

# Does caste have a cost? Social stigma, remarriage gain, and household resource allocation \*

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December 9, 2025

## Abstract

This paper measures the material cost of caste-based restrictions in Indian marriage markets through the lens of remarriage gains. Using data from the Consumer Pyramids Household Survey (CPHS), we apply a revealed preference framework that evaluates how much better off individuals could be if caste were not a binding constraint in partner choice. For each married individual, we construct caste-restricted markets and compare them with simulated caste-neutral markets of identical size and composition and calculate remarriage gain. Remarriage gain is defined as the value of an individual's "outside option" in the marriage market: it indicates how much better off one could be in terms of consumption if matched with an alternative partner relative to the current marriage. Results show that average remarriage gains are positive, with about 63% of men and 64% of women achieving higher welfare when caste barriers are removed. At the top 5% of remarriage gains, women from Scheduled Tribes gain the most in no caste restriction (10.37%) while upper-caste women gain almost nothing (0.62%), and highest remarriage gain among men are observed in intermediate and upper castes. These findings highlight the welfare costs of caste endogamy and its role in shaping household inequality in contemporary India.

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\*We thank Paula E. Gobbi, Thomas Demuyne and Bram De Rock for their valuable comments and suggestions.

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**JEL classification:** D6, D12, D13, J12, J16.

**Keywords:** caste, remarriage gain, consumption, marital stability, revealed preference

# 1 Introduction

Marriage is not only a social institution, but also an important economic decision. It shapes the allocation of resources within households, influences labor supply choices, and affects intergenerational transfers of wealth and human capital (Rosenzweig and Stark, 1989). The selection of a partner is often understood as a form of assortative matching, where individuals tend to pair with others who share similar characteristics, a phenomenon known as homogamy. Fuller and Narasimhan (2008) have documented that marriage markets in India are shaped by preferences for similarity along dimensions such as education and caste, with significant implications for household welfare and inequality. The tendency to marry within caste represents a strong form of homogamy in India, where caste functions not only as a marker of social identity but also as an inherited component of status. In India, individuals are generally classified into five social categories in ascending order of social status: ST (Scheduled Tribes), SC (Scheduled Castes), OBC (Other Backward Classes), intermediate and upper castes. Anderson (2003) argues that this inherited status makes caste a central factor in marriage decisions in India, and dowry<sup>1</sup> historically served as a key instrument to reinforce and maintain caste endogamy.

This paper investigates the economic welfare implications of caste-based marital preferences. Welfare can be conceptualized in various ways, but here we specifically focus on its material gain by which we mean the gains to marriage in terms of resources and consumption, rather than immaterial aspects such as love or emotional fulfillment. Although marriages also generate important immaterial gains-such as affection, companionship, or emotional compatibility-our analysis focuses exclusively on the material dimension of welfare, we focus on *material gain*, that is, the measurable improvement in an individual's economic well-being-through changes in consumption - if she or he were to remarry under alternative (for instance, caste-unrestricted) circumstances. When there is a

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<sup>1</sup>We do not engage in a discussion of dowry literature here. However, since caste has been shown to amplify dowry payments, our estimates can be viewed as a lower bound when dowry is not explicitly accounted for.

remarriage gain, it may be immaterial, or perhaps it is simply the cost that one is willing to pay. We don't account for that. So, when we 'open up' a marriage to alternative possibilities, we quantify the material improvement that one could achieve, but in doing so, we may lose the unobserved component of *matching quality*. In this sense, the remarriage gain reflects the match quality (can refer to Table 4 of Cherchye et al. (2017)). If one wishes to structurally model match quality, then one will have to go in the direction of Browning et al. (2024), where they observe both (material) public consumption and unobserved (immaterial) match quality.

Although Banerjee et al. (2013) explain why the role of caste in marriage remains so strong, our analysis explicitly examines the economic welfare implications of caste-based marital restrictions. We measure the material cost of these restrictions in India's marriage markets. The discussion extends beyond merely identifying who marries whom, focusing on how caste limits affect individual welfare and negotiating power within marriage. To make this concrete, the paper quantifies the potential gains an individual could realize in terms of consumption if caste were no longer a binding factor in partner selection.

We operationalize the idea of remarriage gain using the structural model of exit options developed by Cherchye et al. (2017). A notable strength of this model lies in its revealed preference foundation and nonparametric nature, allowing it to avoid imposing any potentially untestable functional form. A marriage market is modeled as a matching between men and women, where each couple chooses a bundle of private and public goods subject to a household budget constraint. Stability requires that each individual is at least as well off within their marriage as they would be if single (individual rationality), and that no man and woman outside their current marriages could jointly reallocate their resources to achieve higher utility (absence of blocking pairs). Stability means no one wants to exit their current marriage, and non-blocking pairs mean no one wants to exit for someone else. When better exit options exist, they create the potential for higher remarriage gains, which consequently strengthen an individual's bargaining position within the home.

To capture possible deviations from stability, we introduce indices that quantify potential material gains either from becoming single or from remarrying. These remarriage gains reflect the value of an individual's "outside option" in the marriage market: they indicate how much better off one could be if matched with an alternative partner relative to the current marriage. In this sense,

the model provides a structural characterization of exit options, which directly shape bargaining power within marriage. The possibility of gaining extra consumption through an alternative match influences the intra-household bargaining power. Thus, the framework highlights the interaction between the marriage market and household-level allocations, showing how the structure of the marriage market can translate into differences in economic welfare and bargaining outcomes within couples.

By treating remarriage gains as measures of exit options, we quantify how much better off individuals might be if the constraints of their current marriage market were lifted. In the Indian context, one of the most salient of these constraints is caste. The framework makes it possible to ask how much this restriction matters: how different would people's welfare (material) look if they were not confined to marrying within their caste? This naturally opens the door to counterfactual analysis. We compare the observed gains under existing caste norms with the gains individuals could enjoy in a more flexible, caste-neutral setting. Put differently, by modeling observed and counterfactual matchings within the same revealed-preference structure, we can compute the potential material gain an individual could derive from a more favorable match in a world where caste does not limit partner choice.

To implement this analysis, we use the 2022 CPHS dataset, which is the only available source that provides information on both consumption and income at the household and individual levels for India. We restrict the sample to nuclear families and to couples where both partners are between 21 and 65 years of age, treating any household member aged 20 or below as a child. Importantly, the analysis is restricted to couples in which both partners are working, since the measure of welfare is based on income and consumption data. This allows us to capture patterns among working individuals, but it does not account for the welfare of non-working adults within households. Non-working couples would involve additional marriage dynamics, such as differing patterns of exit or divorce, which are complex and would interact with labor market participation in ways that could substantially alter the marriage market dynamics, making it an intricate issue beyond the scope of this study. Cherchye et al. (2024) address this limitation by developing a collective consumption framework that explicitly incorporates households with unemployed members, enabling a more comprehensive analysis of intra-household decision-making, time allocation, and welfare in the

presence of labor force participation differences, intra-household inequality, and economies of scale.

Our analysis begins by constructing a reference scenario that reflects marriage opportunities under prevailing caste norms. We create a caste-restricted marriage market for each married person in the dataset, which comprises all potential opposite-gender partners who are in the same caste group and are either married or single. Within this restricted setting, we estimate the individual's potential remarriage gain by identifying the most stable alternative match. To evaluate the cost of caste-based constraints, we then simulate a series of alternative marriage markets in which caste is no longer a barrier to partner selection. For each individual, artificial marriage markets are generated that replicate the size and composition of their original caste-restricted market, while randomly drawing partners from the full population without regard for caste. These simulations enable us to calculate the material gain that each individual could obtain from a more flexible matching opportunity. Importantly, we remain agnostic about the willingness of individuals to marry outside their caste. Our aim is not to suggest that such matches would occur in practice, but to measure how much economic opportunity is lost when caste boundaries prevent them.

In the marriage market, people are sorted along a number of criteria, and caste is just one of them. In reality, age and educational attainment also have a significant impact on marriage preferences. To ensure our estimates are not overstated, we incorporate these dimensions into both the reference and neutral markets. In doing so, we restrict matches to those falling within empirically observed age compatibility ranges and to education pairings typically seen within caste groups. This refinement allows us to isolate and more precisely attribute any remaining welfare differences specifically to caste-based constraints. In our sample, the average remarriage gain is positive for both genders, with approximately 63% of men and 64% of women experiencing higher gains when caste restrictions are removed. This suggests that caste-based endogamy may impose a measurable welfare cost by limiting access to more favorable matches.

Two important papers, Banerjee et al. (2013) and Bidner and Eswaran (2015) offer insights into the persistence of caste in the Indian marriage market. Banerjee et al. (2013) investigates why caste plays a strong role in Indian marriages despite economic growth. From the interviews with 783 families who placed matrimonial ads in a major Bengali newspaper and subsequent follow-up

surveys after one year to observe actual matches, the paper estimates actual preferences for caste and other attributes (e.g., education, beauty, income). It is established that the preferences are often *horizontal*, i.e. both men and women seem to have a very strong preference for marrying within the same caste. The paper goes on to simulate stable matchings using the Gale-Shapley algorithm under observed preferences, caste-blind preferences, and forced in-caste matching. While under caste-blindness people marry mostly outside their own castes, they marry almost identical partners. Thus, the paper finds no evidence that men or women who marry outside their caste trade off “quality”, or in other words, the “equilibrium price” of caste (difference in spouse quality for in-caste vs. out-caste matches) is zero.

Banerjee et al. (2013) initiates a very crucial discussion about the effects of caste on marriages in India, in particular how the preference for caste shapes matching patterns. Taking a sample drawn from matrimonial advertisements the paper estimates preferences based on caste-based variables and other attributes and finds that in equilibrium the price of caste, i.e. the opportunity cost of the marrying in the same caste tends to be quite low. One of the main contributions of the paper is to explain why caste still plays such a strong role in marriage. Our paper, on the other hand moves further to understand the impacts of such caste-based marriages on *material costs*, where welfare pertains to material gains to marriage in terms of resources and consumption. Our analysis is also not restricted to a particular region or income class and purely non-parametric in nature. Overall this is a study to understand what is the material cost of caste system in India and we analyse consumption data to compute welfare differences between the caste-constrained scenario and when there is more flexibility to match without caste barriers. Our approach is revealed preference based and non-parametric; hence it allows for flexibility of analysis from various socio-economic perspectives such as gender, education etc.

Bidner and Eswaran (2015) views caste as essentially an occupational grouping and develops a marriage-market model to show how endogamy could emerge from economic incentives. Different occupations require different degrees of husband–wife cooperation, and when this complementarity is high, bringing in a wife from another group reduces household output more sharply. Because a household’s production depends on the husband’s occupation, an out-group wife lowers output more when the husband’s group needs high complementarity. Groups therefore impose social

punishments to deter out-marriage. The model predicts that the minimum punishment to stop men marrying out is the same across groups, but the punishment for women rises with the husband's group's complementarity. This explains stronger sanctions on women and generates an endogenous caste hierarchy that mirrors India's traditional varna order and the long-observed pattern of women marrying "up" but rarely "down."

Our revealed-preference model strengthens the analysis of marriage markets by eliminating the built-in gender asymmetry. We do not assume that women face special penalties or that occupational differences dictate household production. Instead, we recover individuals' preferences and feasible matches directly from the observed data. Our results show that women from the lower caste group experience notable material gains when caste constraints are relaxed, whereas upper caste men and women often fare better within the caste-restricted system. This suggests that caste boundaries continue to shape marriage markets in ways that create economic motivation for upper caste groups to maintain caste-based restrictions, thus reinforcing longstanding gender hierarchies within households. These findings highlight how caste operates not just as a social identity, but as a structural constraint that limits mobility and autonomy—especially for women from lower caste groups—and contribute to a broader understanding of how identity and social norms shape economic outcomes.

The remainder of the paper is organized as follows. Section 2 describes caste within the broader literature by discussing its role as a social stigma and a determinant of marriage choices. Section 3 presents descriptive statistics on caste in India. Section 4 outlines the revealed preference framework for measuring welfare gains from marriage. Section 4 describes the construction of the sample and the empirical strategy. Section 5 quantifies the cost of caste. Section 6 concludes.

## **2 Caste as a social stigma in marriage formation**

In this section, we first review the economics of marriage formation and progress from Becker's unitary model to the collective model. We then review the literature on social norms and stigma, showing the social and demographic elements in marriage. We then analyze the concepts of caste

and marriage in India, focusing on how, even with economic progress, endogamy and the caste system still prevail. Finally, we will discuss assortative matching, focusing on its contribution to choosing a partner.

**Economics of marriage formation** The economic analysis of marriage has its foundations in Becker’s pioneering work (Becker, 1973, 1974, 1981), which views marriage as a unitary model of household behavior. However, the unitary model has been widely criticized for its assumption that households behave as if they maximize a single utility function, thereby overlooking the possibility of conflicting preferences and intra-household bargaining.

In response to these limitations, subsequent work has advanced more nuanced models of household decision-making. Browning, Chiappori, and Weiss (Browning et al., 2014) reconceptualize marriage as a partnership for joint production and joint consumption, broadly defined to include companionship, emotional support, and the rearing of children. A central theme is the distinction between unitary and collective models of the household, and they do a comprehensive analysis of household behavior and family economics, emphasizing how family structure, bargaining, and individual preferences shape economic decisions. It integrates theoretical and empirical approaches, covering topics such as labor supply, consumption, savings, marriage, fertility, and intrahousehold allocation.

Chiappori and Mazzocco (2018) summarizes the rich literature that developed various models of household behavior, focusing on how spouses or household members share resources, allocate labor, and insure against risks under different assumptions about commitment. Early collective models assumed static, Pareto-efficient agreements, while subsequent work introduced dynamic aspects to account for spouses’ ability—or inability—to commit to future behavior. Full commitment models assume that couples adhere to predetermined plans regardless of shocks, but such assumptions are often unrealistic due to enforceability issues. At the other extreme, no commitment models depict households as engaging in repeated short-term bargaining, which limits risk sharing and efficiency. Limited commitment models provide a middle ground, allowing for renegotiation or exit when shocks threaten individual welfare, capturing the second-best efficiency achievable under real-world constraints. Other studies have applied these frameworks to diverse contexts, including



labor supply responses and welfare reforms, often selecting a specific commitment regime a priori.

Expanding on this, (Cherchye et al., 2007, 2009, 2011) developed nonparametric revealed preference tests for collective rationality, this test is derived by extending the generalized axiom of revealed preference (GARP) to a collective framework, and Cherchye et al. (2015) further used such restrictions to bound intrahousehold sharing rules without additional parametric assumptions. Cherchye et al. (2017) develop a framework to analyze how the marriage market shapes household consumption, employing a revealed preference approach to characterize efficient allocations in stable marriages. A potential limitation in the literature was the fixed nature of the sharing rule. The revealed preference approach in the collective framework, developed by (Cherchye et al., 2007, 2009) , allows researchers to nonparametrically bound individual shares under the sole assumption of Pareto efficiency, without imposing any functional form on preferences. By considering bundles that could lead to Pareto improvements, this method generates meaningful bounds for the sharing rule without requiring detailed knowledge of which goods are private or public. This framework highlights the power of the collective model to infer intrahousehold allocations.

