.052	.050	.078	.071	.049	.050	.051
Clustered s.e.	(.018)	(.017)	(.027)	(.026)	(.018)	(.018)	(.018)
Conley s.e. (50km)	[.017]	[.016]	[.024]	[.023]	[.017]	[.017]	[.016]
Conley s.e. (100km)	[.021]	[.019]	[.029]	[.027]	[.021]	[.021]	[.020]
Conley s.e. (500km)	[.020]	[.019]	[.028]	[.026]	[.020]	[.020]	[.017]
Century Dummies	✓	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.129	0.129	0.203	0.203	0.129	0.129	0.114
R ²	0.104	0.190	0.194	0.267	0.122	0.114	0.128
Observations	5,192	5,192	3,164	3,164	5,192	5,192	4,588
Number of Clusters	1,298	1,298	791	791	1,298	1,298	1,178

Notes: The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities that had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level. Additional standard errors in square brackets are Conley standard errors accounting for potential spatial correlation up to a cutoff of 50, 100 or 500km. We use code provided by Thiemo Fetzer and Solomon Hsiang.

Table A.6: Diff-in-diff with time-varying coefficients on Protestantism

Dependent variable: Sample:	(1)	(2)	(3)	(4)	(5)	(6)
	Pogrom happened in the century					
	Main sample		Cities with Jews <1500		Main sample	
Protestant X 1400-1500	-0.003 (0.026)	-0.009 (0.026)	-0.014 (0.042)	-0.019 (0.040)	0.012 (0.015)	0.010 (0.015)
Protestant X 1500-1600	0.079 (0.028)	0.074 (0.026)	0.113 (0.042)	0.102 (0.040)	0.060 (0.016)	0.048 (0.015)
Protestant X 1600-1700	0.022 (0.026)	0.016 (0.024)	0.028 (0.038)	0.021 (0.036)	0.034 (0.016)	0.023 (0.014)
Century Dummies	✓	✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)		✓		✓		✓
Mean Dep. Var.	0.129	0.129	0.203	0.203	0.072	0.072
R ² (within)	0.106	0.192	0.196	0.268	0.061	0.158
Observations	5,192	5,192	3,164	3,164	9,376	9,376
Number of Cities	1,298	1,298	791	791	2,344	2,344

Notes: The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. Protestant is a dummy variable that identifies cities that had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level.

Table A.7: Anti-semitism before and after Protestant Reformation: All cities in the Deutsches Städtebuch

Dependent variable:	(1)	(2)	(3)	(4)	(5)
	Pogrom happened in the century				
Protestant X After	0.041 (0.011)	0.030 (0.010)	0.038 (0.011)	0.036 (0.011)	0.037 (0.010)
Century Dummies	✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)		✓			
Presence of School (and interact. with After)			✓		
Military Conflicts (and interact. with After)				✓	
Population brackets (and interact. with After)					✓
Mean Dep. Var.	0.072	0.072	0.072	0.072	0.061
R ² (within)	0.060	0.157	0.077	0.072	0.085
Observations	9,376	9,376	9,376	9,376	8,667
Number of Cities	2,344	2,344	2,344	2,344	2,202

Notes: Sample of all cities in the Deutsches Städtebuch. The sample period is 1300–1700. The table reports estimates from panel regressions with city fixed effects. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities that had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level.

Table A.8: Excluding regions one by one and excluding modern-day Poland

Dependent variable:	Pogrom happened in the century					
Excluding the following region:	(1) Baden	(2) Bayern	(3) Brandenburg	(4) Hessen	(5) Mecklenburg	(6) Niedersachsen
Protestant X After	0.053 (0.019)	0.032 (0.019)	0.037 (0.019)	0.042 (0.020)	0.056 (0.019)	0.054 (0.019)
Century Dummies	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.125	0.117	0.129	0.135	0.131	0.134
R ² (within)	0.096	0.091	0.115	0.107	0.107	0.110
Observations	4,856	4,380	4,908	4,632	5,048	4,792
Number of Cities	1,214	1,095	1,227	1,158	1,262	1,198
	(7) Pommern	(8) Rheinland	(9) Rheinland-Pfalz	(10) Saarland	(11) Sachsen	(12) Sachsen-Anhalt
Protestant X After	0.048 (0.019)	0.043 (0.019)	0.050 (0.019)	0.054 (0.019)	0.057 (0.019)	0.053 (0.019)
Century Dummies	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.134	0.128	0.126	0.129	0.129	0.124
R ² (within)	0.110	0.097	0.093	0.105	0.104	0.106
Observations	4,924	4,884	4,884	5,160	5,084	4,852
Number of Cities	1,231	1,221	1,221	1,290	1,271	1,213
	(13) Schlesien	(14) Schleswig-Holstein	(15) Thüringen	(16) Westfalen	(17) Württemberg	(18) Poland
Protestant X After	0.061 (0.019)	0.051 (0.019)	0.057 (0.019)	0.070 (0.020)	0.069 (0.019)	0.057 (0.020)
Century Dummies	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.128	0.130	0.128	0.138	0.128	0.136
R ² (within)	0.110	0.105	0.104	0.117	0.100	0.118
Observations	4,920	5,152	5,036	4,688	4,872	4,596
Number of Cities	1,230	1,288	1,259	1,172	1,218	1,149

Notes: Columns 1 through 17 exclude one region covered in the Deutsches Städtebuch at a time. Column 18 excludes cities in modern-day Poland. The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities that had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level.

Table A.9: Protestant ruler in 1650

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Pogrom happened in the century						
Sample:	Main sample		Cities with Jews <1500		Main sample		
Protestant 1650 X After	0.072 (0.019)	0.069 (0.018)	0.084 (0.028)	0.099 (0.026)	0.069 (0.019)	0.071 (0.019)	0.079 (0.019)
Century Dummies	✓	✓	✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)		✓		✓			
Presence of School (and interact. with After)					✓		
Military Conflicts (and interact. with After)						✓	
Population brackets (and interact. with After)							✓
Mean Dep. Var.	0.129	0.129	0.203	0.203	0.129	0.129	0.114
R ² (within)	0.106	0.192	0.195	0.269	0.123	0.116	0.131
Observations	5,192	5,192	3,164	3,164	5,192	5,192	4,588
Number of Cities	1,298	1,298	791	791	1,298	1,298	1,178

Notes: Main sample of cities in the Deutsches Städtebuch. The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant 1650 is a dummy variable that identifies cities that had a Protestant ruler in 1650. Standard errors (reported in parentheses) are clustered at the city level.

Table A.10: Excluding cities that returned to Catholicism after being Protestant in 1546

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Pogrom happened in the century						
Sample:	Main sample		Cities with Jews <1500		Main sample		
Protestant 1650 X After	0.078 (0.022)	0.075 (0.019)	0.099 (0.030)	0.105 (0.028)	0.075 (0.021)	0.076 (0.021)	0.081 (0.021)
Century Dummies	✓	✓	✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)		✓		✓			
Presence of School (and interact. with After)					✓		
Military Conflicts (and interact. with After)						✓	
Population brackets (and interact. with After)							✓
Mean Dep. Var.	0.133	0.133	0.206	0.206	0.133	0.133	0.118
R ² (within)	0.117	0.207	0.213	0.291	0.136	0.130	0.145
Observations	4,236	4,236	2,620	2,620	4,236	4,236	3,750
Number of Cities	1,059	1,059	655	655	1,059	1,059	963

Notes: Sample of cities in the Deutsches Städtebuch excluding cities that returned to Catholicism after being Protestant in 1650. The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities that had a Protestant ruler in 1650. Standard errors (reported in parentheses) are clustered at the city level.

Table A.11: Calvinist vs Lutheran rulers in 1650

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Pogrom happened in the century						
Sample:	Main sample		Cities with Jews <1500		Main sample		
Lutheran 1650 X After	0.059 (0.022)	0.074 (0.020)	0.096 (0.030)	0.113 (0.028)	0.057 (0.022)	0.056 (0.022)	0.062 (0.021)
Calvinist 1650 X After	0.110 (0.022)	0.076 (0.021)	0.109 (0.038)	0.102 (0.037)	0.096 (0.021)	0.109 (0.022)	0.093 (0.021)
Century Dummies	✓	✓	✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)		✓		✓			
Presence of School (and interact. with After)					✓		
Military Conflicts (and interact. with After)						✓	
Population brackets (and interact. with After)							✓
Mean Dep. Var.	0.129	0.129	0.203	0.203	0.129	0.129	0.114
R ² (within)	0.109	0.192	0.196	0.270	0.125	0.118	0.131
Observations	5,192	5,192	3,164	3,164	5,192	5,192	4,588
Number of Cities	1,298	1,298	791	791	1,298	1,298	1,178

Notes: Main sample of cities in the Deutsches Städtebuch. The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Lutheran 1650 is a dummy variable that identifies cities that had a Lutheran ruler in 1650. Calvinist 1650 is a dummy variable that identifies cities that had a Calvinist ruler in 1650. Standard errors (reported in parentheses) are clustered at the city level.

Table A.12: Excluding big pogrom waves and the 14th and 15th century

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Pogrom happened in the century						
	excluding pogroms in					excl. obs. in the	
	1337	1347-1350	1450	1492	1510	14th C	15th C
Protestant X After	0.048 (0.018)	0.040 (0.016)	0.050 (0.018)	0.051 (0.018)	0.039 (0.018)	0.054 (0.019)	0.051 (0.026)
Century Dummies	✓	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.126	0.081	0.127	0.127	0.125	0.080	0.134
R ² (within)	0.096	0.018	0.106	0.107	0.111	0.027	0.139
Observations	5,192	5,192	5,192	5,192	5,192	3,894	3,894
Number of Cities	1,298	1,298	1,298	1,298	1,298	1,298	1,298

Notes: Columns 1 through 5 exclude big pogrom waves. Column 6 excludes the 14th century, column 7 excludes the 15th century. The table reports estimates from panel regressions with city fixed effects, corresponding to Table 1, column 1. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities that had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level.

Table A.13: Anti-Jewish book titles: different minimum numbers of editions

Dependent variable: Number of anti-Jewish titles					
	(1)	(2)	(3)	(4)	(5)
Estimation method:	Poisson model with FE				
Sample: Cities with at least	1 book	5 books	25 books	50 books	100 books
Protestant X After Reformation	1.337 (0.724)	1.363 (0.723)	1.390 (0.722)	1.532 (0.749)	1.512 (0.753)
Decade dummies	✓	✓	✓	✓	✓
Mean Dep. Var.	0.300	0.307	0.314	0.340	0.359
R ² (within)					
Observations	560	544	528	480	448

Notes: The table reports Poisson regressions with fixed effects. The sample period is 1450–1600. The unit of observation is city by decade. After (Reformation) is dummy variable equal to one for decades starting with the decade 1510–1519. Cities which have a different religion with respect to the surrounding territory are excluded. Standard errors (reported in parentheses) are clustered at the city level.

Table A.14: Anti-Jewish book titles: Unweighted regressions

	(1)	(2)	(3)	(4)
Estimation method:	Panel FE			
Dependent variable:	Share anti-Jewish titles		Median prob. anti-Jewish title	
Protestant X After Reformation	0.002 (0.002)	0.002 (0.002)	0.005 (0.006)	0.005 (0.006)
Number of books		0.000 (0.000)		0.000 (0.000)
Decade dummies	✓	✓	✓	✓
Mean Dep. Var.	0.003	0.003	0.010	0.010
R ² (within)	0.036	0.037	0.094	0.094
Observations	523	523	1,456	1,456

Notes: The table reports estimates from panel regressions with city fixed effects, as indicated in column header. The sample period is 1450–1600. The unit of observation is city by decade. After (Reformation) is dummy variable equal to one for decades starting with the decade 1510–1519. Cities which have a different religion with respect to the surrounding territory are excluded. Standard errors (reported in parentheses) are clustered at the city level.

Table A.15: Controlling for religious books and ordinances & edicts: USTC data

Estimation method:	(1) Poisson model with FE	(2) Poisson model with FE	(3) Panel FE	(4) Panel FE	(5) Panel FE	(6) Panel FE
Dependent variable:	Number of anti-Jewish titles		Share anti-Jewish titles		Median prob. anti-Jewish title	
Protestant X After Reformation	1.0716 (0.5459)	1.0698 (0.5296)	0.0028 (0.0016)	0.0025 (0.0016)	0.0312 (0.0172)	0.0378 (0.0135)
Number of books	0.0029 (0.0005)	0.0015 (0.0005)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
Decade dummies	✓	✓	✓	✓	✓	✓
Nr. relig. books, ordinances & edicts		✓		✓		✓
Mean Dep. Var.	0.314	0.314	0.003	0.003	0.023	0.023
R ² (within)			0.056	0.063	0.483	0.501
Observations	528	528	523	523	1,456	1,456

Notes: The table reports estimates from panel regressions with city fixed effects, as indicated in column header. The sample period is 1450–1600. The unit of observation is city by decade. Estimates in columns 3 through 6 are weighted by the total number of books printed in a city during the sample period. After (Reformation) is a dummy variable equal to one for decades starting with the decade 1510–1519. Cities which have a different religion with respect to the surrounding territory are excluded. Standard errors (reported in parentheses) are clustered at the city level.

Table A.16: Anti-Jewish book titles: Protestant cities with Protestant surroundings and with Catholic surroundings

Estimation method:	(1) Poisson Model with FE	(2) Poisson Model with FE	(3) Panel FE	(4) Panel FE	(5) Panel FE	(6) Panel FE
Dependent variable:	Number of anti-Jewish titles		Share anti-Jewish titles		Median prob. anti-Jewish title	
Protestant city in Protestant region X Post	1.390 (0.722)	1.054 (0.580)	0.003 (0.001)	0.003 (0.002)	0.036 (0.015)	0.034 (0.016)
Protestant city in Catholic region X Post	-0.027 (0.499)	-0.592 (0.553)	-0.003 (0.002)	-0.003 (0.002)	0.010 (0.021)	0.008 (0.022)
Number of books		0.002 (0.000)		-0.000 (0.000)		0.000 (0.000)
Decade dummies	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.385	0.385	0.004	0.004	0.024	0.024
R ² (within)			0.089	0.094	0.434	0.438
Observations	672	672	689	689	1,728	1,728

Notes: The table reports estimates from panel regressions with city fixed effects, as indicated in column header. The sample period is 1450–1600. The unit of observation is city by decade. After (Reformation) is dummy variable equal to one for decades starting with the decade 1510–1519. Standard errors (reported in parentheses) are clustered at the city level.

Table A.17: Anti-Jewish book titles: Controlling for presence of schools

Estimation method:	(1) Poisson Model with FE	(2) Poisson Model with FE	(3) Panel FE	(4) Panel FE	(5) Panel FE	(6) Panel FE
Dependent variable:	Number of anti-Jewish titles		Share anti-Jewish titles		Median prob. anti-Jewish title	
Protestant X After Reformation	1.364 (0.727)	0.952 (0.469)	0.003 (0.002)	0.003 (0.002)	0.036 (0.014)	0.030 (0.015)
Number of books		0.003 (0.000)		0.000 (0.000)		0.000 (0.000)
Decade dummies	✓	✓	✓	✓	✓	✓
Presence of School (and interact. with After)	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.314	0.314	0.003	0.003	0.023	0.023
R ² (within)			0.051	0.067	0.466	0.503
Observations	528	528	523	523	1,456	1,456

Notes: The table reports estimates from panel regressions with city fixed effects, as indicated in column header. The sample period is 1450–1600. The unit of observation is city by decade. After (Reformation) is dummy variable equal to one for decades starting with the decade 1510–1519. Cities which have a different religion with respect to the surrounding territory are excluded. Standard errors (reported in parentheses) are clustered at the city level.

