Can Inheritance Reform Change Custom?

Evidence on Female Land Ownership from India

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Abstract

We estimate the causal impact of the Hindu Succession Amendment Act (HSAA) of 2005 on daughters' agricultural landownership in India using a difference-in-differences design that exploits religious variation in the law's applicability. The reform granted Hindu, Sikh, and Jain women equal coparcenary inheritance rights, while Muslims and Christians remained unaffected. We analyze 1.36 million digitized land records from Haryana between 2001 and 2023. Using natural language processing to infer the gender and religion of landowners and match siblings by paternal identifiers, we demonstrate that the HSAA has significantly increased the inclusion of daughters on land titles. The number of sisters listed per plot increased by 0.18, a 142% rise over the control mean, and the probability of any sister ownership increased by 1.4 percentage points (13%). Average sister ownership shares rose by 1.9 percentage points (33%), suggesting limited redistribution of control over assets. The increase in the number of sisters listed as owners holds even when comparing ownership changes within the same plot over time, while extensive margin and share outcomes appear to reflect broader shifts within religious groups rather than plot-level changes. Results were stronger in areas with higher overall literacy and better administrative infrastructure, but not systematically moderated by social norms. These findings suggest that legal reforms can alter formal ownership patterns, but their substantive impact depends on institutional and human capital capacity, and may not meaningfully shift entrenched gender hierarchies.

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1 Introduction

Agricultural land is a crucial asset for the rural poor in developing countries. It provides livelihoods and security against poverty and defines social status and political power within village and households. Yet, land ownership remains concentrated in the hands of men. Globally, fewer than 15% of all landholders are women, and women owners face significant constraints in land management, transfer, and economic rights (FAO, 2018). Men have greater ownership or secure tenure rights over agricultural land than women in 40 of 46 countries reporting on the UN Sustainable Development Goal indicators (FAO, 2023). Countries around the world have made significant strides in legal equality regarding land rights over the last few decades; however, customs and social norms continue to inhibit women's access to land in 90 countries (OECD, 2014).

In South Asian countries, where land (particularly agricultural land) is largely privately owned and transferred through inheritance,[1] gender equality in land ownership begins with equal inheritance laws. In India, the landmark Hindu Succession (Amendment) Act of 2005 brought significant legal equality in inheritance rights for Hindu women, who constitute 80% of Indian women. The law granted all daughters equal coparcenary rights "by birth in her own right in the same manner as the son". It eliminated the agricultural land exemption that families had long exploited to deny women inheritance (Agarwal, 2005). However, two decades after the reform, persistent gender inequalities remain - 87.5% of agricultural plots are still owned by men individually (Agarwal et al., 2021).

This paper asks whether the Hindu Succession (Amendment) Act of 2005 increased daughters' ownership of agricultural land in India. Although the law granted inheritance rights to women under Hindu law, patrilineal inheritance norms remain deeply entrenched in most rural areas of India. As a result, de jure legal equality may not translate into de facto control over property. Evaluating whether the law changed actual ownership outcomes for daughters is, therefore, essential for understanding the limits of legal reform in shifting long-standing patterns of gender inequality in asset ownership.

To estimate the causal impact of the reform, we implement a difference-in-differences design that exploits religious variation in the law's applicability. The 2005 reform applied to Hindus, Sikhs, and Jains, but excluded Muslims and Christians, who remained governed by their respective personal laws. Our analysis focuses on the state of Haryana, a northern Indian state with a long-standing history of gender inequality and strong patrilineal inheritance norms. Haryana also exhibits sufficient religious diversity to support comparisons within the state between families subject to the reform and those exempt from it. We construct a novel panel dataset by web scraping 1.36 million digitized land records for a random sample of around 1100 villages in Haryana from government portals, spanning

[1] In the 1990s in India, 85.6% of arable land was privately owned (Agarwal, 1994) and 85% of land transfers were through inheritance (Fernando, 2022)

the years 2001 to 2023. These records contain the owners' full names, their fathers' names, and the characteristics of their plots.

Since the HSAA specifically aimed to strengthen daughters' inheritance rights, our primary focus is on ownership outcomes involving sisters. We use large language models to classify each landowner's gender and religion based on Haryana-specific naming conventions. We implement a sibling matching algorithm for each plot that links individual owners who share the same father (and, where available, grandfather) names, allowing us to identify daughters who co-own a plot with their brothers. We aggregate owner-level data to the plot-year level and construct four key outcomes: the number of sisters, the total number of women owners, the probability of at least one sister owner, and sisters' proportional share of ownership. These variables measure the intensive and extensive margins of women's land ownership, and the proportional share variable is a proxy for control over land. To ensure a consistent comparison between pre- and post-reform periods, we restrict our sample to a balanced panel of plots that appear in both periods, resulting in approximately 280,000 plot-year observations for analysis.

We find that the Hindu Succession Amendment Act substantially increased women's formal recognition as landowners by increasing the number of sisters recorded as co-owners on land records. Among plots owned by those subject to the reform (Hindus, Sikhs, and Jains), the number of sisters listed as landowners increased by 0.18 per plot, a 142% rise relative to the control group mean of 0.13. This effect is precisely estimated and robust to the inclusion of plot fixed effects. The probability that a plot lists at least one sister increased by 1.4 percentage points, or 13% over the control mean of 10.9%, showing modest gains on the extensive margin (Table 1). The average sister ownership share (relative to brothers) increased by 0.019, a 33% increase relative to the control group mean of 0.057 (Table 2), although absolute levels remain low. These estimates are derived from regressions with religious group and year fixed effects, comparing treated and control plots within each religious group. When we add plot fixed effects, the treatment effects on the likelihood of listing at least one sister and on sister ownership share attenuate. This suggests that the law prompted household-level changes on the intensive margin of adding more sisters to plots that already included them. Extensive margin gains (bringing sisters onto new plots) and increases in ownership shares were primarily driven by compositional shifts within households of treated religions, rather than by meaningful intra-household redistribution of control over land.

The effectiveness of the reform varied substantially across local contexts. Our heterogeneity analysis highlights the critical role of institutional and human capital factors. Villages with higher overall literacy rates experienced the largest amplification of treatment effects on the number of sisters, with moving from no literacy to full literacy more than quadrupling the impact. Female literacy alone also had a strengthening effect, but to a lesser degree. Similarly, villages with stronger administrative capacity, as measured by the presence of post offices, communication facilities,

and electricity, experienced treatment effects that were 48% larger than those in regions with lower administrative capacity. In contrast, indicators of restrictive gender norms, such as skewed sex ratios or the documented use of *haq tyag* (voluntary renunciation of inheritance), did not significantly moderate the law's impact. These results suggest that the success of legal reforms depends less on prevailing social norms and more on whether communities have the institutional capacity and educational environment to enforce and navigate formal rights.

Our paper contributes to three intersecting strands of literature. First, we add to the substantial body of work on inheritance law reforms in India. Before the 2005 national amendment, several southern states enacted their own versions of equal inheritance laws, which researchers have used as quasi-natural experiments to study downstream outcomes such as girls' education (Deininger et al., 2013; Bose and Das, 2017), female suicide (Anderson and Genicot, 2015), and intrahousehold bargaining (Bhalotra et al., 2020; Calvi, 2020; Heath and Tan, 2020). However, there is limited and conflicting evidence on whether these reforms increased women's land inheritance: Deininger et al. (2013) find positive effects using survey data, while Roy (2015) finds none. The only study of the 2005 national amendment, Bahrami-Rad (2021), documents behavioural responses in marriage and labour patterns, but does not directly measure landownership. By leveraging administrative records that capture individual-level legal ownership, our paper is the first to provide direct, large-scale evidence on whether the 2005 reform changed daughters' land inheritance—addressing a core empirical gap caused by limitations in survey-based ownership data. Second, we contribute to the literature on the interaction between legal reforms, social norms, and strategic compliance (Chen and Yeh, 2014; Benabou and Tirole, 2011; Bau, 2021). While prior work documents backlash effects or norm persistence, our findings suggest strategic adaptation, where formal compliance occurs without altering real ownership patterns. In ongoing work, we are examining how daughters are incorporated into land records, including the types of ptransferringit, the co-owners listed alongside them, and the distribution of ownership shares. Third, we contribute to the literature on land markets and property rights in developing countries (Acampora et al., 2022; Deininger et al., 2009; Deininger and Goyal, 2012; Fernando, 2022; Morris and Pandey, 2007; Skoufias, 1995). While most work in this space relies on survey data or field experiments, our study is among the first to use comprehensive administrative land records to trace how formal property rights evolve in response to legal reforms.

