Long-Term Effects of Equal Sharing: Evidence from Inheritance Rules for Land

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ABSTRACT

Long-Term Effects of Equal Sharing: Evidence from Inheritance Rules for Land*

What are the long-term economic effects of a more equal distribution of wealth? We exploit variation in historical inheritance rules for land in Germany. In some German areas, inherited land was to be shared or divided equally among children, while in others land was ruled to be indivisible. Using a geographic regression discontinuity design, we show that equal division of land led to a more equal distribution of land; other potential drivers of growth are smooth at the boundary and equal division areas were not historically more developed. Today, equal division areas feature higher average incomes and a right-shifted skill, income, and wealth distribution. Higher top incomes and top wealth in equal division areas coincide with higher education, and higher labor productivity. We show evidence consistent with the more even distribution of land leading to more innovative industrial by-employment during Germany's transition from an agrarian to an industrial economy and, in the long-run, more entrepreneurship.

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1 Introduction

One of the oldest debates in economics concerns the effect of inequality on growth and development (see, e.g. Kuznets 1955). How would growth prospects change if income or wealth were counterfactually distributed more evenly? The answer to this question has become particularly relevant in recent decades due to rising levels of income and wealth inequality (Piketty & Saez 2014, Alvaredo, Atkinson, Piketty & Saez 2013). Yet, the debate has remained active due to the scarcity of suitable data and credible research designs that allow for an estimation of causally interpretable effects, as variations in inequality likely correlate with drivers of growth (Banerjee & Duflo 2003).

We contribute to the resolution of this debate by leveraging sharp geographic variation in institutions that govern how resources are passed from parents to children. Historical inheritance rules for agricultural land varied sharply within Germany and prescribed either equal or unequal division of land among a decedent's children. In unequal division areas, agricultural property was considered indivisible and had to be passed on to a single heir. In contrast, agricultural land had to be divided equally among all children in equal division areas.

We analyze historical and long-run effects of these inheritance rules on economic outcomes and their distribution in a geographic regression discontinuity (RD) design. We digitized and geocoded data from fine-grained historical surveys on the local prevalence of inheritance rules across 19th century Germany (see e.g. Sering 1897). Broadly speaking, equal division of agricultural land was prevalent in parts of Southern and Western Germany and the boundary between the two inheritance rule regimes traverses political, linguistic, geological, and religious borders. We show that predictors of long-term development and also of a particular inheritance rule regime are smooth at the boundary, thereby suggesting that the variation in inheritance rules that we analyze is idiosyncratic and not systematically related to other drivers of growth. At a fine geographic level, the data therefore show a robust effect of lower levels of landholding inequality in the 19th century – caused by the equal division inheritance regime – on long-term economic outcomes and allow us to rule out a variety of potential confounders.

Throughout the 19th century, ownership of land – the key store of wealth in an agricultural society – was more evenly distributed in equal division areas with a reduction in the landholding Gini coefficient by about a third of a standard deviation. Our evidence shows that inheritance

rules indeed affected the inequality of landed wealth during the industrialization period. This finding is non-trivial: for example, a Coasean argument would suggest that inter vivos land transactions may lead to concentrated land ownership in equal division areas, e.g., if transaction costs were low and concentrated ownership were optimal.

The core result of our paper is that equal division of land has generated persistent effects until today: modern income and GDP levels are 6 to 14 percent higher in equal division areas. The more *even* distribution of land in the 19th century triggered a greater variety of activities during industrialization resulting in a more *dispersed* distribution today. Higher top incomes, higher top income shares and higher top wealth coincide with higher education, and higher labor productivity in equal division areas today.

Why might a more even wealth distribution spur long-term growth? Previous work has argued that the small and fragmented peasant holdings in equal division areas created both the incentive and the opportunity for extensive engagement in industrial by-employments as compensatory strategies which in turn provided the breeding ground for Germany's *Mittelstand* today (Herrigel 2000).[1] An influential body of literature hypothesizes that the distribution of wealth affects long-term growth through its effect on investment decisions and the occupational choice of individuals (see, e.g., Galor & Zeira 1993, Banerjee & Newman 1993, Ghatak & Nien-Huei Jiang 2002, Galor & Moav 2004). In such models, individuals have the choice between, e.g., subsistence farming and becoming a skilled worker or entrepreneur. Compared to a situation in which a large part of the population has essentially no wealth, a more even distribution of wealth can alleviate credit constraints in parts of the population or provide a buffer to absorb the potential risks of innovating, investing in human capital, or becoming an entrepreneur, all of which have favorable consequences for growth.

Historical accounts provide evidence consistent with inheritance rules affecting long-term growth through an occupational choice mechanisms. For example, the Finance Minister in the Kingdom of Württemberg argued that Württemberg's economic strength at the time, in 1823, was "*the unconditionally permissible division of landed property. On property of paltry size, the industriousness, thrift and ingenuity of the owner blossoms. He nourishes himself in the character of a businessman [Gewerbsmann], indeed, he becomes [. . .] a business man. [. . .] No*

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[1] *Mittelstand* refers to the segment of Germany's economic landscape shaped by small- and medium-sized firms.

matter where one looks, one finds everywhere industrious artisans, highly skilled manufacturers and thoughtful merchants. That is the character of industry in this land. [. . .] Supported by their small farms they are at least able to salvage a meager existence until luck or genius brings to them better times" (see Herrigel 2000, p.56). The assessment is consistent with the hypothesis that occupational choice and entrepreneurship could be mechanisms through which a more even distribution of landed wealth contributed to long-term growth.

We investigate the hypothesized mechanism empirically drawing on our RD design and find that occupational choice indeed differed between equal and unequal division areas during Germany's industrialization as predicted by the models. Specifically, we find that higher shares of the population in equal division areas–with a more even land distribution–worked in manufacturing as well as in trade and services. The additional employment in manufacturing is fully accounted for by employment in particularly innovative sectors with high patenting activity (defined following Streb, Baten & Yin 2006), which command a 36 percent higher employment share in equal division areas. We also find that self-employment out of agriculture is slightly higher in equal division areas as well as the density of middle schools which addressed students who want to become an apprentice. Finally, patenting activity itself was also higher in equal division areas. Overall, the data suggest that a more even distribution of wealth enabled workers to take up new opportunities during the transition from an agricultural to an industrial economy, and ultimately, become entrepreneurs. We find no evidence of more advantageous starting conditions for equal division areas before the Industrial Revolution with respect to agricultural productivity, general education, urban population or population density.

Our findings support several models in which landholding inequality may inhibit economic growth by restricting occupational choice. Galor, Moav & Vollrath (2009) formalize in a theoretical model that a more equal land distribution supports the rise of a new entrepreneurial elite during industrialization. The entrepreneurial elite then supports education of the former unskilled labor force. Data on education spending during the high-school movement in the US delivers evidence for that model. Similarly, Cinnirella & Hornung (2016) find for Prussia a negative cross-sectional relationship between large landholdings and primary school enrollment rates throughout the 19th century. With our findings that equal division counties are characterized by higher innovative activity and more self-employed people out of agriculture, we deliver

evidence that a more equal land distribution fosters the rise of a new entrepreneurial elite and, perhaps, economic growth.

More broadly, our study builds on several additional strands of the literature. We add causal evidence to the literature on the long-term effects of historical conditions on the economic development (see, e.g., La Porta, Lopez-de Silanes, Shleifer & Vishny 1998, Acemoglu, Johnson & Robinson 2001, Glaeser, La Porta, Lopez-de Silanes & Shleifer 2004, Nunn 2009, Alesina, Giuliano & Nunn 2013) and show that an inclusive institution, leading to a more equal distribution of landed wealth, fostered long-term growth. More directly, we build on the literature studying the economic and political consequences of landholding inequality (see, e.g., Gerschenkron 1966, Banerjee, Iyer & Somanathan 2005, Banerjee & Iyer 2005, Acemoglu, Bautista, Querubín & Robinson 2007, Ziblatt 2008, Becker, Cinnirella & Woessmann 2010, Bleakley & Ferrie 2016, Smith 2019). In addition, our study builds on previous research on industrialization in Germany (see, e.g., Gerschenkron 1989, Tilly 1969, Herrigel 2000). Furthermore, our findings are consistent with Doepke & Zilibotti (2008) who argue that occupational choice plays a crucial role during the Industrial Revolution and posit a concomitant downfall of the landed elite. Related to our work, Duranton, Rodríguez-Pose & Sandall (2009) correlate the regional prevalence of particular medieval family types with long-run outcomes across European regions. Contrary to our findings, they observe lower GDP levels, higher levels of manufacturing, and lower levels of service sector employment in what we would classify as equal division areas. These differences in the results might arise from differences in methodology as their analysis relies on a broader, cross-regional comparison. Habakkuk (1955) analyzes the role of family structures focusing primarily on population growth. He hypothesizes that single-heir systems slow population growth whereas equal division rules foster it. With regard to mobility, Habakkuk (1955) argues that unequal division areas faced more out-migration as non-inheriting children had fewer ties to the parental home. Analyzing micro-data from 19th century Hesse-Cassel, Wegge (1998) finds some support for this hypothesis. In addition, our study is most directly related to work by Rink & Hilbig (2019) who find a long-term association between equal division in Germany and more political equality today, e.g., more women in political councils and fewer aristocrats in the social elite. Finally, our study speaks to the historical origins of entrepreneurial activity glaeser2009local,fritsch2014long.

Our paper proceeds as follows: Section 2 discusses the history and the hypothesized origins of agricultural inheritance rules in Germany. Section 3 gives an overview of the different data sets we use. We present and discuss our empirical strategy in Section 4. Section 5 shows the estimated effects of Equal Division and historical and modern inequality measures and on modern measures of economic well-being. Further, we discuss correlations between equal division and potential confounders. Section 6 provides evidence for mechanisms through which equal division might have affected modern outcomes. Section 7 concludes.

2 Historical Background of Inheritance Rules

Historically, two main rules of inheritance for farms and agricultural land existed in Germany, prescribing equal division ('Realteilung') and unequal division of land ('Anerbenrecht') (Rösener 2012).[2] Under unequal division inheritance, agricultural property is considered indivisible and has to be passed on to a single heir. The most common unequal division rule prescribed "primogeniture", i.e. making the oldest son the designated heir. Historically, daughters and last-borns did not have a claim to the parental land and received little or no compensation in most unequal division areas. As a consequence, the non-inheriting children typically became landless and worked as farmhands on the inheriting brother's farm (Cole & Wolf 1995) or in factories (Becker 1998), unless they married into a landed family. Under equal division inheritance, land holding is divided equally among all children including daughters.

Eliminating equal division had been a recurring topic in the political debate since the 19th century (Rouette 2003, Eheberg 1883). Again and again, equal division was argued to represent a threat to the productivity of agriculture and the existence of farmers. The Nazis implemented such a reform through the 'Reichserbhofgesetz' (State Hereditary Farm Law) of 1933 introducing unequal division all over Germany (Rouette 2003). However, Röhm (1957) and Röhm (1961) later finds evidence that equal division rules persisted regionally until the

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[2]These are also referred to as partible and impartible inheritance, respectively. Variations in inheritance rules are also present in other parts of Europe. In England, for example, non-partible inheritance is traditionally applied (Alston & Schapiro 1984) while in France (Crouch 2005) as well as the Netherlands (Alston & Schapiro 1984) people divided farms equally. Spain applies partible inheritance in the South (Andalusia) and non-partible inheritance in the other parts (Tur-Prats 2018).

1950s. Even today, inheritance of farms is locally regulated by the states.[3] The state-specific rules still suspend equal division of the inheritance among a community of heirs as prescribed by the German Civil Law Code (BGB §§1922). Bavaria, Saarland, Thuringia, Saxony, Saxony-Anhalt, Mecklenburg-Vorpommern, Brandenburg, and Berlin follow BGB §2049 and §2312 (Landgüterrecht) which in general prescribes equal division but regulates that farms are assessed at a lower value than other property. The aim remains to secure productivity of agriculture.

In order to prevent the infinite parcellation of arable land below subsistence levels, farmers in equal division areas undertook different measures. First, parental property was *sold* to the child to whom ownership and control was passed on exclusively. The price could be paid either to the parents or to the other siblings as a one-off payment or as a regular rent. Second, land was bought and sold, primarily within family networks, with the aim of stabilizing farm sizes in the long-run. The land market has developed earlier and has been more dynamic in equal division areas since the 18th century. In this context, intermarriage started to play an increasing role (Rouette 2003). But still, we find significantly more small farms in equal division areas than in unequal division areas, suggesting that the consequences of inheritance rules for land allocation were not fully undone by other mechanisms (see Section 5.1).

