The Economics of Caste Norms: Purity, Status, and Women's Work in India

Patrick Agte (Yale) and Arielle Bernhardt (MIT/ NYU)

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Motivation

- An estimated 100 million Indian Hindu women report that they are disallowed from working (IHDS 2011); India has one of the lowest rates of FLFP in the world (Fletcher et al. 2019)

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- Purity rules have negative impacts on health and education outcomes (Jayachandran and Pande 2017; Spears and Thorat 2019); local governance (Munshi and Rosenzweig 2015) and inter-caste trade (Anderson 2011); discrimination in the labor market (Oh 2021; Cassan et al. 2022)

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- Evidence across many settings of existence of cultural norms that are detrimental to welfare or that suppress economic activity (Young 2015; Tur-Prats 2019; Gulesci et al. 2021; Becker 2022; etc.)
- Growing literature on historical determinants of culture norms, e.g. agricultural technologies (Alesina et al. 2013), geography (Carranza 2014), historical state institutions (Dell et al. 2019)
- But limited evidence on impact of long-term presence of out-group on *own-group* cultural norms (Bisin et al. 2016; Giuliano 2020)

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Can social integration prevent the take-up of harmful cultural norms?

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- Adivasis traditionally non-Hindu, not subject to caste purity rules
- Adivasi women 50% more likely to be allowed to work than Hindu women; more intra-household decision-making power; more likely to participate in politics, etc. (IHDS 2011)
- Adivasis don't follow purity rules on: "untouchability" of low-caste Hindus, food taboos, etc.
- Adivasis generally considered lower social status: 50% of Hindu sample respondents report that Adivasis "untouchable"

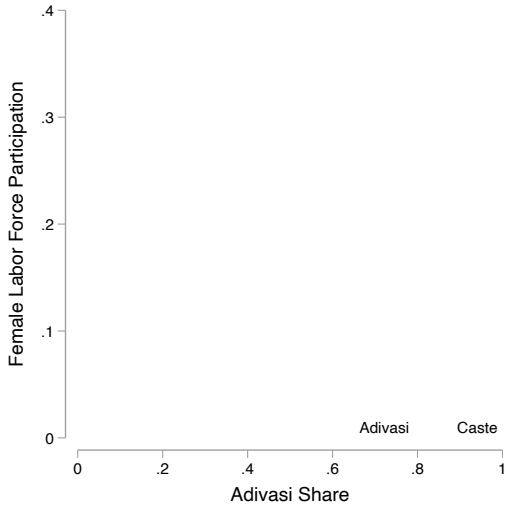
This Paper

- We ask: What happens to caste purity norms when Hindus live alongside Adivasis?

  Existence and direction of effects ambiguous:

  - If groups assimilate, desire for conformity could lead to *cultural convergence*; though if out-group perceived as threat, could see *cultural backlash* (Bisin and Verdier 2010)
  - Religious norms highly persistent (Iannaccone 1998; Iyer 2016; Giavazzi et al. 2019), especially Hindu caste purity norms (Munshi 2019; Acemoglu and Robinson 2021); could see no effects

Motivating Finding



Sample: Adult Women in Odisha (pop: 44 million)

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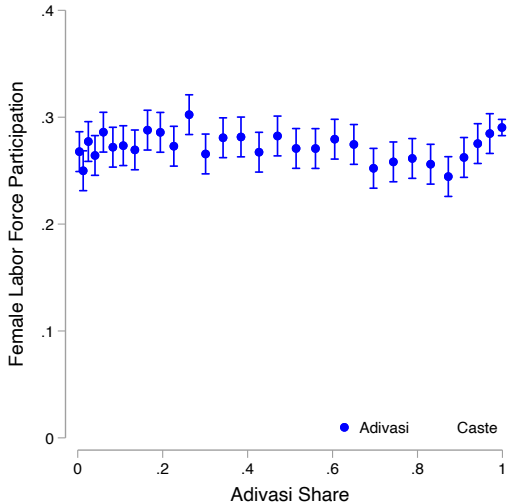