Table A.18: Descriptive Statistics of the variables in Voigtlander and Voth (2012)

	<i>Mean</i>	<i>Median</i>	<i>St Dev</i>	<i>Min</i>	<i>Max</i>	<i>N</i>
	(1)	(2)	(3)	(4)	(5)	(6)
Pogroms 1349	0.72	1.00	0.45	0.00	1.00	325.00
Pogroms 1920s	0.06	0.00	0.24	0.00	1.00	320.00
Synagogues destroyed or damaged in 1938	0.77	1.00	0.42	0.00	1.00	325.00
Vote share NSDAP May 1928	0.04	0.02	0.05	0.00	0.31	325.00
Vote share DVFP May 1924	0.08	0.04	0.10	0.00	0.59	325.00
Number of deportees	197.06	21.00	839.46	0.00	10,049.00	301.00
Number anti-semitic letters to Sturmer	3.77	1.00	10.72	0.00	110.00	325.00
Protestant in 1546	0.43	0.00	0.50	0.00	1.00	324.00

Notes: Data from Voigtlander and Voth (2012) used in next table.

Table A.19: Anti-Semitism before the Protestant Reformation and in the early 20th century

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	1920s	Synagogue	NSDAP 1928	DVFP 1924	Deportations	Sturmer	First Principal
	pograms	attacks				Letters	Component
Protestant X After	0.499	0.063	0.612	0.544	0.060	0.086	0.600
After Reformation	(0.207)	(0.142)	(0.172)	(0.179)	(0.147)	(0.162)	(0.175)
	✓	✓	✓	✓	✓	✓	✓
R ² (within)	0.326	0.458	0.445	0.396	0.549	0.422	0.468
Observations	638	638	638	638	614	638	628
Number of Cities	319	319	319	319	319	319	319

Notes: The table reports OLS estimates. The unit of observation is city by year. After (Reformation) is a dummy variable that identifies the observations after 1517. Protestant (1546) is a dummy variable that identifies cities that were Protestant in 1546. Anti-semitism in the 14th century is proxied by 1349 pogroms, while anti-Semitism in the 20th century is proxied by either pogroms in the 1920s, or synagogue attacks in 1938, or vote share for NSDAP in 1928, or vote share for DVFP in 1925, or number of deportees from each locality, or number of anti-semitic letters to Der Sturmer, or from a first principal component of these six proxies. Standard errors (reported in parentheses) are clustered at the city level.

Table A.20: Diff-in-diff-in-diff results with various additional controls

	(1)	(2)	(3)	(4)
Estimation method:	OLS Difference-in-Difference-in-Difference			
Dependent variable:	Pogrom happened in the century			
Protestant X After	0.019 (0.017)	0.015 (0.017)	0.016 (0.018)	0.019 (0.018)
Protestant X (Pre-1500 Jew. Lending) X After	0.117 (0.046)	0.126 (0.047)	0.126 (0.048)	0.112 (0.050)
Century Dummies	✓	✓	✓	✓
Pre-1500 Jewish Lending X After	✓	✓	✓	✓
Jewish Presence (and interact. with After)	✓			
Presence of School (and interact. with After)		✓		
Military Conflicts (and interact. with After)			✓	
Population brackets (and interact. with After)				✓
Mean Dep. Var.	0.129	0.129	0.129	0.114
R ² (within)	0.207	0.156	0.156	0.155
Observations	5,192	5,192	5,192	4,588
Number of Cities	1,298	1,298	1,298	1,178

Notes: The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities which had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level.

Table A.21: Diff-in-diff-in-diff results: First stage estimates

	(1)	(2)
Dependent variable:	Protestant X (Pre-1500 Jew. Lending) X After X	(Pre-1500 Jew. Lending) X After
Protestant X After	0.212 (0.017)	-0.003 (0.025)
Number of Pre-1500 trade-(related) sectors X After	-0.031 (0.009)	0.140 (0.039)
Protestant X Number of Pre-1500 trade-(related) sectors X After	0.169 (0.031)	-0.010 (0.048)
Century Dummies	✓	✓
Number of Sectors pre-1500 X After	✓	✓
Mean Dep. Var.	0.064	0.126
R ² (within)	0.288	0.291
Observations	5,192	5,192
Number of Cities	1,298	1,298

Notes: The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities which had a Protestant ruler in 1546. First stage of instrumental variables regressions with city fixed effects, where the endogenous variables are (Protestant X Pre-1500 Jew. Lending X After) and (Pre-1500 Jew. Lending X After), and the excluded instruments are (Number of pre-1500 trade-(related) sectors X After) and (Protestant X Number of Pre-1500 trade-(related) sectors X After). Standard errors (reported in parentheses) are clustered at the city level.

Table A.22: Diff-in-diff-in-diff results: Reduced form estimates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Pogrom happened in the century						
Protestant X After	0.027 (0.019)	0.026 (0.018)	0.048 (0.029)	0.041 (0.028)	0.027 (0.019)	0.025 (0.019)	0.025 (0.019)
Number of Pre-1500 trade-(related) sectors X After	-0.148 (0.032)	-0.117 (0.029)	-0.146 (0.036)	-0.103 (0.034)	-0.118 (0.032)	-0.142 (0.032)	-0.062 (0.035)
Protestant X Number of Pre-1500 trade-(related) sectors X After	0.099 (0.040)	0.099 (0.036)	0.101 (0.046)	0.104 (0.043)	0.090 (0.040)	0.100 (0.040)	0.126 (0.041)
Century Dummies	✓	✓	✓	✓	✓	✓	✓
Number of Sectors pre-1500 X After	✓	✓	✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)		✓		✓			
Military Conflicts (and interact. with After)						✓	
Presence of School (and interact. with After)					✓		
Population brackets (and interact. with After)							✓
Mean Dep. Var.	0.129	0.129	0.203	0.203	0.129	0.129	0.114
R ² (within)	0.120	0.197	0.204	0.272	0.130	0.127	0.134
Observations	5,192	5,192	3,164	3,164	5,192	5,192	4,588
Number of Cities	1,298	1,298	791	791	1,298	1,298	1,178

Notes: The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities which had a Protestant ruler in 1546. All columns show reduced form regressions using two excluded instruments: (Number of pre-1500 trade-(related) sectors X After) and (Protestant X Number of Pre-1500 trade-(related) sectors X After). Standard errors (reported in parentheses) are clustered at the city level.

Table A.23: Diff-in-diff-in-diff results: Cities with a Jewish community before the Reformation

	(1)	(2)	(3)
Dependent variable:	Pogrom happened in the century		
Protestant X After	-0.182 (0.148)	-0.172 (0.151)	-0.426 (0.329)
Protestant X (Pre-1500 Jew. Lending) X After	0.610 (0.345)	0.587 (0.349)	1.451 (1.073)
Century Dummies	✓	✓	✓
Pre-1500 Jewish Lending X After	✓	✓	✓
Number of Sectors pre-1500 X After	✓	✓	✓
Presence of School (and interact. with After)	✓		
Military Conflicts (and interact. with After)		✓	
Population brackets (and interact. with After)			✓
Mean Dep. Var.	0.203	0.203	0.183
Cragg-Donald Wald F statistic	13.498	19.457	0.595
Kleibergen-Paap rk Wald F statistic	5.467	6.965	0.232
Observations	3,164	3,164	2,720
Number of Cities	791	791	707

Notes: Sample of cities with a Jewish community before the Reformation. The sample period is 1300–1700. The table presents results corresponding to columns 8 through 10 in Table 4. Estimates are from instrumental variables regressions with city fixed effects, where the endogenous variables are (Protestant X Pre-1500 Jew. Lending X After) and (Pre-1500 Jew. Lending X After), and the excluded instruments are (Number of pre-1500 trade-(related) sectors X After) and (Protestant X Number of Pre-1500 trade-(related) sectors X After). The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities which had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level.

Table A.24: Anti-semitism before and after Protestant Reformation: cities without and with a School before 1500

Dependent variable:	(1)	(2)	(3)
	Pogrom happened in the century		
Sample:	Without	With	Sample with
	pre-1500	School	info on schools
Protestant X After	0.057 (0.022)	0.057 (0.031)	0.057 (0.022)
Pre-1500 School X After			-0.113 (0.028)
Protestant X Pre-1500 School X After			-0.000 (0.038)
Century Dummies	✓	✓	✓
Mean Dep. Var.	0.085	0.180	0.134
R ² (within)	0.072	0.147	0.118
Observations	2,448	2,528	4,976
Number of Cities	612	632	1,244

Notes: Sample of cities with any information about schools. The sample period is 1300–1700. The table reports estimates from panel regressions with city fixed effects. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities that had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level.

Table A.25: Diff-in-diff-in-diff results: All cities in the Deutsches Städtebuch

Dependent variable: Pogrom happened in the century								
Estimation method:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS Diff-in-Diff-in-Diff			IV Difference-in-difference-in-differences estimates				
Sample:	Without	With	Main	Main sample				
	pre-1500	Lending	sample					
Protestant X After	0.012 (0.009)	0.152 (0.044)	0.012 (0.009)	-0.043 (0.027)	-0.037 (0.025)	-0.047 (0.029)	-0.040 (0.027)	-0.056 (0.035)
Protestant X (Pre-1500 Jew. Lending) X After			0.140 (0.045)	0.453 (0.172)	0.436 (0.163)	0.464 (0.179)	0.429 (0.171)	0.697 (0.236)
Century Dummies	✓	✓	✓	✓	✓	✓	✓	✓
Pre-1500 Jewish Lending X After			✓	✓	✓	✓	✓	✓
Number of Sectors pre-1500 X After				✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)					✓			
Presence of School (and interact. with After)						✓		
Military Conflicts (and interact. with After)							✓	
Population brackets (and interact. with After)								✓
Mean Dep. Var.	0.039	0.273	0.072	0.072	0.072	0.072	0.072	0.061
R ² (within)	0.028	0.271	0.123					
Cragg-Donald Wald F statistic				88.316	52.741	47.359	69.457	4.860
Kleibergen-Paap rk Wald F statistic				15.786	10.437	9.671	12.952	1.122
Observations	8,052	1,324	9,376	9,376	9,376	9,376	9,376	8,667
Number of Cities	2,013	331	2,344	2,344	2,344	2,344	2,344	2,202

Notes: The table presents results corresponding to columns 1 through 5 and columns 8 through 10 in Table 4. The sample period is 1300–1700. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities which had a Protestant ruler in 1546. Columns 1 through 3 apply OLS to panel regressions with city fixed effects. Columns 4 through 10 show instrumental variables regressions with city fixed effects, where the endogenous variables are (Protestant X Pre-1500 Jew. Lending X After) and (Pre-1500 Jew. Lending X After), and the excluded instruments are (Number of pre-1500 trade-(related) sectors X After) and (Protestant X Number of Pre-1500 trade-(related) sectors X After). Standard errors (reported in parentheses) are clustered at the city level.

Table A.26: Diff-in-diff-in-diff results: Excluding regions one by one and excluding modern-day Poland

Dependent variable:	Pogrom happened in the century					
Excluding the following region:	(1)	(2)	(3)	(4)	(5)	(6)
	Baden	Bayern	Brandenburg	Hessen	Mecklenburg	Niedersachsen
Protestant X After	-0.154 (0.076)	-0.080 (0.054)	-0.096 (0.065)	-0.094 (0.068)	-0.093 (0.065)	-0.060 (0.064)
Protestant X (Pre-1500 Jew. Lending) X After	0.755 (0.272)	0.511 (0.230)	0.498 (0.239)	0.553 (0.250)	0.536 (0.235)	0.416 (0.233)
Century Dummies	✓	✓	✓	✓	✓	✓
Pre-1500 Jewish Lending X After	✓	✓	✓	✓	✓	✓
Number of Sectors pre-1500 X After	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.125	0.117	0.129	0.135	0.131	0.134
Cragg-Donald Wald F statistic	32.540	34.433	41.552	37.608	42.706	40.167
Kleibergen-Paap rk Wald F statistic	9.610	7.966	13.109	10.385	12.259	11.356
Observations	4,856	4,380	4,908	4,632	5,048	4,792
Number of Cities	1,214	1,095	1,227	1,158	1,262	1,198
	(7)	(8)	(9)	(10)	(11)	(12)
	Pommern	Rheinland	Rheinland-Pfalz	Saarland	Sachsen	Sachsen-Anhalt
Protestant X After	-0.088 (0.065)	-0.087 (0.066)	-0.070 (0.064)	-0.087 (0.063)	-0.091 (0.063)	-0.077 (0.061)
Protestant X (Pre-1500 Jew. Lending) X After	0.526 (0.236)	0.488 (0.247)	0.528 (0.250)	0.531 (0.233)	0.551 (0.236)	0.486 (0.231)
Century Dummies	✓	✓	✓	✓	✓	✓
Pre-1500 Jewish Lending X After	✓	✓	✓	✓	✓	✓
Number of Sectors pre-1500 X After	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.134	0.128	0.126	0.129	0.129	0.124
Cragg-Donald Wald F statistic	44.378	36.265	34.342	41.734	41.281	43.179
Kleibergen-Paap rk Wald F statistic	13.818	11.456	7.331	12.094	11.272	12.443
Observations	4,924	4,884	4,884	5,160	5,084	4,852
Number of Cities	1,231	1,221	1,221	1,290	1,271	1,213
	(13)	(14)	(15)	(16)	(17)	(18)
	Schlesien	Schleswig-Holstein	Thuringen	Westfalen	Wuerttemberg	Poland
Protestant X After	-0.081 (0.068)	-0.089 (0.062)	-0.100 (0.060)	-0.097 (0.067)	-0.075 (0.062)	-0.088 (0.073)
Protestant X (Pre-1500 Jew. Lending) X After	0.528 (0.253)	0.535 (0.230)	0.584 (0.224)	0.519 (0.227)	0.552 (0.236)	0.537 (0.263)
Century Dummies	✓	✓	✓	✓	✓	✓
Pre-1500 Jewish Lending X After	✓	✓	✓	✓	✓	✓
Number of Sectors pre-1500 X After	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.128	0.130	0.128	0.138	0.128	0.136
Cragg-Donald Wald F statistic	36.713	42.962	47.135	44.523	37.871	36.952
Kleibergen-Paap rk Wald F statistic	11.073	12.589	14.204	11.458	9.380	11.290
Observations	4,920	5,152	5,036	4,688	4,872	4,596
Number of Cities	1,230	1,288	1,259	1,172	1,218	1,149

Notes: Columns 1 through 17 exclude one region covered in the Deutsches Städtebuch at a time. Column 18 excludes cities in modern-day Poland. The sample period is 1300–1700. All columns show instrumental variables regressions with city fixed effects, where the endogenous variables are (Protestant X Pre-1500 Jew. Lending X After) and (Pre-1500 Jew. Lending X After), and the excluded instruments are (Number of pre-1500 trade-(related) sectors X After) and (Protestant X Number of Pre-1500 trade-(related) sectors X After). After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities that had a Protestant ruler in 1546. Standard errors (reported in parentheses) are clustered at the city level.