Since we use geographic variation in the historical prevalence of inheritance rules, the question of which factors lead to the adoption of a particular inheritance rule in a locality arises naturally. This question remains debated among historians, who concur that the rules had been in place since at least the Middle Ages: Two of the first written codices, the Lex Salica of 507 AD and the Sachsenspiegel of 1220 AD, regulated agricultural inheritance. The Lex Salica prescribed equal division among male offspring in Frankish lands (South-Western Germany) (Behrend 1897), whereas the Sachsenspiegel prescribed a single heir in parts of the North-East (Blanckmeister 1913).[4]

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[3]Hamburg, North Rhine-Westphalia, Lower Saxony, and Schleswig-Holstein introduced unequal division inheritance by the the Höfeordnung (HöfeO from 26 July 1976, BGBl. 1, S. 1933). Baden-Württemberg applies the Badisches Hofgütergesetz and Württembergisches Anerbengesetz. Hesse follows the Hessische Landgüterordnung, Rhineland-Palatinate the Rheinland-Pfälzische Höfeordnung, and Bremen the Bremisches Höfegesetz.

[4]A hypothesis dating back to at least Weber (1924) is that unequal division was established where local feudal lords or the state had the power and incentives to prohibit the division of land as it was thought that larger land plots could be taxed more easily (Rösener 2012). Other scholars have suggested that features of the terrain or the soil were conducive to the adoption of one inheritance rule over the other (Schröder 1979). Following Boserup (1965) and Fastenmayer (2009) soil quality in combination with crops that support plough use would give an advantage to unequal division rules.

Figure 1 Panel (a) shows the spatial distribution of different inheritance rules in 19th century Germany.[5] We distinguish equal division (green) from unequal division areas (blue). Unequal division is prevalent in a majority of regions. With several exceptions, equal division is predominantly found in the southwest of Germany. The map is a combination of various sources in form of maps and texts from the late 19th century: The first comprehensive overview of the geographic distribution of inheritance rules in Prussia was created in 1894 when the Prussian government conducted a survey among judges and county administrators to inquire into the nature and history of inheritance rules in their jurisdiction (Rouette 2003). Around the same time, similar surveys were conducted in the other kingdoms of the German Empire by Verein für Socialpolitik (1883), Grossherzogliches Ministerium des Inneren (1883), Miaskowski (1884), Fick (1895), and Krafft (1930). Several decades later, the geographers Hartke & Westermann (1940) created an overview map that depicted the local prevalence of particular inheritance rules based on the results published by Sering (1897) and others. These surveys allow a very fine-grained categorization of inheritance rules by locality, typically at the village level.[6] In our samples the inheritance rule of each county is classified by the inheritance rule of the majority of the area of a county.

3   Data

This section provides a detailed description of our data sources and shows summary statistics of how equal and unequal division counties differed. The unit of observation throughout is a rural county in Germany at different points in time.[7] The counties' locations are indicated by historical and modern maps of German counties provided by MPIDR [Max Planck Institute for Demographic Research] and CGG [Chair for Geodesy and Geoinformatics, University of

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[5]We stick to the maps provided by the sources in the late 19th century, because local inheritance regimes were not necessarily stable over time. Rouette (2003) points to two changes in the 19th century: The industrialized Ruhr area switched from unequal to equal division while the area around Paderborn increasingly practiced unequal division.

[6]Where possible, we follow the original sources rather than Hartke & Westermann (1940), whose work was published during the Nazi regime and might have been influenced by the propaganda similar to Huppertz (1939). For counties for which we could not identify the prevalent inheritance rule from the original sources we filled the gaps from the comprehensive map of Hartke & Westermann (1940).

[7]Sample restrictions exclude independent cities from our analysis for several reasons. First, agriculture played a minor role in cities. Second, urbanization triggered migration into cities at a large scale and brings people with unequal division origin into areas of equal division and vice versa. Migrants' behavior influences the outcome variables of cities and we cannot distinguish if this is driven by people with equal or unequal division background.

Rostock] (2011) and the German Federal Institute for Research on Building, Urban Affairs, and Spatial Development (BBSR). We link our historical sample, consisting of 900 rural German counties in 1895, either spatially, via official county codes, or via county names to our modern sample of 397 counties in 2014.

3.1 Data Sources

Our main outcome variables stem from censuses, national accounts and tax records of the Federal Statistical Office of Germany or its predecessors from the late 19th century onward. In order to measure income inequality within and between regions in the 19th century and today, we draw on income tax records and compute top income shares following the standards of the World Inequality Database (`https:\\wid.world`), i.e., we apply the Pareto interpolation method as established by Piketty (2003). Our regional income inequality series for Germany represents a new and unique contribution to international inequality data, because existing long-run inequality series measure inequality at the national level – with one regional exception for the United States.[8]

Historical Outcomes   Historical data on farm sizes and occupations stem from the first comprehensive agricultural census for the German Empire (Kaiserliches Statisisches Amt 1912) and from two censuses on occupations and businesses (Kaiserliches Statisisches Amt 1897, Kaiserliches Statisisches Amt 1910) that we digitized. These statistics allow us to calculate average farm sizes, the share of farms across size categories, the population per county and employment shares in agriculture, manufacturing, and trade and services. Within occupations, we can identify innovative branches in manufacturing as specified in Streb et al. (2006). We enrich agricultural information by data on landholding inequality from 1895 provided by Ziblatt (2008). The distribution of height in Bavarian conscripts in the 19th century serves as individual data on inequality (Baten 1999, Baten 2000). Patent data from Streb et al. (2006) which includes all valuable patents filed in Germany between 1877 and 1914 serves as a second measure for

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[8]Bartels (2019) provides the WID series for Germany. The Pareto interpolation method additionally draws on population statistics for the total number of potential taxpayers and national accounts for total income as income tax statistics are restricted to the taxpaying part of the population. See Bartels (2019) for a detailed description of the method and its application to German income tax statistics 1871 to 2014.

innovative activity.[9] For the estimation of income inequality within and between counties, we use county-level income tax tabulations that provide information on income bins, including the mean income and the number of taxpayers within each bin. We digitized historical county-level income tax tabulations from Baden, Hesse and Württemberg (see Table A3 for data sources).[10] Further measures of economic development come from the census on occupations and businesses from 1925 which allows us to distinguish between employees and laborers (Fritsch & Wyrwich 2016).[11]

Modern Outcomes   Income, education, and industry structure on the county level are from the INKAR 2014 data set, which includes official aggregated information and is provided by the BBSR. For finer measures of income and labor productivity, we incorporate county-level national accounts and income tax records provided by the German Federal Statistical Office and the Statistical Offices of the Laender. Our between-county inequality measures are the log mean income of the top 10% and the top 1% as well as the share of households in each county belonging to the bottom 40% or bottom 20% of the national income distribution.[12] For the measurement of wealth, we draw on wealth data from the last collection of the German wealth tax in 1995, that lists wealth taxpayers and millionaires per 10.000 inhabitants by county.

Pre-Industrial Development   For agricultural productivity before and after 1500 we use data on caloric output of land by Galor & Özak (2016). Another measure of pre-industrial economic development is population data, which we obtain from Bairoch, Batou & Chevre (1988) and the Statistical Office of the German Empire, which published the population of 1375 German towns and cities in 1867, 1871, and 1875 (Kaiserliches Statistisches Amt 1877). Additionally, we use data from the iPEHd on Prussia provided by Becker, Cinnirella, Hornung & Woessmann (2014) to evaluate pre-industrial development. Tables A1 and A2 in the Appendix provide a brief overview of the variables we use from these data sets.

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[9]We thank Jochen Streb for kindly sharing his data.

[10]Bavaria did not publish county-level income tax information before World War I. Prussia only published tax tabulation on the more aggregate level of the *Regierungsbezirk*.

[11]We thank Michael Wyrwich for kindly sharing their data.

[12]Income tax records today exclude a third of the population which is tax exempt. Using the Socio-Economic Panel (SOEP), we estimate that the bottom 40% of potential tax households in Germany earned less than €20.000 and the bottom 20% earned less than €10.000. The SOEP allows us to rank potential tax households by their gross income according to tax law definitions so that we can identify income thresholds of the bottom 40% and bottom 20%, respectively, and then estimate their population share.

Control Variables We use three types of control variables: geographical variables, cultural and institutional variables, and controls for the location. The geographic control variables come from GIS raster data depicting current information on soil, climate, elevation, and navigable waterways. We rely on data from the European Soil Data Base, the free climate data from WorldClim.org and navigable waterways from Kunz (2004). The calculation of average elevation of a county is based on data from Jarvis, Reuter, Nelson & Guevara (2006). Cultural and institutional control variables come from various sources: The share of protestants in a county stems from Konversationslexikon (1905) and the general law type stems from a map by Schröder (1870). Hanseatic involvement is inferred from a map by Helmolt (1902) as is an indicator for belonging to the Frankish territory from Shepherd (1911). We include controls for location in the form of longitude and latitude of the centroid of a county as well as an indicator for the historical state the county belongs to.

3.2   Summary Statistics

Table 1 shows summary statistics for equal and unequal division counties, which illustrate to what extent the two groups differed in their control characteristics. Panel A lists the geographic controls. In equal division areas, the average temperature and elevation are slightly higher. Unequal division areas have a significantly higher share of sand, silt, and loam in the soil, while the share of loess, which is favorable for agriculture, does not differ significantly between the two groups. Panel B shows the summary statistics of the cultural and institutional control variables. While Frankish territory and Napoleonic Code mainly appear in equal division areas and the Hanseatic League and Prussian Law in unequal division areas, the share of protestants does not differ significantly between inheritance rules. We conclude that equal and unequal division areas are not completely balanced but differ in some aspects; therefore, we include the geographic and cultural control variables later on in our analyses and use geographic regression discontinuity models with counties close to the boundary as our preferred specification.

4 Empirical Strategy

We apply two empirical strategies to estimate the effect of equal division on inequality and economic development. First, we estimate OLS regressions with a rich set of control variables, including flexible controls for the location of the county. Second, we view the location where unequal division changes to equal division as a boundary and discontinuous jump in inheritance rules which is determined by longitude and latitude. In this framework we apply a multidimensional, semi-parametric regression discontinuity (RD) approach similar to Dell (2010) to identify the effect of equal division. Our estimation model is:

$$Y_c = \alpha + \gamma \cdot Equal\ Division_c + X_c'\beta + f(Geographic\ Location_c) + \phi_{s(c)} + \epsilon_c. \tag{1}$$

The outcome Y_c is a specific outcome measure of county c. *Equal Division* is an indicator variable for equal division inheritance in county c. The coefficient of interest γ measures the effect of equal division and the outcome variable Y_c. The matrix X_c contains control variables for county c. The term $\phi_{s(c)}$ determines the state in which county c is located. Independent cities of one state are clustered locally. Therefore, the state dummies divide the border of inheritance rule into nine different segments.[13]

The polynomial $f(Geographic\ Location_c)$ is a linear function of longitude and latitude in the OLS specification. Our RD specification additionally includes distance to the boundary. As a robustness check, we use a quadratic polynomial that controls for squared longitude, latitude, and distance to the boundary, as well as interactions between longitude and latitude, longitude and distance to border and, finally, latitude and distance to border. Our main results are qualitatively and quantitatively robust to using the quadratic polynomial instead.

We use the full sample of all rural counties in Germany in a specific year for the OLS specification. For the RD specification, we reduce the sample to counties with a centroid in a 35 km radius of the border as Figure **??** Panel (b) shows. Standard errors are clustered at the district level which is one aggregation level above the county level.[14] Counties are weighted by the number of their inhabitants in order to allow a population-related interpretation of our

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[13]The segments including both inheritance rules are: Prussia, Bavaria, Baden, Württemberg, Hessia, Schwarzburg Rudolstadt, Sachsen Weimar Eisenach, Sachsen Meinigen Gotha, Sachsen Coburg Gotha.

[14]There are 51 districts i.e. clusters in 35 km radius to the inheritance rule border.

results. Independent cities are excluded in our historical analysis. In our analysis of modern outcomes, independent cities with more than 100.000 inhabitants are excluded.

4.1 Identification Assumption

The RD approach relies on the identification assumption that the characteristics between the two groups - i.e. across the border - vary smoothly. In order to test this assumption, we test whether predictors of inheritance rules or of long-term development differ discontinuously at the boundary between the two regimes. We predict each relevant outcome based on a linear specification using all our control variables as potential predictors.

Figure 2 Panel (a) plots the predicted equal division against the distance of a county to the border of inheritance rule. No jump or discontinuity in the outcome variable at the boundary can be detected. Moreover, Figure 2 reveals that the relationship between controls and inheritance rule in a range of 35 km left and right of the border can be well approximated with a linear specification. Taken together, this evidence supports the identification assumption and suggests that, close to boundary, equal and unequal division areas did not differ discontinuously in the characteristics that determine particular inheritance rules in the cross-section.