**Social Stigma, caste and marriage market** Caste continues to influence educational attainment and labor market outcomes. Scheduled Tribes and Scheduled Castes remain concentrated in lower educational levels, whereas upper-caste individuals are more likely to complete secondary and postgraduate education (Deshpande and Ramachandran, 2024) (Tables 1 and 2). Labor force participation exhibits strong caste–gender gaps: men’s participation varies little by caste, but women’s participation is substantially lower among upper-caste groups compared with ST women (Deshpande and Ramachandran, 2024) (Table 3). Marriage in India <sup>2</sup> continues to be structured by caste and gender norms, functioning as a social institution that reinforces social hierarchies and boundaries (Jeffery, 2018; Banerjee et al., 2013; Goli et al., 2013; Desai and Dubey, 2012). Marriage in India also reflects stark gender and regional disparities. Cross-regional marriages are increasingly common in male-surplus states such as Haryana, where men seek wives from distant,

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<sup>2</sup>The broader literature on marriage markets also discusses patterns of homogamy and assortative mating by wealth, education, and social status, which serve to maintain social and economic stratification across contexts (e.g., Abramitzky et al., 2011; Lanzinger, 2005; Rosenzweig and Stark, 1989). Examples include wealth-based assortative mating in Norway (Fagereng et al., 2024) and social homogamy among landowning elites in nineteenth-century rural Sweden (Dribe and Lundh, 2005).

poorer areas (Kaur, 2004). Women often migrate with limited agency, while men benefit from local shortages, highlighting how mobility is constrained by social and economic factors. Families prioritize caste-homogamous matches, often valuing endogamy over individual compatibility or personal agency. Education, while important, is frequently interpreted as a marker of family prestige rather than autonomy (Jeffery, 2018). Intercaste and interreligious marriages remain rare, with significant regional and socioeconomic variation (Goli et al., 2013). Even as individual autonomy increases, caste endogamy persists, with more than 95% of marriages occurring within the same caste or kinship group (Allendorf and Pandian, 2016; Munshi, 2019). Deviations from caste norms carry substantial social costs, including the loss of community support, economic security, and social identity (Akerlof, 1976), and caste-based preferences are reinforced in online matrimonial platforms (Titzmann, 2013).

Marriage remains a key institution through which these inequalities are reproduced. Table 4 shows notable variation in marriage and separation rates between caste groups. Endogamy, or marriage within one's caste, continues as the social norm, reinforcing both caste identity and status. Despite industrialization and urbanization, intercaste marriages in India have remained around 5% from 1970 to 2012, with only marginal increases in the 2000-2012 period and no significant differences from 1990-2000 (Ray et al., 2020). In this context, marriage markets act both as a reflection of and a mechanism for maintaining caste hierarchies. Overall, caste remains a persistent determinant of individual welfare and social stratification in India (Akerlof, 1976; Munshi and Rosenzweig, 2006; Luke and Munshi, 2011; Munshi, 2011).

These patterns motivate a central research question: Does caste entail a material cost through the marriage market? If social stigma associated with marrying outside one's caste affects household consumption patterns or potential material gain in remarriage, caste endogamy may have quantifiable effects. Studying the links between social stigma, household consumption, and material gain from remarriage will provide empirical insight into the extent to which caste continues to shape individual welfare outcomes in India.

Long-term inequality in India is closely linked to marriage patterns, particularly because people marry within their caste. In these caste-structured marriage markets, traits like education and age play a critical role in determining marriage prospects. Educational attainment is among the most

Table 1: Caste Category by Education (Ages 21–65), Row Percentages

Caste Category	No Edu	1–10th	11–12th	Graduate	Post Grad	Ph.D./M.Phil	Total
ST	0.31	81.24	12.69	4.55	1.22	0.00	100.00
SC	0.46	77.74	14.00	6.23	1.55	0.02	100.00
OBC	0.46	69.92	16.90	10.14	2.53	0.04	100.00
Intermediate Caste	0.15	59.98	20.39	14.31	5.13	0.04	100.00
Upper Caste	0.12	50.24	21.87	18.22	9.51	0.04	100.00
Not Stated	0.05	60.97	20.15	13.67	5.09	0.07	100.00
Total	0.34	66.25	17.68	11.47	4.23	0.03	100.00

*Notes:* This table presents row percentages, which show the distribution of education levels within each caste category for individuals aged 21–65. Each row sums to 100%, indicating the proportion of individuals in a given caste who fall into each education category.

Table 2: Caste Category by Education (Ages 21–65), Column Percentages

Caste Category	No Edu	1–10th	11–12th	Graduate	Post Grad	Ph.D./M.Phil	Total
ST	4.12	5.54	3.24	1.79	1.31	0.00	4.52
SC	28.00	24.16	16.31	11.18	7.55	12.75	20.59
OBC	55.13	42.42	38.42	35.54	24.05	43.14	40.19
Intermediate Caste	4.03	8.28	10.55	11.42	11.08	11.76	9.15
Upper Caste	8.53	18.36	29.95	38.48	54.41	29.41	24.22
Not Stated	0.19	1.23	1.52	1.59	1.61	2.94	1.34
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Notes:* This table presents column percentages, which show the composition of each education level by caste category. Each column sums to 100%, indicating the share of each caste within that education level.

Table 3: Caste and Gender Disparities in Labour Force Participation Rate (%): India (Usual Status)

PLFS Year	Caste category	Male	Female	All
2023–24	ST	59.5	46.7	53.0
	SC	57.7	32.2	45.1
	OBC	57.5	31.2	44.4
	Upper caste	59.6	26.2	43.2
	All	58.2	31.7	45.1
2022–23	ST	59.6	43.5	51.6
	SC	57.3	28.9	43.2
	OBC	56.8	28.5	42.9
	Upper caste	53.8	20.6	38.4
	All	56.2	27.8	42.4
2021–22	ST	59.0	39.3	49.2
	SC	56.9	25.0	41.2
	OBC	56.6	24.3	40.7
	Upper caste	58.1	19.8	39.4
	All	57.3	24.8	41.3

*Notes:* LFPR (Labour Force Participation Rate) is the percentage of people aged 15 and above who are employed or seeking employment (usual status). “Male” and “Female” columns show participation by gender; “All” shows overall participation in the caste. Data are from PLFS for the years 2021–22, 2022–23, and 2023–24. Differences indicate gender and caste disparities in labor force participation in India.

Table 4: Marital and Divorce Status by Caste in India (DLHS-3)

Caste Category	Married (%)	Divorced/Separated (%)
ST	17.4	16.9
SC	16.9	28.7
OBC	39.8	34.9
Upper caste	26.0	19.5

*Notes:* This table has been adapted from Dommaraju (2016), where the author uses data from the District Level Household Survey. Data are from DLHS-3. “Married (%)” indicates the proportion of respondents currently married; “Divorced/Separated (%)” indicates the proportion of respondents no longer married due to divorce or separation. Percentages are calculated within each caste category.

visible and socially recognized characteristics, signaling family background, life stage, and future potential (Jeffery, 2018; Banerjee et al., 2013; Goli et al., 2013). These traits are not neutral; they carry social meaning and affect perceived match quality in the marriage market.

The rise in educational homogamy-the increasing tendency for individuals to marry partners with similar levels of education-has important implications for the distribution of economic resources within society. As emphasized by Eika et al. (2019) and Chiappori et al. (2020), this trend has coincided with, and contributed to, a noticeable increase in household income inequality. For women, education often functions as a premarital investment. Women may strategically pursue higher levels of education to improve their prospects of marrying into desirable families (Lafortune, 2013; Ray et al., 2020). However, these decisions are constrained by local marriage market factors, such as the availability of educated men, caste conventions, and regional sex ratios (Kaur, 2004; Munshi, 2019). Because marriage outcomes significantly shape women's life trajectories, investments in education are not only personal choices but also strategies that interact with broader social and economic structures.

According to Lafortune (2013), women strategically adjust their level of education in response to local marriage market factors, such as the availability of educated males. Even when traits are unobservable, Hoppe et al. (2009) shows that strategic behavior leads to stable, positively assortative Matching based on relative social position-traits like education and age often function in this way. Empirical evidence supports these theoretical claims. Empirical evidence shows that education strongly influences marriage opportunities and social mobility. Hitsch et al. (2010) use online dating data to show that individuals consistently contact others who are similar in education and age. Thus, we consider education attainment when defining marriage markets which both mirror and reinforce these enduring social hierarchies.

### 3 Measuring gains to remarriage

We begin by summarizing the framework developed by Cherchye, Demuynck, De Rock, and Vermeulen (2017) to assess marital stability. We first introduce the notation for individuals, matchings, and household consumption in a marriage market with both private and public goods. We then present revealed preference conditions that allow us to test whether a dataset is consistent with stable matching, satisfying the conditions of individual rationality and absence of blocking pairs. Building on these conditions, we introduce a methodology to define and quantify the potential material gains associated with remarrying a different partner.

**Model setup** We consider households composed of males  $m$  and females  $w$ . Specifically, we assume a finite set of men  $M$  and a finite set of women  $W$ , all participating in the same marriage market. This market is described by a matching function  $\sigma : M \cup W \rightarrow M \cup W \cup \{\emptyset\}$ . For all  $m \in M$  and  $w \in W$ , this function satisfies:

$$\sigma(m) \in W \cup \{\emptyset\},$$

$$\sigma(w) \in M \cup \{\emptyset\},$$

$$\sigma(m) = w \in W \quad \text{if and only if} \quad \sigma(w) = m \in M.$$

In words, the function  $\sigma$  assigns to each individual either a partner of the opposite gender (i.e.,  $\sigma(m) = w$  and  $\sigma(w) = m$ ) or nobody (i.e.,  $\sigma(m) = \emptyset$  and  $\sigma(w) = \emptyset$ ), meaning that they remain single. When  $\sigma(m) = w$ , we say that man  $m$  is matched with woman  $w$ , and vice versa, implying that they form a married pair.

We consider a consumption setting where both privately and publicly consumed goods are available. Let  $q \in \mathbb{R}^n$  and  $Q \in \mathbb{R}^k$  denote vectors representing the consumption of  $n$  private goods and  $k$  intrahousehold public goods, respectively. The vector  $(q_{m,\sigma(m)}, Q_{m,\sigma(m)})$  represents the observed aggregate consumption bundle for each married couple consisting of male  $m$  and his match  $\sigma(m)$ . Household consumption decisions are bounded by budget constraints determined by prices and

incomes. For any pair  $(m, w)$ , we denote the price vector for private goods as  $p_{m,w} \in \mathbb{R}_{++}^n$ , for public goods as  $P_{m,w} \in \mathbb{R}_{++}^k$ , and the total income as  $y_{m,w} \in \mathbb{R}_{++}$ . For a single man  $m$  or woman  $w$ , the respective price vectors for private and public goods are denoted as  $p_{m,\emptyset}, P_{m,\emptyset}$  and  $p_{\emptyset,w}, P_{\emptyset,w}$ , with the full incomes represented by  $y_{m,\emptyset}$  and  $y_{\emptyset,w}$  respectively.

The private consumption bundle  $q_{m,w}$  for a given pair  $(m, w)$  is divided between the male and female members of the household, with male quantities  $q_{m,w}^m \in \mathbb{R}_+^n$  and female quantities  $q_{m,w}^w \in \mathbb{R}_+^n$  satisfying the adding-up constraint  $q_{m,w}^m + q_{m,w}^w = q_{m,w}$ . Consequently, given a bundle  $(q_{m,w}, Q_{m,w})$ , a household allocation is defined as  $(q_{m,w}^m, q_{m,w}^w, Q_{m,w})$ . The matching allocation  $S$  for a given function  $\sigma$  encompasses all household allocations for matched pairs, expressed as  $S = \left\{ (q_{m,\sigma(m)}^m, q_{m,\sigma(m)}^{\sigma(m)}, Q_{m,\sigma(m)}) \right\}_{m \in M}$ .

Furthermore, each man  $m$  and woman  $w$  is endowed with a nonnegative, increasing, continuous, and concave utility function  $u^m : \mathbb{R}_+^{n+k} \rightarrow \mathbb{R}_+$  and  $u^w : \mathbb{R}_+^{n+k} \rightarrow \mathbb{R}_+$ . These functions assign utility levels to bundles  $(q_m, Q)$  and  $(q_w, Q)$  respectively and are strictly increasing with respect to  $q_m$  and  $q_w$ . We assume that both  $u^m(0, Q)$  and  $u^w(0, Q)$  equal zero for any level of public goods, indicating that positive utility requires some consumption of private goods. Lastly, we assume that individuals possess complete information about each other's preferences.

**Stability conditions** We now detail the revealed preference conditions necessary for a dataset  $\mathcal{D}$  to be “rationalizable” by a stable matching. This means that there exist individual utility functions  $u^m$  and  $u^w$  such that every matched pair  $(m, \sigma(m))$  in the dataset is stable, satisfying the requirements of individual rationality and the absence of blocking pairs. The conditions are provided in the following result (taken from Cherchye, Demuyne, De Rock, and Vermeulen, 2017):

**Proposition 1** *If the dataset  $\mathcal{D}$  is rationalizable by a stable matching, then there exist:*

- (a) *For each matched pair  $m \in M$  and  $\sigma(m) \in W$ , individual quantities  $q_{m,\sigma(m)}^m, q_{m,\sigma(m)}^{\sigma(m)} \in \mathbb{R}_+^n$  that satisfy*

$$q_{m,\sigma(m)}^m + q_{m,\sigma(m)}^{\sigma(m)} = q_{m,\sigma(m)},$$

*which define a matching allocation  $\left\{ (q_{m,\sigma(m)}^m, q_{m,\sigma(m)}^{\sigma(m)}, Q_{m,\sigma(m)}) \right\}_{m \in M}$ ,*

(b) for each pair  $(m, w)$  ( $m \in M, w \in W$ ), personalized prices  $P_{m,w}^m, P_{m,w}^w \in \mathbb{R}_{++}^k$  that satisfy

$$P_{m,w}^m + P_{m,w}^w = P_{m,w},$$

that simultaneously meet the following constraints:

(i) individual rationality restrictions for all males  $m \in M$  and females  $w \in W$ , i.e.,

$$y_{m,\emptyset} \leq p_{m,\emptyset} q_{m,\sigma(m)}^m + P_{m,\emptyset} Q_{m,\sigma(m)},$$

$$y_{\emptyset,w} \leq p_{\emptyset,w} q_{\sigma(w),w}^w + P_{\emptyset,w} Q_{\sigma(w),w};$$

(ii) no blocking pair restrictions for all  $m \in M$  and  $w \in W$ , i.e.,

$$y_{w,m} \leq (p_{m,w} q_{m,\sigma(m)}^m + P_{m,w}^m Q_{m,\sigma(m)}) + (p_{m,w} q_{\sigma(w),w}^w + P_{m,w}^w Q_{\sigma(w),w}).$$

The conditions in Proposition 1 can be interpreted as follows. Condition (a) imposes an adding-up constraint, requiring that the sum of the man's and the woman's private consumption equals the household's total private consumption. Condition (b) introduces an analogous constraint for personalized prices, which represent each partner's willingness to pay for public goods. These prices can be understood as couple-specific Lindahl prices, consistent with the Pareto-efficient provision of public goods.

The restrictions outlined in condition (i) ensure that the bundle an individual can purchase when single is not strictly more expensive than their current allocation within marriage. Otherwise, the individual would prefer being single, leading to instability. Condition (ii) ensures that no unmatched pair  $(m, w)$  can reallocate their joint income to make both strictly better off, which would form a blocking pair and destabilize the observed matching. In particular, a violation of condition (ii) suggests the presence of material gains from remarriage, which is the central focus of our empirical analysis. In particular, we will examine the extent to which caste restrictions influence these potential gains from remarriage.



**Remarriage gains** The revealed preference conditions in Proposition 1 characterize the “economic” stability of observed marriages. The underlying assumption is that individuals marry solely for material gains, as their utility functions depend only on their consumption bundles  $(q_{m,\sigma(m)}^m, Q_{m,\sigma(m)})$  and  $(q_{m,\sigma(m)}^{\sigma(m)}, Q_{m,\sigma(m)})$ . Under this assumption, individuals would divorce and potentially remarry if they could achieve better economic outcomes.