The remainder of this paper is structured as follows. Section 2 provides the setting and institutional background on inheritance norms, land inheritance in Haryana, and the Hindu Succession Act Amendment of 2005. Section 3 describes our data construction process from digitized land records and outcome measurement. Section 4 outlines our empirical strategy, including the difference-in-differences identification approach and key identifying assumptions. Section 5 presents results on the effects of the HSA Amendment on women's landownership and heterogeneity analysis. Section 6 presents our findings in the context of existing literature and discusses their policy implications.

Section 7 concludes.

2 Setting and Institutional Background

Land Inheritance norms Land markets in India have traditionally been perceived as thin, with minimal buying and selling of personal agricultural land (Deininger et al., 2009). Consequently, inheritance serves as the primary mechanism for the transfer of land ownership.[2] Most Hindu communities in rural India follow patrilineal customs of land inheritance. In patrilineal societies, where kinship is traced through the male line, land is inherited after the death of the father and divided equally among sons. Women's relationship to property is shaped by the ideology of *paraya dhan* (someone else's wealth). Women are seen as temporary members of their natal households who will eventually belong to another descent group through marriage. The *paraya* status is reinforced and sanctified through marital rituals, particularly the concept of *kanyadan*, where the bride is conceptualized as a religious gift (*dan*) to the husband and his family. As an act of religious charity, *kanyadan* explicitly prohibits any reciprocal exchange, rendering any subsequent claims on natal property culturally illegitimate.

In the presence of such norms, families may compensate for disinheriting women from property by compensating them through dowry payments (Roy, 2015). Rural communities may deny women inheritance rights by characterizing dowry as women's legitimate share of their father's wealth. However, this equivalence is fundamentally flawed since dowry typically consists of movable property that lacks the income-generating capacity of land (Sharma, 1980). The structural arrangement of village exogamy further undermines inheritance enablement. Since women marry outside their natal villages, any land inheritance would effectively transfer property to another lineage and village, a prospect that fundamentally violates patrilineal principles. How are these patrilineal norms enforced in the presence of equal inheritance rights? In Haryana and other northern Indian states, the practice of *haq tyag* (sacrifice of rights) is practised. Women sign release deeds relinquishing their ancestral property claims in favour of their brothers, usually after turning eighteen but before marriage.

The Hindu Succession Act Amendment (HSAA) 2005 The Hindu Succession (Amendment) Act, 2005, was a landmark change in Indian inheritance law, altering women's property rights at the federal level. The amendment addressed two discriminatory provisions that had persisted since the original Hindu Succession Act of 1956. First, it granted daughters coparcenary rights "by birth in her own right in the same manner as the son". Coparcenary refers to the descendants who can legally claim the property of a Hindu ancestor after their death.[3] Second, it eliminated

[2] In 1999, 85% of households acquired land through inheritance (ARIS-REDS data).

[3] The *Mitakshara* system in Hinduism organized ancestral property as a coparcenary held jointly by male members. All male descendants, up to four generations, were coparceners by birth, but daughters were entirely excluded.

the agricultural land exemption that states had long exploited to deny women inheritance. The exemption in the 1956 law had allowed states to apply discriminatory tenurial laws, justified through arguments about preventing land fragmentation despite evidence suggesting these were pretexts for maintaining patriarchal control.

Some southern states had already created daughter-as-coparcener rights: Andhra Pradesh (1985), Tamil Nadu (1989), Karnataka (1990), Maharashtra (1994) and Kerala (1976).[4] Empirical studies that leverage the staggered adoption of inheritance reform in these southern states document positive effects on women's education (Tandel et al., 2023; Deininger et al., 2013; Roy, 2015), intrahousehold bargaining power of women (Heath and Tan, 2020; Bose and Das, 2017), but adverse effects in terms of increased female child mortality (Rosenblum, 2015), son preference (Bhalotra et al., 2020), and domestic violence and suicides (Anderson and Genicot, 2015). The evidence on whether these reforms increased women's landownership is mixed as Deininger et al. (2013) shows a positive effect on women's likelihood of inheriting land, but Rosenblum (2015) finds no effect. There is no empirical evidence on the impact of the 2005 reform on gender inequality in land ownership. However, Bahrami-Rad (2021) shows that women exposed to the law are more likely to marry their paternal cousins and less likely to work, especially in agriculture.

Land inheritance in Haryana Haryana is a large north Indian state with a population of 31.6 million, of which 87.46% are Hindu and 7.03% are Muslim.[5] The state surrounds the national capital of India, Delhi, and forms the northern, southern and western borders of Delhi.[6] The society is primarily agrarian, with 70% of the population engaged in agriculture. According to the latest National Family Health Survey (NFHS-5), Haryana had the lowest sex ratio (number of girls per 1,000 boys) in the country, reflecting a deep-rooted preference for sons.

There is strong support in the state for enforcing patrilineal inheritance customs. When the first law to provide inheritance rights to women was passed in 1956, Haryana was one of the first states to oppose the law. Legislators attempted to pass resolutions to bypass the law for more than 20 years (Chowdhry, 1994), such as the Punjab Customary Law, which explicitly stated that "daughters and sisters do not inherit agricultural land at all." All male caste councils, called *khap panchayats,* function as a parallel governance structure and actively oppose women's inheritance rights. These all-male caste councils lack constitutional recognition but retain significant political influence and enforce traditional norms through social boycotts, fines, and, in some cases, violence (Dogra, 2016).

[4]Most of these state amendments excluded daughters married before the commencement date. The 2005 law overrode earlier state laws.

[5]Source: 2011 Indian Census

[6]13 of the state's districts (Jhajjar, Gurgaon, Mewat, Palwal, Panipat, Rewari, Sonipat, Rohtak, Karnal, Mahendragarh, Faridabad, Bhiwani, and Jind) fall in the National Capital Region (NCR).

3 Data and Outcomes

Limitations of Existing Data It is challenging to study whether the 2005 HSA Amendment increased women's land ownership due to limitations of existing survey and census data on land. Surveys have incomplete samples, such as the National Family Health Surveys (NFHS), which cover the age group 15-49, or the ICRISAT, which has panel individual-level data for 30 villages across nine states from 2010 to 2014. The NFHS do not differentiate between types of ownership (single or joint), and the India Human Development Survey (IHDS) asked respondents in landed households to list the top three household members who owned any agricultural land. Census data is also lacking. The Agricultural Census collects gender-disaggregated data only on operational holdings and not on ownership, and only considers the gender of the household head. The Socioeconomic Caste Census (SECC) lacks gender-disaggregated data and was conducted as a cross-section in 2011 only. Agarwal et al. (2021) shows how estimates of women's landownership differ depending on which dataset is used. A key contribution of our paper is the creation of a novel dataset from digitized land records, which addresses these limitations by providing plot-level ownership data spanning the 2005 reform, disaggregated by gender and religion. Our dataset allows us to conduct the first large-scale causal analysis of the 2005 HSAA's direct impact on women's land ownership.

Land Records Data Every five years, village-level officers of the Revenue Department of Haryana survey every land property in the village to prepare "Record of Rights" (RoRs) or *Jamabandis*. These records have been publicly available since the launch of the Digital India Land Records Modernization Program in 2016.[7] We web-scraped all available records for a random sample of 1,176 villages across Haryana's 22 districts from the Haryana Jamabandi website, obtaining a dataset with 1.36 million plot-year observations spanning 2001-2023. Figure 1 shows a translated sample record from Allika village. Each record contains information, including the owner's name, the names of the owner's father and grandfather, plot identification numbers, land quality measures, and a remarks column documenting ownership changes, such as sales, mortgages, and inheritance transfers.

Outcome Measurement We process the raw land records in two stages to create our analysis dataset. First, we extract and classify owner names using the OpenAI GPT-4o-mini API to assign gender (Male/Female/Neutral/Institution) and religious affiliation (Hindu/Sikh/Jain/Muslim/Christian/Other) to each landowner. The classification prompt instructs the model to identify gender and religion based on naming patterns common in Haryana. We validate the accuracy through manual review of subsamples and address classification uncertainties through systematic quality checks.