Table A.27: Diff-in-diff-in-diff results: Longer panel for the years 1300–1900

Dependent Variable: Pogrom happened in the century										
Estimation method:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	OLS Diff-in-Diff-in-Diff			IV Difference-in-difference-in-differences estimates						
	Without pre-1500	With Lending	Main sample	Main sample		Cities with Jews <1500		Main sample		
Sample:	OLS			Diff-in-Diff-in-Diff 2SLS						
Protestant X After	0.016 (0.015)	0.090 (0.041)	0.016 (0.015)	-0.063 (0.058)	-0.067 (0.056)	-0.123 (0.143)	-0.138 (0.132)	-0.067 (0.061)	-0.058 (0.058)	-0.115 (0.067)
Protestant X (Pre-1500 Jew. Lending) X After			0.074 (0.044)	0.368 (0.213)	0.381 (0.206)	0.415 (0.326)	0.448 (0.304)	0.379 (0.225)	0.345 (0.214)	0.631 (0.271)
Century Dummies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-1500 Jewish Lending X After			✓	✓	✓	✓	✓	✓	✓	✓
Number of Sectors pre-1500 X After				✓	✓	✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)					✓		✓			
Presence of School (and interact. with After)								✓		
Military Conflicts (and interact. with After)									✓	
Population brackets (and interact. with After)										✓
Mean Dep. Var.	0.055	0.188	0.089	0.089	0.089	0.138	0.138	0.089	0.089	0.078
R ² (within)	0.073	0.327	0.190							
Cragg-Donald Wald F statistic				71.332	58.643	40.457	36.696	35.891	57.057	3.543
Kleibergen-Paap rk Wald F statistic				12.327	10.221	8.317	8.052	6.893	9.690	0.637
Observations	5,820	1,968	7,788	7,788	7,788	4,746	4,746	7,788	7,788	7,106
Number of Cities	970	328	1,298	1,298	1,298	791	791	1,298	1,298	1,260

Notes: Main sample of cities in the Deutsches Städtebuch. The sample period is 1300–1900. The table reports estimates from panel regressions with city fixed effects. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500-1600 and later. Protestant is a dummy variable that identifies cities which had a Protestant ruler in 1546. Columns 1 through 3 apply OLS to panel regressions with city fixed effects. Columns 4 through 10 show instrumental variables regressions with city fixed effects, where the endogenous variables are (Protestant X Pre-1500 Jew. Lending X After) and (Pre-1500 Jew. Lending X After), and the excluded instruments are (Number of pre-1500 trade-(related) sectors X After) and (Protestant X Number of Pre-1500 trade-(related) sectors X After). Standard errors (reported in parentheses) are clustered at the city level.

Table A.28: Diff-in-diff-in-diff results: Protestant ruler in 1650

Dependent variable: Pogrom happened in the century										
Estimation method:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	OLS Diff-in-Diff-in-Diff			IV Difference-in-difference-in-differences estimates						
	Without pre-1500	With Lending	Main sample	Main sample		Cities with Jews <1500		Main sample		
Protestant 1650 X After	0.043 (0.019)	0.130 (0.045)	0.043 (0.019)	-0.124 (0.083)	-0.107 (0.076)	-0.218 (0.181)	-0.207 (0.164)	-0.126 (0.087)	-0.116 (0.084)	-0.192 (0.154)
(Protestant 1650) X (Pre-1500 Jew. Lending) X After			0.087 (0.049)	0.699 (0.302)	0.664 (0.280)	0.764 (0.425)	0.758 (0.388)	0.697 (0.315)	0.677 (0.307)	1.167 (0.547)
Century Dummies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-1500 Jewish Lending X After				✓	✓	✓	✓	✓	✓	✓
Number of Sectors pre-1500 X After				✓	✓	✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)					✓		✓			
Military Conflicts (and interact. with After)									✓	
Presence of School (and interact. with After)								✓		
Population brackets (and interact. with After)										✓
Mean Dep. Var.	0.080	0.275	0.129	0.129	0.129	0.203	0.203	0.129	0.129	0.114
R ² (within)	0.057	0.270	0.150							
Cragg-Donald Wald F statistic				42.512	35.749	22.678	20.334	21.405	34.557	1.628
Kleibergen-Paap rk Wald F statistic				9.952	10.208	6.389	7.493	6.385	10.511	0.479
Observations	3,880	1,312	5,192	5,192	5,192	3,164	3,164	5,192	5,192	4,588
Number of Cities	970	328	1,298	1,298	1,298	791	791	1,298	1,298	1,178

Notes: Main sample of cities in the Deutsches Städtebuch. The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500-1600 and later. Protestant 1650 is a dummy variable that identifies cities that had a Protestant ruler in 1650. Columns 1 through 3 apply OLS to panel regressions with city fixed effects. Columns 4 through 10 show instrumental variables regressions with city fixed effects, where the endogenous variables are (Protestant X Pre-1500 Jew. Lending X After) and (Pre-1500 Jew. Lending X After), and the excluded instruments are (Number of pre-1500 trade-(related) sectors X After) and (Protestant X Number of Pre-1500 trade-(related) sectors X After). Standard errors (reported in parentheses) are clustered at the city level.

Table A.29: Diff-in-diff-in-diff results: Excluding cities that returned to Catholicism after being Protestant in 1546

Dependent variable: Pogrom happened in the century										
Estimation method:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	OLS Diff-in-Diff-in-Diff			IV Difference-in-difference-in-differences estimates						
	Without	With	Main	Main sample		Cities with		Main sample		
Sample:	pre-1500 Lending		sample			Jews <1500				
Protestant X After	0.039 (0.020)	0.163 (0.050)	0.039 (0.020)	-0.105 (0.084)	-0.103 (0.076)	-0.201 (0.197)	-0.211 (0.167)	-0.110 (0.089)	-0.100 (0.085)	0.005 (0.487)
Protestant X (Pre-1500 Jew. Lending) X After			0.124 (0.054)	0.624 (0.285)	0.635 (0.261)	0.711 (0.436)	0.745 (0.375)	0.635 (0.302)	0.615 (0.290)	0.676 (0.935)
Century Dummies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-1500 Jewish Lending X After			✓	✓	✓	✓	✓	✓	✓	✓
Number of Sectors pre-1500 X After				✓	✓	✓	✓	✓	✓	✓
Jewish Presence (and interact. with After)					✓		✓			
Presence of School (and interact. with After)								✓		
Military Conflicts (and interact. with After)									✓	
Population brackets (and interact. with After)										✓
Mean Dep. Var.	0.081	0.279	0.133	0.133	0.133	0.206	0.206	0.133	0.133	0.118
R ² (within)	0.066	0.278	0.161							
Cragg-Donald Wald F statistic				29.321	24.711	15.644	12.823	15.316	23.949	0.153
Kleibergen-Paap rk Wald F statistic				8.888	7.530	6.262	5.242	4.919	7.420	0.047
Observations		1,120	4,236	4,236	4,236	2,620	2,620	4,236	4,236	3,750
Number of Cities	779	280	1,059	1,059	1,059	655	655	1,059	1,059	963

Notes: Sample of cities in the Deutsches Städtebuch excluding cities that returned to Catholicism after being Protestant in 1546. The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities which had a Protestant ruler in 1546. Columns 1 through 3 apply OLS to panel regressions with city fixed effects. Columns 4 through 10 show instrumental variables regressions with city fixed effects, where the endogenous variables are (Protestant X Pre-1500 Jew. Lending X After) and (Pre-1500 Jew. Lending X After), and the excluded instruments are (Number of pre-1500 trade-(related) sectors X After) and (Protestant X Number of Pre-1500 trade-(related) sectors X After). Standard errors (reported in parentheses) are clustered at the city level.

Table A.30: Diff-in-diff-in-diff results: Excluding big pogrom waves and the 14th and 15th century

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Pogrom happened in the century						
	excluding pogroms in					excl. obs. in the	
	1337	1347-1350	1450	1492	1510	14th C	15th C
Protestant X After	-0.093 (0.062)	-0.085 (0.060)	-0.077 (0.061)	-0.089 (0.062)	-0.085 (0.064)	-0.102 (0.075)	-0.075 (0.079)
Protestant X (Pre-1500 Jew. Lending) X After	0.537 (0.231)	0.483 (0.238)	0.478 (0.226)	0.527 (0.230)	0.463 (0.235)	0.602 (0.298)	0.466 (0.288)
Century Dummies	✓	✓	✓	✓	✓	✓	✓
Pre-1500 Jewish Lending X After	✓	✓	✓	✓	✓	✓	✓
Number of Sectors pre-1500 X After	✓	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.126	0.081	0.127	0.127	0.125	0.080	0.134
Cragg-Donald Wald F statistic	42.781	42.781	42.781	42.781	42.781	28.506	28.506
Kleibergen-Paap rk Wald F statistic	12.325	12.325	12.325	12.325	12.325	12.324	12.324
Observations	5,192	5,192	5,192	5,192	5,192	3,894	3,894
Number of Cities	1,298	1,298	1,298	1,298	1,298	1,298	1,298

Notes: Columns 1 through 5 exclude big pogrom waves. Column 6 excludes the 14th century, column 7 excludes the 15th century. The table reports estimates from panel regressions with city fixed effects. The sample period is 1300–1700. The unit of observation is city by century. After (Reformation) is a dummy variable for the centuries 1500–1600 and later. Protestant is a dummy variable that identifies cities which had a Protestant ruler in 1546. All columns show instrumental variables regressions with city fixed effects, where the endogenous variables are (Protestant X Pre-1500 Jew. Lending X After) and (Pre-1500 Jew. Lending X After), and the excluded instruments are (Number of pre-1500 trade-(related) sectors X After) and (Protestant X Number of Pre-1500 trade-(related) sectors X After). Standard errors (reported in parentheses) are clustered at the city level.

Table A.31: Anti-Jewish book titles: Diff-in-Diff-in-Diff results

Estimation method:	(1)	(2)	(3)	(4)	(5)	(6)
	Poisson Model with FE		Panel FE		Panel FE	
Dependent variable:	Number of anti-Jewish titles		Share anti-Jewish titles		Median prob. anti-Jewish title	
Protestant X After Reformation	-14.861 (1.206)	-14.280 (1.090)	-0.000 (0.002)	-0.002 (0.002)	-0.003 (0.006)	-0.019 (0.009)
Protestant X (Pre-1500 Jew. Lending) X After	15.960 (1.232)	15.526 (1.169)	0.003 (0.003)	0.005 (0.003)	0.035 (0.017)	0.050 (0.015)
Number of books		0.003 (0.001)		0.000 (0.000)		0.000 (0.000)
Decade dummies	✓	✓	✓	✓	✓	✓
Pre-1500 Jew. Lending X After	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.314	0.314	0.003	0.003	0.023	0.023
R ² (within)			0.039	0.057	0.479	0.502
Observations	528	528	523	523	1,456	1,456

Notes: The table reports estimates from panel regressions with city fixed effects, as indicated in column header. The sample period is 1450–1600. The unit of observation is city by decade. Estimates in columns 3 through 6 are weighted by the total number of books printed in a city during the sample period. After (Reformation) is dummy variable equal to one for decades starting with the decade 1510–1519. Cities which have a different religion with respect to the surrounding territory are excluded. Standard errors (reported in parentheses) are clustered at the city level.

Table A.32: Anti-Jewish book titles: Diff-in-Diff-in-Diff results (unweighted regressions)

Estimation method:	(1)	(2)	(3)	(4)
	Panel FE			
Dependent variable:	Share anti-Jewish titles		Median prob. anti-Jewish title	
Protestant X After Reformation	-0.001 (0.002)	-0.001 (0.002)	-0.007 (0.005)	-0.007 (0.005)
Protestant X (Pre-1500 Jew. Lending) X After	0.004 (0.003)	0.004 (0.003)	0.018 (0.009)	0.019 (0.009)
Number of books		0.000 (0.000)		0.000 (0.000)
Decade dummies	✓	✓	✓	✓
Pre-1500 Jew. Lending X After	✓	✓	✓	✓
Mean Dep. Var.	0.003	0.003	0.010	0.010
R ² (within)	0.037	0.037	0.105	0.106
Observations	523	523	1,456	1,456

Notes: The table reports estimates from panel regressions with city fixed effects, as indicated in column header. The sample period is 1450–1600. The unit of observation is city by decade. After (Reformation) is dummy variable equal to one for decades starting with the decade 1510–1519. Cities which have a different religion with respect to the surrounding territory are excluded. Standard errors (reported in parentheses) are clustered at the city level.

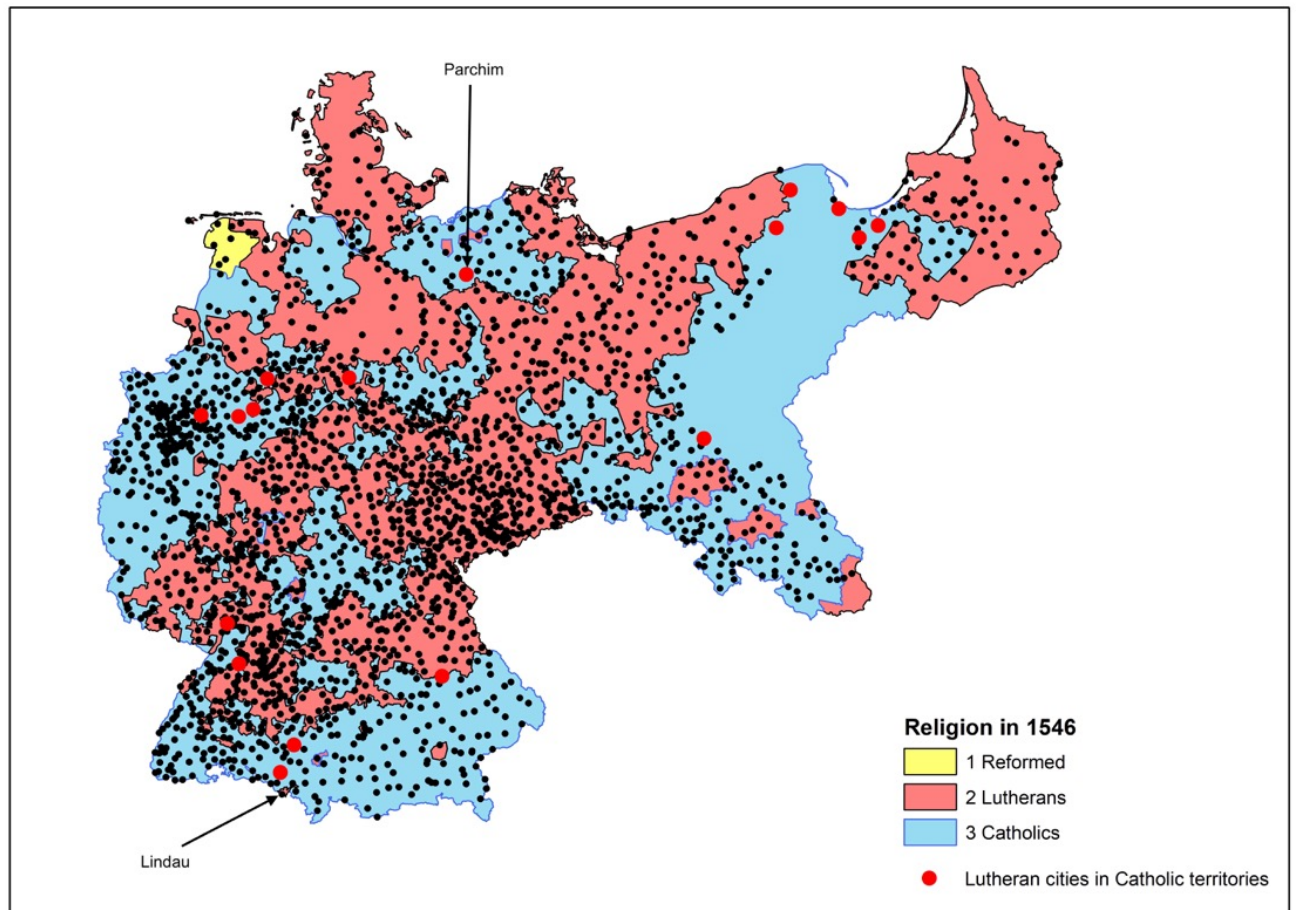


Figure A.1: Cities in the dataset and their religion in 1546

Note: Location of all cities covered in the Deutsches Städtebuch. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic. See main text and data appendix for details.