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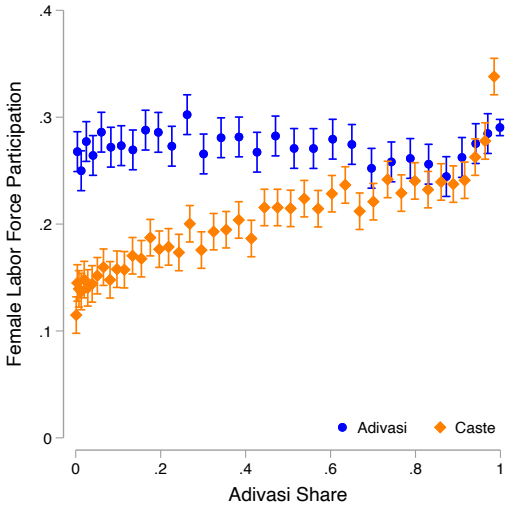

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- Parallel decrease in likelihood Hindu women report *disallowed* from working (IHDS 2011)

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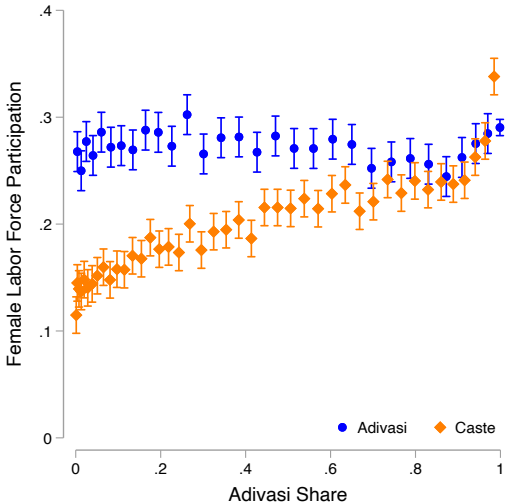

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$\Rightarrow$ We argue: Relationship due to weaker caste purity norms in presence of out-group

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1.1. Exploiting Variation in Adivasi Population Share

- Exploit historical natural experiment in state of Odisha, led to variation in Adivasi share
- 1894 migration shock, Hindu influx to western side of river boundary $\rightarrow$ higher Adivasi share on eastern side
- Use spatial regression discontinuity across river boundary
- First stage: average Adivasi population share shifts from 25% west to 50% east of river

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- Exploit plausibly-exogenous variation in gender norms *among* Adivasi tribes: historical plough vs. non-plough agriculture practices *(Alesina et al. 2013)*
- Representative sample of villages from Central Indian states
- Digitize ethnographic data on historical agriculture practices for 500 Adivasi tribes
- Prediction: decrease in Hindus' adherence to caste gender purity rules *only* when Adivasi tribes in village have historically gender-equal agriculture practices

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Q2. How do Results Vary with Adivasi Political and Economic *Power*?

- Exploit plausibly-exogenous variation in British colonial policy
- Adivasis given more land ownership and political power in some districts, independent of population share

Preview of Findings

1. Increased Adivasi Population Share Leads to Weaker Gender Purity Rules...
    - Hindus less likely to report women's work is stigmatized by own caste
    - 50% ↑ Hindu FLFP and 30% ↑ in labor earnings
    - ↑ use of female agricultural labor; 16% ↑ in yields
    - Negative evidence for labor supply or demand explanations (e.g. availability of childcare)

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2. ...But Only When Adivasis Themselves Have More Equal Gender Norms
    - Historical plough use predicts Adivasi gender norms and FLFP today
    - Impacts on Hindu FLFP and seclusion norms only in villages where Adivasis practiced non-plough (gender-equal) agriculture