[7] The scheme aims to improve real-time land information, optimise land resource use, reduce disputes, and eliminate the need for physical visits to revenue offices (Source: https://pib.gov.in/PressReleasePage.aspx?PRID=1989671)

Second, we implement a sibling matching algorithm to identify sisters among female landowners. This is important since we expect the law to primarily affect daughters, who can be identified by examining shared father names. This algorithm links individuals who share the same father and grandfather names, utilizing Jaro-Winkler string similarity scores of 0.90 or higher for name matching, which accounts for spelling variations and transliteration differences. We use graph-based clustering to identify connected components representing sibling groups. Female owners are classified as "sisters" if they belong to a sibling group of size greater than one, and male owners are classified as brothers with the same criteria.

Figure 1: Translated Sample Copy of Land Record

Copy of Jamabandi

Patwari Supervisor Form no 10.

Village: Allika | Village serial number: 36 | Tehsil: Palwal | District: Palwal | Year: 2013-2014

[1] Khewat or Jamabandi number	[2] Khatauni number	[3] Location descriptions	[4] Owner names with details	[5] Cultivator names with details	[6] Irrigation source	[7] Khasra or Kila number	[8] Acreage	[9] Mode of lagaan	[10] Mode of division/settlement	[11] Amount of lagaan paid	[12] Comments
752	826		Ravi Kishor,	Owner occupied		93 //			Kabza		4970 Haq Tyag
//			Inderjit Singh, Sons of		tube well	8/2/1/1	1-13 chahi				
626/3			Akhey Singh								
			Son of								
			Bucha Two								
			Division								

Note: This figure shows a translated land record for an individual in Allika village in Haryana. Data is entered over multiple rows in each column, and the structure of the records remains consistent across different rounds. In Haryana, all entries are made in the Hindi language.

We identify plots within villages using a combination of plot-level variables from the land records (columns 6–9 in Figure 1), and collapse the owner-level data to plot-year observations by aggregating owners within each unique plot. This allows us to construct our primary dependent variables: number of sisters, an indicator for at least one sister owner, and sister ownership share (sisters as a proportion of brothers). We also calculate the number of non-sister women owners per plot (may include single daughters or other female relatives) and report some results for the number of owners classified as brothers.

For the HSA analysis, we restrict attention to a balanced panel of plots that appear in land records both before and after the 2005 reform, allowing us to cleanly implement a difference-in-differences strategy. This restriction reduces our sample from 1.3 million to approximately 320,000 plot-year observations, covering plots for which we observe ownership in both pre- and post-reform years (2000–2024). We also present results using a broader, imbalanced panel of around 950,000 plot-year observations. This sample includes plots that appear only after the reform, as well as those observed on both sides of the cutoff, so long as we can identify individual (non-institutional)

owners and assign religious affiliation. We discuss the implications of this sample construction for identification in the next section.

Other sources of data We merge data at the village level using the Socioeconomic High-resolution Rural-Urban Geographic Platform for India (SHRUG). We utilize a fuzzy matching algorithm based on village names, which enables us to find matches for 951 villages. We use data from the SHRUG on the Village Directory of the 2001 Population Census for heterogeneity analysis.

4 Empirical Strategy

To isolate the causal effect of the Hindu Succession Act (HSA) Amendment on women's landownership, we employ a Difference-in-Differences (DID) methodology. Our identification strategy leverages the fact that the 2005 amendment applied to Hindus, Sikhs, and Jains, while Muslims and Christians remained governed by their respective personal laws. Our strategy is similar to Bahrami-Rad (2021), who exploits the same religious exemptions in the 2005 HSA amendment to identify the causal effects of female inheritance rights on marriage patterns and economic participation, using Hindu women as the treatment group and Muslim/Christian women as controls in a DID framework.

Treatment We calculate the share of Hindu, Sikh, and Jain (HSJ) owners versus Muslim and Christian (MC) owners for each plot. We remove plots owned solely by institutions (government entities, private companies). We classify a plot as treated if it has any HSJ owners (share > 0) and no MC owners (share = 0). This conservative definition ensures straightforward treatment assignment but limits our sample to plots with homogeneous religious ownership (in terms of treated and control religions). Our final analysis sample consists of 277,423 plot-year observations.

Estimating Equation We estimate the following regression for plot p in religious group r in year t:

$$Y_{prt} = \alpha + \beta_1 Post_t + \beta_2 Treated_p + \beta_3 Post2005_t * Treated_p + \gamma_r + \pi_t + \varepsilon_{prt} \quad (1)$$

where,

- Y_{prt} is the dependent variable (number of sisters, number of women owners, probability of any sister ownership, sister share)
- $Post2005_t = 1$ after 2005; and =0 before 2005

- $Treated_p = 1$ if the HSJ share> 0 and the MC share = 0 for the plot; and 0 otherwise
- γ_r and π_t are fixed effects for the religious group and year

β_3 captures the average treatment effect by comparing changes in outcomes for treated and control plots within religious groups before and after the 2005 reform. This specification exploits across-plot variation while controlling for religion- and year-specific trends. As a robustness check, we also estimate a version of the regression with plot fixed effects, which compares outcomes for the same plot over time. Since treatment status is time-invariant, it is absorbed by the plot fixed effect, and identification comes entirely from within-plot changes. This model is estimated on an unbalanced panel of approximately 943,000 plot-year observations, as many plots enter the data after 2005. For these cases, treatment is defined using post-reform religion shares, which could introduce endogeneity if households updated records in response to the law. However, trade across religious groups is rare and religion shares are typically stable, mitigating this concern. We retain the full panel to preserve statistical power in this demanding specification. The religious-group fixed effects model is our preferred approach, as it avoids post-treatment classification and offers cleaner identification through comparisons across plots within religious groups.

Identifying Assumptions Our identification relies on the standard DID assumptions of parallel trends, no anticipation, and Stable Unit Treatment Value Assumption (SUTVA).

The parallel trends assumption requires that, in the absence of the HSA Amendment, trends in women's land ownership would have evolved similarly across HSJ and MC communities. To test this, we estimate the following event study:

$$Y_{prt} = \alpha + \sum_{k \neq -1} \beta_k \left(\text{Treated}_p \times \mathbf{1}[t - 2005 = k]\right) + \gamma_r + \pi_t + \varepsilon_{irt} \tag{2}$$

