Women, Property Rights, and Banking*

Purnoor Tak[†]

April 21, 2025

Abstract

This paper investigates the effect of property rights on women's financial inclusion, and subsequent changes in human capital investment and labor market participation. Using hand-collected bank data and the English census over the late 19th century, I exploit the Married Women Property Act of 1870, which granted married women ownership over their financial assets. I document 12% more accounts and greater account usage in local districts with a higher presence of married women. While changes in women's education and employment outcomes following the reform are broadly muted, local districts with a bank experience significantly higher subsequent levels of female education and labor force participation, with female employment rising by 13 percentage points. These results demonstrate an important role of well-defined property rights in encouraging female participation in the banking sector, and the complementarity of property rights and financial access in economic development.

Keywords: Financial access, property rights, household finance, banking, women.

JEL Classification: G51, G21, P14, J16.

^{*}Preliminary and incomplete. I thank the Wheeler Institute for Business and Development for financial support.

[†]London Business School, ptak@london.edu.

1 Introduction

Property rights have long been recognized as foundational to economic development, reducing uncertainty and encouraging both market exchange and investment (see Coase (1937), Besley (1995), Porta et al. (1998), among others). The ability to protect one's wealth, pledge it in financial transactions, and realize returns without the impediment of weak legal protections forms a critical basis for economic expansion (Acemoglu and Johnson, 2005). In this sense, legal and financial institutions are often mutually reinforcing; the clarity and security conferred by strong property rights broaden the scope of financial services, while well-functioning financial markets, in turn, encourage investments in assets whose ownership is well-defined (Grossman and Hart, 1986; Hart and Moore, 1990). Yet a central question remains: how do expansions in property rights interact with formal financial access to shape real economic outcomes? This paper addresses this question by investigating how property rights influence individual participation in the formal financial sector, the complementarity between legal rights and financial access, and the long-run real effects on human capital investment and labor force participation.

Empirically studying the impact of property rights on financial participation and the interaction of property rights and financial access is challenging due to the scarcity of settings that combine a clearly defined legal shift with rich individual and local-level data. In most contexts, changes to property rights occur infrequently, and even when significant legal reforms do take place, they are rarely accompanied by high-frequency or granular data. In addition, data on financial access and how individuals interact with financial institutions before and after being granted property rights are required. This paper addresses these empirical challenges by exploiting an instance of institutional change: the Married Women's Property Act of 1870 in England, which granted married women legal ownership and control over their financial assets. This reform introduced a sharp break in the legal status of a large subset of the population—married women—without altering property rights for other groups. I combine this natural experiment with manually digitized administrative records from local savings banks, the primary financial institution the working-class population of England had access to in the 19th century. These data provide detailed, spatially disaggregated measures of financial access across England, which I combine with census microdata from 1861 to 1881. This rare conjunction of an exogenous legal shock and comprehensive financial and demographic data enable a precise study of how legal rights and institutional access jointly shape economic outcomes.

The outcomes I study—human capital investment and labor force participation at the individual level —are important channels through which property rights may influence economic development broadly. When individuals gain secure control over their assets, their incentives to invest in the future, including in their own or their children's education, and accumulate more funds to increase

consumption through labor force participation, are likely to change. These decisions are forward-looking and rely on the ability of individuals to retain the returns from investment, which weak property rights often undermine. While existing work has shown that secure property rights increase physical investment (Besley, 1995; Goldstein and Udry, 2008), less is known about how it shapes investments in skills or time allocation, particularly outside of land-based settings. In addition, access to formal savings technologies can facilitate the channel through which property rights encourage development, by offering both security of funds and interest accumulation. Here, I study how property rights and financial access jointly influence long-run development outcomes beyond land or physical capital.

I proceed in three steps. First, I employ a difference-in-differences (DiD) specification to measure how the 1870 Married Women's Property Act affected women's participation in formal banking. Specifically, I compare bank-level outcomes—namely the number of open accounts and deposit receipts—between local districts that varied in their ex-ante share of married women, before versus after 1870. This approach exploits the idea that local districts with a larger proportion of married women would be the most affected by new property rights over financial assets. I find that the number of bank accounts grows more in districts with a higher share of married women following the Act (13% higher), and that these accounts are actively used: deposit receipts rise (17% higher) alongside account uptake, indicating a pronounced increase in financial inclusion. I also demonstrate this result is robust to different definitions for capturing the presence of married women locally, and that pre-trends hold among high and low married women local districts. In addition, I provide micro-evidence supporting greater female financial inclusion through data on new accounts opened from 1865 to 1875.

Next, I examine whether these improved property rights also generated broader shifts in women's education and employment by comparing outcomes in the 1861 and 1881 English censuses. I focus on measures such as the number of female students, the female share of high-skill occupations, and overall female labor force participation. The results, however, show relatively muted changes across the country during this period. Although the Property Act enabled married women to hold assets in their own name, there is no robust evidence of a strong nationwide effect on human capital formation or labor participation in the decade after the reform.

Finally, I investigate how financial access interacts with property rights. Using a novel instrument for banks in a local district, exploiting the presence of local elites who frequently set up the savings banks, I show there is a strong and statistically significant effect on womens' human capital investment and labor market participation in areas with a bank. This result underscores the complementarity

¹Some exceptions to this include Field (2007). In my setting, I focus on both human capital and labor participation outcomes, and study how property rights interact with financial access.

between legal reforms and financial access, suggesting that without readily available banking services, property rights reforms alone may have only limited effects on women's real economic opportunities.

This paper contributes to several strands of the finance and economics literature. First, I contribute to the extensive literature in finance and development economics on financial inclusion (Ashraf et al., 2006; Bruhn and Love, 2014; Célérier and Matray, 2019; Dupas and Robinson, 2013; Schaner, 2018). Access to formal financial services remains a cornerstone of economic development, yet disparities in financial inclusion persist, particularly for women (Demirgüc-Kunt and Klapper, 2012). In many parts of the developing world, property rights are also limited, poorly enforced, or inaccessible to women due to legal, institutional, or cultural barriers. These barriers may hinder women's ability to accumulate and manage wealth but also stifle broader economic potential by discouraging investments in human capital and entrepreneurial activities. In this paper, I investigate the role of well-defined property rights in facilitating financial inclusion, finding a strong effect on financial participation following married women being granted property rights. In addition, past literature on financial inclusion has limited evidence on what causes households to adopt and maintain bank accounts once access to banks is provided. Given the mixed results in the development literature on microfinance, including for micro-savings (Van Rooyen et al., 2012), it is important to consider what makes households choose to open accounts, and continue to use them once they have been opened. My setting benefits from being able to measure not just account uptake, but also bank usage as measured deposits made at the bank, as well as examine outcomes over the long run with 50 years of detailed savings bank data.

Second, I contribute to the literature on property rights. In particular, my paper provides evidence on the importance of a well-developed financial sector in facilitating the observed benefits of granting property rights on subsequent investment in human capital and employment. Several papers demonstrate how stronger property rights can encourage the mobility of labor (Field, 2007; Adamopoulos et al., 2024). My results demonstrate that, after controlling for local district characteristics and investigating within-county variation, local districts that have a bank experience higher levels of female employment and education, suggesting the importance of access to formal savings mechanisms to facilitate the benefits of property rights. In addition, the seminal works of Grossman and Hart (1986) and Hart and Moore (1990) indicate the importance of ownership for firm investment in productive assets, my results highlight the importance of ownership for individual investment in human capital. Galiani and Schargrodsky (2010) demonstrate that land titling can increase investment in children's education, and not through access to credit. My findings complement this work, demonstrating that investment in education can be an important outcome of well-defined property rights in the presence of a savings technology. This interplay between property rights and financial inclusion is especially

²See, among others, Hallward-Driemeier et al. (2013) and O'Sullivan (2017).

relevant in developing economies, where informal savings mechanisms often dominate, and formal savings by households—and women in particular—remain low, despite several advantages of formal savings including the accumulation of interest.

Finally, this paper relates to the literature on economic development and women's rights. The development literature has identified a lack of well-defined legal rights for women as being a significant barrier to their economic progress (Doepke and Tertilt, 2009; Fernández, 2014). I contribute to this literature by providing microevidence using the setting of the retail banking system of the UK in the 19th century, during which married women are granted property rights, to identify the effect of property rights on financial participation by women. I also find evidence of subsequent increases in investment in human capital and more employment for women over the following decade, particularly in areas with access to a formal savings device.

The rest of the paper proceeds as follows. Section 2 provides institutional details on the savings bank sector in the UK in the 19th century and describes the Married Women's Property Rights Acts in England and Scotland. Section 3 describes the savings bank and census data used in the analysis. Section 4 details the empirical strategy used and the main results on savings bank usage following the passing of the property rights act, and Section 5 discusses changes in education and employment for women. Finally, Section 6 concludes.

2 Background

In this section, I first detail the primary regulatory reform I use to investigate the role of property rights on women's financial, education, and labor choices – the 1870 Married Women's Property Act. Next, I describe the retail banking landscape of the United Kingdom over the 19th century over which I examine the effects of the 1870 Married Women's Property Act. Finally, I discuss contemporary challenges facing the enforcement of women's property rights.

2.1 Married Women Property Rights Act

I use a significant legislative reform from the 19th century that formally granted property rights to married women over financial assets for the first time in England.

Prior to the 1870 Married Women's Property Act, the legal regime in England and Wales was highly differentiated by marital status. Married women were legally subsumed under the doctrine of coverture, meaning that any property, income, or legal rights were controlled by their husbands; they had no independent legal personality to contract or own property. Prior to 1870, English common law dictated that a woman's property passed under her husband's control upon marriage. This principle

derived from the doctrine of coverture, by which a married woman (a feme covert) could not own or manage property in her own name (Blackstone, 1765). As a result, her "personal property" — moveable assets like money, clothing, household furniture — became her husband's to use, sell, or even bequeath at death (Erickson, 1993). Property rights over real property differed - while the wife technically retained the title to land she brought into the marriage and legal ownership, she could not alienate it without her husband's consent (Holcombe, 1983). In contrast, single women and widows enjoyed full legal capacity of their personal and real property (Holcombe, 1983).