We next check the continuity of indicators of predicted long-term development at the boundary in Figure 2 Panels (b) and (c). If counties sorted into equal division based on unobserved characteristics, which are positively correlated with income today, Figure 2 Panels (b) and (c) would reveal a positive discontinuity with respect to GDP per capita and household income per household member, respectively. The evidence does not support such a conclusion. For a measure of predicted GDP per capita, no large positive discontinuity at the boundary is discernible. For predicted household income, we find an economically small change at the boundary, with equal division areas having features that are associated with, if anything, slightly lower long-term household income levels. Taken together, the results in Figure 2 lend support to a geographic discontinuity strategy.

5 Results

Our analysis proceeds in two parts: First, we provide evidence on the historical effects of equal division and inequality before and throughout the Industrial Revolution. Second, we assess the long-term effects of historical inheritance rules on modern outcomes and their distribution.

5.1 Effects of Equal Division at the Turn of the 19th Century

The first step of our empirical analysis is to assess if, historically, equal division of land resulted in lower inequality. We investigate landholding inequality, individual height inequality and income inequality at the turn of the 19th century. While we find significantly more landholding and height equality in equal division areas, there are no significant differences in income inequality.

Landholding Inequality Table 2 shows regression results for landholding inequality in 1897. Landholding Gini coefficients are significantly lower by about a third of a standard deviation (SD) in our RD specification.[15] The distribution of farms sizes in equal division areas is shifted to the left. There are significantly more small farms below 5 hectares and less large farms between 5 and 20 hectares or between 20 and 100 hectares.[16] This higher share of small farms in equal division is also visible in pre-industrial Prussian census data of 1816 (see Appendix Table A5). Landholding inequality and farm size effects are robust to including geographic and cultural controls (Panel B) and to the restrictions of the RD approach (Panel C).

The snapshot in 1895 does not reveal whether equal division was still performed at the end of the 19th century. Differences might have emerged hundreds of years ago and may not have faded away by 1895. Appendix Table A6 shows that equal division was indeed still performed: a difference-in-differences analysis between 1895 and 1907 shows that within 12 years farms in equal division areas became significantly smaller and the share of small farms increased even more.

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[15]This finding is robust to including the quadratic polynomial instead, as shown in Column 2.

[16]The census also includes a category for farms above 100 hectares. There are no significant differences between equal and unequal division counties in the share of farms above 100 ha. It is likely that church land and feudal estates which existed in both inheritance regimes fall in that category and were not affected by inheritance rules.

Our results on landholding inequality establish two core facts: First, until the end of the 19th century, equal division affected the distribution of land. Second, although people could have sold their inherited land and moved to cities or abroad, this was not common practice. A Coasean argument would suggest that inter vivos land transactions should have concentrated land ownership in equal division areas if transaction costs were low and if concentrated land ownership were optimal for agricultural productivity. Yet, the evidence shows persistent differences in landholding inequality at the boundary between the two inheritance regimes, contrary to a Coasean argument.

Height Inequality   To complement our analysis of landholding inequality, we also study inequality in height, a well established measure of individual well-being in terms of nourishment and health (van Zanden, Baten, d'Ercole, Rijpma, Smith & Timmer 2014, Fogel 1986). We calculate the SD of individual height of 20-year-old conscripts in Bavarian counties in the 19th century combined with information on their county of origin.[17] We find significantly less variation in height in equal division counties (see Appendix Table A13).[18] Hence, at least in the context of Bavaria for which we have height data, it appears that not only the production factor land but also inputs into physical development like food were distributed more equally in equal division counties.

Income Inequality   We draw on county income tax tabulations in 1895 and 1907 to compute the top 10% and top 1% income share as a measure of income inequality. Table A7 shows that income inequality did not significantly differ between equal and unequal division areas, neither in 1895 nor in 1907. However, we find evidence for differences in the income composition. While total average incomes reveal no significant differences (columns 4 and 8 of Table A7), average business incomes were significantly higher in equal division areas (column 1 in Appendix Table A15). This already points to our suggested occupational choice mechanism, which we explore in

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[17]See   http://www.uni-tuebingen.de/fakultaeten/wirtschafts-und-sozialwissenschaftliche-fakultaet/ faecher/wirtschaftswissenschaft/lehrstuehle/volkswirtschaftslehre/wirtschaftsgeschichte/data-hub-height.html as well as Baten (1999) and Baten (2000) for more information on the context and the data.

[18]To check weather Bavaria is a good case study for the effect of equal division, we estimated the same regressions as in Table 2 but only for Bavaria. Table A9 in the Appendix shows the results. As the number of observations is strongly reduced, the effects are hardly significant. The effects of the Gini coefficient are positive but become very small at the border. The percentages of farms in specific size categories are similar to our findings for whole Germany, indicating that Bavaria qualifies as an appropriate sample of the whole population.

more detail in Section 6: Farmers with small landholdings in equal division areas compensated their smaller agricultural incomes with income from industrial by-employment. As we will demonstrate in the following, the entrepreneurial activities emerging in equal division areas during the transition phase from an agricultural to industrial economy provided the ground for more dynamic economic activities in the long-run.

5.2 Long-Term Effects of Equal Division: Modern Outcomes

Here, we show that the equal division of land had persistent effects on income, education, and the accumulation of wealth. Higher average incomes in equal division go along with a more widespread distribution of skill, income and wealth.

Income Today's income and GDP per capita is, on average, higher in equal division counties than in unequal division counties. Table 3 shows that inheritance rules have persistent effects on average income, which are positive, highly statistically significant, and robust across all specifications. Further, the effects are robust to using the quadratic polynomial including interactions between longitude, latitude and distance to border (see Appendix Figure A4).[19] The magnitudes for all income measures are around 45 percent of a SD (except for median income at about 27 percent). Equal division counties have 6-14 percent higher income and GDP levels today.

Top Incomes Top incomes are significantly higher in equal division counties, as shown in Table 4. We find that the top decile and the top percentile in equal division counties earn 9-14 percent more than their counterparts in unequal division counties. This implies substantial income inequality *between* equal and unequal division counties. Hence, we document a income gap *between* equal and unequal division both for average incomes (Table 3) and for top average incomes.

Top Income Shares Income concentration *within* equal division counties is significantly higher than in unequal division counties. This is shown by the income shares of the top decile

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[19]We also interacted latitude, longitude and border distance with the treatment indicator so that the inheritance rules effect is allowed to be different on either side of boundary. However, we do not obtain significant results. Results are available from the authors upon request.

and the top percentile in total county income. On average, 37 percent of total income accrues to the top decile, and 11 percent of total income accrues to the top percentile. In equal division areas, the top 10% income share is about 2 percentage points higher and the top 1% income share is about one percentage point higher. These magnitudes are around 30 percent and 45 percent of a SD, respectively.[20]

Top Wealth   Drawing on data from the last collection of the German wealth tax in 1995, we find that top wealth is significantly higher in equal division counties (see the last two columns of Table 4). There are about 35 more wealth taxpayers and about seven more millionaires per 10.000 inhabitants in equal division counties, on average. The magnitudes correspond to around 60 percent of a SD. Hence, the initially more equal distribution of wealth during the transition phase from an agrarian to an industrial economy resulted in a more dispersed distribution of wealth in the long-run.

Human Capital and Productivity   Results on educational outcomes, productivity and industry structure (Table 5) provide a first hint as to why these large differences in income might have emerged. In equal division counties, the percentage of the population with a college degree is about 50 percent of a SD higher (see Table 5). Simultaneously, the share of people with a vocational degree is lower, while the share of people without a degree does not differ (not shown). Additionally, equal division counties have higher employment in the trade and service sector and particularly in creative industries. Equal division countries reveal significantly higher labor productivity measured as GDP per hour worked. There are also more firms present (particularly small firms) in equal division counties. These differences suggest that human capital and industry structure contribute to the large income differences today. In the following sections, we will discuss these and further potential channels and, in particular, shed light on the importance of industry structure in dimensions of innovation and structural change.

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[20]The share of low-income households is lower in equal division counties. More precisely, there are fewer households in equal division counties who belong to the bottom 40% ($< €20.000$) or bottom 20% ($< €10.000$) of the national income distribution, respectively. This suggests that higher income concentration at the top in equal division countries does not come at the expense of lower bottom incomes.

5.3 Robustness Checks

We next assess whether the long-term relationship between equal division inheritance and long-term outcomes might be spurious and driven by other long-term differences between equal and unequal division inheritance counties. We first show that equal division counties did not have significant advantages in economic development before industrialization started. The large income gaps between equal and unequal division counties today might be driven by unobserved characteristics which have made equal division counties better off ever since. As measures for pre-industrial wealth and development are rare and hardly available at a geographically disaggregated level for the whole German territory[21], we draw on different data sets and subsamples that provide evidence that equal division counties were not better off until the end of the 19th century. Our analysis includes four observable determinants of long-term growth: (1) agricultural productivity measured directly by potential caloric output per hectare per year, average farm sizes, and Prussian grain yields; (2) population density, used as a long-run measure of development; (3) early economic progress, which is examined by Prussian census data on early industrialization, employment, and wages; (4) human capital development as covered by Prussian educational censuses.

Agricultural Productivity   We test whether equal division counties had more favorable conditions for agriculture that might have contributed to different long-term development trajectories. An index of caloric output per hectare per year before the year 1500 constructed by Galor & Özak (2016) is the outcome variable in column 1 of Table 6. Although the coefficient is positive, it is not robust to the inclusion of controls and vanishes in the RD specification. In addition to differences in land, there might be discrepancies between potential productivity of land and realized output. In column 2 we draw on data on grain yields from Prussia in 1878 which show slightly lower yields in equal division counties, although the difference is far from being economically or statistically significant. These results provide evidence for the hypothesis that agricultural productivity was similar in equal division and unequal division counties.

Population Density   Long-term data with direct evidence on levels of economic development is scarce so we draw on urban population data from year 1500 onwards based on (Bairoch

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[21]Germany was split into independent kingdoms and principalities until German unification in 1871.

et al. 1988) to assess measures of development before the Industrial Revolution in equal and unequal division areas. We find that the density of urban population developed similarly in equal and unequal division areas (Figure 3). If anything, population density is slightly lower throughout in equal division areas. A potential objection to the use of urban population data in the context of our study might be that rural population density could be a better measure for development in the context of agricultural inheritance rules. As shown in Table 7, the population density in Prussia in 1816 was not higher in equal division counties. For the sample of the whole German territory we show that the density is still not significantly higher in equal division counties by 1895 but we can detect relative increases by 1907. This increase in the population density from 1895 to 1907 is significantly higher in equal division counties than in unequal division counties which is, however, driven by counties which surround independent cities. Excluding these counties from the sample eliminates statistical significance.

Early Industrialization, Employment, Income, and Wages   Drawing on Prussian data, we can assess the relationship between inheritance regimes and measures of early industrialization. Prussian censuses are available from 1816 on and cover disaggregated data at the level of historical counties.[22] Although Prussia had only very few equal division counties, Table A8 shows that our main results on inequality also hold in a subsample of (historical) Prussia. Data on the number of factories, mills, and looms in 1821 shed light on the economic situation of equal division counties before industrialization started. Self-employment out of agriculture, and employment in manufacturing in 1882 as well as income and county taxes in 1878 and daily wages in 1892 show if industrialization had a positive effect in equal division counties very quickly.

Table 8 shows that there are hardly any significant differences between equal and unequal division counties in Prussia. If anything, coefficients are negative for the density of factories, mills, and looms, suggesting that adoption of new technologies must have started later than 1821. In 1882, there are also no differences in the percentage of people who are self-employed (outside of agriculture) and in the percentage of people working in manufacturing.

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[22]More information about Prussian census data is given in Becker et al. (2014).

For income and wages, Table A10 shows that there are no significant positive effects of equal division and various measures of revenues from income and local county taxes. The difference in daily wages for males is also very small and insignificant.

Human Capital We rely on Prussian educational censuses which document the number of schools, students, and literacy rates early on to shed light on the human capital stock and development in equal and unequal division counties. Table A11 reveals that the percentage of people who could read and write and the percentage of illiterate people were not significantly different between equal and unequal division counties in 1871 when including our controls or RD approach. There are no differences between equal and unequal division counties in school density or pupils in pre-industrial 1816 or at the onset of industrialization in 1886.

Bringing the results on agricultural productivity, population, early industrialization, income, and education together, reveals that equal division counties did not have more advantageous starting conditions than unequal division counties before the Industrial Revolution. This allows us to rule out a broad class of potential confounders that could have contributed to the large differences in outcomes we observe in 2014.