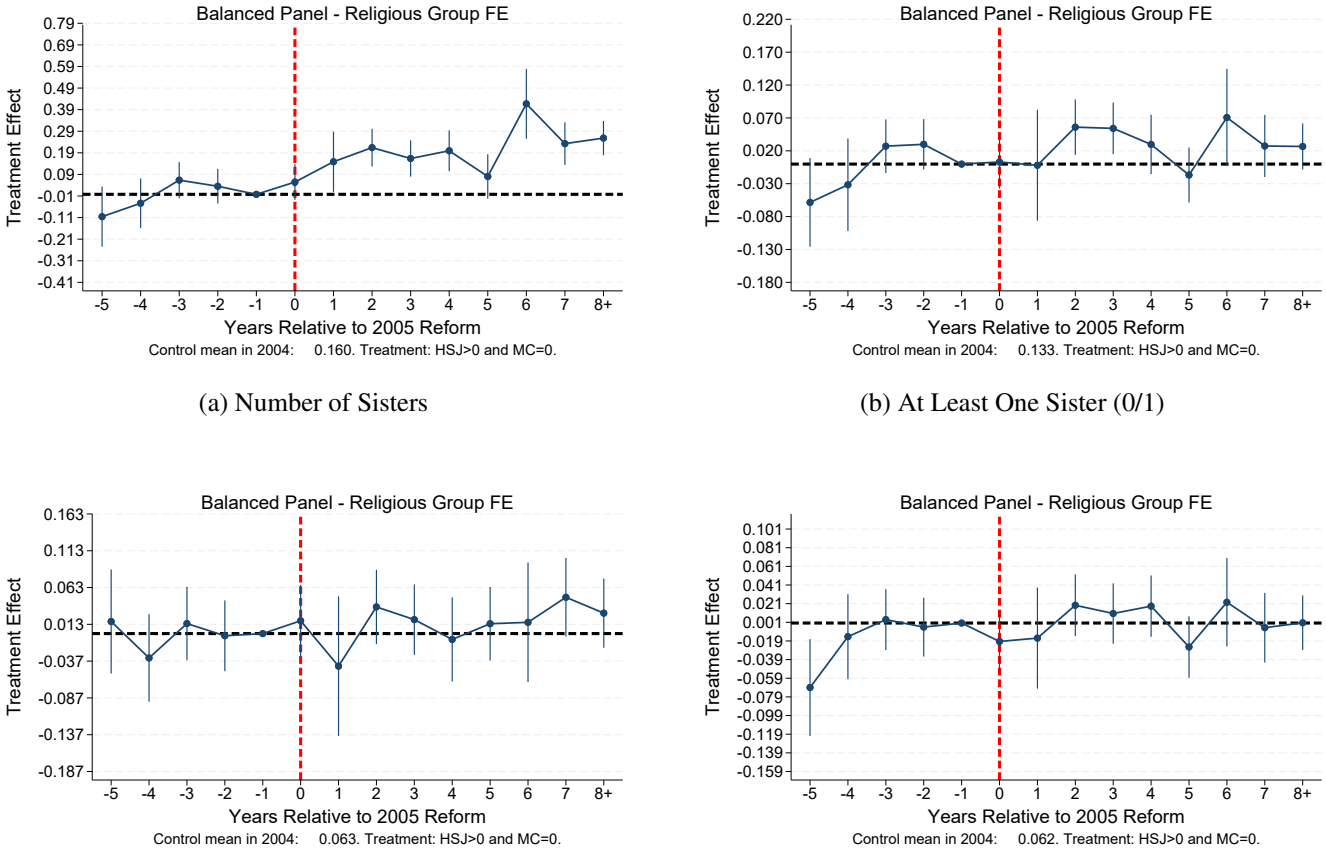
Where k indexes the years relative to the treatment year (2005), and we normalize the coefficient for $k = -1$ (2004) to zero. The coefficients β_k for $k < -1$ capture pre-treatment differences in trends between the HSJ and MC groups, which should be statistically insignificant under the parallel trends assumption.

Figure 2 presents event study plots for our primary outcomes. We find that the pre-treatment coefficients are generally small and statistically insignificant, supporting the parallel trends assumption. There is no evidence of anticipation effects: the coefficients in the immediate pre-reform years remain close to zero, and no systematic upward or downward trend is visible leading up to the 2005 reform. For the sister share outcome, we show event studies for our primary outcome (number of sisters divided by number of brothers), as well as an alternative measure using total owners as the denominator. This allows us to verify that the observed effects are not mechanically

driven by the construction of the variable. Event study graphs for the number of non-sister female owners and their ownership shares are included in Appendix Figure S1, where we similarly find flat pre-trends. We discuss the dynamic treatment effects of the policy in the next section.

We cannot directly test SUTVA with our current data, as we do not know the location of the plots. However, villages are typically segregated by caste and religion, and we would not a priori expect spatial spillovers across religious groups. To confirm this, we plan to merge our data with spatial cadastral data to document segregation and investigate spillover effects on control plots that neighbour treated plots.

Figure 2: Event Study Results: The Impact of the HSA Amendment on Women's Landownership



(a) Number of Sisters

(b) At Least One Sister (0/1)

(c) Sister Share (relative to brothers)

(d) Sister Share (relative to total owners)

Note: Each panel shows treatment effect coefficients from the event study regressions with religion and year fixed effects. The vertical line indicates time zero. i.e., 2005. Coefficients are relative to the k = -1 period. Treatment group: plots with Hindu/Sikh/Jain owners and no Muslim/Christian owners. Control group: plots with Muslim/Christian owners and no Hindu/Sikh/Jain owners. Standard errors clustered at the plot level. 95% confidence intervals shown.

Differential Attrition and Sample Selection Our analysis sample represents 24% of our full plot-level dataset, as plots must appear in both pre- and post-2005 records. This would bias our results if there was differential selection between treatment and control groups. Hindu/Sikh/Jain plots (treatment group) are slightly over-represented in our

final sample (95.3% vs 94.3% in the complete data), while Muslim/Christian plots are under-represented (4.7% vs 5.7%). This pattern could bias our estimates if excluded plots differ systematically from included plots in ways that correlate with post-2005 outcomes and vary by religious group. To assess this, we will examine: (1) village-level characteristics from the 2001 Census comparing villages with high vs low plot selection rates, and (2) pre-2005 outcome trends for included vs excluded plots where possible.

5 Results

5.1 Effects of the HSA Amendment on Women's Landownership

Number of Sisters Table 1 shows that the HSA Amendment significantly increased the number of sisters listed as landowners on Hindu/Sikh/Jain plots. The treatment effect of 0.186 additional sisters per plot represents a 142% increase relative to the control group baseline of 0.131 sisters per plot among Muslim/Christian families. In absolute terms, this implies that each treated plot gained nearly 0.19 additional sisters as recorded co-owners following the reform. While HSJ families had somewhat higher pre-treatment rates of sister ownership than MC families, the amendment still generated large and statistically significant increases from this higher baseline. These effects are robust to the inclusion of plot fixed effects, indicating that the results reflect within-plot updates in co-ownership records. Event study results (Figure 2a) show that these gains emerged gradually in the years following the reform, consistent with lags in legal implementation and administrative recordkeeping. Similar trends appear in the event study with plot fixed effects (Appendix Figure S2a).

Probability of At Least One Sister Table 1 shows that the reform increased the probability that a plot lists at least one sister as a co-owner by 1.4 percentage points, representing a 13% increase relative to the control group mean of 10.9%. This extensive margin effect indicates that the law brought sisters onto plots where none were previously listed. The event study results in Figure 2b and Appendix Figure S2b indicate that the effect emerges shortly after the reform and gradually diminishes over time. In specifications with plot fixed effects, this increase is less pronounced, suggesting that much of the response on this margin may reflect compositional shifts in ownership patterns across plots, rather than within-plot adjustments.

Sister Share We next examine whether the reform affected the proportional representation of sisters among co-owners. Table 2 shows that the average sister share increased by 0.019 (1.9 percentage points), a 33% increase over the control group mean of 0.057. Event study estimates (Figure 2c) show limited post-reform movement, and the effect attenuates in specifications with plot fixed effects. Since the share variable uses the number of brothers as

its denominator—and the number of brothers rises after the reform (Appendix Figure S3)—causal interpretation is complicated. In contrast to the number of sisters, which increases robustly across specifications, changes in share measures seem to reflect compositional shifts within treatment groups, rather than direct within-plot redistribution. We examine an alternative definition of ownership share—sisters as a proportion of total owners—in a plot fixed effects event study (Appendix Figure S2d). This alternative outcome shows flat pre-trends and muted post-reform effects, reinforcing the interpretation that while more sisters gained formal recognition, their relative control over plots changed only modestly.

Appendix Figure S1 shows that the number and ownership share of non-sister women increased following the reform, though the effects are smaller than for sisters. While some of these women may still be daughters (e.g., only children whom we cannot match to siblings), this increase suggests that the policy may have also facilitated ownership for a broader set of women within families. However, since we cannot reliably distinguish non-sibling women's relationships to other owners, we refrain from interpreting these changes as clear spillovers beyond sisters. Ongoing work leveraging transaction records and improved kinship classification is aimed at identifying the precise channels through which these adjustments occurred.

Table 1: Effect of HSA Amendment on Number of Sisters and Probability of At least One Sister

	(1) Num Sis	(2) Num Sis	(3) Num Sis	(4) Any Sis	(5) Any Sis	(6) Any Sis
Post 2005	0.334***			0.076***		
	(0.007)			(0.001)		
Treated		0.070			0.020	
		(0.052)			(0.024)	
Post×Treated		0.186***	0.168***		0.014**	-0.001
		(0.012)	(0.014)		(0.006)	(0.006)
Pre-treatment Average Control Group Mean	0.862	0.131	0.131	0.319	0.109	0.109
Obs	277423	277423	942915	277423	277423	942915
Rel Fixed Effects	No	Yes	No	No	Yes	No
Year Fixed Effects	No	Yes	Yes	No	Yes	Yes
Plot Fixed Effects	No	No	Yes	No	No	Yes

Difference-in-differences estimates. Treated = 1 if Hindu/Sikh/Jain (HSJ) share >0 and Muslim/Christian (MC) share $=0$, and = 0 if MC share >0 and HSJ share $=0$. Dependent variables are measured as counts (number of individuals) or binary indicators. *Number of Sisters* is calculated at the plot level and refers to the number of female owners on a plot who also have a sibling listed as a co-owner. *Any Sister* is a binary variable equal to 1 if at least one such sister is present on the plot. The control group mean is shown for the pre-treatment period. Standard errors are clustered at the plot level. *** p<0.01, ** p<0.05, * p<0.10.