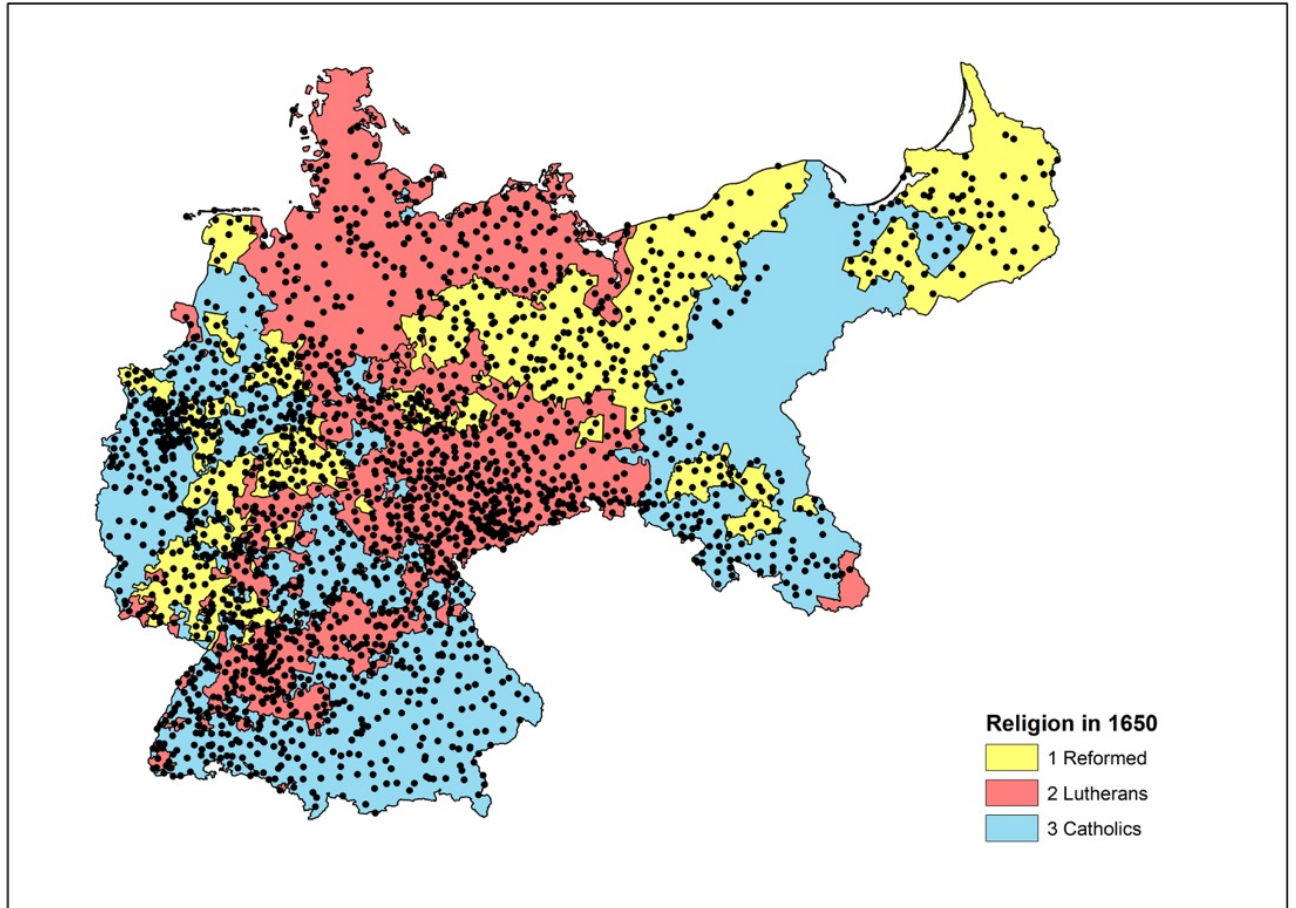


Figure A.2: Cities in the dataset and their religion in 1650

Note: Location of all cities covered in the Deutsches Städtebuch. Religion of ruler in 1650 following Zeeden (1984) defines cities as Protestant or Catholic. See main text and data appendix for details.

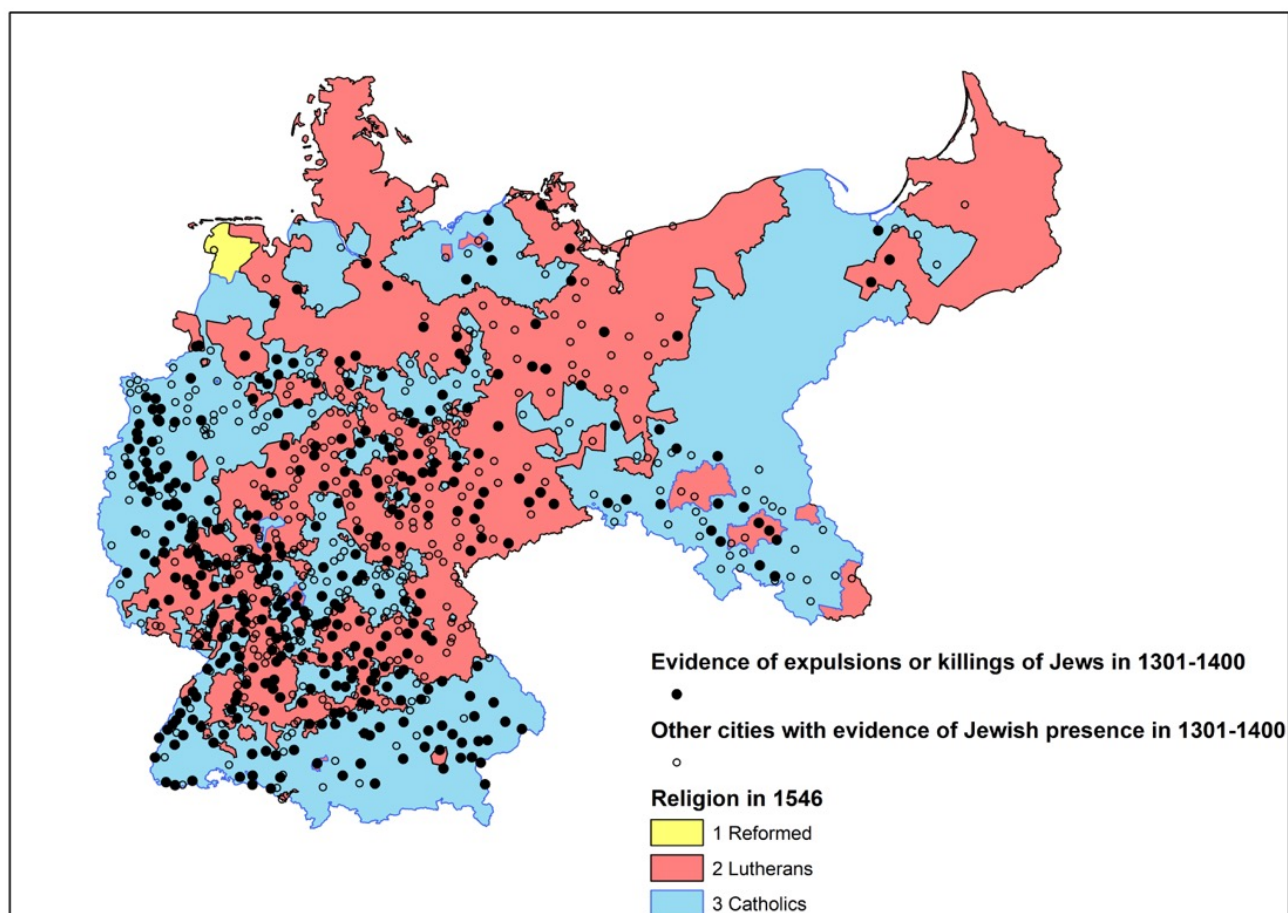


Figure A.3: Expulsions and killings of Jews in the 1300s

Note: Circles show locations with Jewish presence. Black circles are locations with evidence of expulsions or killings of Jews. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic. See main text and data appendix for details.

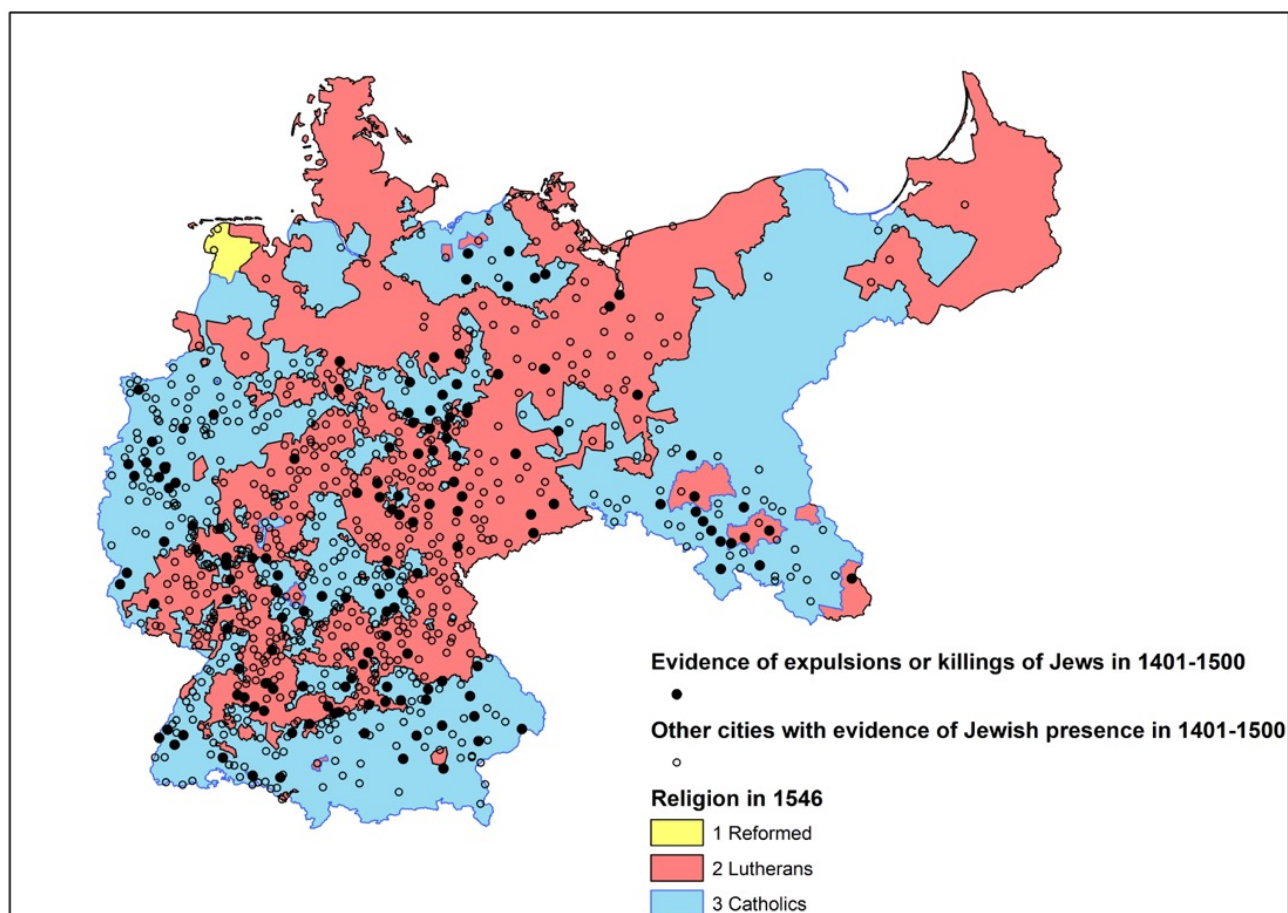


Figure A.4: Expulsions and killings of Jews in the 1400s

Note: Circles show locations with Jewish presence. Black circles are locations with evidence of expulsions or killings of Jews. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic. See main text and data appendix for details.

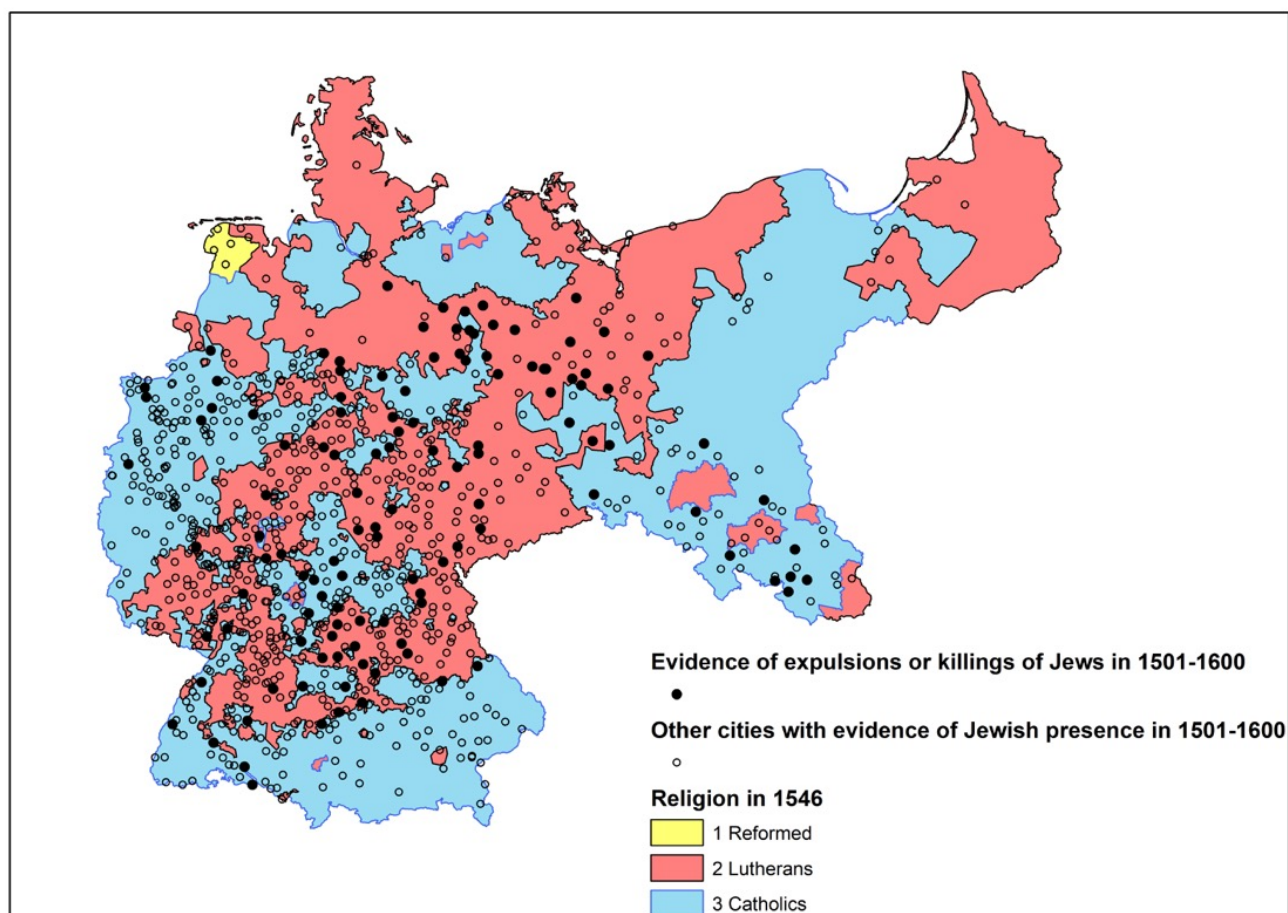


Figure A.5: Expulsions and killings of Jews in the 1500s

Note: Circles show locations with Jewish presence. Black circles are locations with evidence of expulsions or killings of Jews. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic. See main text and data appendix for details.