The late 19th century saw significant reforms to the legal rights of married women over their property. The first of these legislation addressed property rights of married women over their earnings and money – the Married Women Property Rights Act of 1870 applied to England and Wales and was the first meaningful legislative reform formally addressing the property rights of married women. The 1870 Act applied specifically to ownership over money, gained through inheritance or labor. ⁴ This allowed, for the first time, savings held in formal bank accounts in the names of married women to be fully under their control. Specifically, the 1870 Act stated:

"Notwithstanding any provision to the contrary in the Act of the tenth year of George the Fourth, chapter twenty-four, enabling the Commissioners for the Reduction of the National Debt to grant life annuities and annuities for terms of years, or in the Acts relating to savings banks and post office savings banks, any deposit hereafter made and any annuity granted by the said Commissioners under any of the said Acts in the name of a married woman, or in the name of a woman who may marry after such deposit or grant, shall be deemed to be the separate property of such woman, and the same shall be accounted for and paid to her as if she were an unmarried woman; provided that if any such deposit is made by, or such annuity granted to, a married woman by means of moneys of her husband without his consent, the Court may, upon an application under section nine of this Act, order such deposit or annuity or any part thereof to be paid to the husband."

(Married Women's Property Act 1870, Section 2)

2.2 The UK Savings Bank Movement and the Trustee Savings Bank System

To gather information on financial inclusion and savings behavior, I make use of the trustee savings bank system of the United Kingdom, which was the first formal financial institution offering savings accounts to the general population of the United Kingdom. The trustee savings banks in the United Kingdom numbered 573 banks by 1850 with over a million depositors and approximately £3 billion

³On the death of their husband, widows typically had only a life interest—known as "dower"—in one-third of their husband's freehold property, provided it had not been sold or devised beforehand(Erickson, 1993).

⁴Property rights over land for married women were solidified through the Married Women's Property Act of 1882, which gave married women explicit control over the real estate they owned.

in deposits in current pounds. Figure 1 plots the geographic distribution of the trustee savings bank system across England, atop 1851 local district boundaries, illustrating how the banks were spread across both areas of higher population density as well as smaller towns and rural localities.

[Insert Figure 1 here]

The vast majority of the trustee savings banks opened in the years just after the passing of the Savings Bank (England) Act 1817 as a benevolent movement aimed at encouraging the so-called "industrious poor" of the nation to save. They were initiated locally through their communities at the initiative of local district leaders or elites, with these reform-minded elites—often landowners, clergymen, or merchants—acted as trustees, volunteering their time and guaranteeing oversight without personal profit (Horne, 1947).

These banks differed from conventional banks across several dimensions. First, they promoted themselves to the working class to encourage the savings of small sums, including domestic and farm servants and laborers. Banks also operated highly independently; bank managers worked locally at a bank, under a trustee who offered security, and all collected funds would go centrally to the Commissioners for the Reduction of the National Debt to be invested in government bonds. Finally, these banks did not issue credit, and invested all deposits in government securities (Horne, 1947).⁵

2.3 Contemporary Challenges to Women's Property Rights

While the primary regulatory change I use, the 1870 Married Women's Property Act, occurred several years ago and there have been many strides in securing women's property rights since, many countries still exhibit patterns reminiscent of historical coverture. High bureaucratic fees, gender bias in courts, and a lack of awareness about property entitlements continue to hinder the full realization of women's rights (Food and Agriculture Organization (FAO), 2018; Lastarria-Cornhiel, 1997).

In Sub-Saharan Africa, for example, statutory laws grant equal inheritance and land rights, yet customary practices often override these reforms, leaving women reliant on male relatives for property access (Benschop, 2002; Henrysson and Joireman, 2009). Similar contradictions between formal statutes and on-the-ground realities are found in the Middle East and North Africa, where women's entitlements are frequently constrained by both religious inheritance frameworks and local norms to relinquish inheritance claims (World Bank, 2023).

Across South Asia, progressive legal measures such as the Hindu Succession (Amendment) Act in India theoretically ensure daughters' rights to ancestral property. Nonetheless, practical enforcement

⁵It was not until the passing of the Trustee Savings Bank Act of 1976 that credit was offered.

is hampered by social norms and familial intimidation, making it difficult for women to assert property claims without enduring costly legal battles (Agarwal, 1994; Tripp, 2004). The Latin American experience similarly highlights the gap between joint titling legislation and actual practice, as women are routinely excluded from property registration or discover belatedly that they hold no formal title (Deere and León, 2003).

3 Data

This paper relies on two primary sources of data. First, I use the complete census data from England spanning 1861 to 1881 to extract demographic, occupational, and geographic variables, collapsed to consistent parish-level units (hereafter "local districts").⁶ This allows for a mapping of employment, education, and population characteristics over time. Second, I manually compile a comprehensive dataset of Trustee Savings Bank (TSB) annual reports from 1851 to 1900 by digitizing and transcribing archival records. These banks were the primary formal financial institution that the working-class population of the United Kingdom could use to deposit their funds at this time. These reports include granular details on bank locations, deposit amounts, and depositor numbers. Together, these datasets provide a novel historical perspective on financial access during a period where property rights were first granted formally to married women.

3.1 England and Scotland Historical Census Data

I use the complete non-anonymized England census for the years of 1851, 1861, and 1881 available from the Integrated Census Microdata (I-CeM) at the UK Data Service.⁷

I extract variables on population, gender, and employment and occupation characteristics. Using the consistent geographic local district units defined in the data, I collapse the census to local district-level variables. Specifically, I exploit the occupation classification variable, "occode" to define an indicator variable for employed, as well as map the share of agricultural workers within a local district.⁸

⁶A parish in Victorian England was a basic administrative and ecclesiastical unit, typically centered around a local church, which served both religious and civil functions. Parishes were responsible for maintaining records of births, marriages, deaths, and overseeing poor relief, and thus constituted fundamental geographic and administrative boundaries widely used for demographic and socio-economic analyses in historical research. From data on parishes sizes used from Schurer and Wakelam (2024), the average 1861 parish size is 2,711 acres.

⁷I supplement this data with a variable on the size of each local district in acres for England (available for the years 1851, 1861 and 1891) from Schurer and Wakelam (2024).

⁸This variable indicates detailed and consistent occupational names, eg. those working within education are classified across several granular occupational categories such as schoolmasters and teachers (default), university teachers, school service (inc attendants and pupil teachers), school service general, clerks, etc, and governesses (domestic) (resident).

I also use variables indicating age, marital status, household head gender, and population density. Panel A of 1 presents summary statistics on this local district-level dataset.

[Insert Table 1 here]

For more details on data cleaning and variable construction, refer to Section A in the Internet Appendix.

3.2 Trustee Savings Bank Balance Sheet

I digitize and manually transcribe annual reports on the Trustee Savings Banks from 1851 to 1900. These reports include information on the bank location, amount of deposits, number of depositors, and interest rates offered on deposits. These reports also contain data on bank management, including the number of paid and unpaid officers, the security offered by paid and unpaid officers, along with data on management expenses.

Bank Locations. To arrive at a complete list of over 500 bank locations and their opening and closing date, I rely on the list in Appendix 1 of Horne (1947). As Appendix 1 of Horne (1947) does not list the local district or county that a bank is located in, and since many names for villages, towns, and cities may not be unique within the United Kingdom, I manually identify local districts for each bank location using newspaper articles from the British Newspaper Archive and other digitized historical records, and matching these with the closest geographic local district I can identify in the 1851 England census.

I restrict the transcribed bank annual report data to banks that are founded by 1861, the census year for which data is available prior to the passing of the Married Women Property Rights Act of 1870, and exist until 1891.¹⁰ This encompasses 190 unique banks across 187 local districts, with 9,143 bank-year observations.

New-Accounts Depositor-Level Data. For a select subset of trustee savings banks with surviving depositor records, I manually digitize and transcribe data on new accounts opened over 1865 to 1875. Figure A2 in the Internet Appendix gives an example of such records.

Bank-Level Statistics. From the 1850s onwards, the central TSB office compiled annual data on individual savings banks which includes number of depositors, amount of deposits and corresponding

⁹The local district-level dataset uses a geographic consistent definition of local districts over time from I-CeM, "conparid" to compare areas over time.

¹⁰Note that results are robust to not including these sample restrictions.

accounts, bank management information, expenses, among other items, for almost all savings banks in the UK.

Summary statistics of variables are presented in Panel B of Table 1. On average, a bank has about 4,500 bank accounts open in a given year with £133,000 in nominal deposits, and receives approximately 4,800 deposit receipts. The average annual interest rate over the sample period is 2.85%.

4 Property Rights and Financial Participation

This section investigates the effect of granting property rights on bank account usage. In particular, I examine how the use of bank accounts changes around the passing of the 1870 Married Women's Property Act. Section 4.1 details the empirical strategy and Section 4.2 presents the main results of the Act on financial inclusion outcomes.

4.1 Empirical Strategy

I employ a difference-in-differences (DiD) analysis comparing local districts with a higher ex-ante share of married women before and after the passing of the 1870 Married Women's Property Rights Act. Specifically, I exploit the fact that after 1870, the Married Women's Property Rights Act differentially impacts local districts with a high ex-ante married female share versus those with a lower share. ¹¹ Local districts with higher shares of married women in 1861 were more legally constrained prior to the reform — they faced the greatest restrictions under coverture and thus had the most to gain. Hence, the 1870 Act constituted a stronger legal shift for these areas.

The main identification assumption is that in the absence of the 1870 Married Women's Property Rights Act, local districts with a higher ex-ante share of women (the "treatment" group") and local districts with a lower share of women (the "control" group) would have had parallel trajectories in the outcomes of interest, for example, the number of accounts opened and the amount of deposits made. In addition, a second challenge in this setting could be that there may be systematic changes, beyond the Act, in the population composition of local districts that differentially affect the treatment and control group – local districts with a higher or lower share of married women in 1861.

4.2 Results

New Accounts and Deposit Receipts

¹¹I also estimate the results using the log count of married women in a local district as the explanatory variable in the Internet Appendix. Results are robust to this measure.