6 Potential Mechanisms

Why are equal division counties featuring higher income, wealth and education levels today? In this section, we further investigate the potential pathways through which inheritance rules may have affected long-term outcomes in equal and unequal division areas. Throughout the first half of the 20th century, agricultural income lost importance in relation to industrial income. But the joint production of manufacturing and agricultural products under one roof remained a widespread phenomenon until the 1950s, particularly in equal division areas (Lerner 1965, p.326). This industrial by-employment proved crucial for the long-run industrial geography of Germany: new factories were set up in equal division areas to employ workers from those small domestic workshops. This phenomenon occurred first in traditional industries like the tobacco, textile or furniture and later in automotive, automotive supplier, chemical, pharmaceutical and electronics industries (Kistler 1954, Lerner 1965). We argue that inheritance rules created both an incentive and an opportunity for farmers to engage in industrial by-employment and,

ultimately, become entrepreneurs. The entrepreneurial businesses or the cultures they created may have, in turn, provided the ground for long-term economic growth.

6.1 Incentives for Industrial By-Employment

The small and fragmented peasant holdings in equal division areas created an incentive to engage in industrial by-employment as compensatory strategy (Herrigel 2000). According to Eiler (1984, p.81), families with farms smaller than 3 ha were forced to engage in by-employment in order to nourish the family. As shown in Table 2, equal division areas had significantly more farms with less than 2 ha or with 2-5 ha. We find a significant effect of farm size and soil quality on (innovative) manufacturing interacting our equal division indicator with farm size and soil quality. The smaller the average farm in an equal division county, the higher was employment in (innovative) manufacturing in equal division areas (Columns 3 (6) of Table 10). Further, the lower the soil quality in equal division areas, the higher was employment in (innovative) manufacturing in equal division areas (see columns 2 (5) of Table 10). Finally, innovative activity measured by patents is higher in equal division areas if soil quality is lower (see columns 2, 4 and 6 of Table 11). The patent effect is only significant for the reduced sample of our RD specification. We will discuss the role of innovation in more detail in the following Section 6.2.

6.2 The Role of Entrepreneurship

A class of models hypothesizes that a more equal distribution of wealth may increase long-term growth by giving broader parts of the population the chance to become skilled workers or entrepreneurs (see, e.g., Galor & Zeira 1993, Banerjee & Newman 1993, Ghatak & Nien-Huei Jiang 2002, Galor & Moav 2004). Compared to a situation in which a large part of the population has essentially no wealth, a more even distribution of wealth can provide a buffer to absorb the potential risks of becoming an entrepreneur, investing in human capital, or innovating, or it can alleviate credit constraints in parts of the population, all of which have favorable consequences for growth. Additionally, a more equal wealth distribution might induce individuals to take greater risks if they care for their relative status (Robson 1992). We discuss the evidence for more entrepreneurship, higher innovation and less credit constraints in equal division areas.

Entrepreneurship Our results support an occupational choice mechanism, through which landholding inequality may have affected long-term outcomes. First, we find that per capita business incomes are significantly higher in equal division areas in Baden and Württemberg in 1907, whereas per capital real estate income, capital income and labor incomes are not significantly different in equal and unequal division areas (see Table A15). Second, considering a rough proxy for entrepreneurial activity, we find that equal division countries have a higher percentage of self-employed people out of agriculture in 1925 (see Table A16). These entrepreneurial activities in equal division areas may have provided the foundation for more firms, higher incomes and higher productivity observed today.[23]

Innovation Employment in innovative branches of manufacturing was higher in equal division areas. We distinguish between 163 occupations in manufacturing in 1907 and follow Streb et al. (2006) who categorize metal working, industry of machines and instruments, chemical industry, printing, and photography as innovative branches based on the number of patents between 1877 and 1914. Table 10 shows the effect of equal division and employment in innovative manufacturing occupations. The coefficient is nearly identical to that in Table 9, which leads us to the conclusion that the additional employment in manufacturing comes almost entirely from occupations in innovative branches.

Patent data of Streb et al. (2006) provide further evidence that innovative activity was higher in equal division counties from 1877 to 1914 (see Table 11). The positive correlation holds when using an indicator variable for having filed a patent in that time, using a log of the total number of patents[24] to include only counties with patenting activity, and when using the log total number of patents including the counties with no patenting activity as zeros. The magnitude is quite large at about a third of a SD.

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[23]Additionally, there is some weak evidence that the density of middle schools and the share of middle-school pupils is slightly higher in equal division counties. These schools were primarily attended by students who wanted to become an apprentice in a particular trade. These additional results are not robust across specifications and the effects are only imprecisely estimated but are broadly consistent with landholding inequality affecting longer-term outcomes through occupational choice.

[24]Using the log is necessary as there are some counties with extreme outliers in patenting activity compared to the other counties. While the 50th percentile of filed patents is 1, the 99th percentile lies at 123 patents and the maximum is 913 filed patents between 1877 and 1914.

Credit Constraints People may be able to borrow only limited amounts because of capital market imperfections. Theoretically, it is not clear if inequality or equality creates growth in models with credit constraints. Small land holdings serving as collateral could have alleviated credit constraints for the large number of small peasants in equal division areas. On the other hand, larger estates could have been the precondition to fund costly investments that then generate growth, as opposed to the situation where all economic agents do not have enough funds for the costly investment.

The financial market in 19th century Germany was still in its infancy. On average, every fifth person held a savings account at a savings bank in 1895, which increased to every fourth person until 1907 (see Table A14). In 1907, average deposits at savings banks amounted to less than a third of average annual income. Accordingly, we find no significant differences between equal and unequal division areas in loans granted by savings banks (*Sparkassen*) or credit associations (*Kreditvereine*) in 1895 and 1907 (see Table A14). The absence of higher formal credits does not necessarily imply that reduced credit constraints did not play a role for entrepreneurs in equal division areas. Most of the literature on industrialization in South-West Germany stresses the enduring importance of private, informal lending (see Fischer 1972).

Summary As a result of the above factors, we observe an earlier industrial take-off in equal division counties: While there were no significant differences in employment in agriculture and manufacturing in 1882 (see Table A12), equal division areas exhibit significantly lower agricultural employment and higher manufacturing employment in 1895. This gap between equal and unequal division areas opens even further until 1907. Table 9 reveals that the coefficient of manufacturing amounts to about a quarter of an SD and increased by 35 percent of a SD from 1895 to 1907. At the same time, the coefficient of equal division for employment in agriculture decreased by almost the same magnitude from 1895 to 1907.

Our evidence highlights the importance of small firms, which is another long-term result of industrial by-employment in equal division areas. Today, firms in equal division areas are smaller, on average (see column 9 of Table 5), while being more productive at the same time (see column 7 of Table 5). According to Herrigel (2000), small- and medium-sized German firms proved able to adapt to the accelerating pace of product and technological change of the new

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world market conditions in the 1980s, when the era of mass production in post-war Germany came to an end. Smaller firms can adjust more flexibly to changing economic environments and may, by this, ensure long-term economic growth.

Higher long-term growth has resulted in a more widespread distribution of income and wealth. The income share of the top 10% and the top 1% is significantly higher in equal division areas. Also, the number of millionaires per capita is significantly higher. Taken together with the observation that top incomes in Germany mostly stem from family businesses (Bartels 2019), the above findings imply that high income comes from and wealth is invested in family firms. At least two channels may have contributed to turn a more even historical distribution into a more uneven distribution today. First, family firms are unlikely to be equally divided among siblings. The desire to leave the business intact in the hands of a single descendant may induce firm owners to give a higher portion of the firm to one child that will take over control of the firm. A larger portion assigned to the controlling heir of the family firm alleviates credit constraints if capital markets are imperfect and, thereby, expand the firm's ability to invest (Ellul, Pagano & Panunzi 2010). Second, large inheritances – here in the form of businesses – are more likely to persist over time, while smaller inheritances are depleted through increased consumption (Nekoei & Seim 2019).

7 Conclusion

We have studied long-term consequences of spatial variation in a historical institution, namely agricultural inheritance rules, which regulated the distribution of land since the Middle Ages in Germany. Agricultural inheritance rules vary between unequal division where land is indivisible and is passed on to a single heir and equal division of land among all siblings. We have found that equal division counties had historically lower landholding inequality. This lends support to the canonical theoretical models on inheritance rules and inequality predicting less inequality under an equal division regime than under primogeniture (Stiglitz 1969, Blinder 1973, Pryor 1973, Menchik 1980). We found no evidence for advantages conferred by equal division before the advent of industrialization, which occurred relatively late in Germany. In sharp contrast, we find positive effects of equal division on long-term productivity and income. We find evidence indicating that the equal division of land spurred industrial by-employment, in particular in

innovative and entrepreneurial activities. Our evidence suggests that the more equal distribution of land – the key store of wealth for broad parts of the population in 19th century Germany – contributed to today's innovative *Mittelstand* and long-term productivity. Equal division of land proved to be an inclusive economic institution in the long run. Our evidence further lends support to models in which a more equitable distribution of wealth can spur occupational upgrading and the decision to become an entrepreneur (see, e.g., Galor & Zeira 1993, Banerjee & Newman 1993, Ghatak & Nien-Huei Jiang 2002, Galor & Moav 2004).

We close with several reflections on the institutional context and potential limitations of our study. Our evidence lends support to the idea that the long-term consequences of institutions are context-dependent and may be particularly important at critical junctures (Acemoglu, Johnson & Robinson 2005): while equal division and a more equitable distribution of land did not appear to confer advantages before industrialization, they turned out to be an important mediator of the path of industrialization across German regions. A limitation of our study is that while geographic variation in inheritance rules is sharp and local, the origins of differences in inheritance rules are not fully understood and institutional differences have existed for centuries before we observe crucial differences in the paths of industrialization.

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Figures and Tables

Figure 1: Prevalence of Inheritance Rules: Equal and Unequal Division

(a) German Empire
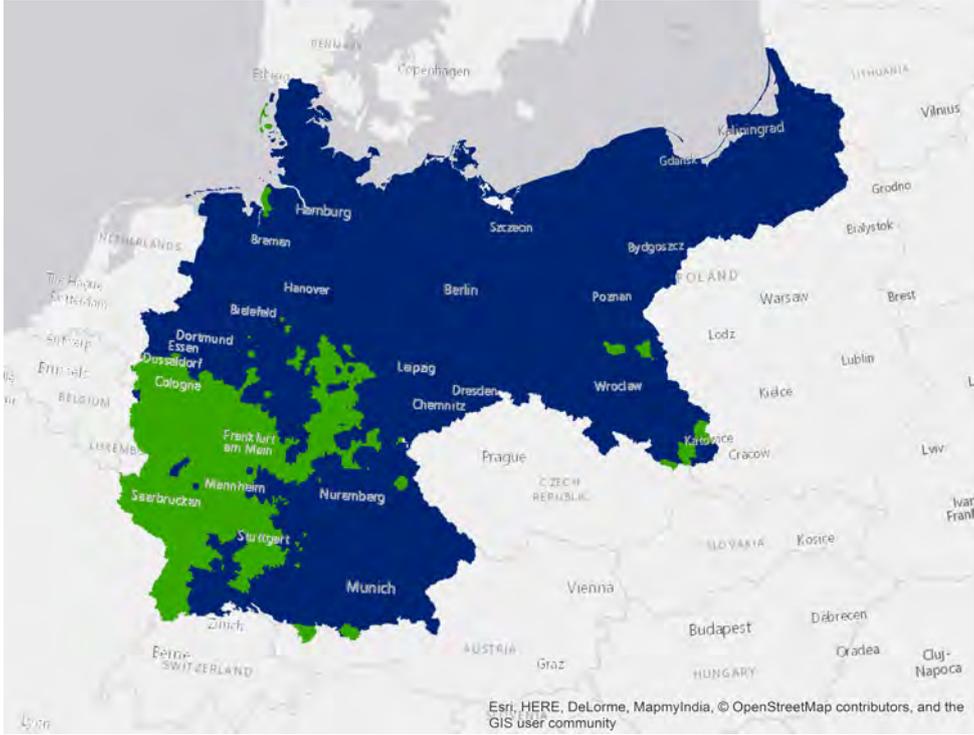
(b) Regression Discontinuity Sample: Areas Within 35 km of Inheritance Regime Border
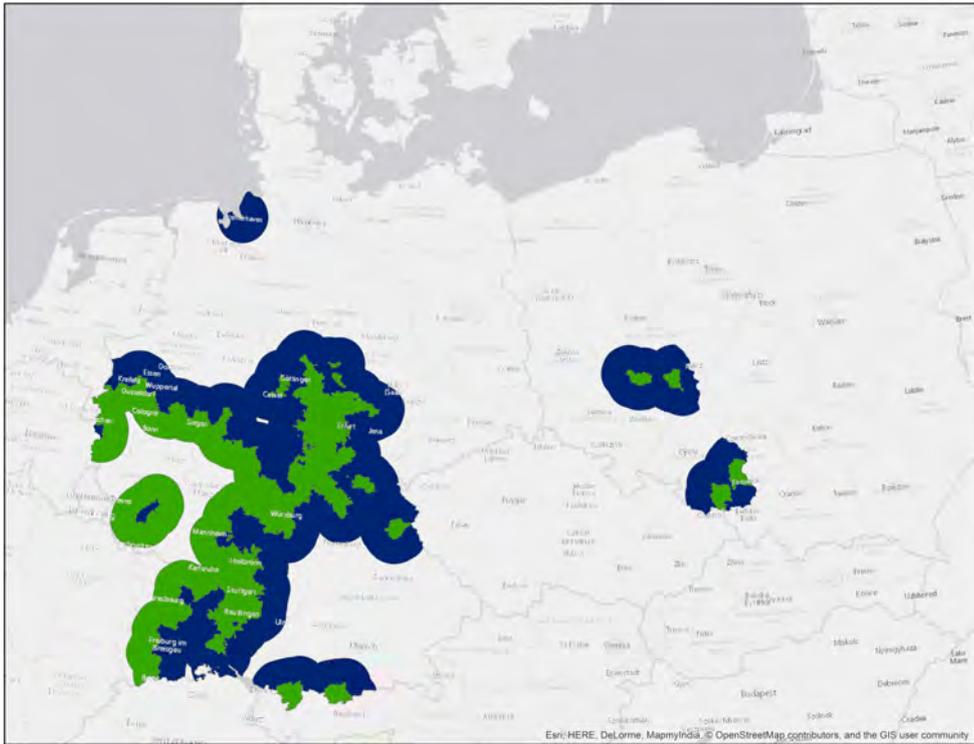
The figure shows a map of the prevalence of inheritance rule in the German Empire. Dark blue denotes areas with unequal sharing or indivisibility of land. Green denotes areas with equal sharing of land among children. Panel (b) plots areas less than 35 km away from the nearest border with the opposite inheritance regime; the corresponding counties constitute our regression discontinuity sample.