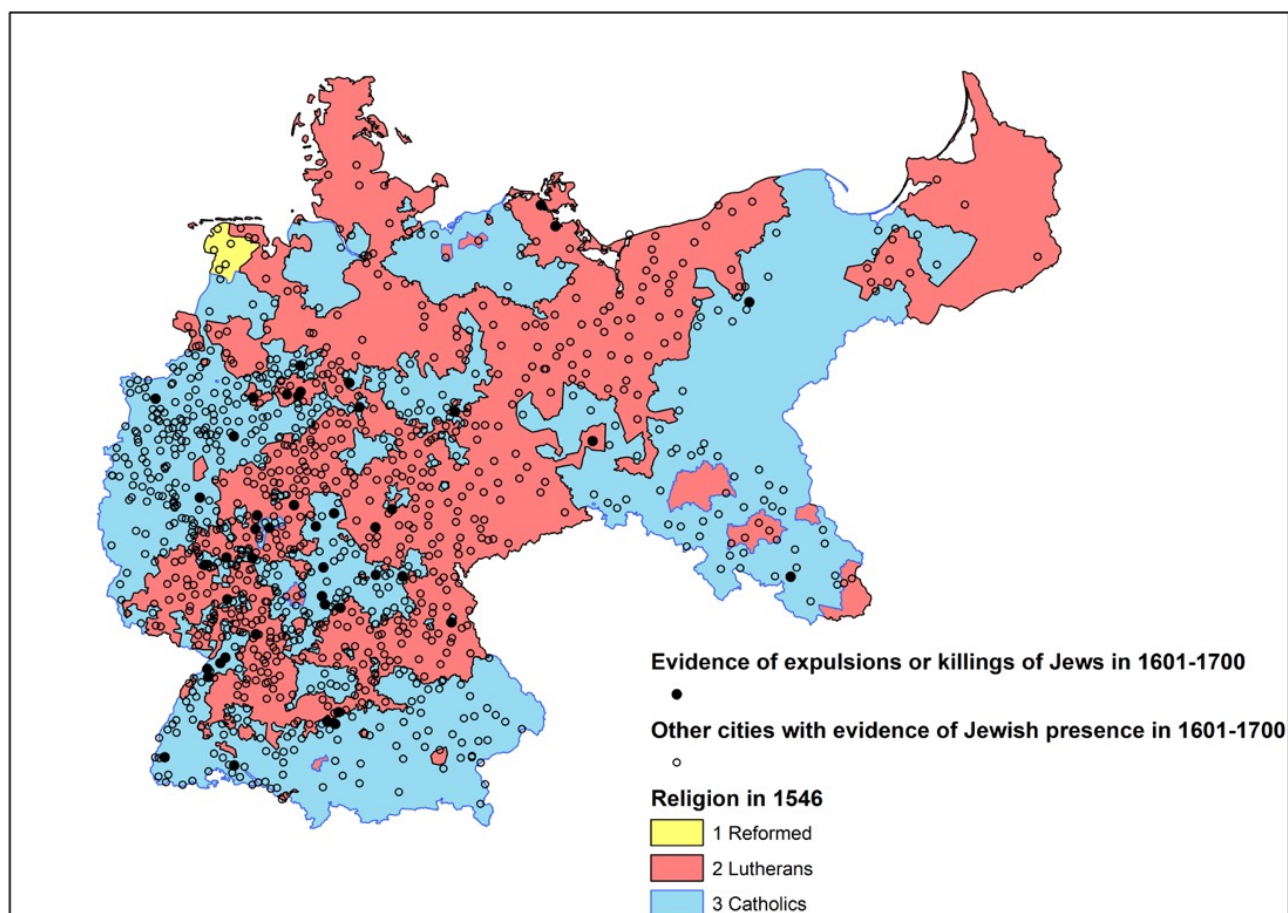


Figure A.6: Expulsions and killings of Jews in the 1600s

Note: Circles show locations with Jewish presence. Black circles are locations with evidence of expulsions or killings of Jews. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic. See main text and data appendix for details.

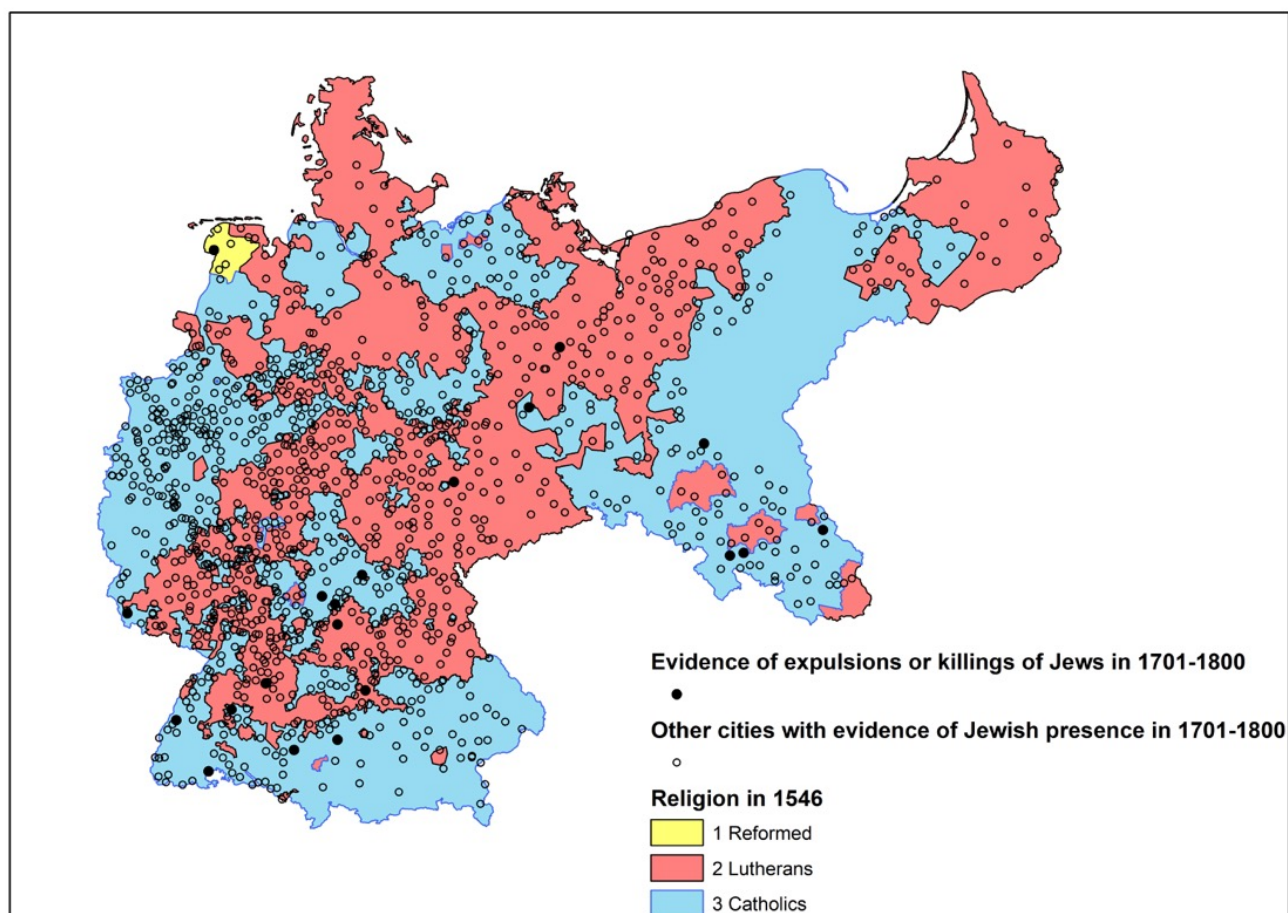


Figure A.7: Expulsions and killings of Jews in the 1700s

Note: Circles show locations with Jewish presence. Black circles are locations with evidence of expulsions or killings of Jews. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic. See main text and data appendix for details.

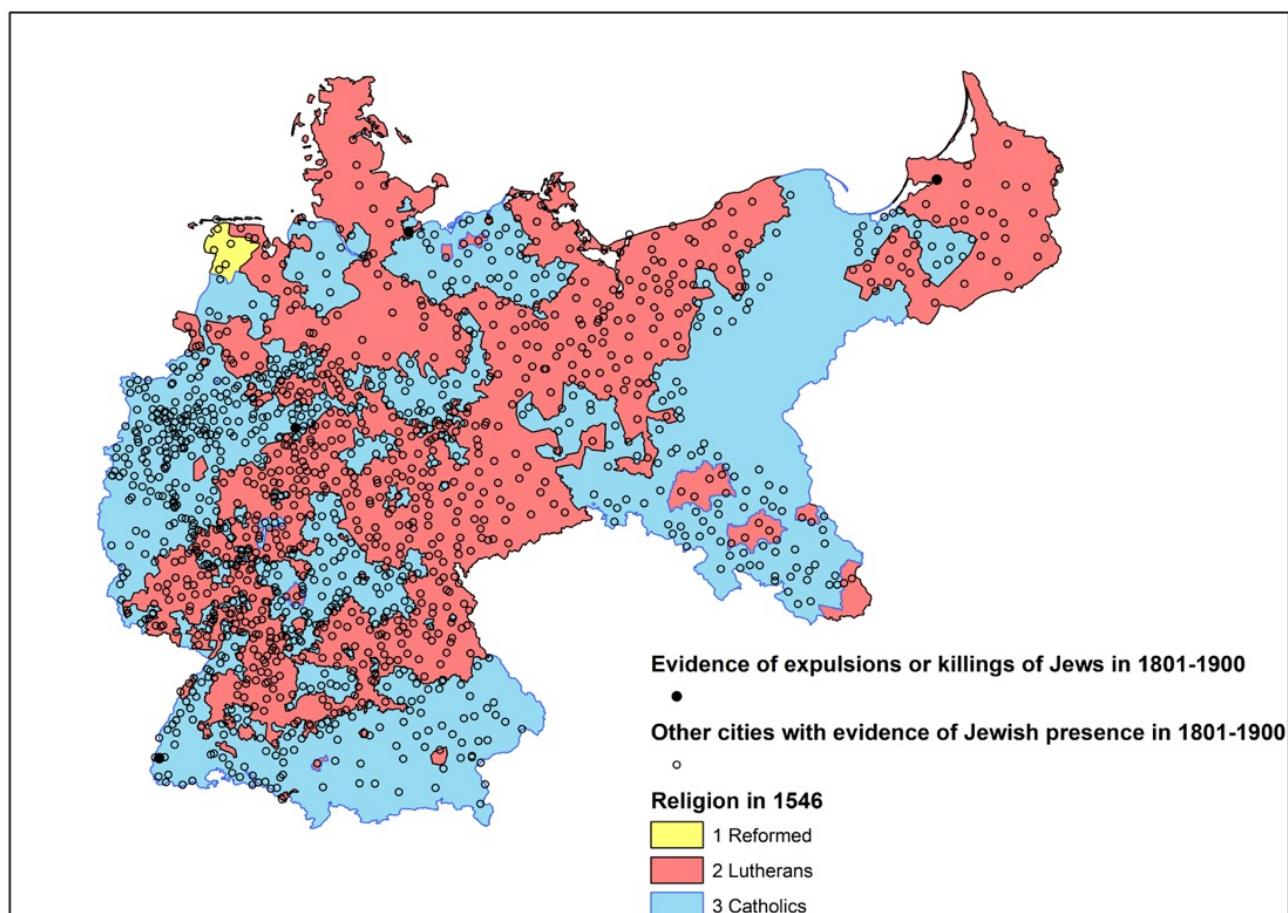


Figure A.8: Expulsions and killings of Jews in the 1800s

Note: Circles show locations with Jewish presence. Black circles are locations with evidence of expulsions or killings of Jews. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic. See main text and data appendix for details.

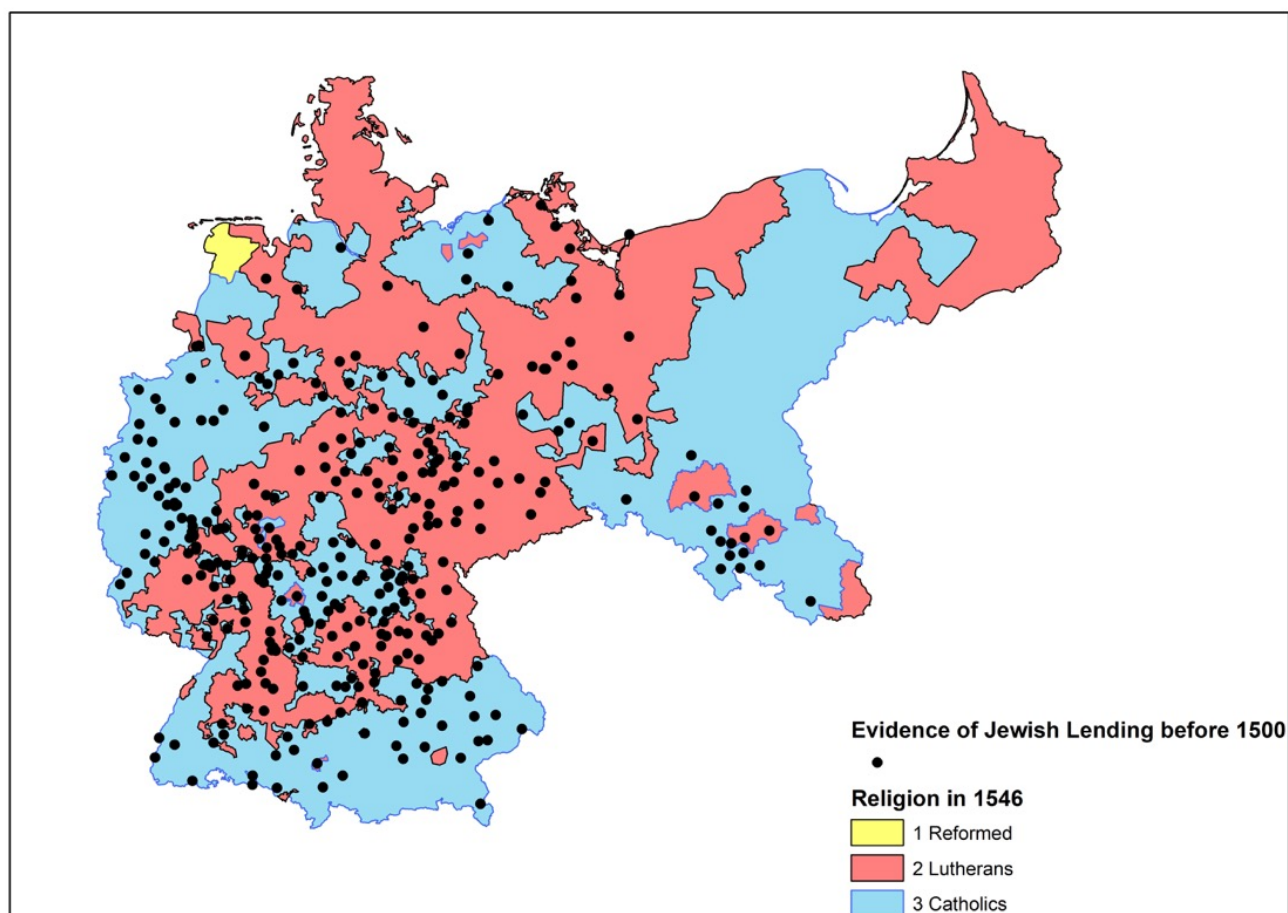


Figure A.9: Evidence of Jewish lending before the Reformation

Note: Circles show locations with Jewish presence. Black circles are locations with evidence of Jewish lending. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic. See main text and data appendix for details.