We evaluate potential material gains associated with remarriage through indices that measure deviations from stable matching behavior as described in Proposition 1. Specifically, we introduce material gain indices by reformulating constraints (i) and (ii) of Proposition 1 as follows:

$$\begin{aligned}
(iii) \quad & y_{m,\emptyset} \leq g_{m,\emptyset}^{IR} \times [p_{m,\emptyset} q_{m,\sigma(m)}^m + P_{m,\emptyset} Q_{m,\sigma(m)}], \\
& y_{\emptyset,w} \leq g_{\emptyset,w}^{IR} \times [p_{\emptyset,w} q_{\sigma(w),w}^w + P_{\emptyset,w} Q_{\sigma(w),w}], \text{ and} \\
(iv) \quad & y_{w,m} \leq g_{m,w}^{NBP} \times [(p_{m,w} q_{m,\sigma(m)}^m + P_{m,w}^m Q_{m,\sigma(m)}) + (p_{m,w} q_{\sigma(w),w}^w + P_{m,w}^w Q_{\sigma(w),w})],
\end{aligned}$$

where  $g_{m,\emptyset}^{IR}$  and  $g_{\emptyset,w}^{IR}$  represent the gains associated with becoming single for man  $m$  and woman  $w$ , and  $g_{m,w}^{NBP}$  represents the remarriage gains for the pair  $(m, w)$ . We impose the constraint  $g_{m,\emptyset}^{IR}, g_{\emptyset,w}^{IR}, g_{m,w}^{NBP} \geq 1$ .

If the indices are equal to one, conditions (i) and (ii) in Proposition 1 hold, indicating no material gains from becoming single or remarriage. Conversely, index values above one indicate that the current marriage is economically unstable, meaning that there are potential gains from becoming single ( $g_{m,\emptyset}^{IR} > 1$  or  $g_{\emptyset,w}^{IR} > 1$ ) or from remarriage ( $g_{m,w}^{NBP} > 1$ ). In what follows, our focus will be on remarriage gains captured by  $g_{m,w}^{NBP}$ .

Since conditions (iii) and (iv) are nonlinear in the unknown individual quantities, personalized prices and material gain indices, we linearize them by moving the indices to the left-hand side:

$$\begin{aligned}
(v) \quad & s_{m,\emptyset}^{IR} \times y_{m,\emptyset} \leq p_{m,\emptyset} q_{m,\sigma(m)}^m + P_{m,\emptyset} Q_{m,\sigma(m)}, \\
& s_{\emptyset,w}^{IR} \times y_{\emptyset,w} \leq p_{\emptyset,w} q_{\sigma(w),w}^w + P_{\emptyset,w} Q_{\sigma(w),w}, \text{ and} \\
(vi) \quad & s_{m,w}^{NBP} \times y_{w,m} \leq (p_{m,w} q_{m,\sigma(m)}^m + P_{m,w}^m Q_{m,\sigma(m)}) + (p_{m,w} q_{\sigma(w),w}^w + P_{m,w}^w Q_{\sigma(w),w}),
\end{aligned}$$

using

$$s_{m,\emptyset}^{IR} = 1/g_{m,\emptyset}^{IR}, \quad s_{\emptyset,w}^{IR} = 1/g_{\emptyset,w}^{IR}, \quad s_{m,w}^{NBP} = 1/g_{m,w}^{NBP}.$$

In our empirical application, we maximize the sum

$$\sum_m s_{m,\emptyset}^{IR} + \sum_w s_{\emptyset,w}^{IR} + \sum_m \sum_w s_{m,w}^{NBP},$$

subject to constraints (v) and (vi) and the adding-up constraints (a) and (b) in Proposition 1, for each marriage market under study.

We conclude with two key points. First, intuitively, the summation over stability indices, as defined in Cherchye et al. (2017), captures the minimum material gains that individuals would obtain from remaining single ( $g_{m,\emptyset}^{IR}$  and  $g_{\emptyset,w}^{IR}$ ) or from entering a new marriage ( $g_{m,w}^{NBP}$ ), based on observed consumption and marital choices. The resulting estimator provides a distribution of potential remarriage gains  $g_{m,w}^{NBP}$  for each individual, defined over all possible partners in the marriage market being analyzed. Throughout the paper, we represent each individual's potential remarriage gains by the 95<sup>th</sup> percentile of their distribution. This choice captures the upper range of remarriage gain while being less sensitive to extreme outliers than the maximum. For robustness, we also compute the maximum potential gains, which are reported in the Appendix.

Second, we define individuals' potential labor and nonlabor incomes to construct full potential incomes corresponding to alternative post-divorce scenarios. Assuming that labor productivity is independent of marital status, we calculate each individual's maximal labor income for any exit option as total available time (112 hours per week) multiplied by their wage rate. For observed married couples, total nonlabor income is measured using consumption data, defined as reported consumption expenditures minus full labor income. Individual nonlabor incomes for outside options are treated as unknowns, following Cherchye et al. (2017), subject to the condition that they sum to the total nonlabor income observed in the current marriage. By combining these labor and nonlabor components, we obtain each individual's full potential income under the various post-divorce scenarios. The resulting remarriage gains are therefore based solely on labor income, since nonlabor income for potential matches is not observed. Focusing on labor income adjustments preserves the linear structure of the model when treating stability indices as unknown variables.

Before entering empirical analysis, we would like to conclude that what we call the remarriage gain is the inverse of the stability measure discussed in Cherchye et al. (2017).

## 4 Empirical setup

We begin by describing the empirical framework used to analyze household consumption, labor supply, and marriage market outcomes. The first step is to characterize how resources are allocated within households between leisure, private consumption, and public consumption. We then construct alternative marriage markets that reflect caste norms along with other restrictions and compare observed caste-restricted outcomes with simulated counterfactuals. Then we estimate truncated regression models to investigate the determinants of remarriage gains.

**Consumption and labor supply** We briefly repeat the approach of Cherchye et al. (2017), adopting their collective labor supply framework to model household resource allocation. Under this framework, each household divides all available resources—labor and nonlabor income—between leisure and consumption. Each individual has a fixed total available time, which can be divided between labor and leisure. Labor income is determined by the individual’s wage rate multiplied by the hours they allocate to work. Non-labor income, which is consumption-based, represents the portion of resources available to the household aside from wages earned through labor.

For each observed household, total non-labor income is constructed as the difference between overall household income and reported consumption expenditures. In the linear programming framework, individual non-labor incomes of partners are treated as unknown variables, much like personalized consumption quantities and prices. These variables are constrained to sum to the observed household total, allowing the model to determine whether any feasible allocation of non-labor income can rationalize observed behavior under a stable matching. Following Cherchye et al. (2017), we allow each individual’s income without work to vary between 40% and 60% of the total household. Because the individual non-labor incomes are determined within the model, the stability conditions themselves rely only on labor income—that is, wages multiplied by available

time—rather than on non-labor income. Accordingly, interpretations of remarriage gains are based on this labor income <sup>3</sup>.

The Hicksian aggregate includes all market goods consumed by the household, which we categorize into private goods (e.g., clothing) and public goods (e.g., heating). We further separate consumption into private and public components<sup>4</sup>. Private consumption includes assignable male private consumption and assignable female private consumption. Assignable goods and services are typically consumed by one gender, while public consumption reflects common expenditures that benefit the household jointly. Assignable private consumption of women includes spending on beauty and personal care, jewelry and accessories, personal services (parlour and spa services), hygiene products, and food. Assignable private consumption of men includes intoxicants (tobacco, alcohol, and related substances), shaving and grooming items, and food. Finally, public consumption is defined as all residual household expenditures, including education, health, housing, rent, EMI payments, transportation, fuel, communication, recreation, and other goods and services shared within the household. Tables 12 and 13 present descriptive statistics for the full sample of 125,790 households and for the restricted subsample of 1,575 <sup>5</sup> couples that form the basis of our analysis. Table 14 further reports the differences in means between the two samples. The comparison shows that the couple subsample is broadly similar to the full sample in terms of consumption and wages, but exhibits notable differences in leisure, age, and total children, as this is a sample of working couples, as indicated in the introduction, where we restrict the analysis to households in which both partners are employed.

**Intercaste difference in wages and consumption** The tables reveal clear socioeconomic gradients across caste. Income and wages rise with caste, with ST households earning the least and Intermediate and Upper Castes earning the most; female wages remain lower than male wages across all groups (Tables 8, 9, 10). Public consumption is higher among Intermediate Caste households, but its share of total expenditure is broadly similar across castes, suggesting differences in spending patterns rather than overall resources (Table 5). Leisure varies modestly for men, while women in

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<sup>3</sup>For details, see Cherchye et al. (2017)

<sup>4</sup>A detailed list is provided in the appendix

<sup>5</sup>see the appendix for sample selection criteria

SC and OBC households enjoy slightly more leisure than ST and Upper Caste women, reflecting differences in labor market participation and household responsibilities (Table 11). Overall, caste remains a strong determinant of economic outcomes and time allocation.

Table 5: Summary of Public consumption by Caste for Couples

<b>Caste Category</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>	<b>Share in total exp</b>
ST	918.33	444.86	121.33	3126.43	38.85
SC	1051.26	542.99	193.67	3733.33	37.51
OBC	1210.72	608.26	113.17	5086.67	37.73
Intermediate Caste	1637.47	899.64	261.33	5068.00	38.29
Upper Caste	1384.36	877.60	296.33	5472.83	33.93

*Notes:* This table shows the distribution of public consumption expenditures among couples across caste categories. Public consumption includes spending on miscellaneous items (domestic help, social and religious obligations, insurance, vacations, home maintenance, pets), EMIs, health, communication, fuel, transport, appliances, recreation, rent and bills, dental care, education, books and journals, and detergents. The table reports the mean, standard deviation, minimum, and maximum for each caste group. The column “Share in total exp” represents the share of public consumption in total expenditure.

Table 6: Summary of Private consumption by Caste for Married Females

<b>Caste Category</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
ST	695.5023	165.6795	352.9167	1267.0000
SC	729.4045	181.0593	243.8333	1402.5670
OBC	778.4736	215.4265	364.0000	1816.5000
Intermediate Caste	787.2378	215.1968	400.1667	1647.3330
Upper Caste	840.6486	213.9686	423.9667	1609.3000
<b>Total</b>	<b>757.0911</b>	<b>201.9562</b>	<b>243.8333</b>	<b>1816.5000</b>

*Notes:* This table shows the distribution of private consumption by married females, which includes spending on food, Beauty-related Expenses( Cosmetics, Hair care, Other cosmetics, Powder, Creams), Jewellery and Accessories, Clothing accessories, and Parlor and spa.

Table 7: Summary of Private consumption by Caste for Married Males

<b>Caste Category</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
ST	745.5334	173.0472	353.5000	1225.0000
SC	750.5431	200.6769	232.1667	1405.8330
OBC	815.2829	215.4476	312.6667	1530.6670
Intermediate Caste	781.7229	241.7111	325.5000	1551.6670
Upper Caste	791.1659	199.6045	352.9167	1452.5000
<b>Total</b>	<b>779.8636</b>	<b>206.7741</b>	<b>232.1667</b>	<b>1551.6670</b>

*Notes:* This table shows the distribution of private consumption by married males, which includes spending on food, Intoxicants (Cigarettes, Bidis, Other tobacco, Liquor), and Personal Grooming like shaving articles.

Table 8: Summary Statistics of Full Income by Caste Category

<b>Caste Category</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
ST	4925.56	2007.82	2322.83	16974.70
SC	5623.87	2516.27	1932.00	21785.20
OBC	6343.40	2849.05	2407.18	24755.50
Intermediate Caste	8671.61	4397.20	2131.21	19508.40
Upper Caste	7324.73	4740.77	2826.68	36056.60

*Notes:* Full income is defined as the sum of a household's non-assignable income and, for each member, the assignable goods plus the value of leisure multiplied by the member's wage. Full income is in Rs per week.

Table 9: Summary of Wages (male) for Couples

<b>Caste Category</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
ST	44.32	34.13	15.79	250.00
SC	51.82	36.77	14.91	333.33
OBC	61.03	42.81	19.61	270.83
Intermediate Caste	95.50	65.87	20.37	250.00
Upper Caste	74.66	59.05	20.83	333.33

*Notes:* The wage is represented in Rupees and is calculated per hour.

Table 10: Summary of Wages (female) for Couples

<b>Caste Category</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
ST	28.68	16.76	9.78	145.83
SC	33.38	21.92	9.58	166.67
OBC	38.32	31.33	10.42	286.67
Intermediate Caste	55.88	48.95	10.42	208.33
Upper Caste	57.35	57.08	13.89	333.33

*Notes:* The wage is represented in Rupees and is calculated per hour.

Table 11: Summary of Leisure by Caste

Caste Category	Male Leisure				Female Leisure			
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
ST	38.85	7.33	17.5	63	28.83	9.17	3.5	63
SC	37.51	7.89	17.5	59.5	31.91	9.07	7	73.5
OBC	37.73	7.66	14	56	30.11	8.07	10.5	70
Intermediate Caste	38.29	7.66	21	52.5	31.05	9.40	14	59.5
Upper Caste	33.93	7.88	14	59.5	29.80	8.96	7	70

*Notes:* The Leisure is represented in hours per week.

**Constructing marriage markets** In our analysis, the marriage market is not the one we directly observe from the set of individuals actively searching for partners, but a proxy we construct from the data. In our framework, a marriage market is defined as the pool of individuals who are eligible to marry a given person, based on a set of restrictions. These restrictions reflect both the social norms and the patterns observed in the data. The three most important restrictions we employ are caste, age, and education. By varying these restrictions, we create different reference scenarios that allow us to compare how remarriage gains might change under alternative rules.

The construction of these markets relies on the idea that partner availability is shaped by certain boundaries that limit the set of feasible matches. Caste provides the most immediate restriction, since marriage practices in India are strongly shaped by caste endogamy. In our baseline case, we define each individual's marriage market using caste, age, and education together, since these are the dominant social and demographic boundaries in the observed data. CPHS data show that men are generally older than their wives. To capture this, we impose that the man must be between one and ten years older than the woman. Following Cherchye et al. (2017), these cutoffs are derived from the 2.5 and 97.5 percentiles of the actual age differences observed in our dataset. This age restriction, therefore, reflects the realistic boundaries of age homogamy and differences within marriages. Education further refines the feasible set: individuals can marry partners with the same education level or with any level observed within their caste. This reflects the fact that caste boundaries often dominate educational preferences, but education itself remains an important factor in partner selection. For example, a graduate male from caste A can marry a woman from caste A who is a graduate or who has any other level of education observed among women of caste A in our dataset.

**Simulating marriage markets** To evaluate how caste and other social restrictions shape marital opportunities, we employ a simulation that begins with this baseline market (caste, age, and education). For each individual, we first identify their observed market based on these restrictions. Next, we simulate alternative markets by removing caste restrictions while keeping the market size and gender composition constant. This ensures that any observed differences in remarriage gains stem solely from the change in restrictions. In practice, this means that for every individual, a new set of potential partners is randomly drawn from the full sample to match the size and gender balance of their observed caste-restricted market. The simulated market, therefore, represents a counterfactual setting in which caste barriers are lifted but other demographic characteristics, such as age and education, remain intact.

Our analysis constructs artificial marriage markets that are free of caste restrictions but that preserve realistic age and educational boundaries. For each individual, we create a hypothetical market of the same size and gender composition as their observed caste-restricted market. Candidate partners must (i) satisfy the prevailing age norm—men between one and ten years older than women—and (ii) either share the individual’s own educational level or fall within the education range observed within that person’s caste. These conditions approximate the multidimensional boundaries within which marriages are typically formed.