Figure 2: Predictors of Equal Division and Long-Term Development Are Smooth at the Border

(a) Outcome: Equal Inheritance Predicted Based on Covariates
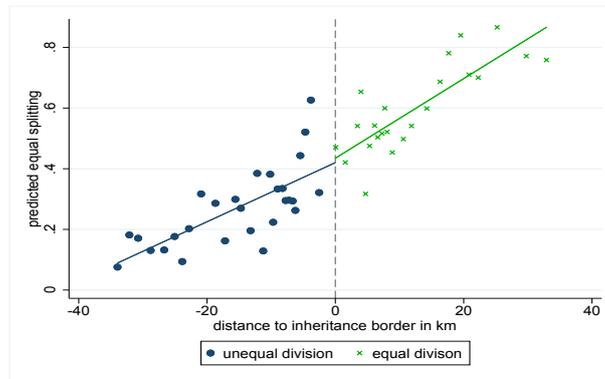
(b) Outcome: Ln GDP Per Capita (2014) Predicted Based on Covariates
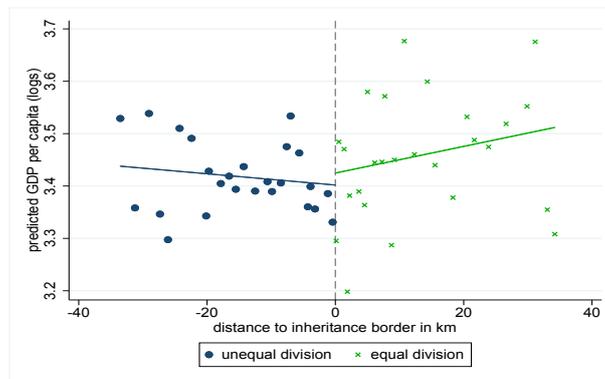
(c) Outcome: Modern Ln Income Per Capita (2014) Predicted Based on Covariates
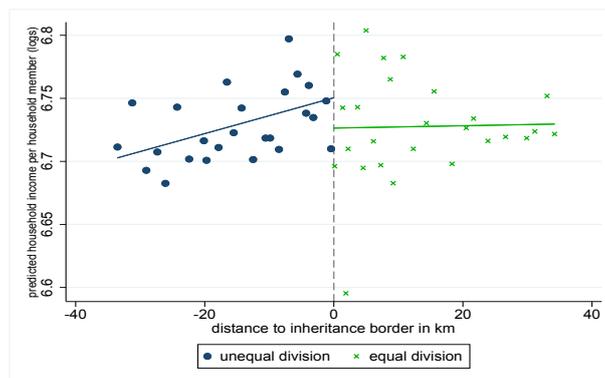
Note: The figures plot regression discontinuity specifications using binned scatter plots and local polynomial specification in a 35 km bandwidth. The running variable is distance to the nearest inheritance regime change border. The outcome variables are *predicted* based on the control variables reported in Table 1. The outcome variable in panel (a) is an indicator for a county having an equal division inheritance regime, the outcome variable in panel (b) is the logarithm of GDP per capita in 2014, the outcome variable in panel (c) is average log household income per household member in 2014.

Figure 3: Urban Population Density (1500 to 1907)
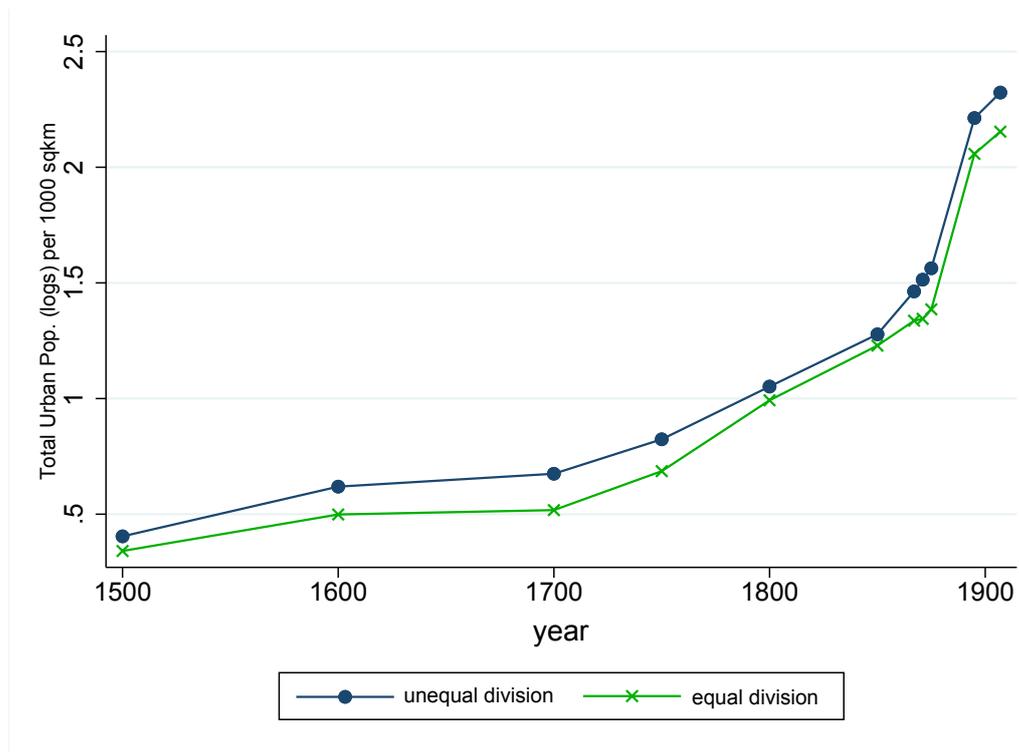
Source: The figure reports urban population density in cities by inheritance regime based on the data in Bairoch et al. (1988). The density measure is log population per 1000 km^2.

Table 1: Summary Statistics

		Summary statistics		T-test	
		unequal division	equal division	difference	se
Geographic Controls					
temperature in °C	mean	8.125	8.820	0.241	0.142*
	sd	(0.784)	(0.903)		
precipitation in mm	mean	59.769	61.940	-3.594	2.313
	sd	(12.345)	(8.543)		
elevation in m	mean	249.349	313.408	-45.241	23.185*
	sd	(223.019)	(159.704)		
roughness: difference in elevation	mean	3.820	6.347	0.643	0.469
	sd	(3.172)	(3.352)		
distance to navigable waterway in km	mean	25.840	20.704	-3.930	2.912
	sd	(21.606)	(16.831)		
soil characteristics					
soil: share of sand	mean	0.219	0.012	-0.096	0.033***
	sd	(0.274)	(0.074)		
soil: share of loam, sand, silt	mean	0.609	0.300	-0.145	0.053***
	sd	(0.340)	(0.269)		
soil: share of loess	mean	0.098	0.130	-0.014	0.042
	sd	(0.189)	(0.202)		
Cultural Controls					
Frankish territory in 507 AD	mean	0.093	0.473	0.275	0.075***
	sd	(0.291)	(0.500)		
protestants in %	mean	65.272	47.368	-8.317	6.709
	sd	(38.008)	(33.602)		
Hanseatic league	mean	0.404	0.103	-0.249	0.074***
	sd	(0.491)	(0.304)		
general law					
common law	mean	0.449	0.433	-0.100	0.120
	sd	(0.498)	(0.497)		
Prussian	mean	0.453	0.076	-0.236	0.085***
	sd	(0.498)	(0.265)		
Saxonian	mean	0.040	0.000		
	sd	(0.196)	(0.000)		
Code Napoleon	mean	0.015	0.371	0.329	0.095***
	sd	(0.121)	(0.484)		
Badish	mean	0.043	0.121	0.007	0.005
	sd	(0.203)	(0.326)		
observations	obs	676	224		

The table shows summary statistics for our control variables in rural German counties in 1895. Column 1 gives the mean and standard deviation of the control variables in unequal division counties while column 2 shows means and standard deviation for equal division counties. Column 3 and 4 show the difference between these groups and test if the difference is equal to zero. The difference and the standard errors stem from a regression which includes longitude, latitude, state-fixed effects, clusters standard errors on the district (Regierungsbezirk) level and weighs observations by population. Notes: * p<0.1, ** p<0.05, *** p<0.01

Table 2: Equal Division and Landholding Inequality 1895

	Landholding Gini 1895		% of Farms in Size category				Farm Size	Number of Farms	Top 1% Share
	(1) Linear RD Poly.	(2) Quad. RD Poly.	(3) <2 ha	(4) 2-5 ha	(5) 5-20 ha	(6) 20-100 ha	(7) in ha	(8) per 1000 Inhabitants	(9) in %
Panel A. OLS									
Equal Division	-0.0382**	-0.0353*	7.280***	11.87***	-1.863	-17.89***	-1.866***	4.787	0.188
	(0.0181)	(0.0198)	(1.346)	(1.502)	(2.125)	(2.168)	(0.545)	(7.004)	(0.884)
Observations	931	931	930	930	930	929	927	931	133
Panel B. With Controls									
Equal Division	-0.0537***	-0.0505***	6.835***	11.07***	-3.830*	-13.36***	-1.573***	8.756	-0.498
	(0.0124)	(0.0126)	(1.019)	(1.546)	(2.104)	(1.691)	(0.269)	(6.618)	(1.138)
Observations	931	931	930	930	930	929	927	931	133
Panel C. Distance to Border									
Equal Division	-0.0459***	-0.0500***	5.798***	9.512***	-5.046***	-10.29***	-1.246***	5.874	-0.135
	(0.00939)	(0.00986)	(1.021)	(1.592)	(1.683)	(1.618)	(0.164)	(5.750)	(1.024)
Observations	397	397	394	394	394	393	391	397	119
Mean Outcome	0.716	0.716	8.242	13.34	33.84	27.08	5.997	127.7	11.56
SD Outcome	0.123	0.123	7.031	10.69	15.04	16.06	3.318	45.65	3.346

Notes: Share of farms in 5 size categories as stated in 'Statistik des Deutschen Reichs' Vol. 109. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table 3: Equal Division And Income Measures 2014

	(1) Log Household Income	(2) Log Taxable Income	(3) Log Median Income	(4) Log GDP p.c.
Panel A. OLS				
Equal Division	0.0690***	0.0726***	0.0499**	0.133**
	(0.0236)	(0.0205)	(0.0186)	(0.0562)
Observations	397	374	397	397
Panel B. With Controls				
Equal Division	0.0617***	0.0637***	0.0446***	0.144***
	(0.0193)	(0.0195)	(0.0103)	(0.0379)
Observations	397	374	397	397
Panel C. Distance to Border				
Equal Division	0.0572***	0.0663***	0.0438***	0.143***
	(0.0167)	(0.0168)	(0.00986)	(0.0481)
Observations	198	178	198	198
Mean Outcome	6.719	3.461	7.956	3.447
SD Outcome	0.115	0.146	0.162	0.336