A word cloud visualization of anti-Jewish Latin book titles. The words are arranged in a rectangular box. The most prominent words are 'IUDEI' in large red letters and 'CONTRA' in large blue letters. Other words in green include 'CHRISTIAN', 'FIDEI', 'CHRISTO', 'ECCLESIA', 'CATHOLIC', 'ERRORES', 'HISTORIA', 'ADVERSUS', 'VERITATE', 'PERFIDIA', 'NICOL', 'LYRA', 'OMNES', 'ACCESSIT', 'PROPHETA', 'RELIGIONIS', 'DOMINE', 'SACRAMENTO', 'FOENORE', 'LATINA', 'MAHOMETI', 'SCRIPTURA', 'ROMA', 'THEOLOGIA', 'INFIDELES', 'JOANN', 'RABBI', and 'LIBELLO'.

Figure A.10: Word Cloud based on anti-Jewish book titles

Note: The figure reports the word cloud for anti-Jewish Latin book titles. Not surprisingly, the most common words are Contra and Iudei (Against and Jews). Among the most frequent words, we also see Errores (Mistakes), Adversus (Enemy), Perfidia (Perfidy), Foenore (Usury), and Infideles (Infidels). See main text for details.

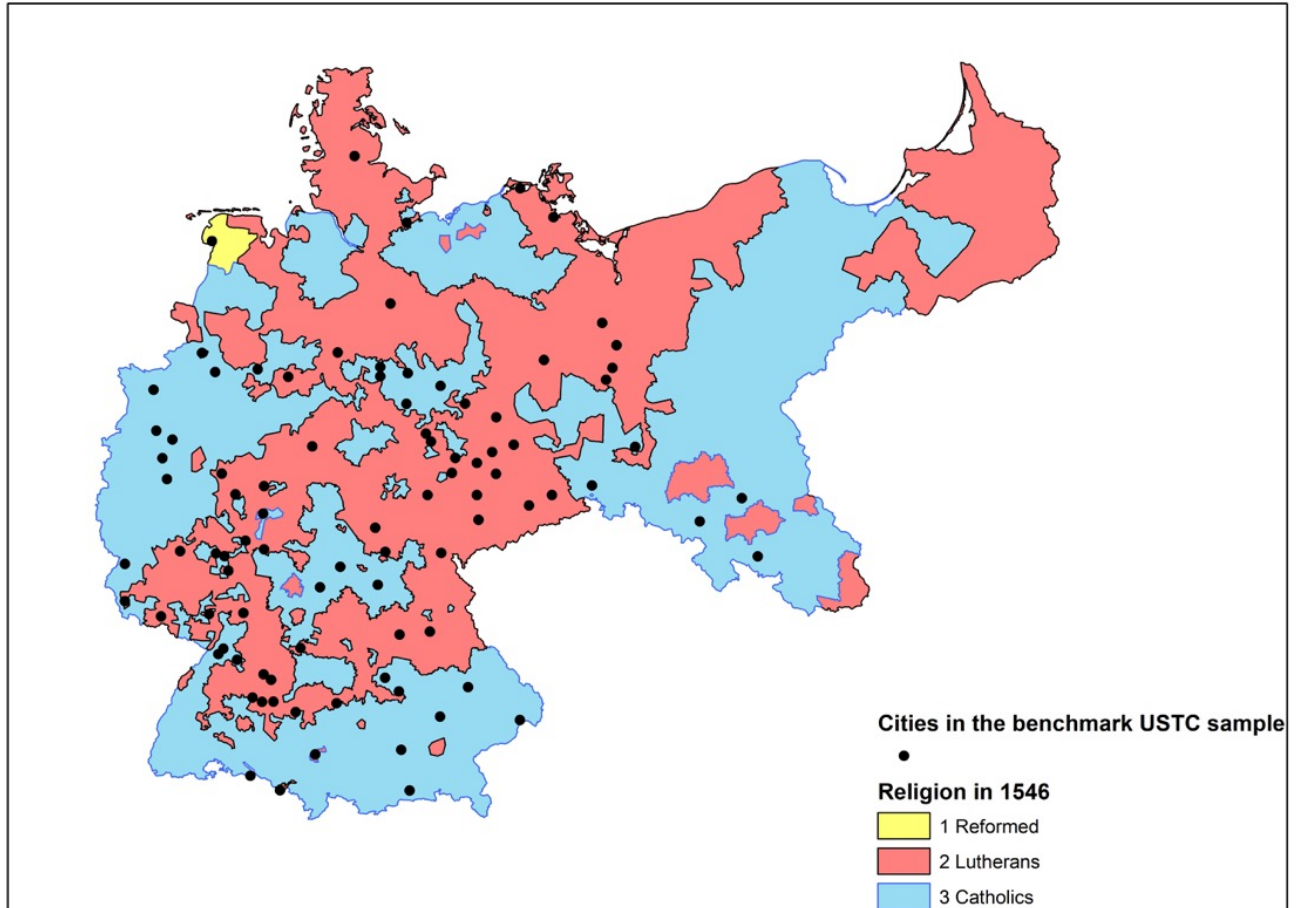


Figure A.11: Cities in the USTC sample

Note: Location of cities with at least 10 book editions used in the main analysis of book titles. Source: Universal Short Title Catalogue (USTC). See main text and data appendix for details.

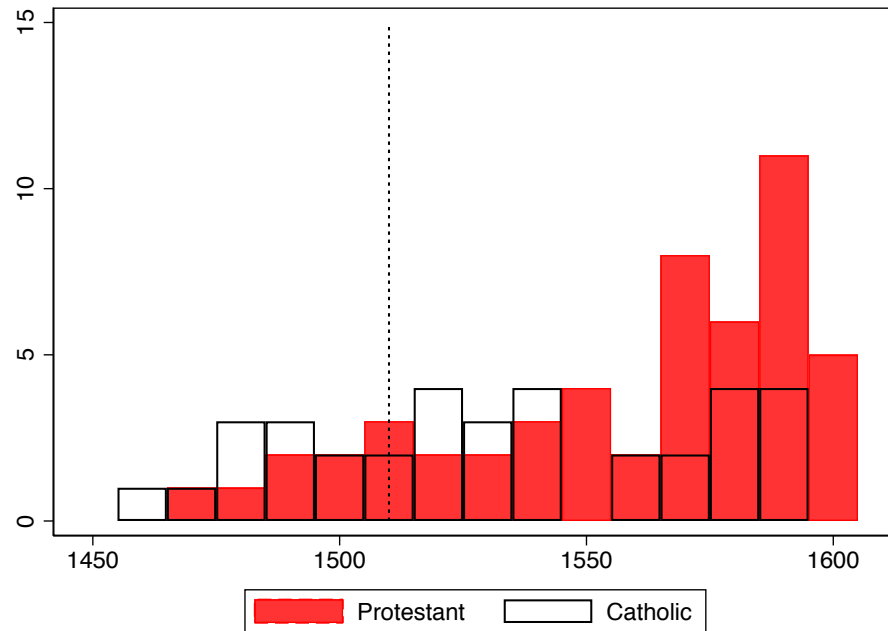


Figure A.12: Number of cities publishing any books with anti-Jewish titles

Note: The figure displays the number of cities publishing any books with anti-Jewish titles. The data source is the Universal Short Title Catalogue (USTC). Book titles are classified as anti-Jewish using a naive Bayesian classifier (see main text for details). Sample is set of cities with at least 10 printed editions in the period 1450–1600. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic.

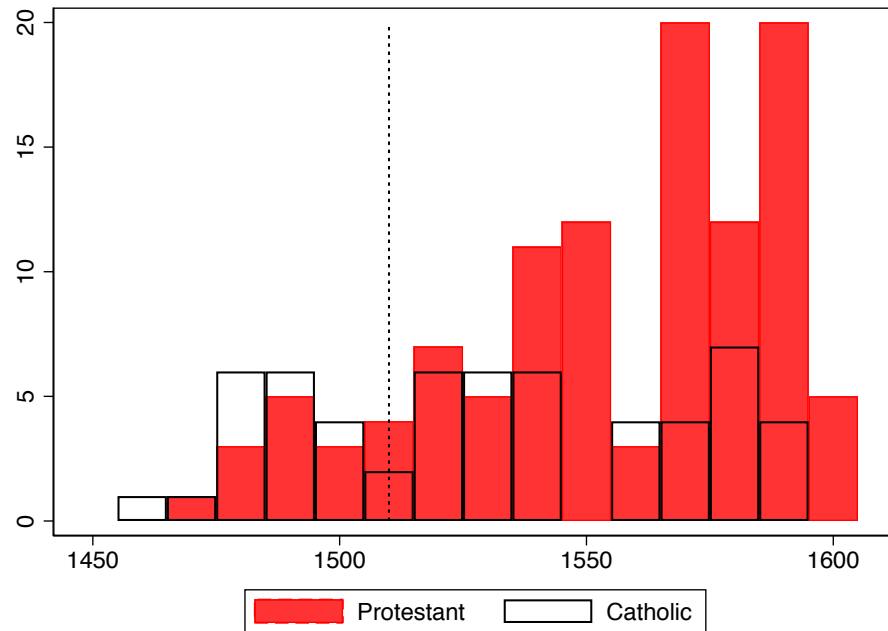
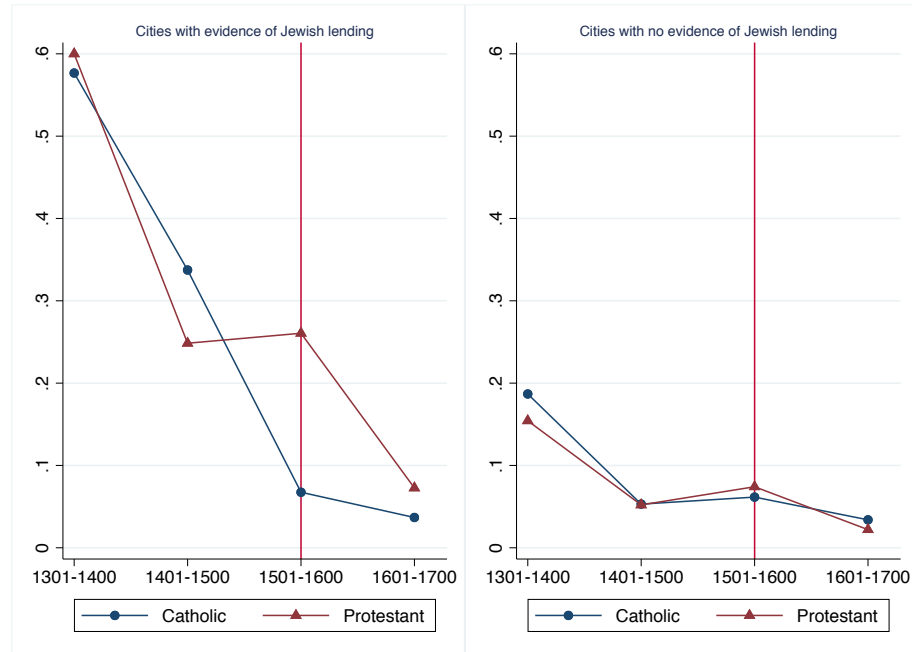


Figure A.13: Number of book editions with anti-Jewish titles

Note: The figure displays the number of book editions with anti-Jewish titles. The data source is the Universal Short Title Catalogue (USTC). Book titles are classified as anti-Jewish using a naive Bayesian classifier (see main text for details). Sample is set of cities with at least 10 printed editions in the period 1450–1600. Religion of ruler in 1546 following Zeeden (1984) defines cities as Protestant or Catholic.

1,298 cities in the Deutsches Städtebuch used in the main regressions



791 cities with a Jewish community before the Reformation

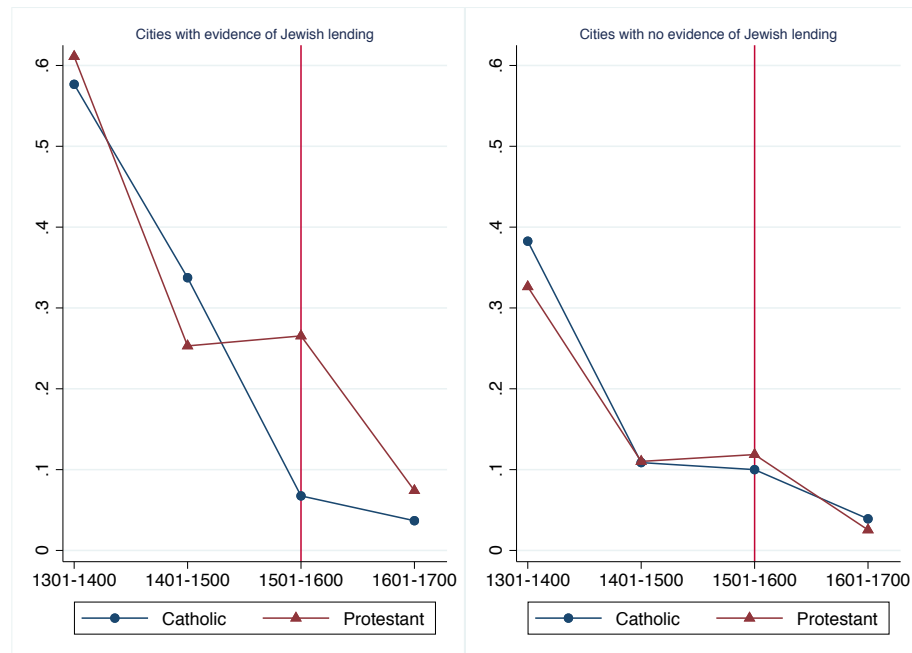


Figure A.14: Share of cities with killings or expulsions of Jews by century: cities with and without evidence of Jewish lending

Notes: Data on pre-Reformation Jewish lending comes from Germania Judaica (1963–2009), volumes 2 and 3. Protestant and Catholic are defined by the denomination of the local ruler in 1546, according to Zeeden (1984).

Tables and Figures for Appendix D (Prussia)

Table P.1: Descriptive Statistics for Prussian county-level data

	<i>Mean</i>	<i>Median</i>	<i>St Dev</i>	<i>Min</i>	<i>Max</i>	<i>N</i>
Share Jews 1882	0.011	0.007	0.012	0.000	0.109	452
Share Catholics 1882	0.348	0.157	0.373	0.0003	0.996	452
Share Protestants 1882	0.640	0.833	0.376	0.003	0.999	452
Jewish market share in banking	0.116	0.000	0.207	0.000	1.000	387
Jewish market share in insurance	0.051	0.000	0.176	0.000	1.000	340
Jewish market share in banking and insurance	0.094	0.000	0.179	0.000	1.000	417
Jewish market share among self-employed and directors in banking	0.275	0.121	0.328	0.000	1.000	268
Jewish market share among self-employed and directors in insurance	0.060	0.000	0.192	0.000	1.000	326
Jewish market share among self-employed and directors in banking and insurance	0.160	0.000	0.256	0.000	1.000	369
Share of workforce in banking	0.0004	0.0002	0.001	0.000	0.023	452
Share of workforce in banking and insurance	0.0007	0.0003	0.002	0.000	0.027	452
Share of votes for anti-Semitic parties (1890)	0.013	0.000	0.077	0.000	0.648	452
Share of votes for anti-Semitic parties (1893)	0.028	0.000	0.089	0.000	0.615	452
Share of votes for anti-Semitic parties (1898)	0.041	0.000	0.117	0.000	0.761	452
Anti-Semitic parties running in elections (1890)	0.097	0.000	0.297	0.000	1.000	452
Anti-Semitic parties running in elections (1893)	0.305	0.000	0.461	0.000	1.000	452
Anti-Semitic parties running in elections (1898)	0.303	0.000	0.460	0.000	1.000	452
Distance to Wittenberg in km	325.804	324.545	148.300	0.000	731.460	452
Share age below 10	0.247	0.249	0.025	0.153	0.299	452
Share females	0.510	0.511	0.015	0.440	0.546	452
Share born in municipality	0.590	0.579	0.124	0.320	0.872	452
Share of Prussian origin	0.991	0.997	0.020	0.742	1.000	452
Average household size	4.791	4.805	0.344	3.826	5.861	452
ln(Population size)	10.804	10.821	0.415	9.360	13.625	452
Posen dummy	0.060	0.000	0.237	0.000	1.000	452
Share of county pop. in urban areas	0.275	0.222	0.219	0.000	1.000	452

Notes: The table shows descriptive statistics for 452 counties in Prussia in the 1880s and 1890s. See Prussian Addendum for more details.