The empirical strategy exploits the passing of the Married Women Property Right's Act in 1870 in England. In a difference-in-differences framework, I compare variation in the ex-ante share of married women in a local district using the 1861 census, and measures differences in bank-level outcomes before and after the passing of the 1870 legislation.

I first estimate

Outcome_{bt} =
$$\alpha + \beta_1$$
 (1861MarriedWomenPopPct_d × $\mathbb{1}_{Post}$) + β_2 $\mathbb{1}_{Post}$ + β_3 1861MarriedWomenPopPct_d
+ $\gamma X_d + \mu_c + \lambda_d + \tau_t + \delta_{ct} + \epsilon_{bt}$, (1)

where $Outcome_{bt}$ refers to the outcome variable of interest for bank b in year t, $\mathbb{1}_{Post}$ is an indicator variable equal to one for observations in or after 1870, and 1861 Married Women Pop. Pct_d refers to the married women percent of the local district population of bank b in 1861. The vector γX_d refers to 1861 local district-level control variables for the local district of bank b. Specifically, I include a rich set of 1861 local district-level controls – including the log population and count of agricultural workers, the unemployment rate, the population density, and the bank-year interest rate — to help alleviate several potential endogeneity concerns. First, local districts with larger populations or differing levels of agricultural employment may have had distinct financial infrastructures and economic opportunities that could influence both the pre-treatment married female share and subsequent bank account uptake. Second, local labor market conditions, as captured by the unemployment rate, may affect marriage market outcomes and financial behavior independently of the reform. Third, differences in population density may proxy for urbanization, which can be correlated with both the level of financial inclusion and gender norms regarding property rights. Finally, differences in local interest rates may influence savings behavior and the uptake of new accounts. Additionally, μ_c refers to county fixed effects, λ_d refers to local district fixed effects, τ_t refers to year fixed effects, and δ_{ct} refers to county \times year fixed effects.

I test the following bank-year level outcomes in the post-period, taken from the annual reports of the trustee savings banks: log number of open accounts and the log number of deposit receipts. Tables 2 and Table 3 present the results.

[Insert Table 2 here]

[Insert Table 3 here]

¹²Note that the sample contains 190 unique banks across 187 local districts, so there are only a few local districts containing more than one bank.

Local districts with higher ex-ante married women population percents have banks with more open accounts and deposit receipts in the post period. A 1 percentage point increase in the ex-ante married women population in a local district is associated with an approximately 13% increase in the number of accounts and 17% increase in deposit receipts. These results are driven by the extensive margin of financial participation, with women opening more accounts and making more deposits, rather than a substantial change in the volume of deposits. See Tables A3 and A4 for deposits and the average deposit size in the Internet Appendix.

Parallel trends. The central identification assumption of the difference-in-differences specification outlined in Equation 1 is that in the absence of the Married Women's Property Rights Act of 1870, local districts with higher or lower presence of married women would have had similar *trends* in the bank outcomes I consider.

To test the parallel trends assumption, I estimate the year-by-year effect of the married female local district share on savings bank outcomes around the ten years before and after the event in 1870, on the same bank annual report outcomes.

Specifically, I estimate

$$Outcome_{bt} = \alpha_b + \sum_{\substack{y=1860\\y\neq1869}}^{1880} \beta_y \left(1861\text{MarriedWomenPopPct}_d \times \mathbb{1}\{t=y\}\right) + \lambda_d + \tau_t + \epsilon_{bt}, \tag{2}$$

In this specification, Outcome_{bt} is the log number of open accounts or the log deposit receipts at bank b in year t. λ_d refers to local district fixed effects, which absorb all time-invariant characteristics of each local district, and τ_t refers to year fixed effects. I interact this treatment with a set of year dummies, $\mathbb{1}\{t=y\}$ for each year $y=1860,1861,\ldots,1880$, with the year 1869 omitted as the baseline. The coefficient β_y on each interaction term captures the differential effect in year y—that is, the additional impact on the log number of accounts and deposit receipts for local districts with higher or lower married women presence relative to 1869. Standard errors are clustered at the local district level to account for within-local district correlation over time. The figures below present the results.

These figures demonstrate a rise in both the number of open accounts and deposits made following 1870, the year of the Act in Panels (a) and (b), respectively. In addition, the figure indicates no pre-trends in the outcomes for local districts with higher or lower married women presence, with a notable rise for the local districts with a stronger married women presence only *after* the passing of the 1870 Married Women's Property Rights Act. This strongly supports the parallel trends assumption of the main specification estimated by Equation 1.

Monotonicity of treatment effect. In a second step, I also use quartiles of ex-ante married women population share to define treatment. Specifically, I estimate the specification below,

Outcome_{bt} =
$$\alpha + \beta_1 \mathbb{1}_{\{1861\text{MarriedWomenPopPctQuar4}\}} \times \mathbb{1}_{\{\text{Post}\}}$$

+ $\beta_2 \mathbb{1}_{\{1861\text{MarriedWomenPopPctQuar3}\}} \times \mathbb{1}_{\{\text{Post}\}}$
+ $\beta_3 \mathbb{1}_{\{1861\text{MarriedWomenPopPctQuar2}\}} \times \mathbb{1}_{\{\text{Post}\}}$
+ $\lambda_d + \tau_t + \delta_{ct} + \epsilon_{bt}$. (3)

In Equation (3), Outcome_{bt} denotes the same outcome variables (for example, the log number of accounts and deposit receipts) for bank b in year t. The treatment variable is defined by the interactions of the 1861 local district-level married women population share quartile indicators and the post-1870 dummy variable. Local district and year fixed effects are included (λ_d and τ_t , respectively), along with county \times year fixed effects (δ_{ct}).

Table 4 presents the results.

[Insert Table 4 here]

These results show that the effect on more open accounts is driven by local districts with the highest ex-ante married women share. Being in the local district with the highest quartile of married women shares increases the number of accounts opened and the number of deposit receipts by approximately 85% each after 1870.

4.2.1 Microevidence from Depositor Records

To complement the bank-year results on financial inclusion around the Act, I manually digitize and transcribe depositor declaration data at a subset of banks, which includes information on the names of new accounts opened, as well as data on their marital status. From the names, I manually infer the gender of the depositor. Figure A2 in the Internet Appendix presents an example of the archival records.

I plot the annual count of female depositors, the annual share of female depositors, and the annual share of married female depositors in Panels (a), (b), and (c), respectively, of Figure 3. These results demonstrate a notable rise in the average count and share of female depositors opening new accounts around the 1870 Act.

4.2.2 Robustness

I perform a battery of robustness tests, including using different measures of ex-ante married female presence in a local district, examining changes in the outcome variables of interest (eg. changes in the number of accounts opened or deposit receipts), and other tests, which are described here.

Alternative definitions of variables. First, I show my baseline difference-in-differences estimates hold using the log count of married women in 1861 in a given local district (controlling for the population level). These are presented in the Tables A6 and A7 in the Internet Appendix.

In addition, one may expect that the effect of married women being granted property rights may affect the dynamics of marriage patterns, as well as the behavior of single women. Hence, I test

Migration. A potential challenge to my analysis is the migration of married women across local districts over time such that the ex-ante 1861 local districts with a higher level of married women are not the same as those in 1870 after the reform, or beyond. Local districts originally classified as "high-female share" may lose many women (for job opportunities, marriage, or other reasons), while "low-female share" local districts could gain more women. A shift in composition may undermine the parallel trends assumption if one set of local districts systematically gains or loses female residents (and hence experiences changes in bank account usage for reasons unrelated to the 1870 Act). I address this concern through several tests.

First, I plot the local district-level average share of women and married women over time using the decennial census data. Figure A3 in the Internet Appendix plots the results, demonstrating stable average shares of women and married women over time, as well as a stable overall distribution.

In addition, the results in Table 4 helps to partially alleviate the migration concern. If migration were driving the observed effects, we might expect a more erratic or non-monotonic pattern of the treatment effect across quartiles of ex-ante married female shares, reflecting differential selection in migration. The finding of a monotonic relationship in Table 4 helps alleviate concerns that migration is the primary driver, because selective migration may induce irregular patterns rather than the consistent trend observed.

Bank local district selection. Another challenge is if bank presence changes over time. Since I restrict the main analysis such that the sample only contains local districts which already have a bank by 1861, at the time the treatment is defined, this is not a major concern as bank access remains the same over time in these local districts, and none of the local districts included in the same had banks which closed prior to 1891. Furthermore, I included several 1861 local district-level controls, including population levels, population density, the share of agricultural workers, and unemployment levels to capture differences in economic development and urbanization trends.

Anticipation effects. If people anticipated that women would soon gain property rights, they might have started behaving differently (e.g., opening accounts earlier, or shifting marital arrangements) before 1870. Figure 2, which plots the year-by-year coefficients of being in the top quartile of exante married female share local districts, indicates no pre-trends for account uptake in Panel (a). In addition, I plot in dashed lines both the year the Act passed, in 1870, as well as the year it was first proposed in parliament, in 1868. The rise in savings bank accounts does not start until after the passing of the Act in 1870.

5 Real Effects of Property Rights and Access to Finance

In this section, I investigate the potential real effects of women's financial inclusion on subsequent human capital investment and employment over the longer run.

5.1 Women's Human Capital Investment and Employment

In a first step, I describe the dynamics of women's human capital investment and employment in the census years prior to and following the Married Women's Property Rights Act of 1870. In particular, I compare female outcomes in 1861 and 1881, referring to the census years for which data is available before and after the Act.

[Insert Table 5 here]

Table 5 estimates the results of a pooled regression where I compare the number of female students (1000s), the female employment rate among women greater than 15 in a particular local district, and the count of women (1000s) in high skill occupations, such as those working in medicine, teaching or science and engineering. I compare these outcomes on an indicator for 1881, relative to the outcomes' values in 1861 for a given local district. The specification estimated is

$$Outcome_{dt} = \alpha + \beta \, \mathbb{1}_{Post} + \gamma \, X_d + \mu_c + \epsilon_{dt}, \tag{4}$$

where β compares the average Outcome_{dt} in local districts in 1881 relative to 1861, X_d refers to a vector of 1861 local district controls including population, agricultural worker presence, unemployment rate, and the population density, and μ_c refers to county fixed effects.