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. Data on income and GDP per capita stem from the Federal Statistical Office of Germany and INKAR of 2013/14. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities with more than 100.000 inhabitants are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * $p<0.1$, ** $p<0.05$, *** $p<0.01$

Table 4: Equal Division And Inequality Measures 2014 and 1995

	(1) Top 10% Inc. Share (%)	(2) Top 1% Inc. Share(%)	(3) Log Mean Income Top 10%	(4) Log Mean Income Top 1%	(5) Share with Inc. $< 10.000 Euro$	(6) Share with Inc. $< 20.000 Euro$	(7) Wealth Taxpayers per 10.000	(8) Millionaires per 10.000
Panel A. OLS								
Equal Division	2.282**	0.847	0.105***	0.102*	-1.433*	-1.523*	34.92***	6.258***
	(0.874)	(0.566)	(0.0324)	(0.0580)	(0.809)	(0.769)	(8.454)	(1.990)
Observations	395	395	395	395	395	395	319	319
Panel B. With Controls								
Equal Division	2.071***	1.141**	0.0954***	0.131**	-1.235*	-1.331*	35.16***	7.504***
	(0.629)	(0.485)	(0.0268)	(0.0514)	(0.705)	(0.682)	(10.55)	(1.945)
Observations	395	395	395	395	395	395	319	319
Panel C. Distance to Border								
Equal Division	1.656**	1.158**	0.0861***	0.135***	-1.443*	-1.525*	30.97***	6.403***
	(0.751)	(0.541)	(0.0217)	(0.0466)	(0.817)	(0.783)	(10.78)	(1.774)
Observations	196	196	196	196	196	196	172	172
Mean Outcome	37.37	10.98	11.69	12.76	36.71	50.90	150.4	22.14
SD Outcome	5.034	2.613	0.224	0.306	7.239	8.051	54.17	10.12

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. Income inequality measures calculated from 2014 income tax statistics, national accounts and population statistics of the Federal Statistical Office of Germany. Income bins are available with aggregate income per bin and number of people in that bin. Wealth inequality measures calculated from 1995 wealth tax statistics of the Federal Statistical Office of Germany. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities with more than 100.000 inhabitants are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table 5: Equal Division And Education, Industry Structure and Productivity 2014

	Education		Employment					Firms	
	(1) College Degree	(2) Vocational Training	(3) Agric.	(4) Manuf.	(5) Trade and Services	(6) Creative Ind.	(7) Lab. Prod.	(8) Per Pop	(9) Size
Panel A. OLS									
Equal Division	3.343***	-3.819***	-0.259***	-4.613***	4.882***	1.266***	5.149***	0.00127*	-0.387
	(0.734)	(0.940)	(0.0913)	(1.365)	(1.381)	(0.343)	(1.345)	(0.000715)	(0.387)
Observations	397	397	397	397	397	397	395	380	380
Panel B. With Controls									
Equal Division	2.789***	-2.759***	-0.397**	-2.902*	3.300*	1.187***	3.698***	0.00205***	-0.907**
	(0.696)	(0.608)	(0.155)	(1.608)	(1.630)	(0.357)	(1.084)	(0.000594)	(0.401)
Observations	397	397	397	397	397	397	395	380	380
Panel C. Distance to Border									
Equal Division	2.388***	-2.371***	-0.326***	-1.539	1.870	1.088***	3.317***	0.00195***	-0.706*
	(0.729)	(0.634)	(0.104)	(1.970)	(1.976)	(0.388)	(1.131)	(0.000612)	(0.385)
Observations	198	198	198	198	198	198	196	183	183
Mean Outcome	11.19	64.51	1.052	32.40	66.55	2.645	47.22	0.0261	14.41
SD Outcome	4.873	6.396	1.260	10.49	10.66	2.090	8.504	0.00355	1.983

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. Data on education and industry structure stem from INKAR data of 2013/14. Labor productivity is measured as GDP per working hour and stems from National Accounts of the Laender (`www.vgrdl.de`). Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities with more than 100.000 inhabitants are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table 6: Equal Division And Agricultural Productivity

	(1) Mean Caloric Output Pre 1500	(2) Prussia: Grain Yields kg/ha
Panel A. OLS		
Equal Division	68.12***	-3.112
	(25.39)	(7.277)
Observations	935	415
Panel B. With Controls		
Equal Division	3.323	-3.392
	(16.63)	(5.004)
Observations	935	415
Panel C. Distance to Border		
Equal Division	10.50	-2.065
	(9.863)	(4.951)
Observations	396	190
Mean Outcome	2211.4	74.77
SD Outcome	152.1	24.44

The table uses in column 1 an index of caloric output per hectare per year before the year 1500 as outcome variable which is constructed by Galor & Özak (2016). In column 1 we use the whole sample of the German Empire in 1895. In column 2 grain yields in kilogram per hectare from Prussia in 1878 is the outcome variable. The sample is reduced to the 415 Prussian counties. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * $p<0.1$, ** $p<0.05$, *** $p<0.01$

Table 7: Equal Division And Population Density

	Population Density			
	(1) Prussia 1816	(2) 1895	(3) 1907	(4) DID
Panel A. OLS				
Equal Division	1.507	63.73	117.5	75.86
	(9.257)	(88.75)	(115.1)	(95.07)
Equal Division x 1907				31.33
				(22.75)
Observations	318	937	948	1885
Panel B. With Controls				
Equal Division	-14.65**	76.68	131.9*	91.42
	(6.754)	(58.79)	(70.90)	(58.54)
Equal Division x 1907				28.08
				(21.03)
Observations	318	937	948	1885
Panel C. Distance to Border				
Equal Division	2.608	55.48	101.8*	56.08
	(4.080)	(44.05)	(51.91)	(42.45)
Equal Division x 1907				47.76**
				(20.85)
Observations	95	398	406	804
Mean Outcome	58.80	169.2	220.5	196.3
SD Outcome	35.89	283.9	369.3	332.6

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. The tables uses population density as outcome measure. In column 1 the sample stems from Prussian counties in 1816. In column 2 and 3 from the whole sample of the German Empire in 1895 and 1907, respectively. Column 4 shows a DID approach estimating the change in population density in rural German counties between 1895 and 1907. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table 8: Equal Division And Technological Progress 1821 - 1882

	Technological Progress 1821			Employment 1882	
	(1)	(2)	(3)	(4)	(5)
	Factories	Mills	Looms	Self Empl.	Manuf.
	(per 1000 People)			out of Agric.	
Panel A. OLS					
Equal Division	-0.0895	0.105	-5.217*	-0.143	-1.237
	(0.0878)	(0.286)	(2.926)	(0.553)	(1.626)
Observations	318	318	318	415	415
Panel B. With Controls					
Equal Division	0.00689	0.231	-7.419*	-0.640	0.237
	(0.0731)	(0.320)	(4.044)	(0.728)	(1.675)
Observations	318	318	318	415	415
Panel C. Distance to Border					
Equal Division	-0.0703*	-0.207	-0.633	0.0254	0.778
	(0.0329)	(0.185)	(4.690)	(0.532)	(1.353)
Observations	95	95	95	190	190
Mean Outcome	0.254	1.111	5.492	5.557	8.227
SD Outcome	0.238	0.986	12.83	2.385	5.591

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. The tables uses a sample of Prussian counties in 1821 and in 1882 with different proxies for technological progress. Column 1 uses factories column 2 mills and column 3 looms per 1000 people as outcome variable. In column 4 self-employed people out of agriculture as percent of total population is the outcome variable. In column 5 percent of population in the manufacturing sector is the outcome variable. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table 9: Equal Division and Sectoral Employment 1895 and 1907

	Employment 1895			Employment 1907		
	(1) Agric.	(2) Manuf.	(3) Trade and Services	(4) Agric.	(5) Manuf.	(6) Trade and Services
Panel A. OLS						
Equal Division	-2.489	0.304	0.165	-3.998	1.130	0.277
	(2.085)	(1.427)	(0.174)	(2.729)	(1.507)	(0.214)
Observations	889	889	889	900	900	900
Panel B. With Controls						
Equal Division	-2.578*	1.040	0.220*	-4.104**	2.253**	0.309*
	(1.296)	(1.036)	(0.130)	(1.694)	(1.067)	(0.184)
Observations	886	886	886	897	897	897
Panel C. Border Sample						
Equal Division	-2.109**	1.577**	0.273**	-3.832***	2.624***	0.312**
	(1.001)	(0.767)	(0.120)	(1.308)	(0.810)	(0.154)
Observations	382	382	382	390	390	390
Mean Outcome	19.190	14.560	3.428	20.359	16.471	4.208
SD Outcome	8.941	6.783	2.174	11.893	7.376	2.721

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. Employment in sectors and occupations as stated in 'Statistik des Deutschen Reichs' Vol. 109 for 1895 and 209 for 1907 as percent of total population in each district. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table 10: Equal Division and Innovation and Entrepreneurship I: Employment in Innovative Manufacturing

	in % of Total Pop.			in % of Manufacturing Pop.		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. OLS						
Equal Division	2.125**	-1.004	4.783***	3.048**	-0.904	7.180***
	(0.938)	(1.372)	(1.533)	(1.383)	(1.772)	(2.512)
Equal Division x Low Soil Quality		8.249***			11.11***	
		(2.276)			(3.264)	
Equal Division x Farm Size			-1.261***			-1.411***
			(0.321)			(0.522)
Observations	900	900	896	900	900	896
Panel B. With Controls						
Equal Division	2.358***	-0.451	5.441***	3.299**	-0.629	7.627***
	(0.766)	(1.119)	(1.569)	(1.368)	(1.785)	(2.717)
Equal Division x Low Soil Quality		7.787***			10.89***	
		(2.157)			(3.307)	
Equal Division x Farm Size			-1.215***			-1.302**
			(0.367)			(0.583)
Observations	897	897	893	897	897	893
Panel C. Border Sample						
Equal Division	2.493***	-0.874	3.933**	3.207**	-2.030	4.699
	(0.843)	(1.273)	(1.624)	(1.461)	(2.117)	(3.039)
Equal Division x Low Soil Quality		9.186***			14.29***	
		(2.658)			(4.242)	
Equal Division x Farm Size			-0.849**			-0.746
			(0.392)			(0.602)
Observations	390	390	388	390	390	388
Mean Outcome	6.874	6.874	6.865	16.177	16.177	16.168
SD Outcome	5.664	5.664	5.666	8.639	8.639	8.645

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. Soil quality is measured by the share of loam, sand and silt. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities are excluded. Regressions are weighted by population in 1907. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table 11: Equal Division and Innovation and Entrepreneurship II: Patents 1877 to 1914

| | Dummy | | Log Patents | | Log Patents w/ Zero | |
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. OLS						
Equal Division	0.0837	0.142	0.646***	0.329	0.739**	0.671
	(0.0744)	(0.132)	(0.231)	(0.366)	(0.317)	(0.494)
Equal Division x Low Soil Quality		-0.0997		0.873		0.393
		(0.229)		(0.604)		(0.838)
Observations	899	899	499	499	899	899
Panel B. With Controls						
Equal Division	0.138	0.167	0.561**	0.318	0.888**	0.910*
	(0.0837)	(0.116)	(0.226)	(0.355)	(0.344)	(0.511)
Equal Division x Low Soil Quality		-0.0841		0.680		-0.0627
		(0.169)		(0.600)		(0.793)
Observations	899	899	499	499	899	899
Panel C. Distance to Border						
Equal Division	0.105*	0.00365	0.472**	-0.00934	0.623**	0.0495
	(0.0582)	(0.0748)	(0.224)	(0.254)	(0.246)	(0.298)
Equal Division x Low Soil Quality		0.275**		1.337**		1.566**
		(0.134)		(0.558)		(0.587)
Observations	390	390	228	228	390	390
Mean Outcome	0.669	0.669	1.979	1.979	1.994	1.994
SD Outcome	0.471	0.471	1.542	1.542	1.886	1.886

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. The outcome in columns 1 and 2 is an indicator which is 1 if a patent was filed in a county between 1877 and 1914 and 0 otherwise. The outcome in columns 3 and 4 is the log of the number of patents filed in a county between 1877 and 1914 turning all 0 to missings. The outcome in columns 5 and 6 is 0 if no patent was filed in county between 1877 and 1914 and the log of the number of patents +1 otherwise. Soil quality is measured by the share of loam, sand and silt. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities are excluded. Regressions are weighted by population in 1907. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Additional Tables