Table P.2: Concordance between data extracted from Aliche and from the Prussian Census

	(1)	(2)
Share cities in county with a Jewish Community 1800-1900 (according to Aliche)	0.0112 (0.001)	0.0106 (0.001)
Share Urban Population (according to Prussian Census)		0.0137 (0.004)
Mean Dep. Var.	0.009	0.009
R ²	0.133	0.221
Observations	398	398

Notes: The unit of observation is the Prussian county in 1882. The sample includes all Prussian counties (398 out of a total of 452) that host one of the 2,344 cities in the Deutsches Städtebuch. The main regressor is the share of these cities within each Prussian county with a Jewish community in 1800-1900.

Table P.3: Protestantism, Jewish presence, and the Jewish market share in banking & insurance

Dependent variable:	Share of Jews in 1882		Jewish presence (standardized) pre-1500 Long diff		Jewish market share in banking & insurance in 1882		Jews in banking (standardized) pre-1500 Long diff	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Share of Protestants (1882)	-0.00874 (0.001)	-0.00506 (0.001)	-0.0511 (0.068)	-0.186 (0.158)	-0.0884 (0.028)	-0.0682 (0.030)	0.00658 (0.068)	-0.115 (0.223)
Controls [‡]		✓	✓	✓		✓	✓	✓
Mean Dep. Var.	0.011	0.011	0.601	-0.128	0.094	0.094	0.305	-0.148
R ²	0.074	0.438	0.219	0.258	0.033	0.103	0.151	0.064
Observations	452	452	416	416	417	417	416	383

Notes: The table reports OLS estimates. Throughout, the unit of observation is the Prussian county in 1882. Columns 1 and 2 show cross-sectional regressions using all 452 Prussian counties. Column 3 uses data for Prussian counties that overlap with data in the Deutsches Städtebuch. City-level data on Jewish presence pre-1500 is mapped into Prussian counties. Column 4 shows results from a long difference regression, where both pre-1500 data and 1882 county-level shares are standardized (mean zero, standard deviation one). Columns 5 and 6 show cross-sectional regressions using the 417 Prussian counties with activity in the banking & insurance sector. Column 7 uses data on pre-Reformation Jewish lending for Prussian counties that overlap with data in the Deutsches Städtebuch. Column 8 shows results from a long difference regression, where both pre-1500 data on Jewish lending and 1882 county-level shares are standardized (mean zero, standard deviation one). [‡] Controls: share age below 10, share females, share born in municipality, share of Prussian origin, average household size, ln(population size), Posen dummy, share of county population in urban area. Heteroskedasticity-robust standard errors (reported in parentheses).

Table P.4: Robustness: Protestantism and the Jewish market share among the self-employed and directors in banking & insurance

Dependent variable:	Jewish market share among self-empl. and directors in banking & insurance in 1882		Jews in banking (standardized)	
	(1)	(2)	pre-1500	Long diff
Share of Protestants (1882)	-0.140 (0.042)	-0.121 (0.045)	0.00658 (0.068)	-0.140 (0.255)
Controls [‡]		✓	✓	✓
Mean Dep. Var.	0.160	0.160	0.305	-0.196
R ²	0.041	0.134	0.151	0.066
Observations	369	369	416	337

Notes: The table reports OLS estimates. Throughout, the unit of observation is the Prussian county in 1882. Columns 1 and 2 show cross-sectional regressions using the 369 Prussian counties with self-employed and directors in the banking & insurance sector. Column 3 uses data on pre-Reformation Jewish lending for Prussian counties that overlap with data in the Deutsches Städtebuch. Column 4 shows results from a long difference regression, where both pre-1500 data on Jewish lending and 1882 county-level shares are standardized (mean zero, standard deviation one). [‡] Controls: share age below 10, share females, share born in municipality, share of Prussian origin, average household size, ln(population size), Posen dummy, share of county population in urban area. Heteroskedasticity-robust standard errors (reported in parentheses).

Table P.5: Robustness: Protestantism and Jewish presence, using distance to Wittenberg as IV

Dependent variable:	Share of Protestants in 1882	Share of Jews in 1882	Share of Protestants in 1882	Share of Jews in 1882
	(1)	(2)	(3)	(4)
Share of Protestants (1882)		-0.0113 (0.003)		-0.0110 (0.003)
Distance to Wittenberg	-0.000922 (0.000)		-0.00113 (0.000)	
Controls [‡]			✓	✓
Mean Dep. Var.	0.640	0.011	0.640	0.011
R ²	0.133		0.398	
Cragg-Donald Wald F statistic		68.733		111.315
Kleibergen-Paap rk Wald F statistic		45.619		109.095
Observations	452	452	452	452

Notes: Throughout, the unit of observation is the Prussian county in 1882. Columns 1 and 3 show first stage estimates, where the share of Protestants in 1882 is regressed on distance to Wittenberg. Columns 2 and 4 show IV estimates where the share of Protestants in 1882 is instrumented by distance to Wittenberg. [‡] Controls: share age below 10, share females, share born in municipality, share of Prussian origin, average household size, ln(population size), Posen dummy, share of county population in urban area. Heteroskedasticity-robust standard errors (reported in parentheses).

Table P.6: Robustness: Protestantism and the Jewish market share in banking & insurance

Panel A: OLS								
Dependent variable:	Jewish market share in banking & insurance when number of workers is				Jewish market share among the self-employed in banking & insurance when number of self-employed is			
	≥ 1	≥ 2	≥ 3	≥ 4	≥ 1	≥ 2	≥ 3	≥ 4
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Share of Protestants (1882)	-0.0884 (0.028)	-0.0939 (0.030)	-0.0810 (0.029)	-0.0914 (0.031)	-0.140 (0.042)	-0.154 (0.045)	-0.141 (0.045)	-0.155 (0.049)
Mean Dep. Var.	0.094	0.101	0.104	0.109	0.160	0.167	0.170	0.176
R ²	0.033	0.038	0.031	0.041	0.041	0.048	0.043	0.050
Observations	417	371	334	290	369	341	318	283

Panel B: IV								
Dependent variable:	Jewish market share in banking & insurance when number of workers is				Jewish market share among the self-employed in banking & insurance when number of self-employed is			
	≥ 1	≥ 2	≥ 3	≥ 4	≥ 1	≥ 2	≥ 3	≥ 4
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Share of Protestants (1882)	-0.0430 (0.051)	-0.0915 (0.051)	-0.109 (0.047)	-0.109 (0.048)	-0.187 (0.079)	-0.230 (0.083)	-0.243 (0.084)	-0.249 (0.088)
Mean Dep. Var.	0.094	0.101	0.104	0.109	0.160	0.167	0.170	0.176
Cragg-Donald Wald F statistic	72.506	84.402	90.986	89.624	92.291	91.249	88.607	86.478
Kleibergen-Paap rk Wald F statistic	45.645	49.719	51.131	49.374	53.008	51.023	48.924	47.331
Observations	417	371	334	290	369	341	318	283

Notes: The table reports OLS (panel A) and IV estimates (panel B) with distance to Wittenberg as the instrument for the share of Protestants. The unit of observation is the Prussian county in 1882. Different columns restrict sample to counties with a minimum number of workers/self-employed. Heteroskedasticity-robust standard errors (reported in parentheses).

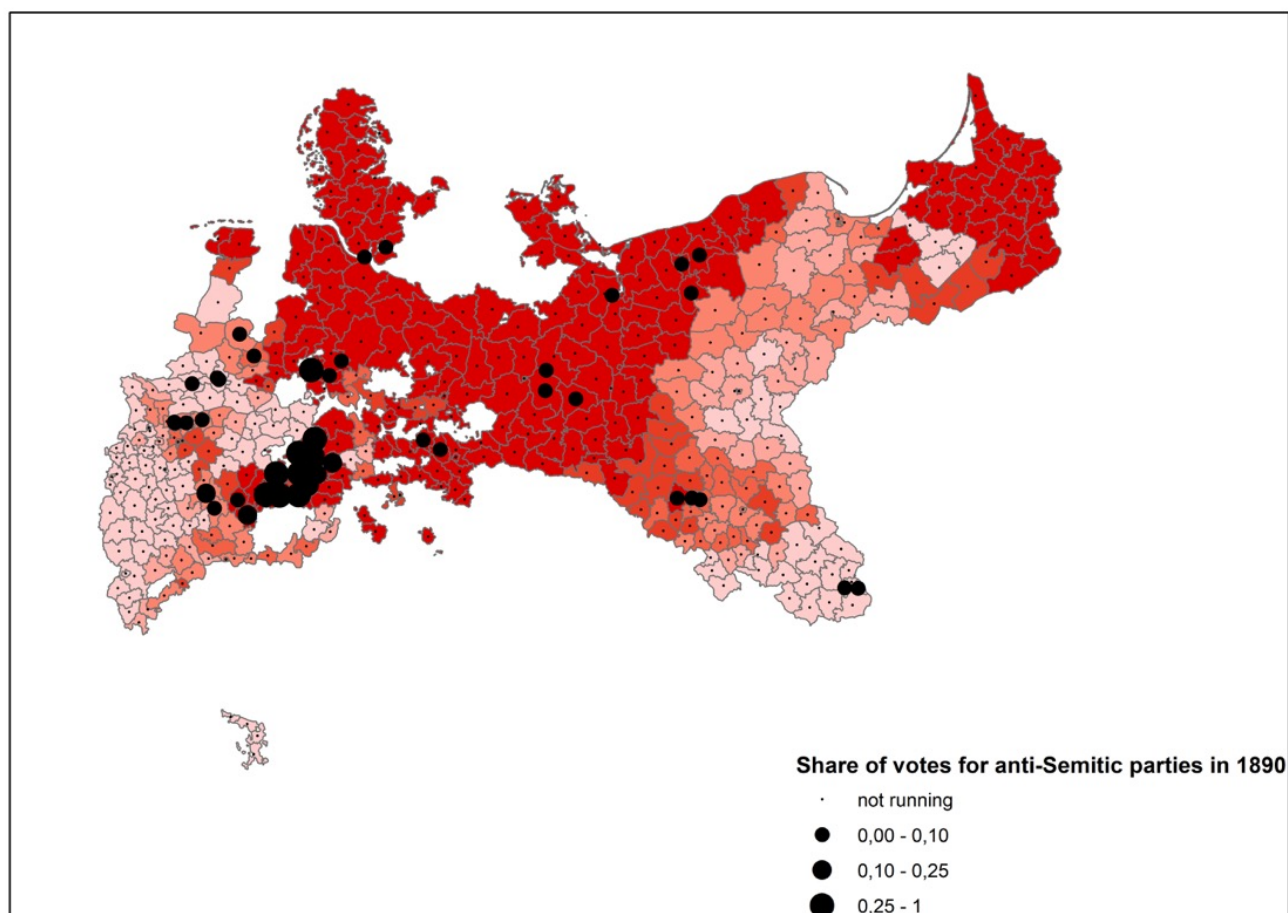


Figure P.1: Votes for anti-Semitic parties in Reichstag elections (1890)

Note: Share of votes for anti-Semitic parties in Reichstag elections (1890). Source: Various volumes of the Preussische Statistik. See Appendix D for details.

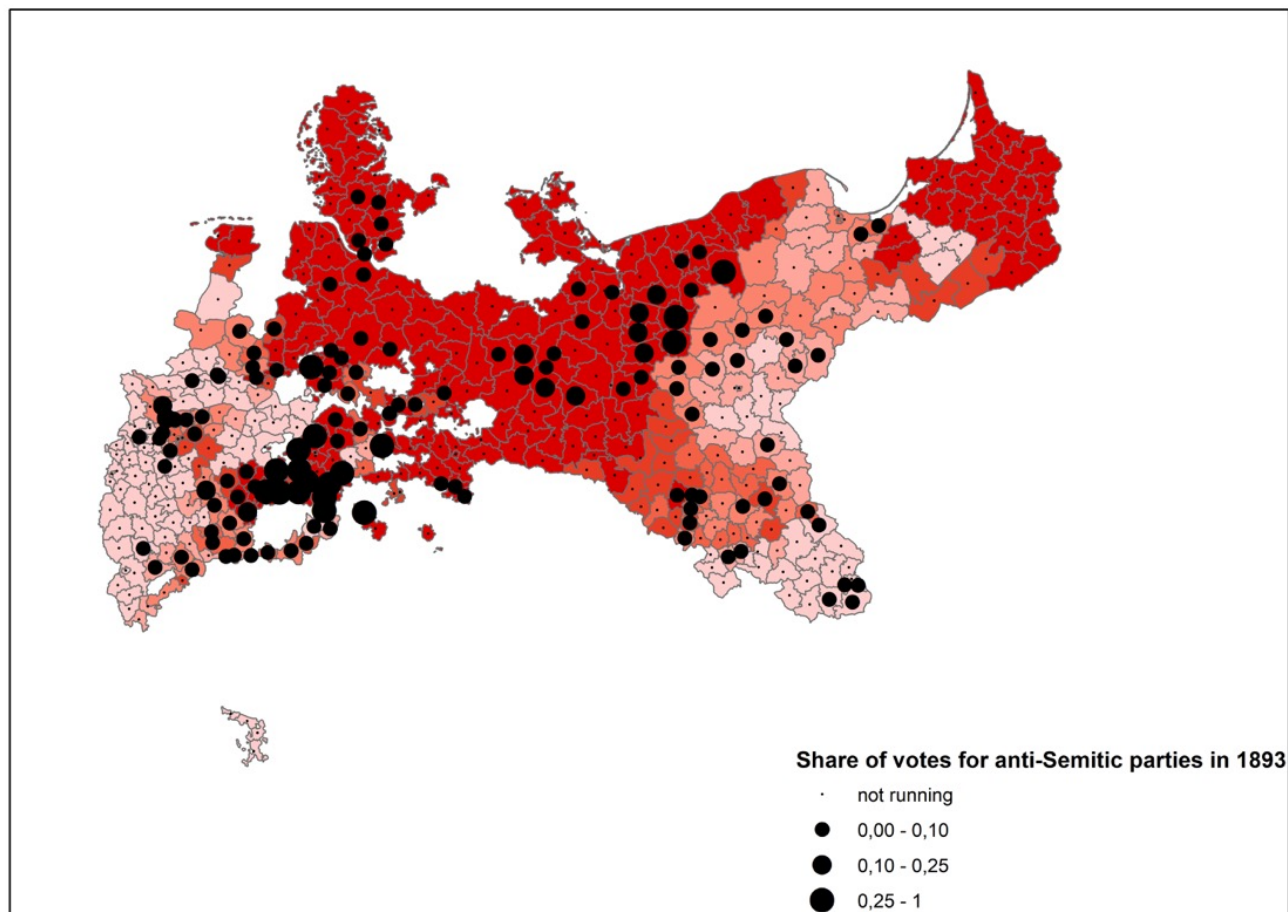


Figure P.2: Votes for anti-Semitic parties in Reichstag elections (1893)

Note: Share of votes for anti-Semitic parties in Reichstag elections (1893). Source: Various volumes of the Preussische Statistik. See Appendix D for details.