The results in Table 5 indicate that, after controlling for a rich set of pre-reform local district characteristics and county fixed effects, the post-1870 period is associated with a modest rise in the count of female students by about 93 additional students, a one percentage-point increase in the female

employment rate among women greater than 15 in the local district, and an economically insignificant change in the count of women in higher skill professions.

Next, I compare how these outcomes vary by the presence of married women in a local district in 1861, as these areas are more directly impacted by legislation.

I estimate

Outcome_{d,1881} =
$$\alpha + \beta$$
 1861MarriedWomenPopPct_d + $\gamma X_d + \mu_c + \epsilon_{d,1881}$, (5)

I compare the count of female students, the change in the count of female students from 1861 to 1881, the female employment rate as a percent of the female labor force, the count of women in high skill professions, and the change in the count of women in high skill professions from 1861 to 1881 in local districts with higher or lower married women presence in 1861, controlling for 1861 local district characteristics and county fixed effects. The correlations are described in Table 6 below.

The results in Table 6 indicate that the estimated association between the 1861 married women population percentage and female outcomes in 1881 is mixed and economically modest.

Collectively, Tables 5 and 6 indicate a muted change in women's outcomes around the Married Women's Property Rights Act of 1870 broadly in English local districts.

5.2 Effects of Financial Access

I now examine whether outcomes for women now granted formal property rights following marriage vary by the local financial infrastructure available.

There are two non-mutually exclusive channels through which property rights may affect financial inclusion: property rights may (i) encourage women to save formally, rather than informally, which allows for the accumulation of interest payments, (ii) generate more incentive to accumulate funds if there are well-defined property rights over these funds.

To investigate this second channel, I compare 1881 local district outcomes with indicators for bank presence in 1861 using the following specification

$$Outcome_{d,1881} = \alpha + \beta_1 \mathbb{1}_{Bank1861} + \gamma X_d + \epsilon_{dt}, \tag{6}$$

where $Outcome_{d,1881}$ refers to various 1881 local district-level outcomes. Specifically, the outcomes I test are the count of female students, the change in the count of female students from 1861 to 1881, the female employment rate as a percent of the female labor force, the count of women in high skill

professions, and the change in the count of women in high skill professions from 1861 to 1881. I control for 1861 local district level controls, as before, including the log local district population, the log number of agricultural workers, the unemployment rate, and the population density of the local district. County fixed effects are included, and standard errors are clustered at the local district level. Table 7 presents the results.

[Insert Table 7 here]

Even after controlling for 1861 local district-level characteristics, local districts hosting a savings bank in 1861 show significantly higher female enrollment in schooling and greater female labor force participation, including among higher skill occupations which require more training such as teaching-related occupations. These patterns imply that formal savings opportunities, coupled with enhanced property rights, likely altered household incentives to invest in women's human capital.

5.2.1 Instrumental Variable Approach

One concern with the OLS results presented in Table 7 is that, even after controlling for a host of local district-level characteristics and examining results within county, bank presence in a local district may be driven by unobserved variables which also drive the documented increase in women's human capital investment and labor market participation.

To address this endogeneity of bank presence, I rely on an instrumental variable approach, utilizing the presence of local elites at the local district level as an instrument for bank presence. The motivation for this instrument is rooted in the historical context through which trustee savings banks were established. In particular, local districts with a higher presence of local elites—measured by the log count of individuals employed in occupations such as senior government officials, judges, top civil servants, and those living off independent means—were more likely to attract banks due to the historical context of the formation of the trustee banking system. The instrument exploits the historical requirement of trustee savings banks to have a local trustee to oversee deposited funds. In many Victorian local districts, local elites acted as both philanthropists, actively encouraging the establishment of these banks in their communities, as trustees of these banks, securing the funds of the depositors in the early years of the savings bank movement (Horne, 1947). Consequently, local districts with a higher concentration of local elites were more likely to have trustee savings banks.

The identifying assumptions required for the validity of the instrument are twofold. First, the instrument should be *relevant*, such that the presence of local elites is strongly correlated with bank presence. This is demonstrated by the historical role of these elites in bank establishment and confirmed

by the first-stage regression statistics, presented in Table A8 in the Internet Appendix.¹³ Second, the exclusion restriction requires that after controlling for a rich set of local district-level characteristics and county fixed effects, local elite presence affects women's human capital and labor market outcomes solely through its effect on bank presence rather than through other direct channels. If these assumptions hold, the instrument provides a credible source of exogenous variation in bank presence that can be used to isolate its causal impact on women's real outcomes.

When using the presence of local elites as an instrument for bank presence in a setting where the outcomes are women's employment and human capital/education, an important concern is that local elites might affect these outcomes through channels other than bank presence. For example, local elites may directly influence social norms, local policy decisions, or public investments that promote women's education and labor market participation. This would violate the exclusion restriction, which requires that the instrument affects the outcomes solely through its impact on bank presence. An important milestone for public education was the Elementary Education Act 1870 which was a national framework for elementary schooling in England and Wales by creating school boards and mandating access to free basic education for children (Hurt, 1979). Hence, local elites differentially affecting local educational access is not a major concern in the IV approach due to the universal access granted by the legislation.

Table 8 presents the instrumented coefficients. These IV estimates reinforce the main conclusions, showing that female educational attainment and employment are not only correlated with trustee savings bank presence but also appear causally influenced by it once one accounts for non-random bank placement.

[Insert Table 8 here]

These results suggest that there is complementarity in legal institutions, like property rights, and the availability of a financial sector. In particular, some of the benefits of married women being granted property rights includes the ability for them to smooth their own consumption, as we as potentially gain bargaining power in intra-household decision-making. However, the presence of a formal savings device facilitates the *realization* of these benefits. The direct effect of formal savings and interest payments allows for the accumulation of funds to facilitate and smooth consumption, and having formal ownership and control over their savings banks allows married women greater financial self-reliance which can increase their intra-household bargaining power.

¹³The Kleibergen-Paap F-statistic is 273.51, far above the Stock and Yogo (2005) critical values. Additionally, the weak-instrument-robust tests (such as the Anderson-Rubin Wald test) strongly reject the null that the instrument is weak. Overall, these statistics provide robust evidence that the instrument reliably predicts bank presence by 1861, alleviating concerns about weak identification.

In addition, what is unique about the trustee savings bank is that they only benefit of these banks were security of funds and interest payment, as no credit was extended. These results therefore highlight the value of financial inclusion in savings banks, even in the absence of lending.

5.2.2 Outcomes for Males

A natural question arising from these results is whether the inclusion of women in the formal financial sector with property rights lead to higher female employment through a *reallocation* of employment, or *overall economic growth*? To address this, I examine outcomes for men in local districts with and without a bank.

The evidence in Tables A9 and A10 indicates that enhanced bank presence following the 1870 property rights reform does not simply reallocate employment from men to women. Although the number of male students increases in districts with banks, the magnitude of this effect is considerably smaller than the increase observed among female students. Moreover, while there is a pronounced and statistically significant impact on female education and employment, male outcomes—particularly in overall employment rates—either show a negligible or a slightly negative change. This pattern suggests that the reform has contributed to an overall expansion of economic opportunities rather than a zero-sum substitution effect between genders. In other words, the formal financial inclusion enabled by improved property rights appears to have enlarged the economic "pie," supporting greater human capital formation and specialized skills for both genders, even though the benefits have been more directly captured by female participation in the financial and educational sectors.

6 Conclusion

This study investigates the effects of property rights on participation in the formal financial sector. By leveraging the 1870 Married Women's Property Rights Act in England as a natural experiment, along with hand-collected archival bank records, I find that granting married women ownership of financial assets led to increased uptake of bank accounts and greater usage of bank accounts. Specifically, local districts characterized by higher ex-ante levels of married women witnessed substantial growth in the opening and active usage of bank accounts following the introduction of the Act.

Furthermore, while outcomes for women did not differ dramatically across England following property rights being granted to married women, areas with established banks experienced notable improvements in female education and employment. Local districts with bank access exhibited greater improvements in women's educational attainment and higher levels of female labor market participation, including increased representation in high-skill professions in the decade following the property

rights reform. These findings support the notion that property rights, in combination with financial infrastructure, play an essential role in encouraging human capital investment and labor market participation.

This research underscores the importance of both legal and financial institutions in facilitating economic development, highlighting the complementary role of a well-developed financial sector and strong, enforced, legal property rights.

References

- Acemoglu, D. and S. Johnson (2005). Unbundling institutions. *Journal of Political Economy* 113(5), 949–995.
- Adamopoulos, T., L. Brandt, C. Chen, D. Restuccia, and X. Wei (2024). Land security and mobility frictions. *The Quarterly Journal of Economics* 139(3), 1941–1987.
- Agarwal, B. (1994). A Field of One's Own: Gender and Land Rights in South Asia. Cambridge University Press.
- Ashraf, N., D. Karlan, and W. Yin (2006). Tying odysseus to the mast: Evidence from a commitment savings product in the philippines. *The Quarterly Journal of Economics* 121(2), 635–672.
- Benschop, M. (2002). Rights and Reality: Are Women's Equal Rights to Land, Housing and Property Implemented in East Africa? UN-HABITAT.
- Besley, T. (1995). Property rights and investment incentives: Theory and evidence from ghana. Journal of Political Economy 103(5), 903–937.
- Blackstone, W. (1765). Commentaries on the Laws of England: Book the First. Oxford: Clarendon Press.
- Bruhn, M. and I. Love (2014). The real impact of improved access to finance: Evidence from mexico. *The Journal of Finance* 69(3), 1347–1376.
- Célérier, C. and A. Matray (2019). Bank-branch supply, financial inclusion, and wealth accumulation. The Review of Financial Studies 32(12), 4767–4809.
- Coase, R. H. (1937). The nature of the firm. *Economica* 4(16), 386–405.
- Deere, C. D. and M. León (2003). The gender asset gap: Land in latin america. World Development 31(6), 925–947.
- Demirgüç-Kunt, A. and L. F. Klapper (2012). Measuring financial inclusion: The global findex database. World bank policy research working paper (6025).
- Doepke, M. and M. Tertilt (2009). Women's liberation: What's in it for men? Quarterly Journal of Economics 124(4), 1541–1591.
- Dupas, P. and J. Robinson (2013). Savings constraints and microenterprise development: Evidence from a field experiment in kenya. *American Economic Journal: Applied Economics* 5(1), 163–92.