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4. Lower Levels of Caste-Based Discrimination and Social Stratification
   - ↓ Practice of untouchability towards *both* Adivasis and Low-Caste Hindus
   - Stronger social and financial ties with Adivasis and Low-Caste Hindus

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   - Stronger social and financial ties with Adivasis and Low-Caste Hindus
5. Channel of Impact: Adivasi Presence Changes Social Cost of Deviating from Purity Rules
   - At low levels of Adivasi share, impacts stronger when Adivasi land and political power ↑

Contributions

Novel evidence of social integration and subsequent inter-group norms transmission

- Large literature documents importance of cultural norms for economic outcomes (Henrich 2000; Tabellini 2008; Nunn and Wantchekon 2011; Giuliano and Nunn 2017; etc.); especially that relate to women's role in society (Fernandez 2007; Alesina et al. 2013; Tur-Prats 2019; Jayachandran 2021; Becker 2022; etc.)
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- But due to identification challenges, limited evidence of transmission at scale (Bisin and Verdier 2010; Giuliano 2020). Build upon Giuliano and Tabellini (2020); Miho et al. (2021); and Bazzi et al. (2023).

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- Results consistent with models of bottom-up cultural change (Akerlof 1976; Belloc and Bowles 2013): when disadvantaged groups have better outside option, lower adherence to harmful norms

Roadmap

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Study Setting: Central India

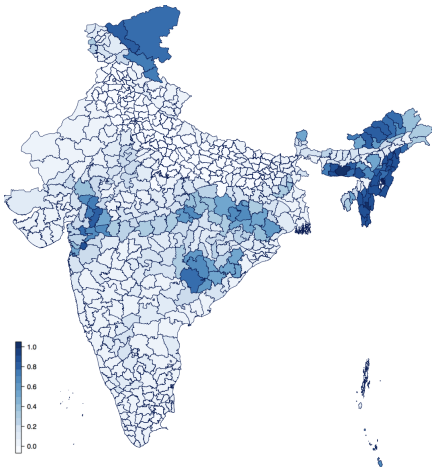

Figure: District-Level Adivasi Shares in India

- Central India: Andhra Pradesh, Chhattisgarh, Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan
- Corresponds to former Gondwana Kingdom, settled by Gond Adivasis (ruled until 18c)
- In-migration of Hindu caste households between 1700-1900, Adivasis now 20% of population
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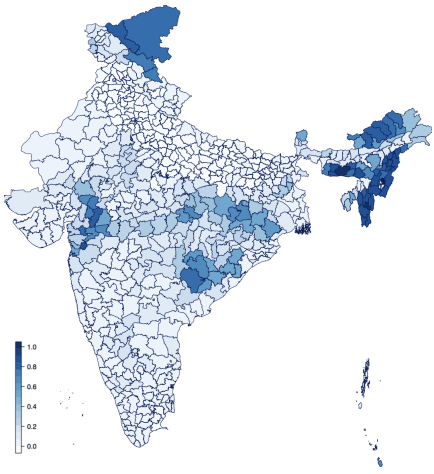

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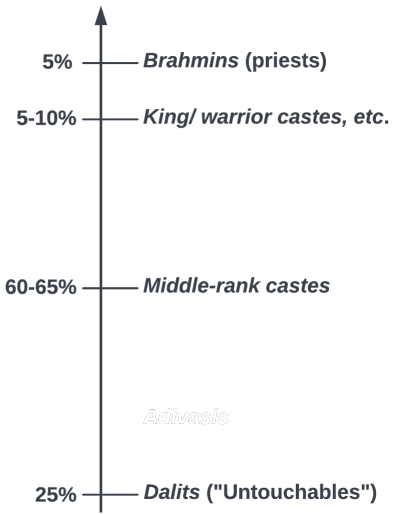
$\rightarrow$ Use 1894 Hindu migration shock into Central India as natural experiment for Adivasi share