In the Indian marriage market, caste serves as a strong structural constraint, shaping the set of feasible partners for individuals. Within these caste-restricted pools, education acts as an important secondary sorting mechanism, influencing who marries whom. However, because caste boundaries limit the overall pool of potential partners, the marital returns to education are constrained. Individuals cannot fully leverage their educational attainment to improve marital outcomes, resulting in a dampened “marital college premium,” as described by Chiappori et al. (2018). In other words, social restrictions reduce the effective return on investment in education through the marriage market channel. Following Chiappori et al. (2018) we can argue that as education decisions are influenced by anticipated marital returns, when caste barriers are lifted, individuals may respond by investing more in education, anticipating higher marriage market premiums. Therefore, social institutions like caste not only shape the structure of marriage markets but also have a direct impact on human capital accumulation by moderating the incentives to pursue



higher education.

As a first robustness check, we relax the education requirement while maintaining the age constraint, corresponding to a scenario where the baseline is caste and age, and the simulated case includes only age. Individuals are again matched to markets of identical size and gender composition, but potential partners need only meet the one-to-ten-year male–female age gap. As a second robustness check, we consider the most relaxed scenario, which drops both the education and age criteria, and where the baseline is caste only, and the simulated case has no restrictions at all. Here, individuals are randomly matched to markets of equal size and gender composition drawn from the full sample, regardless of caste, age, or education.

Each simulation is repeated 200 times to ensure that results are not driven by any particular draw of individuals. For every person, we obtain 200 possible remarriage markets under each specification, and we average the outcomes to compute expected remarriage gains. Thus, we can see the distinct effects of caste on shaping the structure of marriage markets. The caste-unrestricted simulation isolates the role of caste as a constraint.

This structured simulation framework is central to our empirical strategy. It enables us to move beyond simply observing caste-restricted markets and instead construct well-defined counterfactuals. These counterfactuals help us assess the extent to which observed marital patterns reflect preferences versus structural constraints imposed by caste. In doing so, the analysis sheds light on the material costs of maintaining caste as a social norm in partner selection.

Table 12: Summary Statistics for 125,790 Households

Variable	Mean	Std. Dev.	Min	Max
Assignable male private consumption	773.56	282.49	0	4783.33
Assignable female private consumption	814.29	325.23	0	16958.9
Public consumption	1308.17	990.77	0	34388.67
Male leisure	50.01	22.69	0	112
Female leisure	64.59	18.82	0	112
Male wage	74.04	65.01	0.02	4666.67
Female wage	50.54	48.13	0.07	800
Male age	33.54	18.14	0	99
Female age	35.71	17.81	0	109
Total Children	1.48	1.22	0	10

*Notes:* Summary statistics for household-level variables for 125,790 households. “Male/female leisure” is measured in hours per week. “Male/female wage” indicates hourly wage earnings. “Total children” is the number of children in the household. Statistics include mean, standard deviation, minimum, and maximum values.

Table 13: Summary Statistics for 1575 couples

Variable	Mean	Std. Dev.	Min	Max
Assignable male private consumption	779.86	206.77	232.17	1551.67
Assignable female private consumption	757.09	201.96	243.83	1816.50
Public consumption	1156.34	643.66	113.17	5472.83
Male leisure	37.47	7.80	14	63
Female leisure	30.50	8.79	3.5	73.5
Male wage	58.82	44.99	14.91	333.33
Female wage	38.18	33.11	9.58	333.33
Male age	45.37	6.89	26	65
Female age	40.79	6.73	22	62
Total children	1.82	1.14	0	7

*Notes:* Summary statistics for a subsample of 1,575 couples. “Male/female wage” refers to hourly wage earnings. The sample is restricted to adult couples, which explains narrower ranges and higher mean ages compared to the full household data. Values reported are mean, standard deviation, minimum, and maximum.

Table 14: Difference in Means: Raw Data vs. 1575 Couples

Variable	Absolute Diff.	% Diff.
Assignable male private consumption	-6.30	-0.81%
Assignable female private consumption	57.20	7.02%
Public consumption	151.83	11.61%
Male leisure	12.54	25.08%
Female leisure	34.09	52.78%
Male wage	15.22	20.57%
Female wage	12.36	24.46%
Male age	-11.83	-35.25%
Female age	-5.08	-14.21%
Total children	-0.34	-22.97%

*Notes:* This table compares mean values of household variables between the full sample (125,790 households) and the couples subsample (1,575 couples). “Absolute Diff.” is the difference in means (couples minus full sample). “% Diff.” is the relative difference expressed as a percentage.

## 5 Caste Restricted and Caste Neutral Remarriage Gain

When restrictions in the marriage market increase—for example, when individuals are limited by caste, education, or age-based eligibility—the individual rationality (IR) condition remains largely unaffected. This is because IR reflects each individual’s participation constraint: it ensures that a person is at least as well off in their current match as they would be if they remained single. Since this condition depends only on the individual’s own outside option—driven by their wage, non-labor income, leisure, and consumption—it does not vary with the size or structure of the feasible marriage market. In other words, tightening market restrictions changes who can potentially match but does not alter an individual’s reservation utility from remaining single. Hence, as shown in the appendix C, while market frictions influence matching outcomes and overall equilibrium, the IR constraints remain stable across different levels of marriage market restriction. In the appendix, we present summary statistics of the gains from becoming single ( $g_{m,\emptyset}^{IR}$  for men and  $g_{\emptyset,w}^{IR}$  for women) under caste-restricted and caste-plus-age-restricted markets, which capture the incentive to exit a marriage. This measure highlights the potential gain an individual could achieve by leaving their current match. On average, both men and women have gains close to one (men: 1.04; women: 1.02), indicating that most observed marriages are individually rational, that is, the majority of individuals would not improve their economic outcomes by becoming single. The maximum remarriage gain

is higher for women (up to 2.12), suggesting that a few women could achieve substantial gains by leaving their current marriage. The “Fraction 1” statistic shows that a large share of women (81–82%) and a smaller share of men (37–41%) have no potential gains from leaving, implying that social and demographic constraints disproportionately stabilize women’s marriages.

Values of  $g_{m,w}^{NBP}$  closer to one indicate that the current pairing is economically stable, while values above one correspond to higher potential gains from remarrying. Tables 15 and 16 present the 95<sup>th</sup> percentile of  $g_{m,w}^{NBP}$  across caste categories for men and women, respectively. Upper-caste men exhibit the lowest values of  $g_{m,w}^{NBP}$  under caste-restricted markets, implying that they have the largest potential gains from alternative matches, whereas lower-caste men (ST/SC) have indices closer to one, reflecting greater stability. Similarly, for women, the highest values of  $g_{m,w}^{NBP}$  are observed among upper-caste individuals, highlighting the interaction between social constraints and economic incentives. Introducing additional demographic restrictions, such as age and education, systematically decreases  $g_{m,w}^{NBP}$  across all groups, indicating that these constraints reinforce the economic stability of existing marriages. Overall, the  $g_{m,w}^{NBP}$  indices illustrate that while most marriages are largely stable, potential gains from remarriage are concentrated among upper caste individuals, particularly women.

Table 15: Summary Statistics of remarriage gain (95<sup>th</sup> percentile) for men by Caste Category

Caste Category	caste restricted	caste and age restricted	simulated with no restriction	simulated with age restriction	simulated with age and education restriction
ST	1.021 (0.055)	1.012 (0.037)	1.025 (0.033)	1.020 (0.035)	1.017 (0.035)
SC	1.033 (0.066)	1.017 (0.034)	1.026 (0.029)	1.022 (0.030)	1.020 (0.030)
OBC	1.037 (0.068)	1.021 (0.036)	1.029 (0.034)	1.026 (0.033)	1.025 (0.034)
Intermediate Caste	1.050 (0.067)	1.026 (0.053)	1.037 (0.056)	1.040 (0.059)	1.042 (0.058)
Upper Caste	1.138 (0.159)	1.034 (0.045)	1.034 (0.038)	1.026 (0.038)	1.027 (0.038)
Total	1.044 (0.086)	1.020 (0.038)	1.028 (0.035)	1.025 (0.035)	1.023 (0.035)

Notes: Values correspond to averages; the numbers in parentheses denote standard deviations.

Table 16: Summary Statistics of remarriage gain (95<sup>th</sup> percentile) for women by Caste Category

Caste Category	caste restricted	caste and age restricted	simulated with no restriction	simulated with age restriction	simulated with age and education restriction
ST	1.047 (0.068)	1.038 (0.064)	1.060 (0.027)	1.047 (0.024)	1.045 (0.025)
SC	1.043 (0.053)	1.033 (0.048)	1.060 (0.027)	1.047 (0.025)	1.046 (0.026)
OBC	1.055 (0.107)	1.031 (0.037)	1.052 (0.031)	1.044 (0.028)	1.044 (0.028)
Intermediate Caste	1.080 (0.104)	1.035 (0.060)	1.032 (0.036)	1.028 (0.034)	1.029 (0.034)
Upper Caste	1.162 (0.140)	1.042 (0.046)	1.050 (0.036)	1.040 (0.031)	1.042 (0.031)
Total	1.062 (0.098)	1.034 (0.048)	1.054 (0.031)	1.044 (0.028)	1.044 (0.028)

*Notes:* Values correspond to averages; the numbers in parentheses denote standard deviations.

We carried out a truncated regression model where the dependent variable is remarriage gain (95<sup>th</sup>) for males and females. Estimates from table 17 and 18 indicate that age and the size of the own marriage market are consistently positive and significant determinants of remarriage gains. Caste-related patterns are particularly pronounced. In the simulated case without caste restrictions, remarriage gains for upper-caste men and women decrease substantially.

Men from upper castes exhibit higher remarriage gains compared to lower-caste men, reflecting the advantage conferred by caste in shaping potential re-matching. For women, lower-caste groups experience significantly lower remarriage gains, whereas upper-caste women benefit more in caste-restricted settings. When caste restrictions are relaxed in simulated markets, women's remarriage gains increase for lower caste groups, indicating that greater market openness helps mitigate caste-based disadvantages. In contrast, upper-caste women do not see similar gains under relaxed restrictions: their favorable position in caste-restricted markets already provides high remarriage potential, and once restrictions are removed, increased competition from other groups reduces their relative advantage and diminishes their gains.

Table 17: Truncated Regression Estimates of Men's Remarriage Gain (95<sup>th</sup> Percentile): Panel A (No Education Controls) vs. Panel B (With Education Controls); Restricted (Caste, Age, Education) vs. Simulated (Age and Education)

Variable	Panel A: No Education Controls		Panel B: With Education Controls	
	Restricted	Simulated	Restricted	Simulated
<i>Education (ref: No/Primary)</i>				
Secondary	—	—	0.00431* (0.00221)	0.00623** (0.00216)
Higher Secondary	—	—	0.00356 (0.00326)	0.00521* (0.00315)
Graduate	—	—	-0.00188 (0.00519)	-0.00575 (0.00555)
Postgraduate	—	—	0.00436 (0.00541)	-0.00081 (0.00561)
<i>Caste (ref: ST)</i>				
SC	-0.00008 (0.00263)	-0.00231 (0.00223)	0.00245 (0.00287)	0.00136 (0.00283)
OBC	-0.00025 (0.00260)	-0.00236 (0.00222)	0.00520* (0.00283)	0.00536* (0.00281)
Intermediate Caste	-0.00155 (0.00434)	-0.00284 (0.00385)	0.01506*** (0.00471)	0.02423*** (0.00486)
Upper Caste	0.01210* (0.00345)	-0.00495* (0.00291)	0.02178*** (0.00380)	0.00955** (0.00373)
Age (yrs)	0.00072*** (0.00014)	0.000583*** (0.000124)	0.000701*** (0.000153)	0.000621*** (0.000160)
Individual's marriage market	0.00057*** (0.00013)	0.000289** (0.000108)	0.000591*** (0.000145)	0.000287** (0.000138)
Spouse's marriage market	-0.00016 (0.00014)	-0.000144 (0.000111)	-0.000187 (0.000148)	-0.000155 (0.000140)
Wage (hourly)	0.00034*** (0.00002)	0.000495*** (0.0000166)	—	—
Total children	0.00215** (0.00081)	0.001046 (0.000687)	0.001357 (0.000883)	-0.000283 (0.000875)
Observations	1,575	1,431	1,575	1,431

Notes: Standard errors in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

The reference category for caste is ST. Reference for education is No/Primary. The dependent variable is men's remarriage gain. Panel A omits education controls; Panel B includes educational attainment as a control variable.

Table 18: Truncated Regression Estimates of Women's Remarriage Gain (95<sup>th</sup> Percentile): Panel A (No Education Controls) vs. Panel B (With Education Controls); Restricted (Caste, Age, Education) vs. Simulated (Age and Education)

Variable	Panel A: No Education Controls		Panel B: With Education Controls	
	Restricted	Simulated	Restricted	Simulated
<i>Education (ref: No/Primary)</i>				
Secondary	–	–	0.00492 (0.00319)	-0.00132 (0.00179)
Higher Secondary	–	–	0.00786 (0.00489)	-0.00402 (0.00282)
Graduate	–	–	-0.00602 (0.00593)	-0.00529 (0.00354)
Postgraduate	–	–	-0.00101 (0.00710)	-0.00066 (0.00415)
<i>Caste (ref: ST)</i>				
SC	-0.00915** (0.00354)	-0.00388* (0.00199)	-0.00884** (0.00353)	-0.00337* (0.00201)
OBC	-0.01443*** (0.00348)	-0.00811*** (0.00198)	-0.01398*** (0.00347)	-0.00687*** (0.00199)
Intermediate Caste	-0.000067 (0.00575)	-0.01565*** (0.00339)	0.00119 (0.00576)	-0.01187*** (0.00344)
Upper Caste	0.00354 (0.00467)	-0.00570** (0.00263)	0.00501 (0.00468)	-0.00167 (0.00266)
Age (yrs)	0.00072*** (0.00019)	0.00067*** (0.00011)	0.00074*** (0.00019)	0.00064*** (0.00011)
Individual's marriage market	0.00017 (0.00018)	0.00036*** (0.00010)	0.00015 (0.00018)	0.00036*** (0.00010)
Spouse's marriage market	0.00063*** (0.00018)	0.00028*** (0.00010)	0.00063*** (0.00018)	0.00029*** (0.00010)
Wage (hourly)	0.00003 (0.00004)	0.00011*** (0.00002)	–	–
Total children	0.00025 (0.00107)	0.00094 (0.00061)	0.00025 (0.00107)	0.00078 (0.00061)
Constant	0.99743*** (0.00916)	0.98944*** (0.00537)	0.99655*** (0.00921)	1.00978*** (0.00544)
Observations	1,575	1,436	1,575	1,436

Notes: Standard errors in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

The reference category for caste is ST. Reference for education is No/Primary. The dependent variable is women's remarriage gain. Panel A omits education controls; Panel B includes educational attainment as a control variable.

## 6 Cost of caste

We begin by examining the distribution of changes in remarriage gain, defined as the difference between the simulated case with no caste restriction and the caste-restricted case, at the 95<sup>th</sup> percentile. We use the 95<sup>th</sup> percentile statistic as our measure of remarriage gain throughout the paper. From this point onward, we refer to this measure simply as remarriage gain, without explicitly mentioning the 95<sup>th</sup> percentile. Figure 1 shows how these changes vary across gender and caste groups. The table 21 compares the distribution of remarriage gains for men and women under caste-neutral versus caste-restricted scenarios. Overall, women experience slightly higher gains than men, with a mean of 0.0066 compared to 0.0010 for men, and a median gain of 0.0168 versus 0.0039, indicating that a typical woman benefits more from remarriage than a typical man. While the majority of both genders-around 64%-see positive gains, men exhibit more extreme outcomes, with the largest gains (0.1954) and losses (-0.1904) exceeding those of women. Women's gains, in contrast, are more variable overall, reflected in a higher standard deviation. These patterns suggest that while most individuals benefit from remarriage, the effects are more evenly distributed for women, whereas men's gains are concentrated at the extremes.