- Erickson, A. L. (1993). Women and Property in Early Modern England. Routledge.
- Fernández, R. (2014). Women's rights and development. Journal of Economic Growth 19(1), 37–80.
- Field, E. (2007). Entitled to work: Urban property rights and labor supply in peru. *The Quarterly Journal of Economics* 122(4), 1561–1602.
- Food and Agriculture Organization (FAO) (2018). The gender gap in land rights.
- Galiani, S. and E. Schargrodsky (2010). Property rights for the poor: Effects of land titling. *Journal* of public economics 94 (9-10), 700–729.
- Goldstein, M. and C. Udry (2008). The profits of power: Land rights and agricultural investment in ghana. *Journal of political Economy* 116(6), 981–1022.
- Grossman, S. J. and O. D. Hart (1986). The costs and benefits of ownership: A theory of vertical and lateral integration. *Journal of Political Economy* 94(4), 691–719.
- Hallward-Driemeier, M., T. Hasan, and A. B. Rusu (2013). Women's legal rights over 50 years: progress, stagnation or regression? World Bank Policy Research Working Paper (6616).
- Hart, O. and J. Moore (1990). Property rights and the nature of the firm. *Journal of Political Economy* 98(6), 1119–1158.
- Henrysson, E. and S. F. Joireman (2009). On the edge of the law: Women's property rights and dispute resolution in kisii, kenya. Law Society Review 43(1), 39–60.
- Holcombe, L. (1983). Wives and Property: Reform of the Married Women's Property Law in Nineteenth-Century England. University of Toronto Press.
- Horne, H. O. (1947). A History of Savings Banks. Oxford University Press.
- Hurt, J. S. (1979). Elementary Schooling and the Working Classes, 1860–1918. London: Routledge & Kegan Paul Ltd.
- Lastarria-Cornhiel, S. (1997). Impact of privatization on gender and property rights in africa. World Development 25(8), 1317–1333.
- O'Sullivan, M. (2017). Gender and property rights in sub-saharan africa: a review of constraints and effective interventions. World Bank Policy Research Working Paper (8250).

- Porta, R. L., F. Lopez-de Silanes, A. Shleifer, and R. W. Vishny (1998). Law and finance. *Journal of political economy* 106(6), 1113–1155.
- Schaner, S. (2018). The persistent power of behavioral change: Long-run impacts of temporary savings subsidies for the poor. American Economic Journal: Applied Economics 10(3), 67–100.
- Schurer, K. and A. Wakelam (2024). I-cem lookup table–population tables for england and wales (including islands in the british seas) 1851 to 1921.
- Stock, J. H. and J. H. Yogo (2005). Testing for weak instruments in linear IV regression. In D. W. K. Andrews and J. H. Stock (Eds.), *Identification and Inference for Econometric Models: Essays in Honor of Thomas Rothenberg*, Chapter 5, pp. 80–108. Cambridge: Cambridge University Press.
- Tripp, A. M. (2004). Women's movements, customary law, and land rights in africa: The case of uganda. African Studies Quarterly 7(4).
- Van Rooyen, C., R. Stewart, and T. De Wet (2012). The impact of microfinance in sub-saharan africa: a systematic review of the evidence. World development 40(11), 2249-2262.
- World Bank (2023). Women, Business and the Law 2023.

I Figures

Figure 1: Trustee Savings Bank Locations

This figure plots trustee savings bank locations across England and Wales on 1851 local district boundaries.

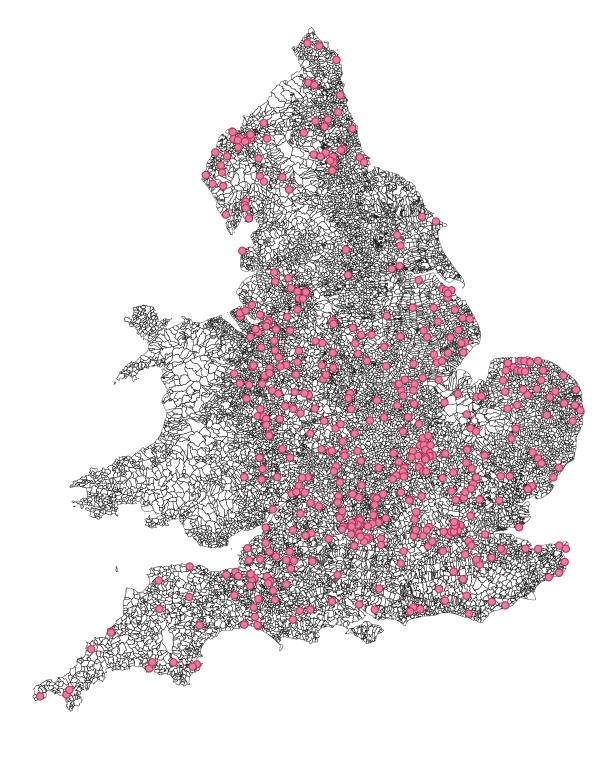


Figure 2: Effect of the 1870 Married Women's Property Rights Act on Account Uptake and Usage

This figure plots annual coefficients of a difference-in-differences specification comparing new accounts and number of deposit receipts at banks located in local districts with higher or lower 1861 married women population percent. Local district and year fixed effects are included. 90% confidence intervals are in gray and standard errors are clustered at the local district level. The first dashed line at 1868 indicates the year the Married Women's Property Act of 1870 was introduced in parliament, and the second dashed line at 1870 indicates the year the bill was passed. This sample includes all banks opened prior to 1861, and surviving until at least 1891 or longer.

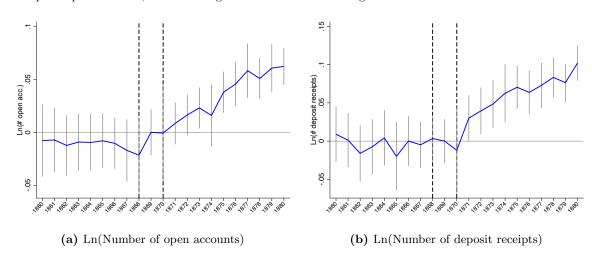
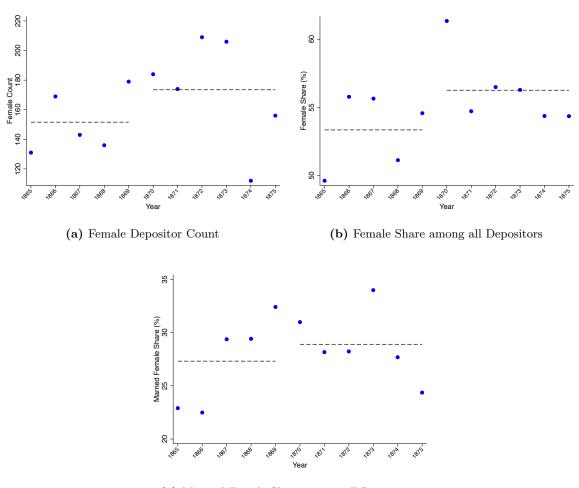


Figure 3: Depositor-Level Data

This figure plots the annual new accounts opened at the Bury Savings Bank from 1865 to 1875. Horizontal dashed lines indicate the pre-period (1865-1869) and post-period (1870-1875) averages of the female count of depositors, the female share of depositors, and the married female share of depositors, in Panels (a), (b), and (c), respectively.



(c) Married Female Share among all Depositors

II Tables

Table 1: 1861 Census and Bank Annual Reports - Summary Statistics

This table presents summary statistics on the local district level 1861 census dataset, as well as the bank annual report dataset, for England. Panel A contains 11,059 local district observations, and Panel B contains 9,143 bank-year observations.

	$egin{aligned} \mathbf{Mean} \\ \mathbf{(1)} \end{aligned}$	Sd (2)	$\mathbf{p5} \\ \mathbf{(3)}$	p 25 (4)	$\mathbf{p50} \\ (5)$	p 7 5 (6)	p95 (7)
		Panel A:	1861 Cens	us Local D	istrict Leve	el Dataset	
Population	1,651.40	9,971.73	58.00	188.00	392.00	848.00	4,127.00
Pop. density (pop./acre)	1.72	32.11	0.05	0.12	0.20	0.32	1.54
Local district prop. agricultural workers (%)	40.03	16.90	8.70	29.51	41.38	51.52	66.11
Unemployment rate (%)	10.59	9.22	0.00	3.73	7.75	15.14	29.63
Local district prop. female (%)	49.59	3.81	43.84	47.71	49.74	51.63	54.98
Local district prop. married female (%)	17.08	2.33	13.08	16.06	17.36	18.45	20.10
			Panel B:	Bank Annı	al Report		
Report year	1,874.10	14.24	1,852.00	1,862.00	1,874.00	1,886.00	1,897.00
Unpaid officers (#)	1.06	0.36	1.00	1.00	1.00	1.00	2.00
Paid officers (#)	3.67	4.16	1.00	2.00	3.00	4.00	9.00
Open accounts (#)	4,495.73	9,449.41	340.00	922.00	1,764.00	3,259.00	20,158.00
Deposit receipts (#)	4,795.58	14,294.71	185.00	599.50	1,180.00	2,886.50	21,010.00
Interest rate (%)	2.85	1.04	2.50	2.72	2.94	3.00	3.07
Mgmt expense rate (%)	0.36	0.17	0.24	0.30	0.35	0.40	0.55
Deposits (£, nominal)	$133,\!002.58$	$273,\!530.91$	$12,\!060.21$	$29,\!868.36$	55,723.00	$106,\!031.71$	523,038.54

Table 2: Effect of the 1870 Married Women's Property Rights Act on Savings Accounts

This table plots difference-in-differences coefficients on the treatment of the ex-ante percent of married female in the total local district population in 1861 with post-1870, estimating Equation 1, with the number of savings bank accounts as the outcome of interest. Column 2 includes local district level controls measured in 1861 along with county fixed effects. Column 3 includes local district and year fixed effects, and Column 4 includes local district, year, and County \times Year fixed effects. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively. Robust standard errors are clustered at the local district level.