Caste System and Hindu Social Hierarchy



- Every Hindu person member of a caste (*jati*)
- Caste is inherited, endogamous social group
- Documented history of caste system going back to 1500-500 BCE (Munshi 2019)
- Historically, castes associated with specific occupation
- Over 3,000 distinct castes in India

Caste Purity Rules

- *Manusmriti*, 200 BCE text by Brahmin scholars, justifies caste ranking based on purity
  - 2,269 verses; explicit code of conduct
  - Basis for Hindu Common Law, continues to be cited in court today (Agnes 1999; Chakravarti 2018)

- *Manusmriti* purity rules cover five areas (Dirks 2011):

  1. Female Seclusion
  2. Marriage
  3. Caste Segregation
  4. Food and Drink
  5. Occupations *(Not covered in paper)*

- Purity rule adherence tied to moral and social status (Srinivas 1956; Ghurye 1969; Chakravarti 2018)

Widespread Take-up of Purity Rules is Relatively Recent

- *Sanskritization/ Brahmanisation* (Srinivas 1956): take-up of purity rules in 20th century by lower castes (primarily "middle-ranked" castes)

- Historians attribute this in part to colonial policies that gave local power to Brahmins (Agnes 1999; Bayly 2001; Dirks 2011):

> "Groups that initially had no clear high-caste identity… began to adopt very strict norms of familial or dietary purity (by prohibiting widows from remarrying, for example, or imposing very strict vegetarian diets and banning contact with less pure castes), thus moving themselves closer to the Brahmins, whose unified existence… was rewarded by [the British]" (Piketty 2020)

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- Digitize ethnographic data from 1890-1906 from our RDD sample setting, find that:
  - At that time, middle-ranked castes: (a) allowed widow remarriage; (b) ate meat; (c) did not consider Adivasis untouchable ▸ Full Table
  - Today, convergence towards Brahmin practices (e.g. high adherence to purity rules) ▸ Details

Context: Defining Adivasi vs. Hindu People

Self-identification, Coalition of Adivasi (Tribal) Peoples, 12th session, UNWGIP (1994):

-“Relative geographical isolation of the community.

- Reliance on forest, ancestral land and water bodies within the territory of the communities for food and other necessities.

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- Relative freedom of women within the society.

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Hindu-Adivasi Social Relations

Historically, strong financial and social ties:

- Gond Adivasis were often village headmen in Central India (Marten 1911)
- Adivasis lived in mixed hamlets with high- and middle-rank castes (low-rank castes segregated) (Dewar 1906)
- Hindus did not view Adivasis as “impure”; often did not practice Adivasi untouchability (Marten 1911; Hamid 1921; Sing 1956; Xaxa 2008)

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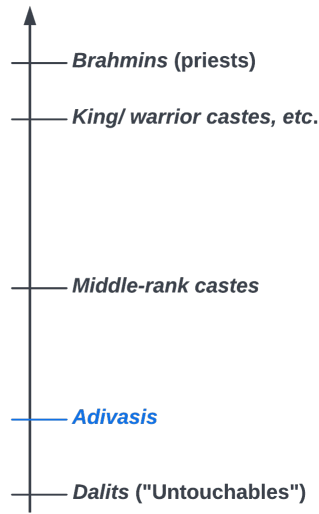
- Today: Adivasis generally lower-ranked than middle-caste Hindus; 50% of Hindu respondents consider Adivasis untouchable



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   - Example: availability of childcare
   - Hindus may also *learn* about costs and benefits (Fogli and Veldkamp 2011; Fernandez 2014)

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Goal: Distinguish 1./2. ("Cultural Transmission Channels") from 3. ("Market-Based Channels")

- Ethnographic and survey evidence points to importance of 1. over 2.