Table 2: Effect of HSA Amendment on Sister Ownership Share and the Number of Brothers

	(1) Sis Share	(2) Sis Share	(3) Sis Share	(4) Num Bro	(5) Num Bro	(6) Num Bro
Post 2005	0.049***			0.437***		
	(0.002)			(0.010)		
Treated		0.005			0.457***	
		(0.034)			(0.115)	
Post×Treated		0.019***	-0.001		-0.167***	-0.070**
		(0.005)	(0.005)		(0.035)	(0.033)
Pre-treatment Average	0.332			2.406		
Control Group Mean		0.057	0.057		1.793	1.793
Obs	245211	245211	803425	277423	277423	942915
Rel Fixed Effects	No	Yes	No	No	Yes	No
Year Fixed Effects	No	Yes	Yes	No	Yes	Yes
Plot Fixed Effects	No	No	Yes	No	No	Yes

Difference-in-differences estimates. Treated = 1 if Hindu/Sikh/Jain (HSJ) share > 0 and Muslim/Christian (MC) share $= 0$, and = 0 if MC share > 0 and HSJ share $= 0$. *Sister Share* is calculated as the number of sisters divided by the number of brothers listed as co-owners on the plot. *Number of Brothers* is the count of male sibling co-owners recorded on the plot. Control group means correspond to the pre-treatment period. Standard errors are clustered at the plot level. *** p<0.01, ** p<0.05, * p<0.10.

5.2 Heterogeneity Analysis

Estimation We investigate whether the amendment was more effective in villages with more progressive gender norms. Additionally, for laws to be effectively implemented on the ground, the education level of the population and the administrative capacity of a village may be necessary preconditions. We use data from the Village Directory of the 2001 Indian Census (the last available data point before the 2005 reform), and we study heterogeneity by the following dimensions:

1. Gender Norms: Sex ratio (females per 1000 males), and female labour force participation rate

2. Human Capital: Female and overall literacy rate to capture women's ability to understand legal rights and community-wide educational levels that facilitate legal processes.

3. Education and Health Infrastructure: Village-level education infrastructure (schools, colleges, adult literacy centres, etc) and health infrastructure (hospitals, dispensaries, health centres, etc), constructed as Principal Component Analysis (PCA) indices of available facilities.

4. Administrative Capacity: Village-level administrative capacity, constructed as a PCA index from variables measuring the presence of post offices, banks, communication facilities, and power supply.

5. Other village characteristics: Scheduled Caste population share, female work participation rate, total irrigated area, distance from nearest town, and log population as controls for economic and demographic factors.

We also proxy gender norms around inheritance by measuring *Haq Tyag* practice. We construct a binary variable equal to 1 if *Haq Tyag* is mentioned in any land record for that plot before 2005. For the multi-dimensional concepts such as education, health, and administrative capacity, we create PCA indices from the first principal component, which captures the maximum variance across facilities and weights components by their contribution to the overall variation. This calculation assumes that villages with more infrastructure of any type tend to have more of all kinds. As robustness checks, we plan to construct inverse covariance-weighted Anderson indices (Anderson, 2008) and standardized z-score indices to ensure that our results are not sensitive to the specific aggregation method.

We estimate the following regressions:

$$Y_{prt} = \alpha + \beta_1 \text{Post2005}_t + \beta_2 \text{Treated}_p + \beta_3 (\text{Post2005}_t \times \text{Treated}_{p)+\beta_4 (\text{Post2005}_t \times \text{Treated}_p \times Z_i)+\gamma_r+\pi_t+\varepsilon_{prt}} (3)$$

Where Z_i represents the baseline heterogeneity variable of interest. β_4 is the parameter of interest, capturing how the treatment effect varies with the moderating variable. In our tables, we present the coefficients on the triple interaction (β_4) and the coefficient on the double interaction (β_3), which represent our original treatment effect for the baseline category. We report results from regressions with religious group fixed effects, using the balanced panel.

Heterogeneous Treatment Effects In this section, we discuss detailed results for two of our primary outcomes - the number of sisters (intensive margin) and the probability of at least one sister owner (extensive margin).

Table 3 shows that traditional gender norms had minimal impact on the amendment's effect on the number of sisters. The sex ratio interaction coefficient is economically negligible (0.002), and *Haq Tyag* practice shows no significant effect. Table 4 presents similar null results for the extensive margin, as neither the sex ratio nor *Haq Tyag* significantly affects the probability of having at least one sister owner. These results suggest that local gender norms did not differentially constrain the gains achieved by the amendment. Villages with more or less restrictive gender environments experienced similar treatment effects.

Human capital emerges as the key factor determining where the amendment was most effective. Female literacy dramatically amplified the law's impact - moving from zero to full female literacy would increase the treatment effect by 0.51 sisters per plot, nearly tripling the baseline effect of 0.186 (Table 3). Overall literacy shows an even larger interaction, suggesting that moving from no literacy to full literacy would more than quadruple the treatment effect (Table 3). For the extensive margin, Table 4 reveals more modest but significant effects: female literacy increases the probability of any sister ownership by 12.6 percentage points, while overall literacy adds 15.0 percentage points

relative to the baseline treatment effect of 1.4 percentage points.

Tables 5 and 6 demonstrate that administrative capacity was critical for translating legal rights into practice. For the intensive margin, Table 5 shows that areas with stronger administrative systems experienced significantly larger increases in sister ownership, by 8.9 percentage points, representing approximately a 48% increase relative to the baseline treatment effect of 0.186. For the extensive margin, Table 6 reveals a more modest but significant effect, increasing the probability of any sister ownership by 1.7 percentage points relative to the baseline effect of 1.0 percentage points. Inheritance reforms may thus require functional bureaucratic infrastructure to process land record changes and facilitate women's ownership claims.

The appendix presents heterogeneity results for sister share and the number of non-sister women owners, providing further insight into the amendment's mechanisms. Tables S2 and S3 show that sister share exhibits minimal heterogeneity across most dimensions, with small positive effects for health infrastructure and administrative capacity. This suggests that while human capital and state capacity influenced whether and how many sisters were added as owners, they had limited impact on the proportional stakes that sisters received. By contrast, Tables S4 and S5 indicate that the number of non-sister women owners was moderately more responsive to infrastructure and literacy measures. For instance, female and overall literacy rates are associated with significant increases in non-sister female ownership, while social norms proxies such as sex ratio and haq tyag practices show limited moderating effects. These results reinforce the interpretation that formal inclusion of women on titles was shaped more by administrative and informational capacity than by normative constraints.

6 Discussion of Results and Ongoing Research

Our findings demonstrate that legal reforms can expand women's property rights; however, the effects remain modest and fall short of achieving actual gender parity in land ownership. The HSA Amendment more than doubled sister ownership rates, but this represents an increase from an extremely low baseline—from 0.131 (in the control group) to approximately 0.31 sisters per plot among treated families. While substantial in relative terms, these gains reflect limited shifts in ownership structures.

Our results are related to previous studies that have examined the impact of South Indian state-level HSA amendments (passed between 1986 and 1994) on female land ownership. Deininger et al. (2013) found a 15 percentage point increase in females' likelihood of inheriting land and 0.37 additional years of primary education, while our 1.4 percentage point increase in the probability of any sister ownership is of comparable magnitude. Our findings contrast with those of Roy (2015), who finds no significant impact on actual likelihood of inheritance, with parents strategically circumventing the law through increased land "gifts" to sons while compensating daughters through

higher dowries or additional education (1.4–1.7 years for the most treated group). A similar mechanism may be at play in our setting, whereby families strategically add daughters to joint family plots covered by the reform, while simultaneously increasing the number of male owners on the same or other plots. In ongoing work, we are building a dataset on land transfers and transactions, which will allow us to investigate these behavioral responses more directly.