	Ln(# Open acc.) (1)	Ln(# Open acc.) (2)	Ln(# Open acc.) (3)	Ln(# Open acc.) (4)
$1861 Married Women Pop Pct \times \mathbb{1}_{Post}$	0.111***	0.112***	0.112***	0.125***
Controls				
1861MarriedWomenPopPct	Yes	Yes	No	No
$\mathbb{1}_{\mathrm{Post}}$	Yes	Yes	No	No
Ln(Population)	No	Yes	No	No
Ln(Agricultural workers)	No	Yes	No	No
Unemployment rate $(\%)$	No	Yes	No	No
Pop. density	No	Yes	No	No
Interest rate (%)	No	Yes	No	No
Fixed Effects				
County	No	Yes	No	No
Local district	No	No	Yes	Yes
Year	No	No	Yes	Yes
$County \times Year$	No	No	No	Yes
Observations	9,080	8,832	9,080	8,801
R^2	0.133	0.640	0.938	0.955

Table 3: Effect of the 1870 Married Women's Property Rights Act on Account Usage

This table plots difference-in-differences coefficients on the treatment of the ex-ante percent of married female in the total local district population in 1861 with post-1870, estimating Equation 1, with the number of depositor receipts as the outcome of interest. Column 2 includes local district level controls measured in 1861 along with county fixed effects. Column 3 includes local district and year fixed effects, and Column 4 includes local district, year, and County \times Year fixed effects. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively. Robust standard errors are clustered at the local district level.

	Ln(# Deposit receipts) (1)	Ln(# Deposit receipts) (2)	Ln(# Deposit receipts) (3)	Ln(# Deposit receipts) (4)
$1861 Married Women Pop Pct \times \mathbb{1}_{Post}$	0.114***	0.126***	0.129***	0.153***
Controls				
1861MarriedWomenPopPct	Yes	Yes	No	No
$\mathbb{1}_{\mathrm{Post}}$	Yes	Yes	No	No
Ln(Population)	No	Yes	No	No
Ln(Agricultural workers)	No	Yes	No	No
Unemployment rate (%)	No	Yes	No	No
Pop. density	No	Yes	No	No
Interest rate (%)	No	Yes	No	No
Fixed Effects				
County	No	Yes	No	No
Local district	No	No	Yes	Yes
Year	No	No	Yes	Yes
$County \times Year$	No	No	No	Yes
Observations	7,962	7,745	7,962	7,740
R^2	0.188	0.693	0.934	0.952

Table 4: Effect by Quartile of Ex-ante Married Female Population Share

This table plots difference-in-differences coefficients on the interaction of post-1870 with quartiles of ex-ante 1861 married female population percent, estimating Equation 3. All columns include local district and year fixed effects, while Columns 2 and 4 additionally include County \times Year fixed effects. Robust standard errors are clustered at the local district level. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively.

	Ln(# Open acc.) (1)	Ln(# Open acc.) (2)	Ln(# Deposit receipts) (3)	Ln(# Deposit receipts) (4)
$\mathbb{1}_{\{1861 \text{MarriedWomenPopPctQuar4}\}} \times \mathbb{1}_{\{\text{Post}\}}$	0.476*** (0.109)	0.628*** (0.126)	0.480*** (0.129)	0.623*** (0.140)
$\mathbb{1}_{\{1861 Married Women Pop Pct Quar 3\}} \times \mathbb{1}_{\{Post\}}$	0.191** (0.074)	0.224*** (0.085)	0.259*** (0.090)	0.328*** (0.095)
$\mathbb{1}_{\{1861 Married Women Pop Pct Quar 2\}} \times \mathbb{1}_{\{Post\}}$	0.102 (0.073)	0.134 (0.087)	0.092 (0.088)	0.121 (0.097)
Fixed Effects				
Local district	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
$County \times Year$	No	Yes	No	Yes
Observations	9,122	8,885	8,004	7,824
R^2	0.939	0.957	0.935	0.953

Table 5: 1861 vs. 1881 Female Outcomes

This table presents regression estimates in which each outcome, measured in either 1861 or 1881, is regressed on an indicator for the outcome being measure in 1881 along with a set of local district level controls measured in 1861, namely the logarithms of total population and agricultural workers, the unemployment rate, and population density. County fixed effects are included. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively. Robust standard errors are clustered at the local district level.

	Fem. students (1000s) (1)	Fem. emp. rate (% fem. lab. force) (2)	Fem. high skill prof. (1000s) (3)
$\mathbb{1}_{\mathrm{Post}}$	0.093*** (0.008)	0.995*** (0.246)	0.004*** (0.000)
Controls			
Ln(Population)	Yes	Yes	Yes
Ln(Agricultural workers)	Yes	Yes	Yes
Unemployment rate (%)	Yes	Yes	Yes
Pop. density	Yes	Yes	Yes
Fixed Effects			
County	Yes	Yes	Yes
Observations	20,826	20,799	20,826
R^2	0.230	0.277	0.297

Table 6: Ex-ante Married Female Population Share and 1881 Female Outcomes

This table presents regression estimates in which each 1881 outcome is regressed on the 1861 married female share along with a set of local district level controls measured in 1861, namely the logarithms of total population and agricultural workers, the unemployment rate, and population density. County fixed effects are included. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively. Robust standard errors are clustered at the local district level.

	Fem. students (1000s) (1)	$\Delta_{1861-1881}$ Fem. students (1000s) (2)	Fem. emp. rate (% fem. lab. force) (3)	Fem. high skill prof. (1000s) (4)	$\Delta_{1861-1881}$ Fem. high skill prof. (1000s) (5)
1861MarriedWomenPopPct	-0.009** (0.004)	-0.003 (0.002)	-0.291*** (0.101)	-0.001*** (0.000)	-0.000*** (0.000)
Controls					
Ln(Population)	Yes	Yes	Yes	Yes	Yes
Ln(Agricultural workers)	Yes	Yes	Yes	Yes	Yes
Unemployment rate (%)	Yes	Yes	Yes	Yes	Yes
Pop. density	Yes	Yes	Yes	Yes	Yes
Fixed Effects					
County	Yes	Yes	Yes	Yes	Yes
Observations	10,337	10,337	10,324	10,337	10,337
R^2	0.242	0.192	0.041	0.315	0.253

Table 7: Bank in Local District vs. 1881 Female Outcomes

This table compares 1881 local district level outcomes by local districts that have a bank in 1861 to those that do not. 1861 local district level controls and county fixed effects are included. Robust standard errors are clustered at the local district level. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively.

	Fem. students (1000s) (1)	$\Delta_{1861-1881}$ Fem. students (1000s) (2)	Fem. emp. rate (% fem. lab. force) (3)	Fem. high skill prof. (1000s) (4)	$\Delta_{1861-1881}$ Fem. high skill prof. (1000s) (5)
$\mathbb{1}_{\{\mathrm{Bank}\}}$	1.325*** (0.216)	0.508*** (0.120)	2.833*** (0.668)	0.085*** (0.011)	0.026*** (0.005)
Controls					
Ln(Population)	Yes	Yes	Yes	Yes	Yes
Ln(Agricultural workers)	Yes	Yes	Yes	Yes	Yes
Unemployment rate (%)	Yes	Yes	Yes	Yes	Yes
Pop. density	Yes	Yes	Yes	Yes	Yes
Fixed Effects					
County	Yes	Yes	Yes	Yes	Yes
Observations	10,337	10,337	10,324	10,337	10,337
R^2	0.264	0.204	0.040	0.344	0.266

Table 8: Bank in Local District vs. 1881 Female Outcomes - Instrumental Variable Specification

This table compares 1881 local district level outcomes by local districts that have a bank in 1861 to those that do not. $\mathbb{1}_{\{\text{Bank}\}}$ is instrumented with the log number of local elites in the local district. The Kleibergen-Paap F-statistic is 273.51. 1861 local district level controls and county fixed effects are included. Robust standard errors are clustered at the local district level. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively.

	Fem. students (1000s) (1)	$\Delta_{1861-1881}$ Fem. students (1000s) (2)	Fem. emp. rate (% fem. lab. force) (3)	Fem. high skill prof. (1000s) (4)	$\Delta_{1861-1881}$ Fem. high skill prof. (1000s) (5)
$\mathbb{1}_{\{\mathrm{Bank}\}}$	3.202*** (0.444)	1.341*** (0.235)	13.209*** (4.858)	0.295*** (0.031)	0.092*** (0.013)
Controls					
Ln(Population)	Yes	Yes	Yes	Yes	Yes
Ln(Agricultural workers)	Yes	Yes	Yes	Yes	Yes
Unemployment rate (%)	Yes	Yes	Yes	Yes	Yes
Pop. density	Yes	Yes	Yes	Yes	Yes
Fixed Effects					
County	Yes	Yes	Yes	Yes	Yes
Observations	7,119	7,119	7,117	7,119	7,119

Internet Appendix for "Women, Property Rights, and Banking"

A Sample and Variable Construction

This appendix section provides additional details on data cleaning and variable and sample construction.

A.1 Census Data

I rely on the full-count historic census of England provided by the Integrated Census Microdata (I-CeM) project, which covers the years 1851, 1861, and 1881. I-CeM is a harmonized dataset maintained by the UK Data Service that aggregates individual-level and area-level information from historical censuses into consistent, comparable units over time. The project standardizes variables such as individual demographic characteristics and occupational classifications, allowing the construction of measures at various geographic scales. The data contains information of each individual recorded in each census year, including the local district of enumeration, sex, age, and occupation.

I merge the individual census data with a manually compiled and geotagged dataset of trustee savings bank locations. The bank dataset is originally drawn from the appendix of Horne (1947), which is the most comprehensive source of trustee savings banks locations and indicates the dates each bank was founded and closed (*if* it was closed). I manually identify the 1851 local district of each of the banks listed in Horne (1947), and merge this list to the census to identify bank local districts. From this merged file, I derive bank indicators for each census year, defined as having at least one bank that was opened (i.e. founded before or in the census year and not closed prior to that year).