Roadmap

Endogeneity Concerns

1. Selection of Hindus or Adivasis into/ out of mixed villages
   - For example: selection based on openness to out-group
   - Selection would have to be associated with historical migration; 95% of rural households in Central India report that have been in current village for $>$ 90 years
2. Unobservable characteristics common to Adivasi villages that are associated with Hindus' purity rule adherence

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Approach 1: Exploit plausibly exogenous variation in Hindus' historical migration

Approach 2: Exploit plausibly exogenous variation in Adivasis' historical gender norms

Roadmap

Historical Natural Experiment: Shock to Adivasi Population Share

Context:

- Sambalpur region of Odisha, eastern-most district of Gondwana Kingdom
- Population in 1880s: approx 50% Adivasi, 50% Hindu
- Under-populated region: British tax incentives to settle and clear new land
- Poor, rice-cultivator households
- Rice mostly remained within district, some export down river

▸ Purity Rules Adherence in Sambalpur at Time of Migration Shock

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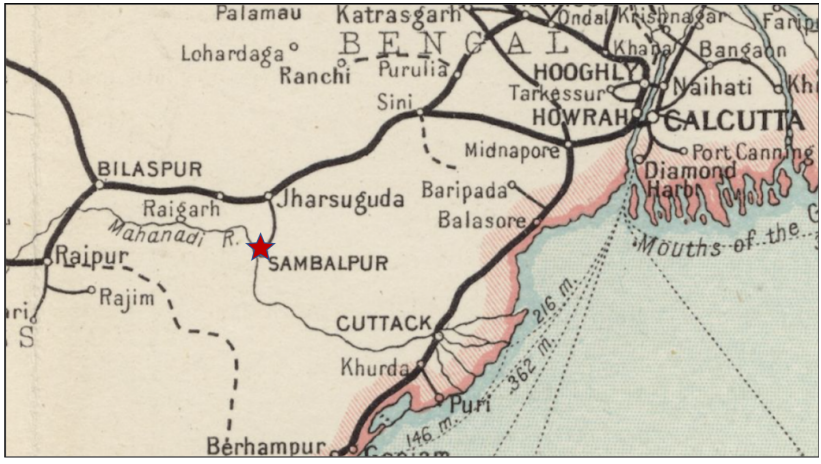
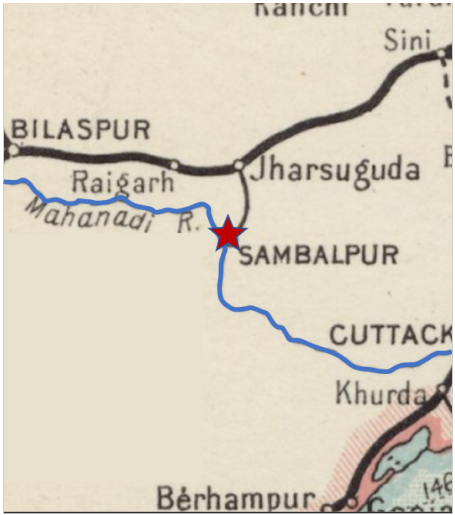


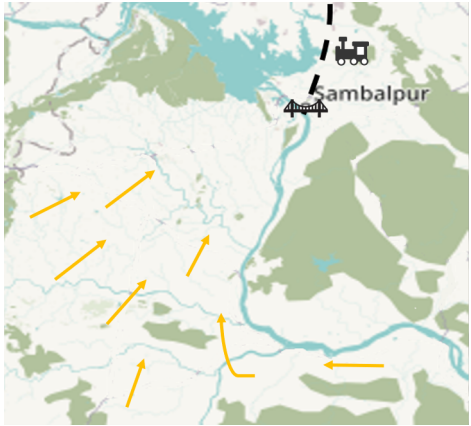
Figure: Construction of Railroad Stop in Sambalpur (1894)

Railroad Construction Led to Hindu In-Migration (By Foot)