For women, education improves the likelihood of a positive gain in remarriage, especially for women of lower-castes; it does not compensate for the strong caste-based constraints that suppress the benefits of remarriage of women in higher castes. In lower castes (ST, SC, OBC), education tends to enhance or at least support positive remarriage gains for both men and women, with particularly strong effects for women. As education increases from secondary to graduate and postgraduate levels, the proportion of individuals experiencing positive gains generally rises, and mean gains remain small but largely positive. This suggests that in lower castes, education expands economic and social opportunities, improving remarriage prospects and reducing traditional barriers, allowing both genders, especially women, to benefit from upward mobility and wider partner markets.

In upper castes, however, education shows a very different and more restrictive pattern. Here, higher education is often associated with declining remarriage gains, particularly for women. Mean gains frequently become negative at higher education levels, and the share of individuals with positive gains drops sharply. This reflects stronger adherence to caste norms. Thus, while education tends



to empower individuals from lower castes once the market is caste-neutral, in upper castes, it can reinforce social constraints, reducing the net welfare gains from remarriage.

The distributions in Figure 2 highlight striking differences in how remarriage gains are spread across castes and between genders. For women, the distributions are generally right-skewed, with most values clustering slightly above zero—indicating that the majority experience small positive gains from caste-neutral remarriage—but with noticeable left tails suggesting a minority who lose out. Among ST, SC, and OBC women, the density peaks are concentrated around small positive values (0.02–0.05), showing that gains are both widespread and moderate in these groups. These distributions also have heavier right tails, implying that a subset of women achieve substantial improvements under caste-neutral settings. In contrast, intermediate and upper-caste women show distributions with many individuals around zero but a significant number of women in the negative region, suggesting more uneven outcomes and a higher likelihood of losing out when caste restrictions are lifted.

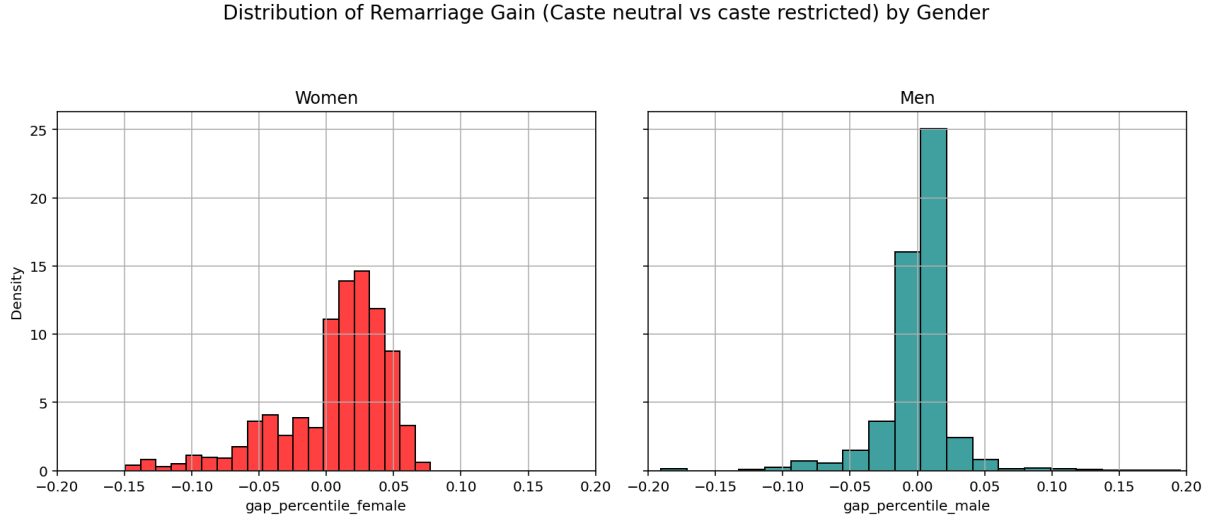
For men, the distributions are much tighter and more symmetric around zero, particularly for the ST, SC, and OBC groups, implying that men's remarriage gains are more stable and less extreme. The peaks are steep, and the tails are thin, meaning most men's outcomes cluster near zero, with only limited movement in either direction. Intermediate-caste men, however, display a noticeably broader and flatter distribution, with a long right tail extending up to 0.2—indicating that while many see little change, a few experience large positive gains. Upper-caste men show a mild left skew, suggesting a tendency toward small losses. Overall, these distributions reveal that caste-neutral remarriage markets benefit women more broadly and variably, especially in lower castes, while men's gains are more concentrated and moderate.

Table 19: Change in individual remarriage gain by education within each caste (Women and Men)

Caste	Education Category	Women Mean (SD)	Men Mean (SD)
ST	No/Primary	0.0032 (0.0615)	0.0029 (0.0104)
	Secondary	0.0039 (0.0569)	0.0067 (0.0119)
	Higher secondary	-0.0089 (0.0590)	0.0051 (0.0065)
	Graduate	0.0352 (.)	0.0051 (.)
	Postgraduate	0.0401 (.)	0.0142 (0.0149)
	Overall	0.0034 (0.0601)	0.0041 (0.0106)
SC	No/Primary	0.0126 (0.0361)	0.0021 (0.0192)
	Secondary	0.0034 (0.0359)	0.0001 (0.0190)
	Higher secondary	-0.0117 (0.0349)	-0.0009 (0.0124)
	Graduate	-0.0062 (0.0313)	0.0060 (0.0077)
	Postgraduate	0.0010 (0.0261)	0.0047 (0.0031)
	Overall	0.0098 (0.0363)	0.0014 (0.0186)
OBC	No/Primary	0.0122 (0.0343)	0.0013 (0.0290)
	Secondary	0.0058 (0.0292)	0.0017 (0.0323)
	Higher secondary	0.0049 (0.0295)	0.0032 (0.0233)
	Graduate	0.0094 (0.0161)	-0.0084 (0.0543)
	Postgraduate	0.0040 (0.0240)	-0.0059 (0.0554)
	Overall	0.0103 (0.0326)	0.0012 (0.0307)
Intermediate Caste	No/Primary	-0.0125 (0.0502)	0.0104 (0.0551)
	Secondary	-0.0073 (0.0449)	0.0016 (0.0306)
	Higher secondary	-0.0471 (0.0493)	0.0372 (0.0713)
	Graduate	-0.0113 (0.0396)	0.0118 (0.0143)
	Postgraduate	-0.0079 (0.0547)	-0.0029 (0.0153)
	Overall	-0.0137 (0.0481)	0.0099 (0.0460)
Upper Caste	No/Primary	-0.0038 (0.0369)	-0.0092 (0.0460)
	Secondary	-0.0117 (0.0382)	-0.0027 (0.0305)
	Higher secondary	-0.0056 (0.0291)	-0.0161 (0.0322)
	Graduate	0.0052 (0.0236)	-0.0137 (0.0293)
	Postgraduate	0.0096 (0.0201)	-0.0132 (0.0195)
	Overall	-0.0027 (0.0338)	-0.0093 (0.0368)

*Notes:* This table presents summary statistics for the change in individual remarriage gain across education categories within each caste group, separately for women and men. The row reports the mean change in remarriage gain, with the standard deviation (SD) shown in parentheses, capturing within-group variation. The “Overall” row provides the corresponding summary statistics aggregated across all education categories within each caste.

Figure 1



To assess these descriptive patterns, we next run OLS regressions with the change in remarriage<sup>6</sup> gain as the dependent variable.

**Determinants of difference in remarriage gain** Next, we explore in detail the relationship between the change in remarriage gain for men and women and other key covariates. Table 20 reports regression estimates of the difference in remarriage gain at the 95<sup>th</sup> percentile, separated by gender and education status. The analysis includes a set of controls such as age, caste, size of the marriage market, wage, and number of children. Each coefficient represents the change in the dependent variable relative to the omitted reference group—“No/primary education” for the Education level and “ST” for caste category.

$$Y_i = \alpha + \beta \text{Edu}_i + \gamma_1 \text{CasteCategory}_i + \gamma_2 \text{Age}_i + \gamma_3 \text{Wage}_i + \gamma_4 \text{TotalChildren}_i + \varepsilon_i \quad (1)$$

where  $Y_i$  is the change in remarriage gain for individual

The regression results in Table 20 highlight that the effects of relaxing caste restrictions are strongly caste- and gender-specific. For men, upper-caste individuals experience a notable decline

<sup>6</sup>Remarriage gain in caste neutral scenario- Remarriage gain in caste restricted setting

Figure 2

Distribution of Remarriage Gain (Caste neutral vs caste restricted) by Gender and Caste

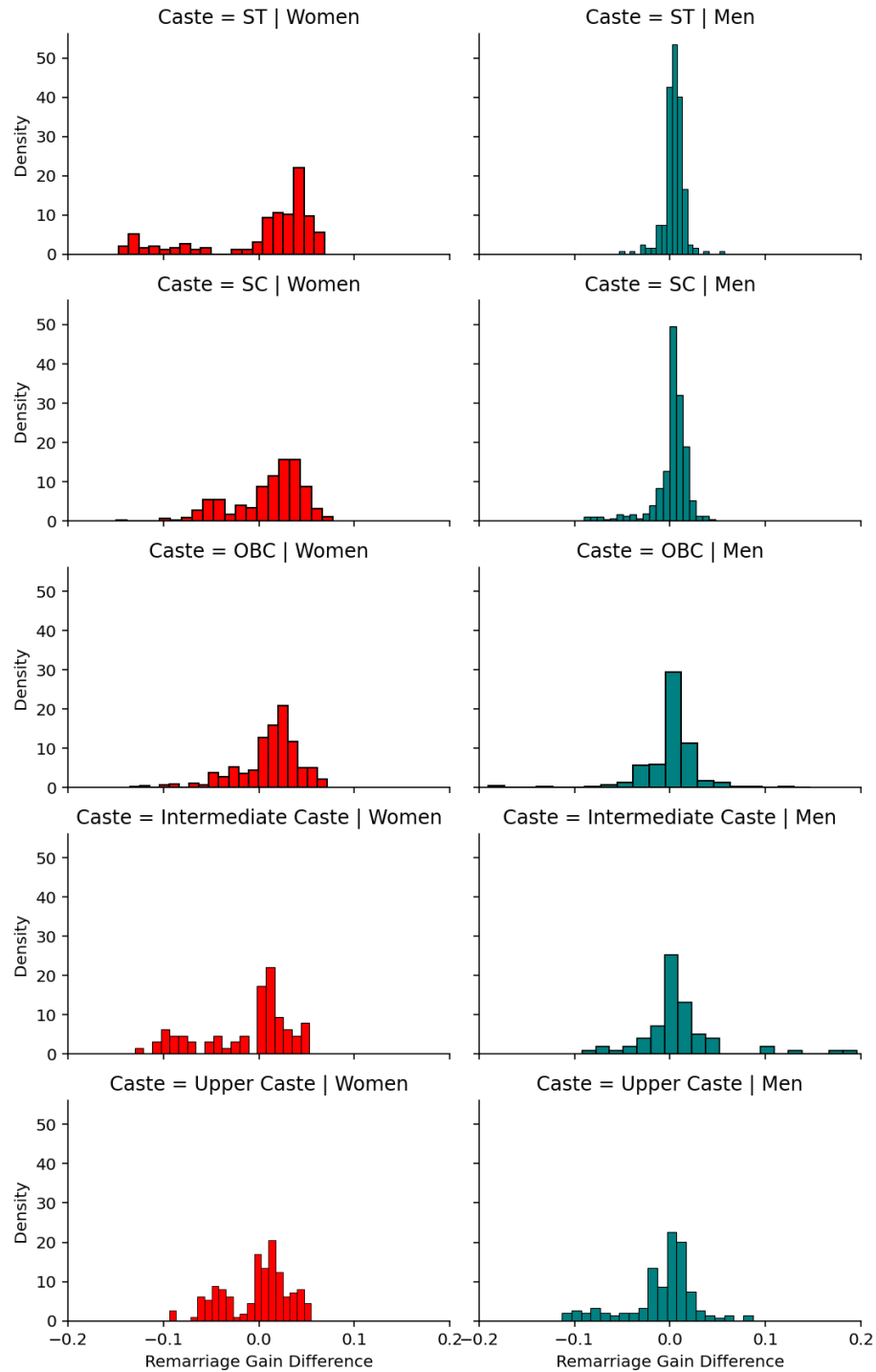


Table 20: Regression Results for change in remarriage Gain for Men and Women

Variable	Panel A: Men		Panel B: Women	
	No edu	edu	No edu	edu
Constant (ST category; other covariates at zero)	0.013480** (0.006290)		0.014640 (0.008860)	
Constant (ST category with no education; other covariates at zero)		0.015685** (0.006324)		0.018447** (0.008890)
<i>Caste (ref: ST)</i>				
SC	-0.002221 (0.002150)	-0.002380 (0.002127)	0.006465** (0.003284)	0.006465** (0.003284)
OBC	-0.002769 (0.002130)	-0.002755 (0.002116)	0.008000** (0.003262)	0.008000** (0.003262)
Intermediate Caste	-0.002241 (0.003710)	-0.000215 (0.003697)	-0.016156*** (0.005624)	-0.016156*** (0.005624)
Upper Caste	-0.017350*** (0.002800)	-0.014957*** (0.002810)	-0.006063 (0.004369)	-0.006063 (0.004369)
<i>Education (ref: No/Primary Edu)</i>				
Secondary	—	-0.000035 (0.001632)	—	-0.006203** (0.002933)
Higher Sec	—	-0.001459 (0.002393)	—	-0.015020*** (0.004669)
Graduate	—	-0.017533*** (0.004394)	—	-0.003776 (0.006457)
Postgraduate	—	-0.020860*** (0.004506)	—	-0.006086 (0.007858)
Age	-0.000210* (0.000120)	-0.000277* (0.000120)	-0.000405** (0.000187)	-0.000405** (0.000187)
Individual's marriage market	-0.000241** (0.000104)	-0.000214* (0.000103)	0.000205 (0.000164)	0.000205 (0.000164)
Spouse's marriage market	0.000018 (0.000106)	-0.000010 (0.000105)	-0.000259 (0.000160)	-0.000259 (0.000160)
Total Children	-0.001151* (0.000660)	-0.001493* (0.000657)	0.000784 (0.001004)	0.000784 (0.001004)
Wage (hourly)	0.000119*** (0.000016)	0.000161*** (0.000018)	0.000070 (0.000043)	0.000070 (0.000043)
1- Constant	0.986500	0.984315	0.985400	0.981553
R-squared	0.091700	0.112200	0.033200	0.042100
Observations	1,431	1,431	1,436	1,436

Notes: Standard errors in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

The dependent variable is Diff in Remarriage-gain.

Some men and women are excluded from the analysis because, after applying caste, education, and age restrictions, their marriage market size was zero; as a result, these individuals could not be included in the estimation, which explains the smaller number of observations.

The “ST category” and “ST category with no education” represent the predicted change in remarriage gain for ST individuals and for ST individuals with no education, respectively. In columns without education dummies, the “ST category” serves as the reference group, while in columns with education dummies, the “ST category with no education” serves as the reference group. All other coefficients indicate differences in remarriage gain relative to the respective reference group, holding other factors constant.

in remarriage gains when moving from restricted to simulated markets. This occurs because upper-caste men already occupy advantageous positions in caste-restricted settings, and removing these restrictions increases competition from other caste groups, thereby reducing their relative advantage. In contrast, intermediate- and lower-caste men show little change in their remarriage gains, suggesting that relaxing caste constraints provides limited additional benefit to these groups. Education has minimal impact on men's change in gains, indicating that caste and pre-existing status play a more decisive role than schooling in shaping relative remarriage opportunities.