Finally, I aggregate the I-CeM individual records to the local district level to derive key variables—including total population, population density, the share of agricultural workers, and variables related to the employment structure and sex/marital composition of local districts over time. In particular, I aggregate individual census records to the local district level using a common geographic identifier (conparid).

A.2 TSB Annual Reports

I obtained my bank annual report data from archival sources by manually digitizing and transcribing standardized annual statistics for Trustee Savings Banks (TSBs) covering the period from 1850 to 1900. Figure A1 provides an example of the reports.

I convert monetary values expressed in pounds, shillings, and pence into a single numeric value in pounds. I also clean the location variables by standardizing local district and county names to allow for a merge with the census dataset.

Next, I merge the cleaned TSB bank data with my England census local district-level data. I

conduct the merge at the local district level using common geographic identifiers (conparid) to create a harmonized dataset that captures the bank-year annual report data, and the corresponding local district's characteristics from the census data.

B Variable Construction

Table A1 details the construction of the variables used in the main analysis and their sources.

Table A1: Variable Description

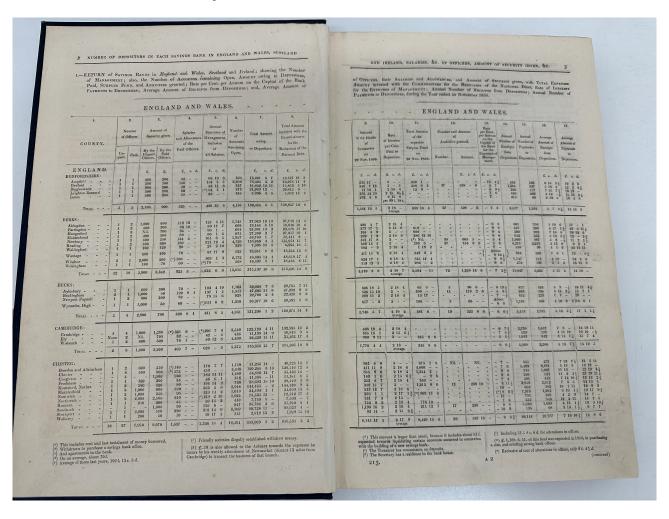
This table describes the variables used in the main analysis.

Variable Name	Source	Description
Unemployment rate (%)	Full count England census	Constructed as the percent of employed individuals, defined as those in the census with non-missing occupation values ("occode") and an age greater than 15 (and removing occode values corresponding to the following groups: wives and others engaged in (own) household duties; wives assisting generally in their husbands occupations; widows (of no specified occupation); children relatives visitors at home; no specified occupation - receiving income, support; no specified occupation - children; prisoners, reform school immates etc; and, no specified occupation - vagrants, unemployed.), divided by the working age population, defined as those in the census with non-missing occupation values and an age greater than 15.
Agricultural workers	Full count England census	Defined as those working with the following tagged occupations in the census: farmers graziers, crofters, farmers sons grandsons nephews, crofters sons grandsons nephews, farm - bailiffs stewards foremen, shepherds, agricultural labourers in charge of cattle, agricultural labourers in charge of horses, agricultural labourers, farm servants (general, undefined), woodmen, nurserymen seedsmen florists, market gardeners, other gardeners (not domestic), agricultural machine proprietors attendants, others in agriculture.
High education employment occupations	Full count England census	Defined as those working in medicine (physicians surgeons practitioners (qualified) including poor law hospitals - doctors etc, dentists and dentists assistants, veterinary surgeons, midwives, nurses (medical not domestic) including poor law nurses), teaching (schoolmasters and teachers (default), university teachers, school service (inc attendants and pupil teachers), school service general, clerks, etc, and governesses (domestic)(resident)), or science and engineering (engaged in scientific pursuits (inc inventors and scientific qualifiers), others scientific, mining engineers, civil engineers, surveyors (land house ship), mining engineers assistant, civil engineers assistants, surveyors assistant, architects).
Local Elites	Full count England census	Defined as those working with the following tagged occupations in the census: members of parliament, peers, senior govt officials, judges, top civil service, and those living off of independent means.

C Figures

Figure A1: Example of Archival Annual Reports Data

This figure plots an example of the data on annual reports of the trustee savings banks that was digitized and transcribed over the latter half of the $19^{\rm th}$ century.



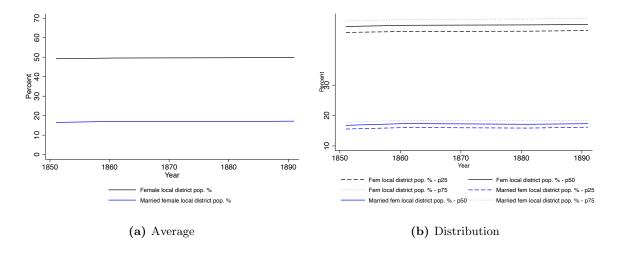
 $\textbf{Figure A2:} \ \ \textbf{Example of Archival New Depositor Records Data}$

This figure plots an example of the new depositor accounts data recorded for Bury Savings Bank.

			1		1000	
The following Declar WE, the undersigned, do hereby declare to the Trustees a not directly or indirectly entitled to any deposit in, or benefit from Sarings' Bank above mentioned, save and except such benefit as we		ELARATION. Ig the first deposit, in pursuance of Bury, that we are desirous, on our ireat Britain or Ireland, or any sundly Society, legally established.	f an Act of Parliament (9 Geo. own behalf, to become Deposit m or sums standing in the nam	IV. cap. 9	2, sec. 34.) said Savings' Bank; that we do fu of any other person or persons	rther declare that we are in the books of the said
No. Signature of Depositor.	Address,	Business.	Condition if Married	Age.	Place of Birth.	Mother's Maiden Name.
Miles Johnson Alnsworth	Polis do Sammuseus	1 Rover	Gen ich-	2.5	Edmith	Mary Mhikhead
Jobbshulor com greaves	Gadgey Street Bon	y Wenter	Single			lano Fell
1467 hundred Roll Howarth	humer bleasant hangiew	& Shinor	do	13	hangrewer (Betty trickson
Signal Ann assimals want	Lover Utind Pom	Sevant				huney Hoyle
14 out Saroh Hurrison						Elizabeth Stages
July Ev Robert H. Cankshaw	Bollon Roads Collon	Homemason	do			Clark Pelkington
14/2 for My Slice Bridge	Mednesday	Junuary I	4 1866.	6	Tellenider	Mie Smith
which Belly Smithurst	William It Bury	Butcher	d	21	Bury	Setty Horn
	Suburday.	Juneary I	7. 1866 .			
Myx for thomas Skrenn Bigg	Belle Vin Terrace	Menor	Inglo.	38	Pawtens tal	Betty Chadura
sinsworth	Cattungton	Mouse Cupin	20033			
1466 headen Janet Mason	Map Burgo Bory	. Warfer	Suigle	33	Heap Fold	alice Jake,
of hely hunder alice buttersthe	11 " - 11	Wille Mant	Marion do	30	Thablander Sheopshire.	Am Harris.
- 4678 1 h Sames Harris		Jawyer Jawyer	· do	37	Shando	ann alten
14679 Januarallen Bampora	Coust Lingfield Claw Bo	Physician	Suigle	23	Combangle	Mario Edward
146 /g hand allen Bampard 146 /g hand allen Bampard 1468 hand James S. Torrop M.B.? Em Thomas Marvedsley	Balangetine Porry	Meacher Ja	Surgle	200 of the	x866	
14682 Charles Brith.	, , , , ,	40, +1	+ Single	- 14	4 Dury	Olizabeth ODates
14682 Charles Bish	20 y Rochdale Well	1 Spiritto	do	2.	Sand	alue Ruy
nous harland Alfred Whittaker						

Figure A3: Average Share of All Women and Married Women across Local Districts

This figure plots the average share of all women and married women across local districts in England in Panel (a), and the distribution in Panel (b).



D Tables

Table A2: Bank by 1861 Local Districts vs. Other Local Districts - Summary Statistics

This table presents the mean and standard deviation of 1861 local district level variables for local districts with banks by 1861, compared to local districts without banks by 1861, for England. Column 5 presents a *t*-test of the difference, with the *t*-statistic in brackets. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively.

	Bank l	y 1861	0	ther	Difference
	Mean (1)	Sd (2)	Mean (3)	Sd (4)	(5)
Population	20,335.29	41,953.07	879.07	3,990.13	19,456.23*** [9.72]
Pop. density (pop./acre)	23.31	143.34	0.80	13.68	22.51*** [3.24]
Local district prop. agriculture worker (%)	11.92	9.24	41.19	16.13	-29.27*** [-62.53]
Unemployment rate (%)	8.80	5.03	10.66	9.35	-1.86*** [-7.25]
Local district prop. female (%)	52.08	2.39	49.49	3.82	2.59*** [21.65]
Local district prop. married women (%)	17.22	1.09	17.08	2.37	0.14** [2.39]

Table A3: Effect of the 1870 Married Women's Property Rights Act on Deposit Amount

This table plots difference-in-differences coefficients on the treatment of the ex-ante percent of married female in the total local district population in 1861 with post-1870, estimating Equation 1, with the log deposits as the outcome variable. Column 2 includes local district level controls measured in 1861 along with county fixed effects. Column 3 includes local district and year fixed effects, and Column 4 includes local district, year, and Column \times Year fixed effects. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively. Robust standard errors are clustered at the local district level.