Table A1: Overview of Main Historical Outcome Variables

Outcome		mean (sd)	min	max	Explanation	Source
income inequality	top 10% income share 1895	30.3 5.6	17.4	48.4	Pareto interpolation using income tax tabulations and wages	statistical offices of Baden and Hesse
	top 1% income share 1895	8.9 3.3	5.0	21.4	Pareto interpolation using income tax tabulations and wages	statistical offices of Baden and Hesse
	ratio 1/90 1895	13.3 6.6	6.0	41.6	top 1% share/(100-top 10% share)	statistical offices of Baden and Hesse
	log mean income 1895	6.8 0.14	6.5	7.3		statistical offices of Baden and Hesse
	mean income 1895	900 144	681	1504	total income/total population	statistical offices of Baden and Hesse
	top 10% income share 1907	36.8 8.0	21.6	52.4	Pareto interpolation using income tax tabulations and wages	statistical offices of Baden, Hesse and Wuerttemberg
	top 1% income share 1907	11.0 3.3	4.8	20.4	Pareto interpolation using income tax tabulations and wages	statistical offices of Baden, Hesse and Wuerttemberg
	ratio 1/90 1907	18.2 7.0	6.3	38.6	top 1% share/(100-top 10% share)	statistical offices of Baden, Hesse and Wuerttemberg
	log mean income 1907	6.8 0.25	6.5	7.5		statistical offices of Baden, Hesse and Wuerttemberg
	mean income 1907	896 245	694	1755	total income/total population	statistical offices of Baden, Hesse and Wuerttemberg
landholding inequality	landholding gini 1895	0.716 0.123	0.426	0.948	For more information about this measure see Ziblatt (2008).	Ziblatt (2008)
distribution of farm sizes	<2 ha	8.242 7.031	0.65	41.86	Percentage of farms below 2 ha number stated in source	Kaiserliches Statistisches Amt (1898)
	2-5 ha	13.336 10.692	0.76	61.71	Percentage of farms between 2-5 ha number stated in source	
	5-20 ha	33.843 15.044	3.03	70.54	Percentage of farms between 5-20 ha number stated in source	
	20 -100 ha	27.081 16.055	0.3	82.17	Percentage of farms between 20-100 ha number stated in source	
	> 100 ha	17.483 19.319	0	80.8	Percentage of farms above 100 ha number stated in source	

Notes: This table gives an overview of the outcome variables used in Tables 2 and 3 which are our main historical tables. Column 3 shows means and standard deviations in parentheses. Column 4 and 5 show the minimum and the maximum of the variable. The construction of the variables is described in column 6 and the sources are given in column 7. The precise reference for some of the sources can be found in the bibliography. See Table A3 for more details on the data sources used for the computation of top income shares.

Table A2: Overview of Main Historical Outcome Variables

Outcome		mean (sd)	min	max	Explanation	Source
income	log household income	6.719 0.115	6.448	7.46	Log of household income	Bundesamt fr Bauwesen und Raumforschun INKAR Indikatoren und Karten zur Raum- und Stadtentwicklung, from www.inkar.de
	household income	833.531 103.02	631.6	1737.281	The average monthly household income in Euro in 2013 divided by the average household size in 2012	
	log taxable income	3.46 0.146	3.107	4.022	Log of average taxable income	Federal Statistical Office of Germany, from https://www.destatis.de
	taxable income	32.181 4.809	22.352	55.808	Average taxable income in thousand Euro	Bundesamt fr Bauwesen und Raumforschun INKAR Indikatoren und Karten zur Raum- und Stadtentwicklung, from www.inkar.de
	log median income	7.956 0.162	7.555	8.383	Log of median income	
	median income	2889.439 455.414	1910	4371	Median monthly income in Euro in 2013	
	log GDP p.c	3.447 0.336	2.674	4.964	Log of GDP p.c.	
	GDP p.c	33.494 14.404	14.5	143.1	GDP p.c. in 2013 in thousand Euro	
income inequality	top 10% income share	36.9 5.1	26.7	63.1	Pareto interpolation using income tax tabulations, national accounts and population statistics	Federal Statistical Office of Germany and statistical offices of the Laender
	top 1% income share	10.9 2.8	6.7	33.6	Pareto interpolation using income tax tabulations, national accounts and population statistics	
	log mean income top 10%	6.8 0.14	6.5	7.3		
	mean income top 10%	119,534 29,452	72,247	318,532	total income of top 10% in Euro/10% of population	
	log mean income top 1%	12.7 0.32	12.1	14.4		
	mean income top 1%	357,066 144,362	178,810	1,844,190	total income of top 10% in Euro/10% of population	
	share with income < 10.000	36.7 7.1	22.1	64.5	no of tax units with income <10.000/total population	
	share with income < 20.000	51.2 8.0	35.1	77.3	no of tax units with income <20.000/total population	
wealth inequality	wealth taxpayers per 10.000	149.7 54.9	40	418	no of wealth taxpayers/total population in 10.000	Federal Statistical Office of Germany, Fachserie 14, Reihe 7.4, Vermögensteuer Hauptveranlagung 1995, p.119-127.
	millionaires per 10.000	21.4 10.5	7	89	no of tax units with wealth > 1 Mio. DM/total population in 10.000	

Notes: This table gives an overview of the outcome variables used in Tables 4 and 5 which are our main long-run tables. Column 3 shows means and standard deviations in parentheses. Column 4 and 5 show the minimum and the maximum of the variable. The construction of the variables is described in column 6 and the sources are given in column 7. The precise reference for some of the sources can be found in the bibliography. See Table A3 for more details on the data sources used for the computation of top income shares.

Table A3: Sources for Income Inequality Measures

area	data year	explanation	source
Baden	1895	income tax tabulations	Statistik der badischen Einkommensteuer 1896, p.52-53
	1907	income tax tabulations	Statistisches Jahrbuch für das Großherzogtum Baden 1909, p.634-635
Hesse	1894	income tax tabulations	Mittheilungen der Großherzoglich Hessischen Centralstelle fr die Landesstatistik 1895, p.226-231
Hesse	1907	income tax tabulations	Mittheilungen der Großherzoglich Hessischen Centralstelle fr die Landesstatistik 1909, p.4-13,20,27
Wuerttemberg	1906	income tax tabulations	Württembergische Jahrbücher für Statistik und Landeskunde 1908, Vol. 1, p.24-28; Vol. 2, p.110-115
German Empire	1895	total population (=total no. of potential taxpayers)	Kaiserliches Statisisches Amt (1897)
German Empire	1907	total population (=total no. of potential taxpayers)	Kaiserliches Statisisches Amt (1910)
German Empire	1873 -1913	wages	Kuczynski, J. (1947): Die Geschichte der Lage der Arbeiter in Deutschland von 1789 bis in die Gegenwart, Band 1. Tribüne.
Germany	2013	income tax tabulations	Lohn- und Einkommensteuerstatistik: Kreise (Code 73111-02-01-4), Federal Statistical Office of Germany, from `https://www.regionalstatistik.de`
Germany	2013	primary income	Volkswirtschaftliche Gesamtrechnungen der Länder (Code R2B1, R2B2,R2B3) statistical offices of the Laender, from `https://www.vgrdl.de`
Germany	2011	marital status	Census 2011 (Code 12111-05-01-5), Federal Statistical Office of Germany, from `https://www.regionalstatist`
Germany	2013	population by age	Population update (Code 12411-02-03-4), Federal Statistical Office of Germany from `https://www.regionalstatistik.de`

Notes: This table gives an overview on the data sources for our inequality measures used in Tables 5. Column 3 shows the area covered by the data source. Column 4 shows the data year. The content of the data source is described in column 6 and the respective publications are given in column 7.

Table A4: Equal Division and Income Measures 2014 - Quadratic RD Polynomial

	(1) Log Household Income	(2) Log Taxable Income	(3) Log Median Income	(4) Log GDP p.c.
Panel A. OLS				
Equal Division	0.0722***	0.0960***	0.0475***	0.142**
	(0.0222)	(0.0171)	(0.0173)	(0.0525)
Observations	397	374	397	397
Panel B. With Controls				
Equal Division	0.0593***	0.0613***	0.0437***	0.140***
	(0.0177)	(0.0168)	(0.0104)	(0.0353)
Observations	397	374	397	397
Panel C. Distance to Border				
Equal Division	0.0488**	0.0506***	0.0434***	0.146**
	(0.0187)	(0.0159)	(0.0123)	(0.0539)
Observations	198	178	198	198
Mean Outcome	6.719	3.461	7.956	3.447
SD Outcome	0.115	0.146	0.162	0.336

Notes: Data on income and GDP per capita stem from the Federal Statistical Office of Germany and INKAR of 2013/14. In comparison to table 3 this table includes a quadratic RD polynomial in all panels. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Counties with more than 100.000 inhabitants are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A5: Equal Division and Farm Sizes in Prussia 1816

	(1) Small Landholdings	(2) Medium Landholdings (per 1000 People)	(3) Large Landholdings
Panel A. OLS			
Equal Division	26.32***	13.47	-0.291
	(7.614)	(7.969)	(0.264)
Observations	305	305	305
Panel B. With Controls			
Equal Division	21.33***	7.484	0.0333
	(5.706)	(5.465)	(0.178)
Observations	305	305	305
Panel C. Distance to Border			
Equal Division	8.472*	2.327	0.0550
	(4.666)	(6.067)	(0.166)
Observations	123	123	123
Mean Outcome	50.10	40.42	1.340
SD Outcome	37.12	21.96	1.496

Notes: This table uses the earliest available measure of the distribution of farm sizes of German lands from Prussia in 1816. Column 1 shows the percent of small landholdings per 1000 people. Column 2 the percent of medium landholdings and column 3 the percent of large landholdings per 1000 people. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A6: Change in Farm Sizes and Their Distribution

	(1) Average Farmsize ha	(2) < 2 ha	(3) 2-5 ha	(4) 5-20 ha	(5) 20-100 ha	(6) > 100 ha
Panel A. OLS						
Equal Division x 1907	-0.288***	1.018**	0.212	-3.068***	0.869	0.935
	(0.105)	(0.434)	(0.351)	(0.538)	(0.777)	(0.566)
Observations	1870	1873	1873	1873	1871	1739
Panel B. With Controls						
Equal Division x 1907	-0.279***	1.027**	0.275	-2.987***	0.716	0.850
	(0.103)	(0.423)	(0.310)	(0.524)	(0.710)	(0.596)
Observations	1870	1873	1873	1873	1871	1739
Panel C. Distance to Border						
Equal Division x 1907	-0.221**	1.513***	0.155	-3.112***	1.624**	0.0294
	(0.0959)	(0.511)	(0.354)	(0.665)	(0.793)	(0.644)
Observations	795	798	798	798	796	715
Mean Outcome	5.818	8.607	13.60	35.05	26.49	17.46
SD Outcome	3.403	7.636	10.95	15.07	16.02	18.68

Notes: Average farm size and shares of farms in 5 size categories as stated in 'Statistik des Deutschen Reichs' Vol. 109(1895) and Vol. 209(1907). The regressor is the interaction term of 'equal division' (compared to 'unequal division') and year 1907 (compared to 1895). The results show the change in farm sizes between 1895 and 1907. Panel A includes besides main effects longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * $p<0.1$, ** $p<0.05$, *** $p<0.01$

Table A7: Equal Division and Income Inequality 1895 and 1907

	(1) top 10% Inc Share 1895	(2) Top 1% Inc Share 1895	(3) Ratio 1/90 1895	(4) Log Mean Income 1895	(5) Top 10% Inc share 1907	(6) Top 1% Inc Share 1907	(7) Ratio 1/90 1907	(8) Log Mean Income 1907
Panel A. OLS								
Equal Division	0.872	0.275	0.581	0.0380	0.154	-0.110	-0.0882	0.0507
	(1.864)	(1.102)	(2.130)	(0.0410)	(1.365)	(0.856)	(1.724)	(0.0412)
Observations	70	70	70	70	133	133	133	133
Panel B. With Controls								
Equal Division	-0.835	-0.378	-1.031	-0.0171	-1.227	-0.899	-1.716	-0.0107
	(2.455)	(1.524)	(2.878)	(0.0505)	(1.603)	(1.071)	(2.087)	(0.0436)
Observations	70	70	70	70	133	133	133	133
Panel C. Distance to Border								
Equal Division	0.587	0.160	0.191	0.0224	-0.388	-0.526	-0.866	0.0161
	(2.424)	(1.626)	(3.059)	(0.0483)	(1.357)	(0.984)	(1.868)	(0.0355)
Observations	64	64	64	64	119	119	119	119
Mean Outcome	33.00	10.43	16.42	6.857	37.59	11.95	19.87	6.844
SD Outcome	7.096	4.042	8.552	0.187	7.403	3.520	7.356	0.301