For women, the effects of relaxing caste restrictions are more nuanced. Lower-caste women (SC and OBC) experience small positive changes in their remarriage gains, reflecting the reduction of caste-based constraints in simulated markets. However, intermediate- and upper-caste women see a decrease in their remarriage gains, as the removal of restrictions introduces competition from lower-caste women who previously had limited opportunities.

While upper-caste men hold a structural advantage that diminishes under more open markets, women's gains are highly sensitive to caste and competition effects. Relaxing caste restrictions offers some improvement for disadvantaged women but also redistributes advantages, sometimes reducing gains for women from higher-status groups. The findings emphasize that caste continues to confer asymmetric advantages.

**Who is better off?** We perform an additional analysis to examine which individuals benefit the most from the removal of caste restrictions and identify the factors driving these differences. For each person, we consider the 200 simulated caste-neutral markets - constructed while controlling for age and education - to calculate potential remarriage gains. We then determine how often these simulated gains exceed the individual's observed gain under caste-constrained conditions.

Analysis of remarriage gains in Table 21 shows a clear divergence in how gains from a caste-neutral scenario vary by education across caste groups. Among ST and SC groups, average percentage gains tend to increase with education, with the largest gains observed among individuals with Graduate and Postgraduate education. This pattern suggests that higher-educated individuals from disadvantaged caste groups benefit disproportionately when caste-based constraints are removed,

possibly because their educational investments translate more effectively into improved marriage outcomes once social barriers are relaxed.

In contrast, the pattern reverses for upper caste groups, where gains are highest among individuals with lower levels of education and decline systematically with additional schooling. For upper castes, highly educated individuals experience relatively small gains under the caste-neutral scenario, indicating that caste-based advantages may already be largely capitalized among this group. Taken together, these results indicate strong heterogeneity in the role of caste across the education distribution: caste constraints appear most costly for highly educated individuals from lower castes, whereas for upper castes, they play a more prominent role at lower levels of education.

Table 21: Change in individual remarriage gain by education within each caste (Women and Men)

Caste	Education Category	Women Mean (SD)	Men Mean (SD)
ST	No/Primary	30.30 (25.94)	30.30 (25.94)
	Secondary	39.96 (25.61)	39.96 (25.61)
	Higher secondary	41.26 (24.81)	41.26 (24.81)
	Graduate	5.50 (.)	5.50 (.)
	Postgraduate	49.75 (63.29)	49.75 (63.29)
	Overall	33.49 (26.37)	33.49 (26.37)
SC	No/Primary	36.88 (29.33)	36.88 (29.33)
	Secondary	39.26 (29.04)	39.26 (29.04)
	Higher secondary	36.95 (24.58)	36.95 (24.58)
	Graduate	49.57 (45.87)	49.57 (45.87)
	Postgraduate	39.38 (25.88)	39.38 (25.88)
	Overall	37.77 (29.17)	37.77 (29.17)
OBC	No/Primary	35.00 (29.03)	35.00 (29.03)
	Secondary	36.55 (32.55)	36.55 (32.55)
	Higher secondary	28.56 (29.47)	28.56 (29.47)
	Graduate	30.96 (37.29)	30.96 (37.29)
	Postgraduate	21.32 (28.88)	21.32 (28.88)
	Overall	34.17 (30.27)	34.17 (30.27)
Intermediate Caste	No/Primary	31.48 (34.44)	31.48 (34.44)
	Secondary	30.78 (28.34)	30.78 (28.34)
	Higher secondary	45.85 (38.20)	45.85 (38.20)
	Graduate	26.08 (27.80)	26.08 (27.80)
	Postgraduate	14.40 (10.66)	14.40 (10.66)
	Overall	30.41 (30.79)	30.41 (30.79)
Upper Caste	No/Primary	36.87 (35.80)	36.87 (35.80)
	Secondary	35.46 (34.41)	35.46 (34.41)
	Higher secondary	17.71 (21.11)	17.71 (21.11)
	Graduate	11.77 (15.47)	11.77 (15.47)
	Postgraduate	17.63 (20.57)	17.63 (20.57)
	Overall	29.39 (32.06)	29.39 (32.06)

*Notes:* This table reports mean percentage gains under the caste-neutral scenario by education category within each caste, separately for women and men. Standard deviations are shown in parentheses. The “Overall” row aggregates across education categories within caste. Dots indicate a single observation.

We model the determinants of remarriage gains using a fractional logit approach, as the dependent variable is a fraction bounded between 0 and 1. The fractional logit model specifies the expected fraction of scenarios in which an individual's remarriage gain under caste-neutral conditions exceeds that under caste-restricted conditions as a function of covariates:

The model specifies the conditional expectation of  $y_i$  as

$$\mathbb{E}[y_i | X_i] = G(X_i\beta),$$

where ,

$y_i$  is the fraction of simulated scenarios in which individual  $i$ 's remarriage gain under caste-neutral conditions exceeds that under caste-restricted conditions, so that  $y_i \in [0, 1]$ .

$X_i$  is a vector of individual characteristics (caste, education, age, wage, number of children, etc.),

$\beta$  is a vector of parameters to be estimated, and

$G(\cdot)$  is the logistic function

For men, caste plays a significant role in determining remarriage gains under caste-neutral conditions. Relative to the Scheduled Tribes (ST) reference group, individuals from the intermediate caste experience substantially lower probabilities of higher gains, indicating that caste-neutral scenarios benefit them less often. Men from upper castes also show negative associations, though smaller in magnitude, while men from the Scheduled Castes (SC) and Other Backward Classes (OBC) do not differ significantly from ST men. These results suggest that, among men, being in historically higher or intermediate castes is associated with fewer gains from caste-neutral remarriage opportunities compared to ST men. For women, caste differences in remarriage gains under caste-neutral conditions are even more pronounced. Intermediate caste women have strongly negative coefficients, indicating a much lower likelihood of higher gains compared to ST women. Upper caste women also experience significant negative effects. In contrast, Scheduled Caste (SC) women show modest negative effects only when controlling for education, while OBC women do not differ significantly from ST women. Overall, these patterns suggest that caste plays a larger role in constraining remarriage gains for women than for men under caste-neutral conditions.



Table 22: Fractional Logit Regression Estimates of Gain from Remarriage by Caste and Education

Variable	Panel A: Men		Panel B: Women	
	No edu	Edu	No edu	Edu
Constant (ST category; other covariates at zero)	-0.80745 (0.29482)		0.29569 (0.25882)	
Constant (ST category with no education; other covariates at zero)		-0.56602 (0.30464)		0.45412 (0.26053)
<i>Caste (ref: ST)</i>				
SC	0.12599 (0.10033)	0.10622 (0.10379)	-0.20745 (0.10751)	-0.21669* (0.10742)
OBC	-0.09432 (0.10146)	-0.09057 (0.10562)	-0.15236 (0.10407)	-0.13660 (0.10413)
Intermediate Caste	-0.54184** (0.21631)	-0.40294 (0.22514)	-1.06669*** (0.19476)	-0.99145*** (0.19564)
Upper Caste	-0.40469** (0.15921)	-0.22441 (0.15711)	-0.57861*** (0.12808)	-0.52467*** (0.13023)
<i>Education (ref: No/ Primary Edu)</i>				
Secondary	—	0.00018 (0.08069)	—	-0.26942** (0.09020)
Higher Secondary	—	-0.39942** (0.12475)	—	-0.63139*** (0.13338)
Graduate	—	-1.30708*** (0.31909)	—	-0.35851* (0.18277)
Postgraduate	—	-1.64923*** (0.26251)	—	-0.29122 (0.22977)
Age	-0.00609 (0.00549)	-0.01289 (0.00562)	-0.01632 (0.00523)	-0.019583 (0.005264)
Individual's marriage market	0.02764** (0.00985)	0.01346** (0.00509)	0.01751*** (0.00452)	0.01807*** (0.00463)
Spouse's marriage market	-0.02947** (0.01060)	-0.01153* (0.00505)	-0.00430 (0.00437)	-0.00386 (0.00448)
Wage (hourly)	0.00969*** (0.00106)	0.01059*** (0.00124)	0.00238* (0.00100)	0.00408** (0.00133)
Total Children	0.01564 (0.06385)	0.00009 (0.03254)	0.07562* (0.02993)	0.06520* (0.02982)
Observations	1,431	1,431	1,436	1,436

Notes: Standard errors in parentheses.

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

The table reports results from a fractional logistic regression, where the dependent variable is the fraction of cases in which the remarriage gain in the caste-neutral setting exceeds the gain in the caste-restricted setting.

**Discussion** For women, the impact of relaxing caste restrictions is more complex. Women from lower-caste groups (SC and OBC) experience modest increases in remarriage gains, reflecting the easing of caste-based barriers in the simulated markets. In contrast, women in intermediate- and upper-caste groups see their gains decrease, as the removal of restrictions allows lower-caste women—who previously faced limited opportunities—to compete more effectively. Although upper-caste men retain structural disadvantages that are somewhat reduced in more open markets. Looking closely at the remarriage gains, a clear pattern emerges when we focus on people who do better in caste neutral setup than in caste restricted setting in at least 95% of simulations. Among women, it's the socially marginalized-ST, OBC, and SC—who stand to gain the most, while intermediate- and upper-caste women see very little change. Men, by contrast, generally see positive gains across all castes, though upper-caste men enjoy a slight edge. For this top gainers, we can say that removing caste restrictions seems to open doors most for women who were previously constrained because of caste, while men's opportunities are less sensitive to caste.

Table ?? indicates that men from Upper Caste and Intermediate Caste groups experience significantly lower remarriage gains than those from the Scheduled Tribes (ST). In contrast, OBC and SC men show small negative effects that are not statistically significant. However, men from OBC, SC and Upper caste are significantly more likely to appear among the highest gainers compared to the ST baseline. In other words, while caste differences in average gains are small or even negative, higher-caste men are overrepresented among those who gain the most. This contrast suggests that caste influences the intensity and extremity of the gains rather than their average level. In other words, it implies that even though some groups do not gain more on average, when they do, they tend to experience larger gains. For women in Table ?? also reveal that ST women have positive average remarriage gains, while SC and OBC women gain slightly more and Upper Caste women gain less on average. However, these average differences are modest in magnitude. However, ST women are significantly more likely to be in the extreme gainer category, whereas SC, OBC, and especially Upper Caste women are much less likely to reach that upper tail. Thus, while average gains are relatively even or even slightly higher for SC and OBC women, the probability of achieving very high remarriage gains is concentrated among the most marginalized, i.e., ST group. These results suggest that for women, social advantage does not necessarily translate into

higher remarriage gains. While average outcomes appear relatively similar across caste groups, the probability of achieving very high gains is greater among women from marginalized castes, particularly ST, whereas upper-caste women are less likely to reach the top of the distribution.

## 7 Conclusion

This paper analyzes the economic consequences of caste-based constraints in marriage markets in India, focusing on the material gains of marriage. Using the revealed-preference framework of Cherchye et al. (2017), we operationalized the concept of remarriage gains as structural measures of exit options, which shape both individual welfare and intra-household bargaining power.

By constructing caste-restricted marriage markets and comparing them with simulated counterfactuals where caste barriers are removed, we were able to quantify the welfare cost of caste endogamy. We find caste constraints severely limit individuals' opportunities for deviation from caste-based inequities and improves one's welfare through alternative matches. The welfare gains in particular were significant for lower caste women when caste constraints are relaxed, while upper caste men and women often fare better under the existing system. This asymmetry helps explain why caste boundaries remain durable: they protect the relative bargaining position of upper caste men and women.

Our findings contribute to the broader literature by demonstrating that the welfare costs imposed by caste restrictions, even if observables for partners are similar, like education and age, continue to impose measurable welfare losses. On a more general level, the findings highlight how social norms can create inefficiencies in the allocation of resources. The relaxation of caste boundaries across the market would not only expand individual choice but also promote their economic welfare. While our analysis does not suggest that individuals would, in practice, freely marry outside their caste, it does point to the opportunity cost of caste as a binding norm for the selection of partners.

One limitation of our analysis is that we do not account for dowry, which is a central institution in the Indian marriage market. Dowry not only affects the matching process but also interacts with caste, often reinforcing existing hierarchies. Incorporating dowry as part of the integrated structure would most likely deepen our understanding of the economic mechanism sustaining caste endogamy.

The first direction for follow-up research could focus on dowry practices and their role in shaping marital outcomes. According to Calvi and Keskar (2021), dowries help secure the bride's economic

position and reduce her post-marriage poverty risk. So, dowries can act as a commitment device in marriage, and thus it would be interesting to analyze the potential gains from remarriage in the presence of dowries.

The second potential direction for follow-up research could be to examine the educational effects when the material gain from education within caste marriage is limited. Education acts as a signal in marriage markets, affecting both the probability of matching with a desirable partner and the quality of the match. Studies such as Chiappori et al. (2017) and Chiappori et al. (2018) have formalized this idea, showing that anticipated marital returns can influence educational choices. Building on this, it can be investigated how education decisions respond when the expected marital returns within a caste are negligible. A partial analysis in this context can be useful to shed light on these patterns and understand how social constraints influence incentives for human capital investment.

A third limitation of our analysis is that we do not account for unemployed individuals. Employment status can influence both the probability of divorce and remarriage, and conversely, marital disruptions may affect labor market participation decisions and earnings. Cherchye et al. (2024) address this limitation by developing a collective consumption framework that explicitly incorporates households with unemployed members. Incorporating similar approaches in future research would provide a richer understanding of the economic mechanisms linking caste, marriage, and individual welfare.

In conclusion, this work shows that caste endogamy comes with material costs, especially for women. These costs can partially explain the persistence of caste boundaries as well as gender asymmetries in Indian households. Understanding the material cost of caste in marriage markets provides a deeper understanding of family economics and of gender inequality more broadly in Indian society.

## References

- Abramitzky, R., Delavande, A., and Vasconcelos, L. (2011). Marrying up: The role of sex ratio in assortative matching. *American Economic Journal: Applied Economics*, 3(3):124–157.
- Akerlof, G. A. (1976). The economics of caste and of the rat race and other woeful tales. *The Quarterly Journal of Economics*, 90(4):599–617.
- Allendorf, K. and Pandian, R. K. (2016). The decline of arranged marriage? marital change and continuity in india. *Population and Development Review*, 42(3):435–464.
- Anderson, S. (2003). Why dowry payments declined with modernization in india. *Journal of Political Economy*, 111(2):269–310.
- Banerjee, A. V., Duflo, E., Ghatak, M., and Lafortune, J. (2013). Marry for what? caste and mate selection in modern india. *American Economic Journal: Microeconomics*, 5(2):33–72.
- Becker, G. S. (1973). A theory of marriage: Part i. *Journal of Political Economy*, 81(4):813–846.
- Becker, G. S. (1974). A theory of marriage: Part ii. *Journal of Political Economy*, 82(2):S11–S26.
- Becker, G. S. (1981). *A Treatise on the Family*. Harvard University Press, Cambridge, MA.
- Bidner, C. and Eswaran, M. (2015). A gender-based theory of the origin of the caste system of india. *Journal of Development Economics*, 114:142–158.
- Browning, M., Chiappori, P.-A., and Weiss, Y. (2014). *Economics of the Family*. Cambridge University Press, Cambridge.
- Browning, M. J., Cherchye, L., Demuynck, T., De Rock, B., and Vermeulen, F. (2024). Spouses with benefits: On match quality and consumption inside households. Technical Report 14/24, CEBI Working Paper Series.
- Calvi, R. and Keskar, A. (2021). Dowries, resource allocation, and poverty. *Journal of Economic Behavior Organization*, 192:268–303.