While our results show large increases in the number of sisters listed as co-owners, the effects on proportional ownership remain limited. The sister share rose by just 1.9 percentage points—about a 33% increase from a low base—but event study results show no consistent dynamic pattern, and the effect attenuates in plot fixed effects specifications. Moreover, we find that the number of brothers listed on plots also increases post-reform, though this trend may partially reflect anticipatory or strategic adjustments. These patterns suggest that increases in sister ownership may come from compositional shifts across households or plots, rather than major changes within existing household hierarchies.

We also find small but positive effects on the number and ownership share of non-sister women. While these women may still be daughters (e.g., only children or cases where we cannot identify sibling groups), we cannot confirm whether these represent true spillovers beyond daughters. As we refine the identification of non-sibling owners, we aim to characterize these gains more precisely. Finally, we are also exploring whether the land added for women differs systematically in characteristics such as size, location, or irrigation access. Do women systematically receive smaller plots or less irrigation, relative to their brothers?

7 Conclusion

This paper provides the first direct evidence on whether India's landmark 2005 inheritance reform translated into meaningful changes in women's land ownership. Using digitized plot-level land records from Haryana, we demonstrate that the Hindu Succession Amendment Act resulted in a significant increase, by 142% relative to the control group, in the number of daughters (sisters) listed as co-owners on land titles. Yet these gains did not alter the underlying structure of landholding; the share of sister owners (as a fraction of brothers or total owners) rose by less than two percentage points. Our estimates suggest that the reform added between 220,000 and 330,000 women to land titles in Haryana alone; however, this expansion occurred primarily on the low-cost margin of compliance—updating names in ownership records—rather than a redistribution of control over productive assets.

We find that the reform's effectiveness was shaped more by administrative and informational capacity than by local gender norms. Treatment effects were nearly twice as large in villages with high literacy and substantially larger where bureaucratic infrastructure was stronger. In contrast, proxies for restrictive gender norms—such as

skewed sex ratios or prevalence of haq tyag practices—did not significantly dampen implementation. These results suggest that formal compliance with inheritance law, such as including daughters on ownership titles, does not elicit strong normative backlash, provided it does not challenge male control. Families updated records where doing so was feasible, but deeper redistribution remained rare—likely due to the social and political costs of altering long-standing inheritance patterns.

Looking ahead, our research agenda aims to deepen understanding of the microfoundations of land markets in India by building directly on these findings. First, we plan to merge our landownership data with land transaction and transfer records to more precisely document how families strategically respond to inheritance law—for instance, by reallocating land before daughters' claims become enforceable. Second, we will integrate our dataset with spatial cadastral maps, allowing us to observe plot characteristics such as size, proximity to irrigation, and land quality. This will help test whether daughters receive systematically inferior plots, and whether compliance patterns vary by land value. Linking spatial data will also allow us to study potential spillovers across neighboring plots and evaluate violations of the stable unit treatment value assumption (SUTVA) more directly. Together, these extensions aim to clarify why the reform has not substantially shifted landownership patterns and to identify the economic, institutional, and social constraints that shape how formal legal rights translate into actual control over productive assets.

Table 3: Heterogeneity by Gender Norms and Human Capital: Number of Sisters

	(1)	(2)	(3)	(4)	(5)	(6)
Post×Treated	-1.284***	0.188***	-0.002	-0.221***	0.173***	0.099**
	(0.262)	(0.012)	(0.049)	(0.082)	(0.016)	(0.042)
Post×Tr×Sex Ratio 2001	0.002***					
	(0.000)					
Post×Tr×Haq Tyag Pre 2005		-0.027				
		(0.141)				
Post×Tr×Female Literacy Rate 2001			0.509***			
			(0.159)			
Post×Tr×Overall Literacy Rate 2001				0.854***		
				(0.193)		
Post×Tr×Edu Infra PCA 2001					0.020	
					(0.021)	
Post×Tr×Female Work Rate 2001						0.202*
						(0.109)
Observations	209035	277423	209035	209035	209035	209035

Triple interaction estimates from difference-in-differences regressions. Treated = 1 if Hindu/Sikh/Jain (HSJ) share >0 and Muslim/Christian (MC) share = 0. All moderating variables were measured in 2001, except Haq Tyag Pre (plot-level indicator for traditional inheritance practices mentioned in pre-2005 records). PCA indices are constructed from the first principal component of relevant infrastructure variables. Sex ratio measured as females per 1000 males. Literacy rates ranged from 0 to 1. Standard errors clustered at the plot level. *** p<0.01, ** p<0.05, * p<0.10.

Table 4: Heterogeneity by Gender Norms and Human Capital: Any Sister

	(1)	(2)	(3)	(4)	(5)	(6)
Post×Treated 1	-0.179**	0.015**	-0.031**	-0.052**	0.008	0.023
	(0.085)	(0.006)	(0.015)	(0.025)	(0.007)	(0.018)
Post×Tr×Sex Ratio 2001	0.000**					
	(0.000)					
Post×Tr×Haq Tyag Pre 2005		-0.012				
		(0.053)				
Post×Tr×Female Literacy Rate 2001			0.126**			
			(0.051)			
Post×Tr×Overall Literacy Rate 2001				0.150**		
				(0.059)		
Post×Tr× Edu Infra PCA 2001					-0.006	
					(0.009)	
Post×Tr× Female Work Rate 2001						-0.035
						(0.045)
Observations	209035	277423	209035	209035	209035	209035

Triple interaction estimates from difference-in-differences regressions. Treated = 1 if Hindu/Sikh/Jain (HSJ) share >0 and Muslim/Christian (MC) share = 0. All moderating variables were measured in 2001, except Haq Tyag Pre (plot-level indicator for traditional inheritance practices mentioned in pre-2005 records). PCA indices are constructed from the first principal component of relevant infrastructure variables. Sex ratio measured as females per 1000 males. Literacy rates range from 0-1. Standard errors are clustered at the plot level. *** p<0.01, ** p<0.05, * p<0.10.

Table 5: Heterogeneity by Infrastructure and Administrative Capacity: Number of Sisters

	(1)	(2)	(3)	(4)	(5)	(6)
Post×Treated	0.177***	0.203***	0.226***	0.143***	0.205***	0.054
	(0.014)	(0.021)	(0.019)	(0.036)	(0.023)	(0.136)
Post×Tr×Health Infra PCA 2001	0.026					
	(0.025)					
Post×Tr×Admin Capacity PCA 2001		0.089***				
		(0.028)				
Post×Tr×Total Irrigated Area 2001			-0.000*			
			(0.000)			
Post×Tr×Distance From Nearest Town 2001				0.003		
				(0.003)		
Post×Tr× SC Share 2001					0.036	
					(0.117)	
Post×Tr× Log Population 2001						0.017
						(0.019)
Observations	209035	76852	209035	209035	209035	209035

Triple interaction estimates from difference-in-differences regressions. Treated = 1 if Hindu/Sikh/Jain (HSJ) share >0 and Muslim/Christian (MC) share = 0. All moderating variables were measured in 2001. PCA indices are constructed from the first principal component of relevant infrastructure variables. Infrastructure indices are z-scored. Distance measured in kilometres. Standard errors clustered at the plot level. *** p<0.01, ** p<0.05, * p<0.10.

Table 6: Heterogeneity by Infrastructure and Administrative Capacity: Any Sister

	(1)	(2)	(3)	(4)	(5)	(6)
Post×Treated	0.012*	0.010	0.015*	-0.001	0.001	0.068
	(0.007)	(0.008)	(0.008)	(0.014)	(0.009)	(0.055)
Post×Tr× Health Infra PCA 2001	0.019					
	(0.014)					
Post×Tr×Admin Capacity PCA 2001		0.017*				
		(0.009)				
Post×Tr×Total Irrigated Area 2001			-0.000			
			(0.000)			
Post×Tr×Distance From Nearest Town 2001				0.001		
				(0.001)		
Post×Tr×SC Share 2001					0.115**	
					(0.048)	
Post×Tr×Log Population 2001						-0.008
						(0.008)
Observations	209035	76852	209035	209035	209035	209035

Triple interaction estimates from difference-in-differences regressions. Treated = 1 if Hindu/Sikh/Jain (HSJ) share >0 and Muslim/Christian (MC) share = 0. All moderating variables were measured in 2001. PCA indices were constructed from the first principal component of relevant infrastructure variables. Infrastructure indices are z-scored. Distance measured in kilometres. Standard errors clustered at the plot level. *** p<0.01, ** p<0.05, * p<0.10.