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. County income tax tabulations are from the annual publications of the statistical offices of Baden (1895,1907), Hesse (1894,1907) and Württemberg (1907). Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * $p<0.1$, ** $p<0.05$, *** $p<0.01$

Table A8: Landholding Inequality 1895 in Prussia

| | Landholding Gini Coeff. 1895 | | % Farms in Size Category... | | | |
	(1) Linear RD Polyn.	(2) Quad. RD Polyn.	(3) < 2 ha	(4) 2-5 ha	(5) 5-20 ha	(6) 20-100 ha
Panel A. OLS						
Equal Division	-0.0612**	-0.0562*	5.268***	9.776***	1.841	-14.61***
	(0.0290)	(0.0314)	(1.856)	(2.065)	(2.465)	(2.781)
Observations	490	490	488	488	488	488
Panel B. With Controls						
Equal Division	-0.0490***	-0.0471***	5.970***	9.381***	-2.524	-13.10***
	(0.0169)	(0.0170)	(1.273)	(1.573)	(2.754)	(2.380)
Observations	490	490	488	488	488	488
Panel C. Distance to Border						
Equal Division	-0.0423***	-0.0450***	5.169***	8.055***	-3.138	-8.303***
	(0.0114)	(0.0134)	(1.289)	(1.608)	(1.973)	(2.486)
Observations	157	157	155	155	155	155
Mean Outcome	0.770	0.770	7.627	10.45	27.97	29.23
SD Outcome	0.0975	0.0975	6.727	8.458	12.56	15.92

Notes: This table shows the results of table 2 for Prussia only. Share of farms in 5 size categories as stated in 'Statistik des Deutschen Reichs' Vol. 109. Panel A includes longitude, latitude, and state-fixed effects. Panel additionally B includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A9: Landholding Inequality 1895 in Bavaria

| | Landholding Gini Coeff. 1895 | | % Farms in Size Category... | | | |
	(1) Linear RD Polyn.	(2) Quad. RD Üolyn.	(3) < 2 ha	(4) 2-5 ha	(5) 5-20 ha	(6) 20-100 ha
Panel A. OLS						
Equal Division	0.0232	-0.00513	3.321	2.706	-4.445	-2.872
	(0.0286)	(0.0182)	(2.424)	(2.524)	(5.379)	(2.779)
Observations	189	189	190	190	190	190
Panel B. With Controls						
Equal Division	0.00820	0.00519	-1.426**	-4.663*	3.013	1.507
	(0.0137)	(0.0124)	(0.590)	(2.005)	(3.714)	(2.933)
Observations	189	189	190	190	190	190
Panel C. Distance to Border						
Equal Division	0.00283	0.000992	-0.703	-2.821	2.410	0.509
	(0.0114)	(0.00974)	(0.445)	(2.274)	(2.769)	(2.363)
Observations	84	84	84	84	84	84
Mean Outcome	0.557	0.557	5.353	14.98	49.75	27.27
SD Outcome	0.0549	0.0549	5.084	8.552	10.27	14.43

Notes: This table shows the results of table 2 for Bavaria only. Share of farms in 5 size categories as stated in 'Statistik des Deutschen Reichs' Vol. 109. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities are excluded. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A10: Equal Division And Income and Wages, 1878 And 1895

	Income and County Taxes 1878				Daily Wages
	(1) Federal Class Tax	(2) Federal Income Tax	(3) Local County Tax (per Capita)	(4) Total County Income	(5) Males 1892
Panel A. OLS					
Equal Division	-0.141*	-0.0815	0.0449	-0.420	0.100
	(0.0802)	(0.129)	(0.172)	(0.341)	(0.0761)
Observations	415	415	415	415	413
Panel B. With Controls					
Equal Division	-0.125*	0.0958	0.0885	0.0465	0.0596
	(0.0682)	(0.110)	(0.122)	(0.275)	(0.0780)
Observations	415	415	415	415	413
Panel C. Distance to Border					
Equal Division	-0.157***	0.0946	0.118	-0.00813	0.0317
	(0.0496)	(0.116)	(0.121)	(0.242)	(0.0667)
Observations	190	190	190	190	189
Mean Outcome	1.376	0.624	1.010	2.068	1.487
SD Outcome	0.390	0.441	0.792	2.777	0.356

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. The table uses various measures of tax income per person in each Prussian county in 1878 as outcome variables (column 1-4). The outcome variables in column 1 and 2 come close to an income tax while taxes in column 3 and 4 are local community taxes. In column 5 it uses daily wages for males in 1892 in Prussia as outcome variable. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A11: Equal Division And Education 1886

	1871		1816		1886	
	(1) Percent Able to Read and Write	(2) Percent Illiterate	(3) Schools	(4) Pupils (per 1000 People)	(5) Schools	(6) Pupils
Panel A. OLS						
Equal Division	-6.103**	4.564**	0.0609	-32.82***	0.203	1.808
	(2.528)	(1.737)	(0.227)	(9.807)	(0.160)	(13.04)
Observations	415	415	308	305	415	415
Panel B. With Controls						
Equal Division	-1.135	-0.102	0.414	-3.967	0.0144	-10.59
	(1.824)	(1.035)	(0.247)	(10.55)	(0.168)	(13.52)
Observations	415	415	308	305	415	415
Panel C. Distance to Border						
Equal Division	-0.0543	-0.574	0.0395	-4.428	-0.114	-15.70
	(1.847)	(0.629)	(0.111)	(8.813)	(0.150)	(15.63)
Observations	190	190	90	87	190	190
Mean Outcome	62.57	9.544	1.928	110.7	1.328	169.8
SD Outcome	12.03	9.305	0.923	43.72	0.533	43.13

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. The table uses data on education levels in Prussia as outcome variables. In column 1 and 2 the data stems from 1871 and shows the percent of the population which is able to read and write. In column 2 the percent of illiterate people is used. Earliest measures of education come from the documented number of schools and pupils in Prussian counties in 1816 (column 3 and 4). In 1886 the same measures are documented for Prussia again. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A12: Sectoral Employment 1882 in Prussia

	(1) Agric.	(2) Manuf.	(3) Trade and Services
Panel A. OLS			
Equal Division	0.720	-1.481	0.364
	(1.872)	(1.791)	(0.383)
Observations	415	415	415
Panel B. With Controls			
Equal Division	-0.820	-0.686	0.753**
	(1.801)	(2.057)	(0.346)
Observations	415	415	415
Panel C. Distance to Border			
Equal Division	-0.765	0.489	0.724***
	(1.411)	(1.578)	(0.229)
Observations	190	190	190
Mean Outcome	20.68	12.40	2.636
SD Outcome	6.907	6.584	1.481

Notes: This table uses the percentage of people in the three main economic sectors: agriculture, manufacturing, and trade and services as outcome variables. The sample stems from 1882 Prussia. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A13: Height of Bavarian conscripts in 19th century

	(1) Height (cm)	(2) SD (cm) within County
Panel A. OLS with Individual Controls		
Equal Division	-0.345**	-0.166***
	(0.155)	(0.00258)
Observations	19048	19048
Panel B. Additional Geographic Controls		
Equal Division	1.097	-3.182***
	(1.645)	(0.187)
Observations	19047	19047
Panel C. Border Sample		
Equal Division	0.0717	-0.265***
	(1.235)	(6.71e-12)
Observations	4982	4982
Mean Outcome	165.6	6.250
SD Outcome	6.353	0.201

Notes: The table uses absolute height in centimeter of Bavarian conscripts in the 19th century as outcome variable in column 1. Column 2 uses the standard deviation of height in centimeter within a Bavarian county as outcome variable. The variation in equal division comes from the county level. There are 181 counties in the sample. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A14: Deposits at and Credit from Savings Banks and Credit Associations 1895 and 1907

	(1) Depositors pc (1895)	(2) Depositors pc (1907)	(3) Deposits pc (1895)	(4) Deposits pc (1907)	(5) Credit pc (1895)	(6) Credit pc (1907)
Panel A. OLS						
Equal Division	0.0101	0.0227	2.563	-2.809	10.49*	-81.96*
	(0.0158)	(0.0351)	(9.006)	(27.37)	(5.610)	(39.21)
Observations	69	70	126	70	124	69
Panel B. With Controls						
Equal Division	-0.00398	0.00946	-7.438	-34.65	-4.083	-64.75
	(0.0214)	(0.0377)	(12.37)	(47.49)	(5.228)	(47.27)
Observations	69	70	126	70	124	69
Panel C. Distance to Border						
Equal Division	0.0000760	0.0271	-3.240	-19.67	2.342	-25.25
	(0.0170)	(0.0308)	(10.49)	(33.96)	(4.017)	(44.78)
Observations	63	64	112	64	110	63
Mean Outcome	0.186	0.257	98.60	296.5	61.74	234.6
SD Outcome	0.0616	0.0891	112.3	159.2	59.43	151.0

Notes: The table uses per capita data from local savings banks (Baden, Hesse, Württemberg) and credit associations (Baden) aggregated at the county level. The number of savings banks' depositors is available in Baden and Hesse, deposits in RM at savings banks in Baden, Hesse and Württemberg (only 1895) and credit in RM in Baden (only credit associations), Hesse and Württemberg (only 1895). Sources are Statistisches Jahrbuch für das Großherzogtum Baden 1895/6 and 1908/9, Mitteilungen der Großherzoglich Hessischen Zentralstelle für Landesstatistik 1895 and 1909, and Statistisches Handbuch für das Königreich Württemberg 1896. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A15: Equal Division and the Composition of Income and Wealth

	(1) Business Income (pc)	(2) Real Estate Income (pc)	(3) Capital Income (pc)	(4) Labor Income (pc)	(5) Business Assets (pc)	(6) Real Estate Assets (pc)	(7) Financial Assets (pc)
Panel A. OLS							
Equal Division	40.99*	-4.810	23.31	91.75	54.92	-302.7**	-248.6
	(21.06)	(9.933)	(27.24)	(58.27)	(59.65)	(121.5)	(380.2)
Observations	115	115	115	115	70	70	70
Panel B. With Controls							
Equal Division	22.07*	-14.01	4.020	41.83	-23.45	-571.1***	-452.1
	(10.88)	(9.242)	(12.09)	(25.71)	(100.5)	(126.9)	(326.9)
Observations	115	115	115	115	70	70	70
Panel C. Distance to Border							
Equal Division	21.24*	-13.92	3.573	39.98	31.80	-473.2***	-210.1
	(10.62)	(9.730)	(13.64)	(25.22)	(85.35)	(101.2)	(299.1)
Observations	106	106	106	106	64	64	64
Mean Outcome	109.0	127.1	57.14	188.0	574.3	2668.7	1240.5
SD Outcome	116.8	54.75	114.0	245.3	441.1	931.0	954.0

Notes: The table uses county level aggregates from the wealth tax collection in Baden 1908 and Hesse 1907 as well as income tax collection in Baden 1908 and Württemberg 1907. Income tax statistics included roughly a third of the population. Real estate includes both land and buildings. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Column 3 reduces the sample to counties in 35 km distance to the border of the inheritance rule. Independent cities are excluded. Regressions are weighted by population in 1907. Standard errors clustered at the district (Regierungsbezirk) level. * p<0.1, ** p<0.05, *** p<0.01

Table A16: Equal Division and Innovation and Entrepreneurship: Appendix Material

	Employment 1925:	Prussia 1816:	
	(1)	(2)	(3)
	Self Empl.	Middle Schools	Middle School Pupils
	out of Agric.		(per 1000 People)
Panel A. OLS			
Equal Division	0.0656	-0.0113	-0.338
	(0.0848)	(0.0195)	(1.210)
Observations	779	311	311
Panel B. With Controls			
Equal Division	0.151	0.0180	1.943**
	(0.118)	(0.0129)	(0.803)
Observations	763	311	311
Panel C. Border Sample			
Equal Division	0.309*	0.0347**	1.934
	(0.162)	(0.0158)	(1.450)
Observations	329	90	90
Mean Outcome	4.415	0.0430	2.305
SD Outcome	1.540	0.0804	4.503

Notes: The table reports the effect of equal division on the outcomes reported in the column headers. The unit of observation is a county. In column 1 the percent of people in self-employment out of agriculture (manufacturing and trade and services) is used as outcome variable for the sample of the whole German Empire in 1925. In column 2 and 3 the sample is reduced to Prussian counties. The number of middle schools (column 2) and the number of pupils in middle schools (column 3) per 1000 people are used as outcome variables. Panel A includes longitude, latitude, and state-fixed effects. Panel B additionally includes geographic and cultural controls as specified in summary statistics. Panel C reduces the sample to counties in 35 km distance to the border of the inheritance rule. Regressions are weighted by population. Standard errors clustered at the district (Regierungsbezirk) level. * $p<0.1$, ** $p<0.05$, *** $p<0.01$