- Cherchye, L., De Rock, B., Lewbel, A., and Vermeulen, F. (2015). Sharing rule identification for general collective consumption models. *Econometrica*, 83(5):2001–2041.
- Cherchye, L., De Rock, B., and Surana, K. (2024). Labor market participation, marriage and individual welfare. Technical report, FEB Research Report Department of Economics.
- Cherchye, L., De Rock, B., and Vermeulen, F. (2007). The collective model of household consumption: A nonparametric characterization. *Econometrica*, 75(2):553–574.
- Cherchye, L., De Rock, B., and Vermeulen, F. (2009). Opening the black box of intrahousehold decision making: Theory and nonparametric empirical tests of general collective consumption models. *Journal of Political Economy*, 117(6):1074–1104.
- Cherchye, L., De Rock, B., and Vermeulen, F. (2011). The revealed preference approach to collective consumption behaviour: Testing and sharing rule recovery. *Review of Economic Studies*, 78(1):176–198.
- Cherchye, L., Demuynck, T., De Rock, B., and Vermeulen, F. (2017). Household consumption when the marriage is stable. *American Economic Review*, 107(6):1507–1534.
- Chiappori, P.-A., Dias, M. C., Crossman, S., et al. (2020). Changes in assortative matching and inequality in income: Evidence for the uk. NBER Working Paper 26933, National Bureau of Economic Research.
- Chiappori, P.-A., Dias, M. C., and Meghir, C. (2018). The marriage market, labor supply, and education choice. *Journal of Political Economy*, 126(S1):S26–S72.
- Chiappori, P.-A. and Mazzocco, M. (2018). The economics and econometrics of household consumption. *Journal of Economic Literature*, 56(1):95–164.
- Chiappori, P.-A., Salanié, B., and Weiss, Y. (2017). Partner choice, investment in children, and the marital college premium. *The American Economic Review*, 107(8):2109–2167.
- Desai, S. and Dubey, A. (2012). Caste in 21st century india: Competing narratives. *Economic and Political Weekly*, 46(11):40–49.

- Deshpande, A. and Ramachandran, R. (2024). Caste disparities and affirmative action in india. *Oxford Review of Economic Policy*, 40(3):630–640.
- Dommaraju, P. (2016). Divorce and separation in india. *Population and Development Review*, 42(2):195–223.
- Dribe, M. and Lundh, C. (2005). Finding the right partner: Rural homogamy in nineteenth-century sweden. *International Review of Social History*, 50(S13):149–177.
- Eika, L., Mogstad, M., and Zafar, B. (2019). Educational assortative mating and household income inequality. *Journal of Political Economy*, 127:2795–2835.
- Fagereng, A., Guiso, L., and Pistaferri, L. (2024). Marriage, assortative mating and wealth inequality. Unpublished manuscript. Revise and Resubmit.
- Fuller, C. J. and Narasimhan, H. (2008). Companionate marriage in india: the changing marriage system in a middle-class brahman subcaste. *Journal of the Royal Anthropological Institute*, 14(4):736–754.
- Goli, S., Singh, D., and Sekher, T. V. (2013). Exploring the myth of mixed marriages in india: Evidence from a nation-wide survey. *Journal of Comparative Family Studies*, 44(2):193–206.
- Hitsch, G. J., Hortaçsu, A., and Ariely, D. (2010). What makes you click?—mate preferences in online dating. *Quantitative Marketing and Economics*, 8(4):393–427.
- Hoppe, H. C., Moldovanu, B., and Sela, A. (2009). The theory of assortative matching based on costly signals. *Review of Economic Studies*, 76(1):253–281.
- Jeffery, P. (2018). *Don't Marry Me to a Plowman!: Women's Everyday Lives in Rural North India*. Routledge.
- Kaur, R. (2004). Across-region marriages: Poverty, female migration and the sex ratio. *Economic and Political Weekly*, 39(25):2595–2603.
- Lafortune, J. (2013). Making yourself attractive: Pre-marital investments and the returns to education in the marriage market. *American Economic Journal: Applied Economics*, 5(2):151–178.



- Lanzinger, M. (2005). Homogamy in a society orientated towards stability: A micro-study of a south tyrolean market town, 1700–1900. *International Review of Social History*, 50(S13):123–148.
- Luke, N. and Munshi, K. (2011). Women as agents of change: Female income and mobility in india. *Journal of Development Economics*, 94(1):1–17.
- Munshi, K. (2011). Strength in numbers: Networks as a solution to occupational traps. *The Review of Economic Studies*, 78(3):1069–1101.
- Munshi, K. (2019). Caste and the indian economy. *Journal of Economic Literature*, 57(4):781–834.
- Munshi, K. and Rosenzweig, M. (2006). The efficiency of parochial politics: Caste, commitment, and competence in indian local governments. *NBER Working Paper No. 14335*.
- Ray, T., Chaudhuri, A. R., and Sahai, K. (2020). Whose education matters? an analysis of inter caste marriages in india. *Journal of Economic Behavior & Organization*, 176:619–633.
- Rosenzweig, M. R. and Stark, O. (1989). Consumption smoothing, migration, and marriage: Evidence from rural india. *The Journal of Political Economy*, 97(4):905–926.
- Titzmann, F.-M. (2013). Changing patterns of matchmaking: The indian online matrimonial market. *Asian Journal of Women's Studies*, 19(4):115–146.

## A Data- Sample selection

Table 23: CPHS (October 2021)

Selection Step	N (Observation dropped)
Raw data	178,677
Keep if the response status of the hh is “Accepted”	134,436 (44,241)
Keep if no discrepancy in the total expenditure	125,790 (8,646)
Keep if the no discrepancy in the employment status, labour hours and wage	99,771 (26,019)
trim top 1% and bottom 1% of public consumption, private consumption and wage (for both male and female)	77,947 (21,824)
Keep if the household has only one married couple (Age 21 and above)	60,274 (17,673)
Keep if there is no other adult (21 and above) present	39,726 (20,548)
Keep only working couples	1,675 (38,051)
Restrict age between 21 and 65	1,663 (12)
drop if caste not stated	1,610 (53)
drop if missing data on wage or consumption	1575 (35)
Single male and female	119
drop if caste not stated	110
drop if consumption is zero	92
Single female	20
Single male	72

## B Consumption Variables

### B.1 Public Expenditure

- **Miscellaneous Expenditure:** Domestic help, Motor vehicle expenses, Remittances sent, Social obligations, Religious obligations, Professional fees, General insurance, Vacation and holidays, Lighting and decorations, Furniture, Painting and renovation, Utensils, Pocket money, Pets.
- **Expenditure on EMIs:** EMI for house, EMI for vehicle, EMI for consumer durables, Other EMIs.
- **Expenditure on Health:** Medicines, Doctors and physicians, Medical tests, Hospitalisation, Health insurance, Health enhancement.
- **Expenditure on Communication:** Landline phone, Mobile phone, Cable TV, Internet, Newspapers and magazines.
- **Expenditure on Fuel:** Cooking fuel, Petrol and diesel, Electricity.
- **Expenditure on Transport:** Bus and train, Outstation travel, Autorickshaw and taxi, Airfare, Parking fees, Toll charges.
- **Expenditure on Appliances:** Kitchen appliances, Mobiles and accessories.
- **Expenditure on Recreation:** Electronic streaming, Entertainment, Toys.
- **Expenditure on Rent and Bills:** House rent, Water charges, Society charges, Other taxes.
- **Expenditure on Dental Care:** Toothpaste, Tooth powder, Toothbrush.
- **Expenditure on Books and Journals:** School and academic books, Fiction and non-fiction books.
- **Expenditure on Education:** Books and journals, Stationery, School and college fees, Private tuition, Hobby classes, School transport, Additional programs, Overseas education, Other educational expenses.
- **Expenditure on Detergents:** Detergent bars, Liquid detergents.

### B.2 Assignable Female Consumption

- **Food Expenditure:** Cereals and pulses (rice, wheat, lentils, etc.), Edible oils (sunflower oil, mustard oil, groundnut oil, etc.), Ghee and clarified butter, Dry spices (turmeric, chili powder, coriander, cumin, etc.), Fresh vegetables and leafy greens, Dry fruits and nuts (almonds, cashews, raisins, etc.), Potatoes, onions, and other root vegetables, Milk and milk

products (curd, paneer, butter, cheese, etc.), Sweets and mithai, Bread and bakery products, Biscuits and cookies, Salty snacks (chips, namkeen, mixtures, etc.), Noodles, pasta, and other fast food items, Chocolates, cakes, pastries, and related confectionery, Jams, ketchup, pickles, sauces, and condiments, Health supplements (protein powders, vitamins, etc.), Meat, eggs, fish, and other non-vegetarian food items, Ready-to-eat packaged meals, Tea, coffee, and related beverages, Sugar, jaggery, and other sweeteners, Non-alcoholic beverages (soft drinks, juices, bottled drinks).

- **Beauty-related Expenses:** Cosmetics, Hair care, Other cosmetics, Powder, Creams.
- **Jewellery and Accessories:** Clothing accessories.
- **Other Female-specific Consumption:** Parlor and spa, Hygiene products.

### **B.3 Assignable Male Consumption**

- **Food Expenditure:** Cereals and pulses (rice, wheat, lentils, etc.), Edible oils (sunflower oil, mustard oil, groundnut oil, etc.), Ghee and clarified butter, Dry spices (turmeric, chili powder, coriander, cumin, etc.), Fresh vegetables and leafy greens, Dry fruits and nuts (almonds, cashews, raisins, etc.), Potatoes, onions, and other root vegetables, Milk and milk products (curd, paneer, butter, cheese, etc.), Sweets and mithai, Bread and bakery products, Biscuits and cookies, Salty snacks (chips, namkeen, mixtures, etc.), Noodles, pasta, and other fast food items, Chocolates, cakes, pastries, and related confectionery, Jams, ketchup, pickles, sauces, and condiments, Health supplements (protein powders, vitamins, etc.), Meat, eggs, fish, and other non-vegetarian food items, Ready-to-eat packaged meals, Tea, coffee, and related beverages, Sugar, jaggery, and other sweeteners, Non-alcoholic beverages (soft drinks, juices, bottled drinks).
- **Intoxicants:** Intoxicants, Cigarettes, Bidis, Other tobacco, Liquor.
- **Personal Grooming:** Shaving articles.

## C Marital exit gain

Table 24: Summary statistics of Individual remarriage gain when restricted for caste

Statistic	Males	Females
Mean	1.04	1.02
Max	1.23	2.12
Min	1	1
Median	1.02	1
Standard Deviation	0.06	0.06
Fraction 1	37.5	81.1

Table 25: Summary statistics of Individual remarriage gain when restricted for caste and age

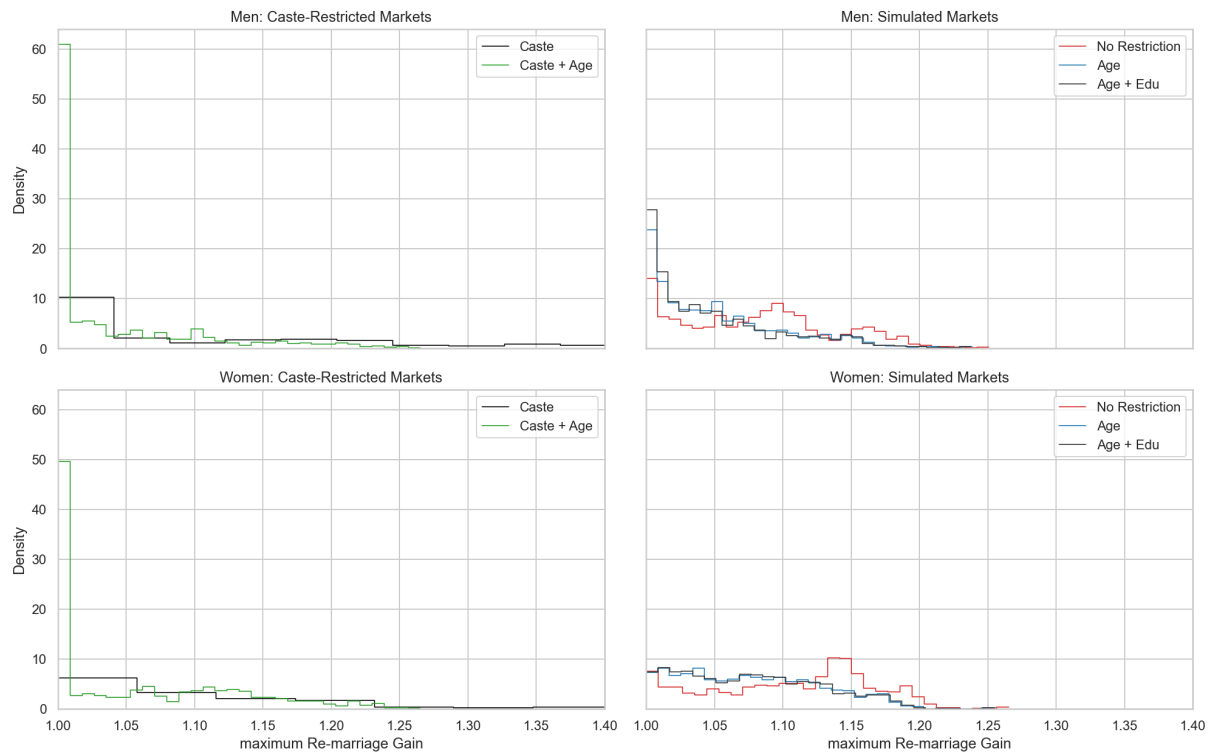
Statistic	Males	Females
Mean	1.04	1.02
Max	1.34	2.12
Min	1	1
Median	1.01	1
Standard Deviation	0.05	0.06
Fraction 1	41.1	82.2

## D Visualization: Remarriage Gain under Increasing Restrictions

### D.1 Remarriage gain: Maximum

Figure 3

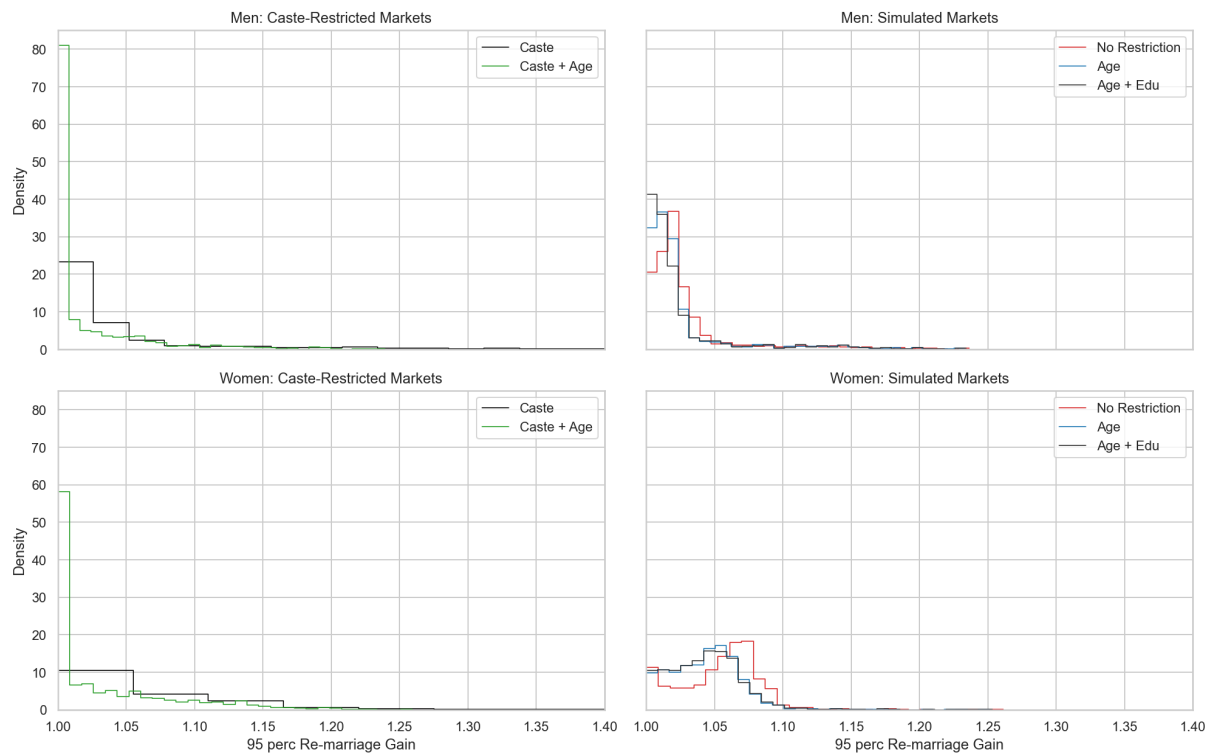
Visualization: Re-marriage Gain (Maximum) under Increasing Restrictions