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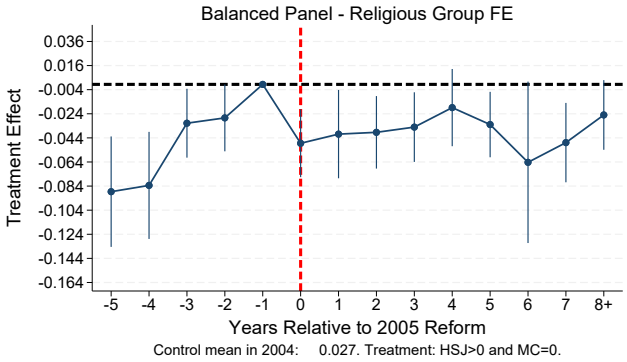
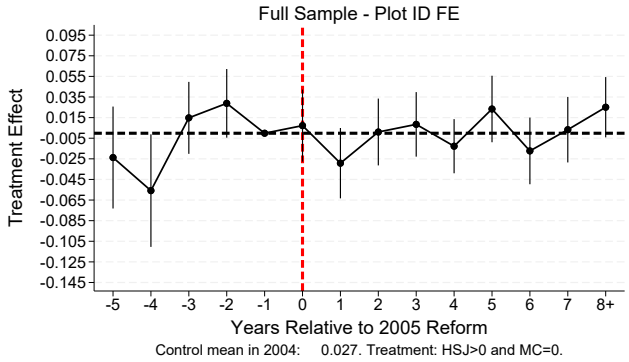
APPENDIX

A Supplementary Figures

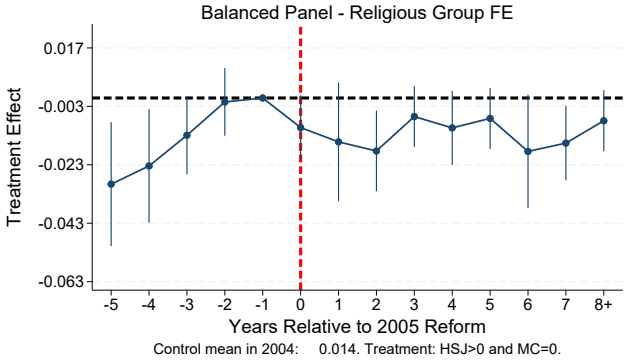
Figure S1: Event Study Results: The Impact of the HSA Amendment on Women's Landownership



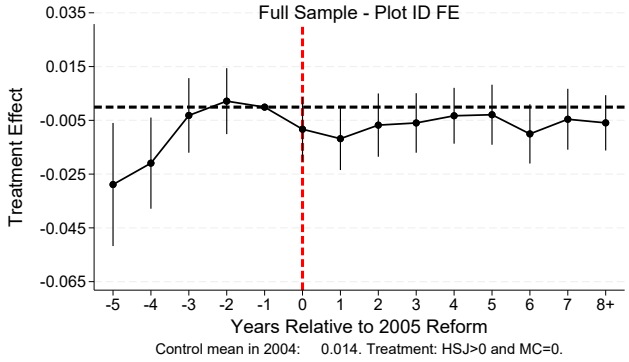
(a) Number of Non Sister Women Owners



(b) Number of Non Sister Women Owners



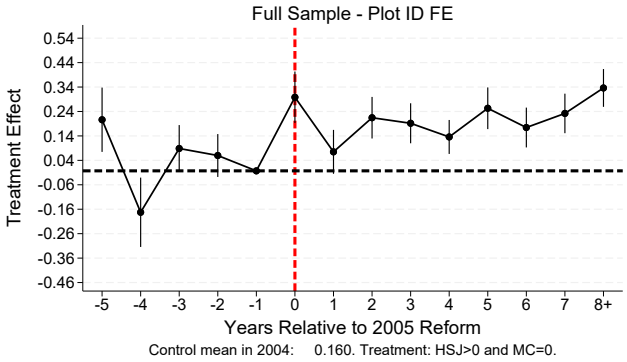
(c) Non Sister Women Owner Share



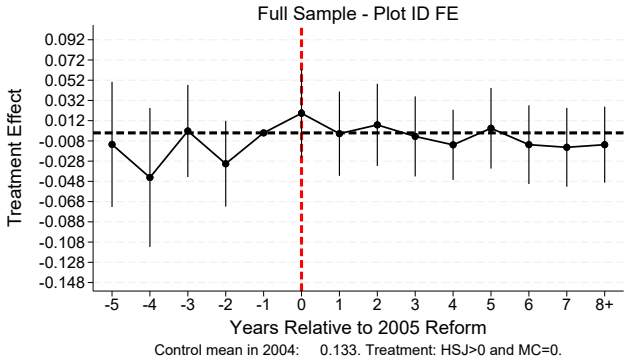
(d) Non Sister Women Owner Share

Note: Each panel shows treatment effect coefficients from the event study regressions with religion and year fixed effects. The vertical line indicates time zero. i.e., 2005. Coefficients are relative to the k = -1 period. Treatment group: plots with Hindu/Sikh/Jain owners and no Muslim/Christian owners. Control group: plots with Muslim/Christian owners and no Hindu/Sikh/Jain owners. Standard errors clustered at the plot level. 95% confidence intervals shown.

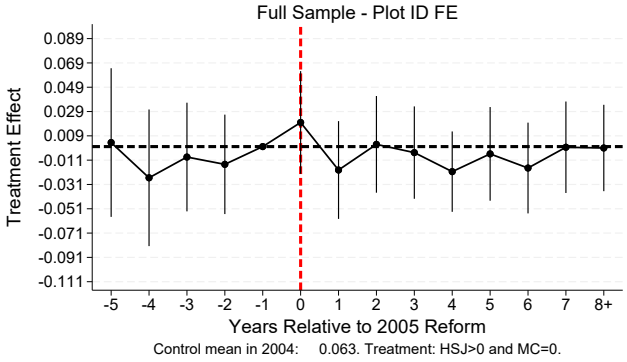
Figure S2: Event Study Results: The Impact of the HSA Amendment on Women's Landownership



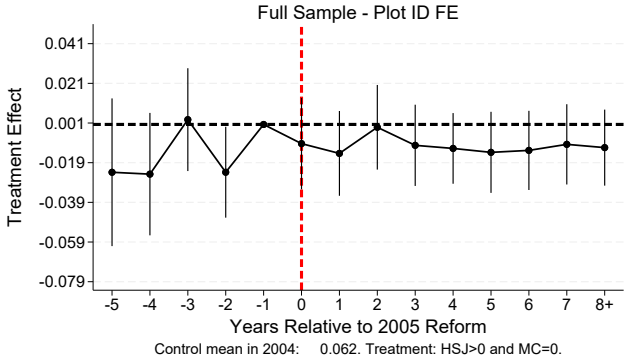
(a) Number of Sisters



(b) At Least One Sister(0/1)



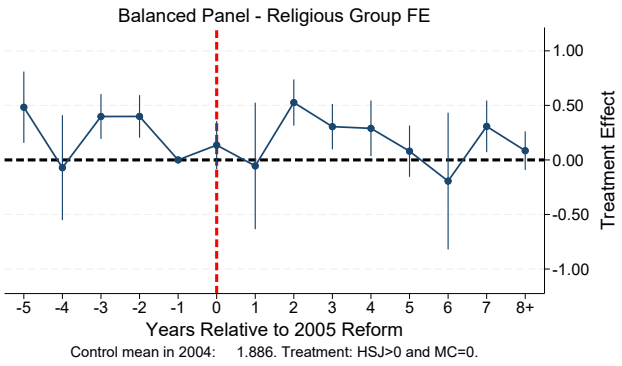
(c) Sister Share (relative to brothers)



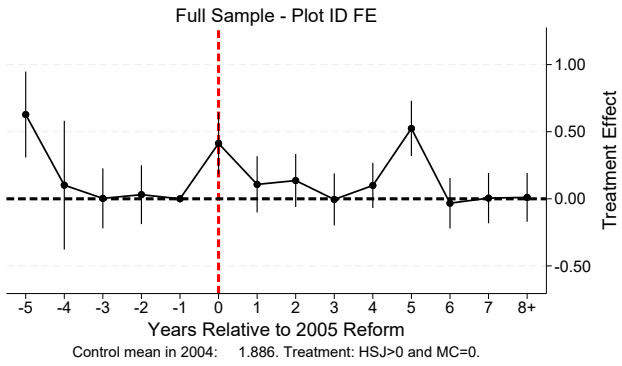
(d) Sister Share (relative to total owners)

Note: Each panel shows treatment effect coefficients from the event study regressions with religion and year fixed effects. The vertical line indicates time zero. i.e., 2005. Coefficients are relative to the k = -1 period. Treatment group: plots with Hindu/Sikh/Jain owners and no Muslim/Christian owners. Control group: plots with Muslim/Christian owners and no Hindu/Sikh/Jain owners. Standard errors clustered at the plot level. 95% confidence intervals shown.