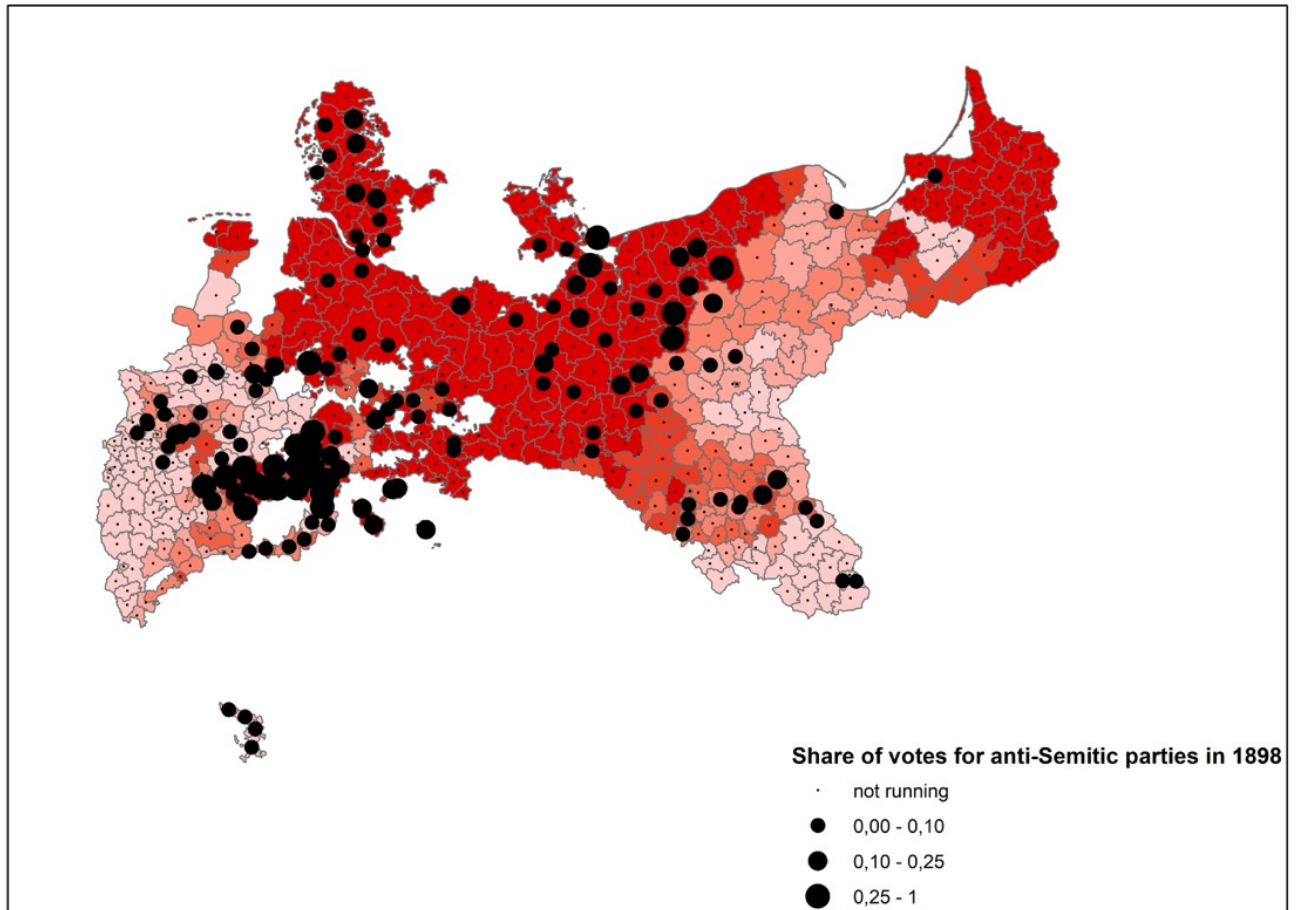


Figure P.3: Votes for anti-Semitic parties in Reichstag elections (1898)

Note: Share of votes for anti-Semitic parties in Reichstag elections (1898). Source: Various volumes of the Preussische Statistik. See Appendix D for details.

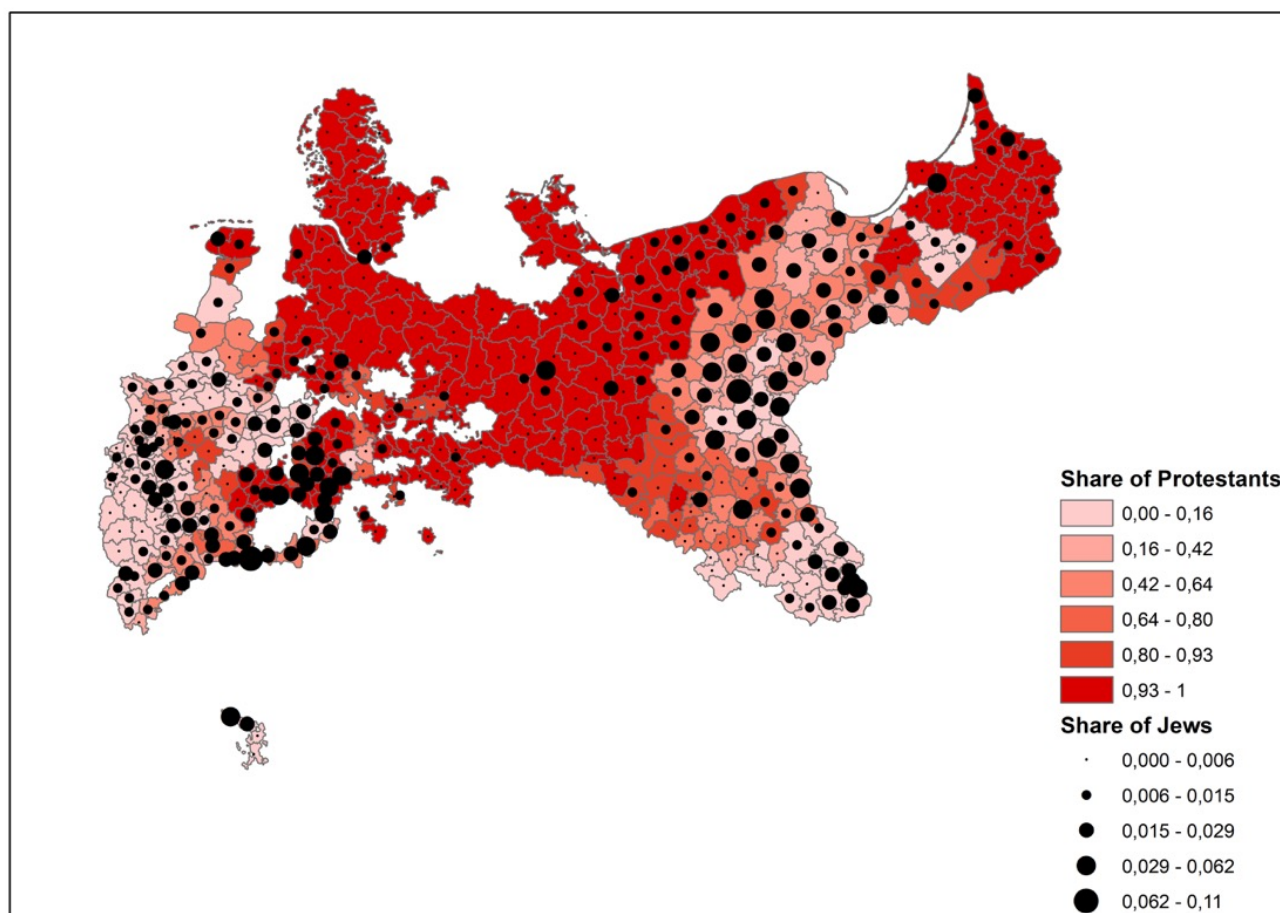


Figure P.4: Share of Protestants and share of Jews in 1882

Note: Share Protestants in whole population (background coloring) and share of Jews in 1882 (circles) across 452 Prussian counties. Source: Various volumes of the Preussische Statistik. See Appendix D for details.

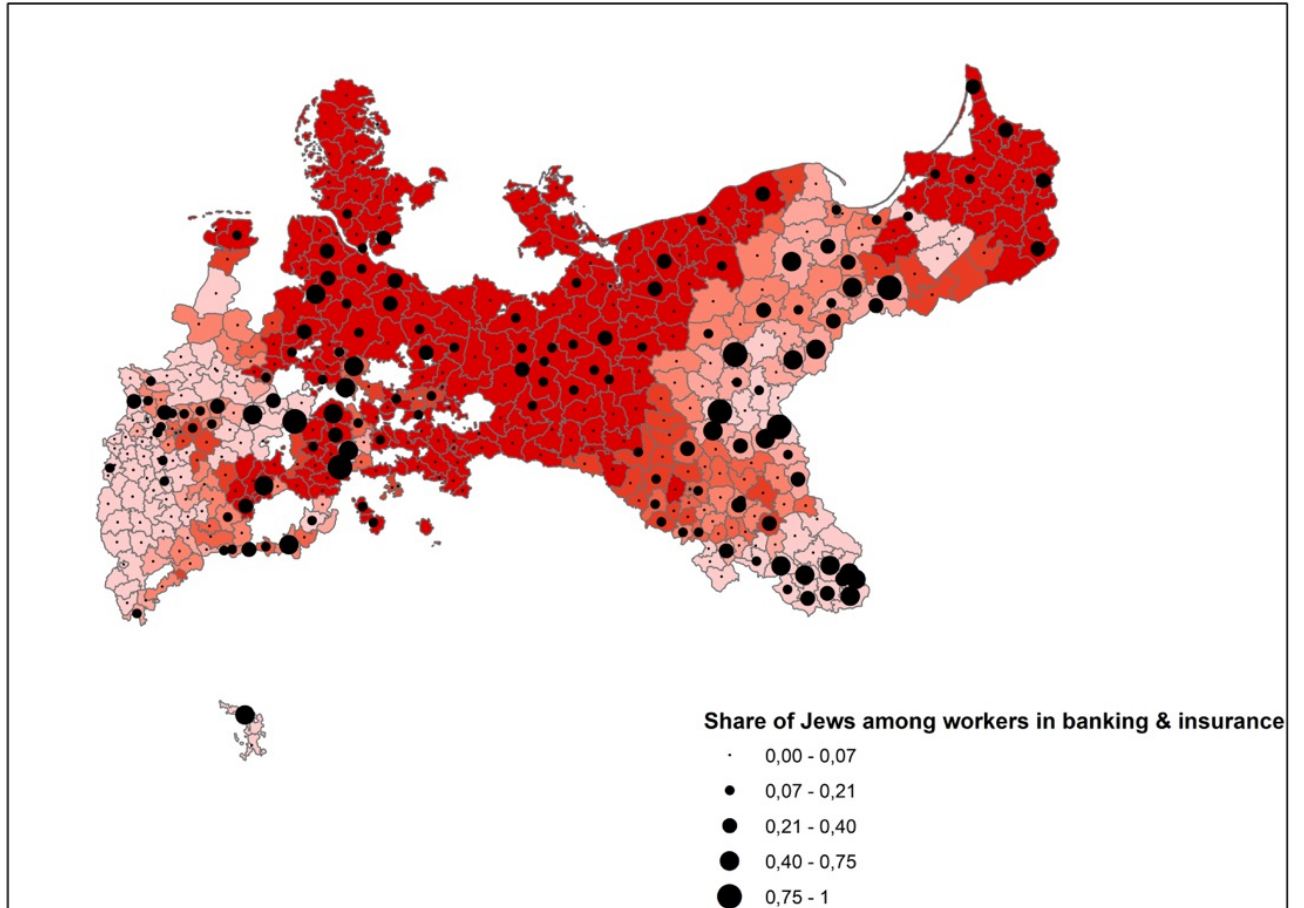


Figure P.5: Share of Protestants and Jewish market share in banking and insurance in 1882

Note: Share Protestants in whole population (background coloring) and Jewish market share in banking and insurance in 1882 (circles) across 452 Prussian counties. Source: Various volumes of the Preussische Statistik. See Appendix D for details.

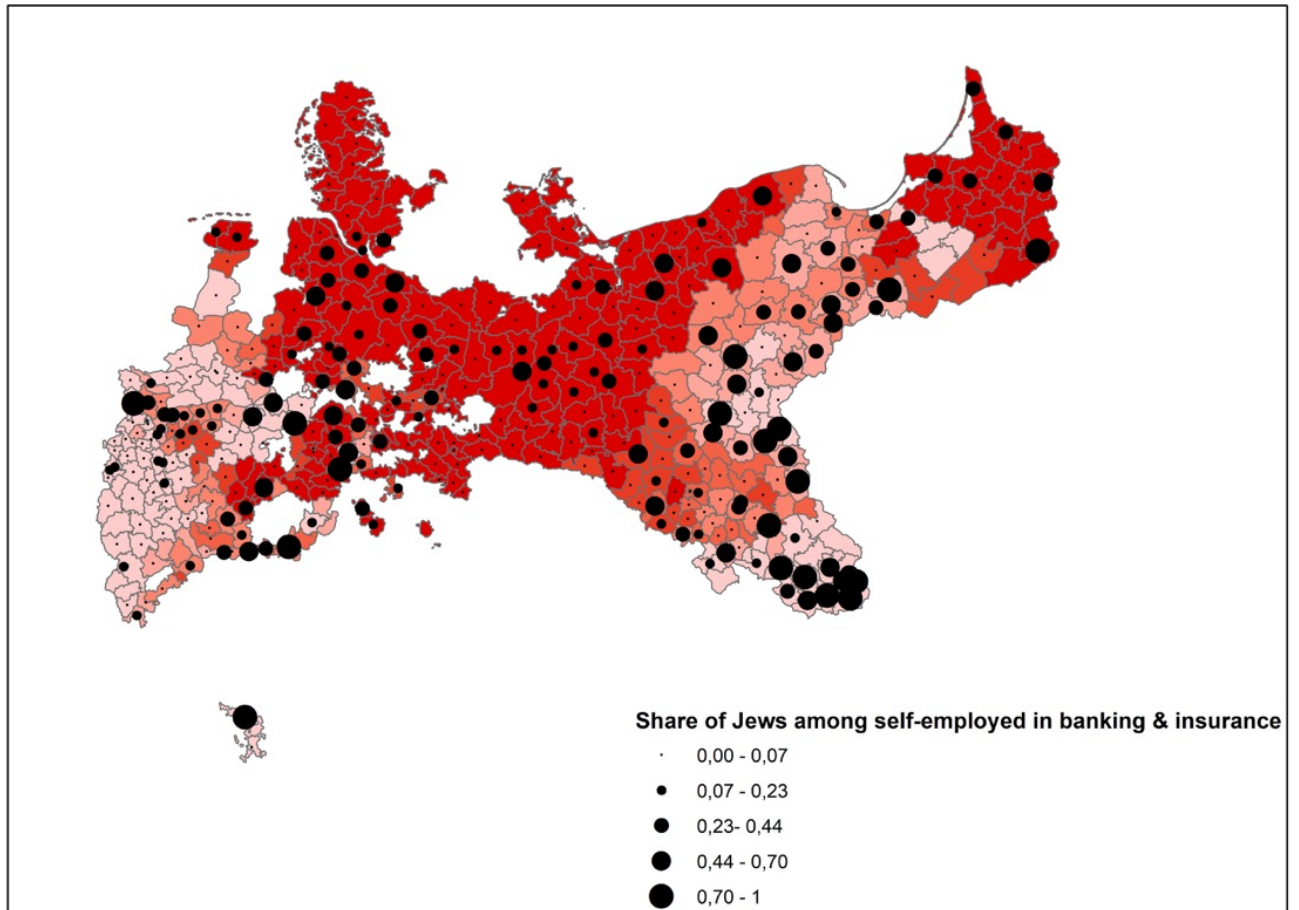


Figure P.6: Share of Protestants and Jewish market share among the self-employed in banking and insurance in 1882

Note: Share Protestants in whole population (background coloring) and Jewish market share among the self-employed in banking and insurance in 1882 (circles) across 452 Prussian counties. Source: Various volumes of the Preussische Statistik. See Appendix D for details.