	Ln(Deposits) (1)	Ln(Deposits) (2)	Ln(Deposits) (3)	Ln(Deposits) (4)
$1861 Married Women Pop Pct \times \mathbb{1}_{Post}$	0.100*** (0.024)	0.104*** (0.022)	0.105*** (0.022)	0.119*** (0.026)
Controls				
1861MarriedWomenPopPct	Yes	Yes	No	No
$\mathbb{1}_{\mathrm{Post}}$	Yes	Yes	No	No
Ln(Population)	No	Yes	No	No
Ln(Agricultural workers)	No	Yes	No	No
Unemployment rate $(\%)$	No	Yes	No	No
Pop. density	No	Yes	No	No
Interest rate (%)	No	Yes	No	No
Fixed Effects				
County	No	Yes	No	No
Local district	No	No	Yes	Yes
Year	No	No	Yes	Yes
$County \times Year$	No	No	No	Yes
Observations	9,071	8,824	9,071	8,791
R^2	0.080	0.531	0.890	0.916

Table A4: Effect of the 1870 Married Women's Property Rights Act on the Average Deposit Size

This table plots difference-in-differences coefficients on the treatment of the ex-ante percent of married female in the total local district population in 1861 with post-1870, estimating Equation 1, with the log average deposit size as the outcome variable. Column 2 includes local district level controls measured in 1861 along with county fixed effects. Column 3 includes local district and year fixed effects, and Column 4 includes local district, year, and County \times Year fixed effects. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively. Robust standard errors are clustered at the local district level.

	Ln(Avg. dep. size) (1)	Ln(Avg. dep. size) (2)	Ln(Avg. dep. size) (3)	Ln(Avg. dep. size) (4)
1861MarriedWomenPopPct × $\mathbb{1}_{Post}$	-0.011 (0.012)	-0.008 (0.011)	-0.007 (0.011)	-0.006 (0.011)
Controls				
1861MarriedWomenPopPct	Yes	Yes	No	No
$\mathbb{1}_{\mathrm{Post}}$	Yes	Yes	No	No
Ln(Population)	No	Yes	No	No
Ln(Agricultural workers)	No	Yes	No	No
Unemployment rate (%)	No	Yes	No	No
Pop. density	No	Yes	No	No
Interest rate (%)	No	Yes	No	No
Fixed Effects				
County	No	Yes	No	No
Local district	No	No	Yes	Yes
Year	No	No	Yes	Yes
$County \times Year$	No	No	No	Yes
Observations	9,071	8,824	9,071	8,791
R^2	0.096	0.269	0.480	0.570

Table A5: Effect by Quartile of Ex-ante Married Female Population Share - Deposits and Average Deposit Size

This table plots difference-in-differences coefficients on the interaction of post-1870 with quartiles of exante 1861 married female population percent, estimating Equation 3, with the log amount of deposits and average deposit size as outcome variables. All columns include local district and year fixed effects, while Columns 2 and 4 additionally include County×Year fixed effects. Robust standard errors are clustered at the local district level. *, ***, and **** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively.

	Ln(Deposits) (1)	Ln(Deposits) (2)	Ln(Avg. dep. size) (3)	Ln(Avg. dep. size) (4)
$\mathbb{1}_{\{1861 \text{MarriedWomenPopPctQuar4}\}} \times \mathbb{1}_{\{\text{Post}\}}$	0.435*** (0.094)	0.592*** (0.116)	-0.041 (0.058)	-0.036 (0.061)
$\mathbb{1}_{\{1861 \text{MarriedWomenPopPctQuar3}\}} \times \mathbb{1}_{\{\text{Post}\}}$	0.197*** (0.072)	0.237*** (0.079)	0.007 (0.030)	0.012 (0.030)
$\mathbb{1}_{\{1861 \text{MarriedWomenPopPctQuar2}\}} \times \mathbb{1}_{\{\text{Post}\}}$	0.096 (0.071)	0.130 (0.085)	-0.006 (0.030)	-0.005 (0.036)
Fixed Effects				
Local district	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
$County \times Year$	No	Yes	No	Yes
Observations	9,113	8,875	9,113	8,875
R^2	0.892	0.919	0.480	0.570

Table A6: Effect of the 1870 Married Women's Property Rights Act on Savings Accounts - Log Count of Married Women

This table plots difference-in-differences coefficients on the treatment of the ex-ante log count of married female in the total local district population in 1861 with post-1870, estimating Equation 1, with the number of savings bank accounts as the outcome of interest. Column 2 includes local district level controls measured in 1861 along with county fixed effects. Column 3 includes local district and year fixed effects, and Column 4 includes local district, year, and County \times Year fixed effects. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively. Robust standard errors are clustered at the local district level.

	Ln(# Open acc.) (1)	Ln(# Open acc.) (2)	Ln(# Open acc.) (3)	Ln(# Open acc.) (4)
$Ln(1861MarriedWomen) \times \mathbb{1}_{Post}$	0.125***	0.138***	0.135***	0.132***
, , , ,	(0.025)	(0.023)	(0.021)	(0.024)
Controls				
Ln(1861MarriedWomen)	Yes	Yes	No	No
$1_{ m Post}$	Yes	Yes	No	No
Ln(Population)	No	Yes	No	No
Ln(Agricultural workers)	No	Yes	No	No
Unemployment rate (%)	No	Yes	No	No
Pop. density	No	Yes	No	No
Interest rate (%)	No	Yes	No	No
Fixed Effects				
County	No	Yes	No	No
Local district	No	No	Yes	Yes
Year	No	No	Yes	Yes
$County \times Year$	No	No	No	Yes
Observations	9,080	8,832	9,080	8,801
R^2	0.467	0.641	0.941	0.956

Table A7: Effect of the 1870 Married Women's Property Rights Act on Account Usage - Log Count of Married Women

This table plots difference-in-differences coefficients on the treatment of the ex-ante log count of married female in the total local district population in 1861 with post-1870, estimating Equation 1, with the number of depositor receipts as the outcome of interest. Column 2 includes local district level controls measured in 1861 along with county fixed effects. Column 3 includes local district and year fixed effects, and Column 4 includes local district, year, and County \times Year fixed effects. *, ***, and **** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively. Robust standard errors are clustered at the local district level.

	Ln(# Deposit receipts) (1)	Ln(# Deposit receipts) (2)	Ln(# Deposit receipts) (3)	Ln(# Deposit receipts) (4)
$\text{Ln}(1861\text{MarriedWomen}) \times \mathbb{1}_{\text{Post}}$	0.117***	0.133***	0.134***	0.132***
	(0.031)	(0.030)	(0.029)	(0.028)
Controls				
Ln(1861MarriedWomen)	Yes	Yes	No	No
$\mathbb{1}_{\mathrm{Post}}$	Yes	Yes	No	No
Ln(Population)	No	Yes	No	No
Ln(Agricultural workers)	No	Yes	No	No
Unemployment rate (%)	No	Yes	No	No
Pop. density	No	Yes	No	No
Interest rate (%)	No	Yes	No	No
Fixed Effects				
County	No	Yes	No	No
Local district	No	No	Yes	Yes
Year	No	No	Yes	Yes
$County \times Year$	No	No	No	Yes
Observations	7,962	7,745	7,962	7,740
R^2	0.552	0.693	0.936	0.953

Table A8: Local Elites Instrument - First Stage Results

This table presents the first stage regression results, showing the effect of the instrument, the log count of local elites in a local district, on the the likelihood of the local district having a bank by 1861. The regression includes local district level controls measured in 1861 along with county fixed effects. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively. Robust standard errors are clustered at the local district level.

	$\mathbb{1}_{\{\mathrm{Bank1861}\}} \ m{(1)}$
Ln(Local elites)	0.054*** (0.003)
Ln(Population)	0.090*** (0.007)
$\operatorname{Ln}(\operatorname{Agricultural\ workers})$	-0.056*** (0.007)
Unemployment rate (%)	-0.000 (0.000)
Pop. density	$0.000 \\ (0.000)$
Constant	-0.345*** (0.019)
Fixed Effects	
County	Yes
Observations R^2	7,221 0.330

Table A9: Bank in Local District vs. 1881 Male Outcomes

This table compares 1881 local district level outcomes for males by local districts that have a bank in 1861 to those that do not. 1861 local district level controls and county fixed effects are included. Robust standard errors are clustered at the local district level. *, **, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively.

	Male students (1000s) (1)	$\Delta_{1861-1881}$ Male students (1000s) (2)	Male emp. rate (% male lab. force) (3)	Male high skill prof. (1000s) (4)	$\Delta_{1861-1881}$ Male high skill prof. (1000s) (5)
$\mathbb{1}_{\{\mathrm{Bank}\}}$	1.302*** (0.211)	0.498*** (0.118)	0.039 (0.056)	0.091*** (0.011)	0.040*** (0.006)
Controls					
Ln(Population)	Yes	Yes	Yes	Yes	Yes
Ln(Agricultural workers)	Yes	Yes	Yes	Yes	Yes
Unemployment rate (%)	Yes	Yes	Yes	Yes	Yes
Pop. density	Yes	Yes	Yes	Yes	Yes
Fixed Effects					
County	Yes	Yes	Yes	Yes	Yes
Observations	10,337	10,337	10,337	10,337	10,337
R^2	0.264	0.201	0.028	0.349	0.276

Table A10: Bank in Local District vs. 1881 Male Outcomes - Instrumental Variable Specification

This table compares 1881 local district level male outcomes by local districts that have a bank in 1861 to those that do not. $\mathbb{1}_{\{Bank\}}$ is instrumented with the log number of local elites in the local district. The Kleibergen-Paap F-statistic is 273.51. 1861 local district level controls and county fixed effects are included. Robust standard errors are clustered at the local district level. *, ***, and *** represent statistical significance at the 10%, 5%, and 1% confidence levels, respectively.

	Male students (1000s) (1)	$\Delta_{1861-1881}$ Male students (1000s) (2)	Male emp. rate (% male lab. force) (3)	Male high skill prof. (1000s) (4)	$\Delta_{1861-1881}$ Male high skill prof. (1000s) (5)
$\mathbb{1}_{\{\mathrm{Bank}\}}$	3.093*** (0.428)	1.296*** (0.228)	-1.250** (0.541)	0.299*** (0.032)	0.141*** (0.017)
Controls					
Ln(Population)	Yes	Yes	Yes	Yes	Yes
Ln(Agricultural workers)	Yes	Yes	Yes	Yes	Yes
Unemployment rate (%)	Yes	Yes	Yes	Yes	Yes
Pop. density	Yes	Yes	Yes	Yes	Yes
Fixed Effects					
County	Yes	Yes	Yes	Yes	Yes
Observations	7,119	7,119	7,119	7,119	7,119