Figure S3: Event Study Results: The Impact of the HSA Amendment on the Number of Brothers



(a) Balanced Panel Event Study



(b) Imbalanced Panel Event Study

Panel (a) presents event study coefficients from a difference-in-differences specification using a balanced panel of plots, with year and religion fixed effects. Panel (b) shows estimates from an imbalanced panel specification that includes plot fixed effects. The vertical line indicates the timing of the 2005 Hindu Succession Act reform. The treatment group includes plots with only Hindu/Sikh/Jain (HSJ) owners; the control group includes plots with only Muslim/Christian (MC) owners. 95% confidence intervals shown. Standard errors clustered at the plot level.

B Supplementary Tables

Table S1: Effect of HSA Amendment on Number of Non-Sister Women Owners and their Ownership Share

	(1) NS Women	(2) NS Women	(3) NS Women	(4) NS Women share	(5) NS Women share	(6) NS Women share
Post 2005	0.020***			-0.001**		
	(0.001)			(0.000)		
Treated		-0.050***			-0.013*	
		(0.018)			(0.007)	
Post×Treated		0.011***	0.007		0.001	-0.001
		(0.004)	(0.004)		(0.002)	(0.002)
Control Mean	0.122	0.050	0.050	0.039	0.029	0.029
Obs	277423	277423	942915	277423	277423	942915
Rel Fixed Effects	No	Yes	No	No	Yes	Yes
Year Fixed Effects	No	Yes	Yes	No	Yes	Yes
Plot Fixed Effects	No	No	No	No	No	Yes

Difference-in-differences estimates. *Treated* = 1 if Hindu/Sikh/Jain (HSJ) share > 0 and Muslim/Christian (MC) share = 0; = 0 if MC share > 0 and HSJ share = 0. *Number of Non-Sister Women Owners* is the count of female owners on a plot who are not identified as sisters (e.g., single daughters, mothers, aunts, etc.). *Non-Sister Owner Share* is the proportion of such women relative to the total number of owners on the plot. Standard errors clustered at the plot level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table S2: Heterogeneity by Gender Norms and Human Capital: Sister Share 2

	(1)	(2)	(3)	(4)	(5)	(6)
Post×Treated	-0.183**	0.020***	-0.030*	-0.069**	0.014	0.016
	(0.083)	(0.005)	(0.018)	(0.029)	(0.010)	(0.017)
Post×Treated×Sex Ratio 2001	0.000**					
	(0.000)					
Post×Treated×Haq Tyag Pre 2005		-0.030				
		(0.030)				
Post×Treated×Female Literacy Rate 2001			0.158**			
			(0.062)			
Post×Treated×Overall Literacy Rate 2001				0.201***		
				(0.070)		
Post×Treated×Edu Infra PCA 2001					0.005	
					(0.014)	
Post×Treated× Female Work Rate 2001						-0.015
						(0.046)
Observations	185963	245211	185963	185963	185963	185963

Triple interaction estimates from difference-in-differences regressions. Treated = 1 if Hindu/Sikh/Jain (HSJ) share >0 and Muslim/Christian (MC) share = 0. All moderating variables measured in 2001 except Haq Tyag Pre (plot-level indicator for traditional inheritance practices mentioned in pre-2005 records). PCA indices constructed from first principal component of relevant infrastructure variables. Sex ratio measured as females per 1000 males. Literacy rates range from 0-1. Standard errors clustered at the plot level. *** p<0.01, ** p<0.05, * p<0.10.

Table S3: Heterogeneity by Infrastructure and Administrative Capacity: Sister Share 2

	(1)	(2)	(3)	(4)	(5)	(6)
Post×Treated	0.015**	0.017*	0.017**	-0.016	0.005	0.014
	(0.006)	(0.009)	(0.008)	(0.014)	(0.009)	(0.053)
Post×Treated×Health Infra PCA index 2001	0.016**					
	(0.007)					
Post×Treated×Admin Capacity PCA		0.039***				
		(0.011)				
Post×Treated×Total Irrigated Area 2001			-0.000			
			(0.000)			
Post×Treated×Distance From Nearest Town 2001				0.003**		
				(0.001)		
Post×Treated× SC Share 2001					0.090*	
					(0.050)	
Post×Treated× Log Population 2001						-0.000
						(0.007)
Observations	185963	68366	185963	185963	185963	185963

Triple interaction estimates from difference-in-differences regressions. Treated = 1 if Hindu/Sikh/Jain (HSJ) share >0 and Muslim/Christian (MC) share = 0. All moderating variables measured in 2001. PCA indices constructed from first principal component of relevant infrastructure variables. Infrastructure indices are z-scored. Distance measured in kilometers. Standard errors clustered at plot level. *** p<0.01, ** p<0.05, * p<0.10.

Table S4: Heterogeneity by Gender Norms and Human Capital: Number of Non Sister Women Owners

	(1)	(2)	(3)	(4)	(5)	(6)
Post×Treated	-0.115**	0.010***	-0.025**	-0.030	0.004	0.012
	(0.056)	(0.004)	(0.011)	(0.018)	(0.006)	(0.014)
Post×Treated×Sex Ratio 2001	0.000**					
	(0.000)					
Post×Treated×Haq Tyag Pre 2005		0.025				
		(0.036)				
Post×Treated×Female Literacy Rate 2001			0.087**			
			(0.036)			
Post×Treated×Overall Literacy Rate 2001				0.079*		
				(0.044)		
Post×Treated×Edu Infra PCA 2001					-0.009	
					(0.008)	
Post×Treated×Female Work Rate 20011						-0.012
						(0.035)
Observations	209035	277423	209035	209035	209035	209035

Triple interaction estimates from difference-in-differences regressions. Treated = 1 if Hindu/Sikh/Jain (HSJ) share >0 and Muslim/Christian (MC) share = 0. All moderating variables were measured in 2001 except Haq Tyag Pre (plot-level indicator for traditional inheritance practices mentioned in pre-2005 records). PCA indices were constructed from the first principal component of relevant infrastructure variables. Sex ratio measured as females per 1000 males. Literacy rates range from 0-1. Standard errors clustered at the plot level. *** p<0.01, ** p<0.05, * p<0.10.

Table S5: Heterogeneity by Infrastructure and Administrative Capacity: Number of Non Sister Women Owners

	(1)	(2)	(3)	(4)	(5)	(6)
Post×Treated	0.008*	0.011*	0.007	-0.006	-0.005	-0.032
	(0.004)	(0.006)	(0.005)	(0.011)	(0.006)	(0.033)
Post×Treated×Health Infra PCA 2001	-0.007					
	(0.005)					
Post×Treated×Admin Capacity PCA 2001		0.005				
		(0.007)				
Post×Treated×Total Irrigated Area 2001			0.000			
			(0.000)			
Post×Treated×Distance From Nearest Town 2001				0.001		
				(0.001)		
Post×Treated×SC Share 2001					0.092**	
					(0.040)	
Post×Treated× Log Population 2001						0.005
						(0.005)
Observations	209035	76852	209035	209035	209035	209035

Triple interaction estimates from difference-in-differences regressions. Treated = 1 if Hindu/Sikh/Jain (HSJ) share >0 and Muslim/Christian (MC) share = 0. All moderating variables were measured in 2001. PCA indices constructed from the first principal component of relevant infrastructure variables. Infrastructure indices are z-scored. Distance measured in kilometres. Standard errors clustered at the plot level. *** p<0.01, ** p<0.05, * p<0.10.