## D.2 Remarriage gain: 95<sup>th</sup> Percentile

Figure 4

Visualization: Re-marriage Gain (95 percentile) under Increasing Restrictions



## **E Maximum remarriage gain**



Table 26: Truncated Regression Estimates of Women's Remarriage Gain (Maximum): Panel A (No Education Controls) vs. Panel B (With Education Controls); Restricted (Caste, Age, Education) vs. Simulated (Age and Education)

Variable	Panel A: No Education Controls		Panel B: With Education Controls	
	Restricted	Simulated	Restricted	Simulated
<i>Education (ref: No/Primary)</i>				
Secondary	—	—	0.00372 (0.00407)	-0.00260 (0.00230)
Higher Secondary	—	—	0.00384 (0.00625)	-0.00759* (0.00363)
Graduate	—	—	-0.01013 (0.00757)	-0.01240** (0.00455)
Postgraduate	—	—	-0.01503 (0.00906)	-0.01179* (0.00534)
<i>Caste (ref: ST)</i>				
SC	0.00118 (0.00451)	-0.00426 (0.00260)	0.00109 (0.00450)	-0.00416 (0.00258)
OBC	-0.01658*** (0.00444)	-0.01512*** (0.00258)	-0.01666*** (0.00443)	-0.01439*** (0.00256)
Intermediate Caste	0.00206 (0.00734)	-0.02167*** (0.00442)	0.00225 (0.00736)	-0.01866*** (0.00442)
Upper Caste	0.02623*** (0.00596)	-0.00630* (0.00342)	0.02652*** (0.00597)	-0.00353 (0.00342)
Age (yrs)	0.00077*** (0.00024)	0.00053*** (0.00015)	0.00077*** (0.00024)	0.00048*** (0.00015)
Individual's marriage market	0.00135*** (0.00023)	0.00168*** (0.00013)	0.00133*** (0.00023)	0.00168*** (0.00013)
Spouse's marriage market	0.00042* (0.00023)	0.00026* (0.00013)	0.00042* (0.00023)	0.00027* (0.00013)
Wage (hourly)	-0.00007 (0.000045)	-0.00001 (0.000027)	—	—
Total children	0.00264* (0.00136)	0.00185** (0.00079)	0.00250* (0.00137)	0.00158* (0.00079)
Constant	0.99968*** (0.01169)	1.02570*** (0.00699)	0.99724*** (0.01176)	1.02861*** (0.00699)
Observations	1,575	1,436	1,575	1,436

Notes: Standard errors in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Dependent variable is women's remarriage gain (maximum).

Table 27: Truncated Regression Estimates of Men's Remarriage Gain (average): Panel A (No Education Controls) vs. Panel B (With Education Controls); Restricted (Caste, Age, Education) vs. Simulated (Age and Education)

Variable	Panel A: No Education Controls		Panel B: With Education Controls	
	Restricted	Simulated	Restricted	Simulated
<i>Education (ref: No/Primary)</i>				
Secondary	–	–	0.00363* (0.00140)	0.00488** (0.00164)
Higher Secondary	–	–	0.00483* (0.00207)	0.00527* (0.00239)
Graduate	–	–	0.00089 (0.00329)	-0.00037 (0.00421)
Postgraduate	–	–	0.00579+ (0.00343)	0.00197 (0.00425)
<i>Caste (ref: Scheduled Tribe)</i>				
SC	-0.00352* (0.00154)	-0.00342* (0.00162)	-0.00133 (0.00182)	-0.00048 (0.00214)
OBC	-0.00582*** (0.00151)	-0.00390* (0.00161)	-0.00133 (0.00179)	0.00214 (0.00213)
Intermediate Caste	-0.01093*** (0.00253)	-0.00664* (0.00280)	0.00269 (0.00299)	0.01438*** (0.00368)
Upper Caste	-0.00500* (0.00201)	-0.00793*** (0.00211)	0.00277 (0.00241)	0.00303 (0.00283)
Age (yrs)	0.00033*** (0.00008)	0.00023** (0.00009)	0.00033*** (0.00010)	0.00027* (0.00012)
Individual's marriage market	0.00016** (0.00008)	0.00015+ (0.00008)	0.00017+ (0.00009)	0.00015 (0.00010)
Spouse's marriage market	-0.00005 (0.00008)	-0.00011 (0.00008)	-0.00007 (0.00009)	-0.00012 (0.00011)
Total children	0.00121** (0.00047)	0.00061 (0.00050)	0.00059 (0.00056)	-0.00038 (0.00066)
Constant	0.97644*** (0.00425)	0.97912*** (0.00475)	0.98933*** (0.00514)	0.99524*** (0.00638)
Observations	1,575	1,431	1,575	1,431

Notes: Standard errors in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

The dependent variable is men's average remarriage gain (average).

Table 28: Truncated Regression Estimates of Men's Remarriage Gain (maximum): Panel A (No Education Controls) vs. Panel B (With Education Controls); Restricted (Caste, Age, Education) vs. Simulated (Age and Education)

Variable	Panel A: No Education Controls		Panel B: With Education Controls	
	Restricted	Simulated	Restricted	Simulated
<i>Education (ref: No/Primary)</i>				
Secondary	—	—	0.00570* (0.00311)	0.00580** (0.00216)
Higher Secondary	—	—	0.00849* (0.00459)	0.00290 (0.00314)
Graduate	—	—	-0.00869 (0.00731)	-0.01422* (0.00555)
Postgraduate	—	—	0.00484 (0.00762)	-0.00905 (0.00560)
<i>Caste (ref: ST)</i>				
SC	-0.01117** (0.00396)	-0.00063 (0.00246)	-0.00913** (0.00405)	0.00242 (0.00283)
OBC	-0.01834*** (0.00390)	-0.00305 (0.00245)	-0.01422*** (0.00398)	0.00361 (0.00280)
Intermediate Caste	0.00199 (0.00652)	0.00240 (0.00425)	0.01503* (0.00663)	0.02643*** (0.00486)
Upper Caste	0.02157*** (0.00518)	0.00007 (0.00321)	0.02916*** (0.00534)	0.01360*** (0.00373)
Age (yrs)	0.00082*** (0.00021)	0.00092*** (0.00014)	0.00083*** (0.00022)	0.00092*** (0.00016)
Individual's marriage market	0.00140*** (0.00020)	0.00178*** (0.00012)	0.00142*** (0.00020)	0.00178*** (0.00014)
Spouse's marriage market	-0.00007 (0.00020)	-0.00016 (0.00012)	-0.00010 (0.00021)	-0.00018 (0.00014)
Wage (hourly)	0.00027*** (0.00003)	0.00040*** (0.00002)	—	—
Total children	0.00320** (0.00121)	0.00174* (0.00076)	0.00250* (0.00124)	0.00043 (0.00087)
Constant	0.96564*** (0.01096)	0.95177*** (0.00721)	0.97707*** (0.01140)	0.97121*** (0.00840)
Observations	1,575	1,431	1,575	1,431

Notes: Standard errors in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

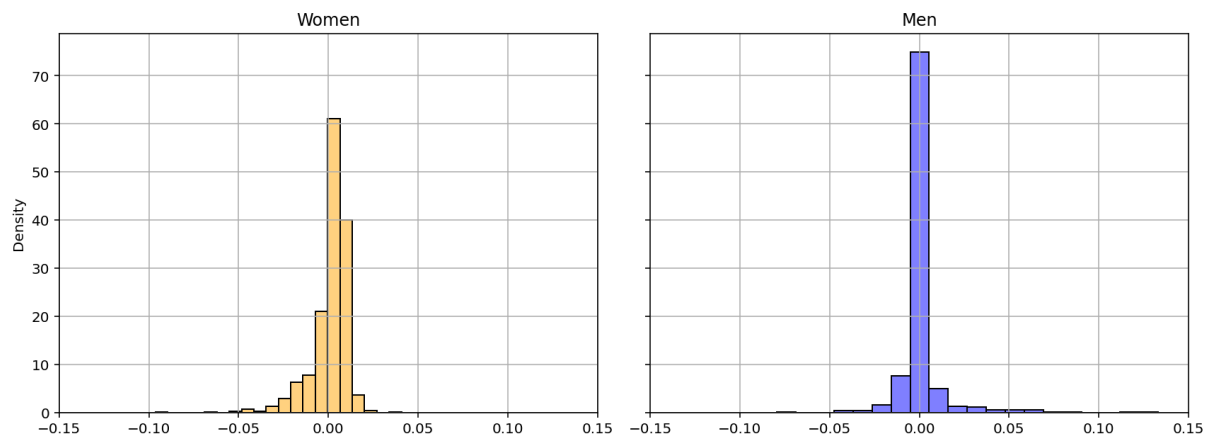
Dependent variable is men's remarriage gain (maximum).

## F Distribution of change in remarriage gain

### F.1 Average

Figure 5

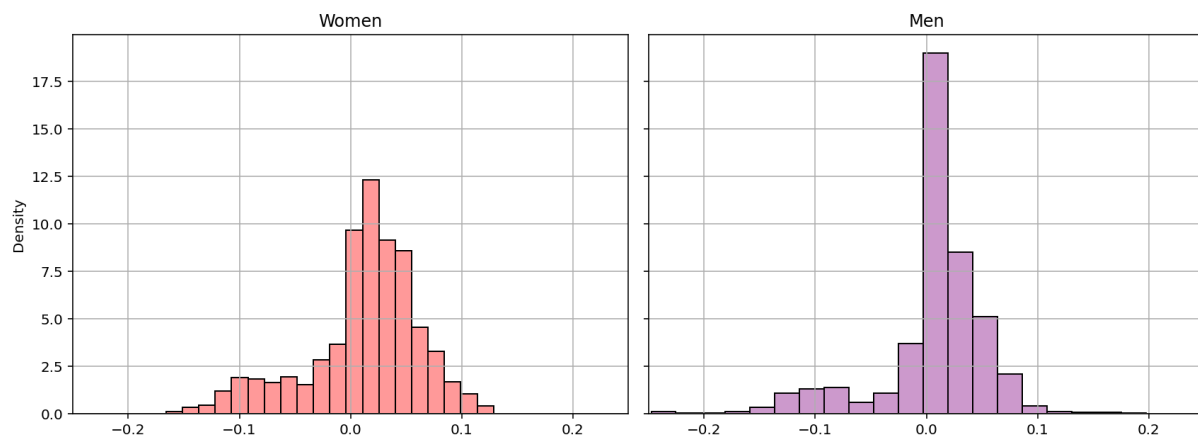
Distribution of Remarriage Gain (Average) Differences: Simulated vs. Restricted Marriage Markets



## F.2 Maximum

Figure 6

Distribution of Remarriage Gain (Maximum) Differences: Simulated vs. Restricted Marriage Markets



## G Determinants of remarriage gain

Table 29: Regression Results for change in remarriage gain (average) for Men and Women

Variable	Panel A: Men		Panel B: Women	
	No edu	Edu	No edu	Edu
<i>Education ( ref: No/Primary)</i>				
Secondary	—	0.00090 (0.00072)	—	-0.00067 (0.00073)
Higher secondary	—	0.00036 (0.00105)	—	-0.00247** (0.00114)
Graduate	—	-0.00237 (0.00185)	—	-0.00086 (0.00143)
Postgraduate	—	-0.00481** (0.00186)	—	-0.00124 (0.00168)
<i>Caste (ref: ST)</i>				
SC	0.00052 (0.00091)	0.00109 (0.00094)	0.00037 (0.00081)	0.00043 (0.00081)
OBC	0.00214** (0.00090)	0.00341*** (0.00093)	-0.00043 (0.00081)	-0.00022 (0.00081)
Intermediate	0.00567*** (0.00156)	0.01055*** (0.00162)	-0.00739*** (0.00138)	-0.00669*** (0.00139)
Upper Caste	-0.00212* (0.00118)	0.00066 (0.00124)	-0.00182* (0.00107)	-0.00116 (0.00108)
Age	-0.00011** (0.00005)	-0.00012** (0.00005)	-0.00007 (0.00005)	-0.00008* (0.00005)
Individual's marriage market	0.00000493 (0.000044)	0.00000956 (0.000046)	-0.00000496 (0.000041)	-0.00000235 (0.000041)
Spouse's marriage market	-0.0000544 (0.000045)	-0.000061 (0.000047)	-0.0000131 (0.000040)	-0.0000127 (0.000040)
Wage (hourly)	0.0000748*** (0.0000068)	—	0.0000104 (0.0000086)	—
Total Children	-0.00066** (0.00028)	-0.00093*** (0.00029)	0.00027 (0.00025)	0.00022 (0.00025)
Constant	0.00353 (0.00265)	0.00746*** (0.00280)	0.00398* (0.00219)	0.00499** (0.00220)
R-squared	0.126	0.058	0.031	0.033
Observations	1,431	1,431	1,436	1,436

Notes: Standard errors in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

The dependent variable is the change in average remarriage gain.

Table 30: Regression Results for change in remarriage gain (maximum) for Men and Women

Variable	Panel A: Men		Panel B: Women	
	No Edu	Edu	No Edu	Edu
<i>Education ((ref: No/Primary))</i>				
Secondary	—	-0.00052 (0.00288)	—	-0.00568 (0.00359)
Higher secondary	—	-0.00520 (0.00419)	—	-0.01321** (0.00567)
Graduate	—	-0.00467 (0.00739)	—	-0.00137 (0.00711)
Postgraduate	—	-0.01434* (0.00746)	—	0.00432 (0.00834)
<i>Caste Category (ref: ST)</i>				
SC	0.01179*** (0.00375)	0.01260*** (0.00377)	-0.00485 (0.00404)	-0.00475 (0.00403)
OBC	0.01667*** (0.00373)	0.01899*** (0.00373)	0.00293 (0.00401)	0.00362 (0.00400)
Intermediate Caste	-0.00307 (0.00647)	0.00596 (0.00647)	-0.02638*** (0.00687)	-0.02415*** (0.00690)
Upper Caste	-0.02207*** (0.00489)	-0.01669*** (0.00497)	-0.03174*** (0.00532)	-0.02972*** (0.00534)
Age (years)	-0.00000 (0.00021)	-0.00006 (0.00021)	-0.00057** (0.00023)	-0.00063*** (0.00023)
Individual's marriage market	0.00043** (0.00018)	0.00045** (0.00018)	0.00034* (0.00020)	0.00035* (0.00020)
Spouse's marriage market	-0.00010 (0.00019)	-0.00012 (0.00019)	-0.00006 (0.00020)	-0.00006 (0.00020)
Wage (hourly)	0.00011*** (0.00003)	—	0.00005 (0.00004)	—
Total children	-0.00147 (0.00115)	-0.00198* (0.00116)	-0.00061 (0.00123)	-0.00075 (0.00123)
Constant	-0.01100 (0.01098)	-0.00191 (0.01119)	0.03440*** (0.01088)	0.03949*** (0.01092)
Observations	1,431	1,431	1,436	1,436
R-squared	0.103	0.096	0.074	0.079

Notes: Standard errors in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

The dependent variable is the change in maximum remarriage gain.