- 1894: Construction of railroad stop in Sambalpur
- Influx of majority-Hindu households from south (not served by railroad) (Dewar 1906; O'Malley 1909; Cobden-Ramsey 1911; Hamid 1921)
- "Construction of the railroad doubled the price of rice and changed the run of trade...The immediate result has been an extension of rice-cropping and an invasion by Hindu cultivators [into Sambalpur]" (British Settlement Office 1906)

Mahanadi River Restricts Migrants to Western Side of Sambalpur



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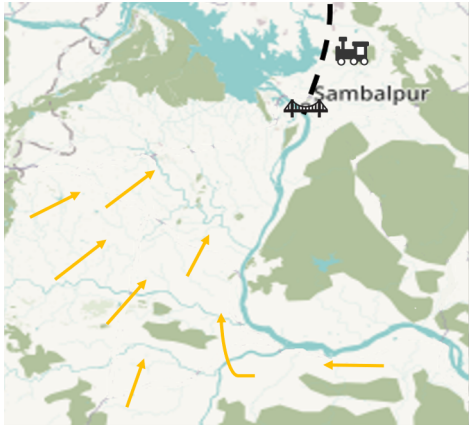
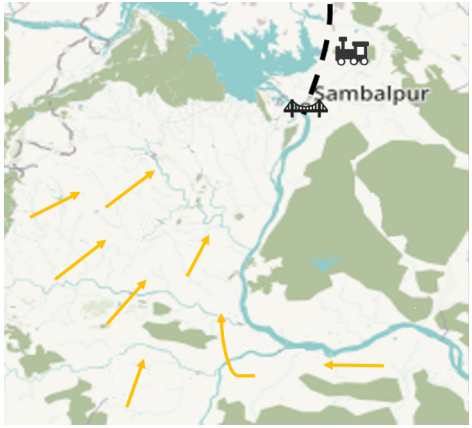


- Forest range to east and south-east of Sambalpur limited number of migrants on eastern side of river (Dewar 1906; Hamid 1921)
- Mahanadi River constrained migrants to side of river from which they entered (Dewar 1906; O'Malley 1909; Cobden-Ramsey 1911; Hamid 1921; Deloche 1993)
- Single river crossing at railroad station: pontoon bridge or ferry, with nominal fee

Result: Negative Shock to Adivasi Population Share West of River



- Result: influx of Hindu migrants concentrated on western side of river (British Settlement Office 1906)
- "It is noticeable that in recent years there has been little increase in the density of population in the cultivated area [west of Mahanadi]... This is attributed to the fact that the extension of cultivation has been almost commensurate with the growth of population" (British Settlement Office 1906)

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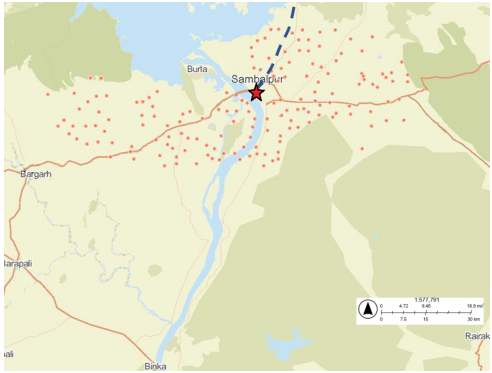

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$\longrightarrow$ RDD at river boundary to identify causal effect of Adivasi population share

Key Identifying Assumptions

1. Villages east and west of river not different *prior* to migration shock
2. No differential selection of Hindu/ Adivasi households across river
3. Railroad had same impact on rice profits on both sides of river
4. Impacts on Hindu behavior only via change in Adivasi population share

Historical Natural Experiment: Data

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1. Outcomes on Hindus' Economic Behavior and Purity Rule Adherence:
   - In-person survey with middle-rank caste Hindu men
   - Sample of 143 villages on either side of river boundary
   - Topics include: wife's labor force participation; stigma surrounding women's work; adherence to untouchability and food taboo purity rules; social network and Adivasi social ties

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2. Adivasi Population Share: 2011 census micro-data

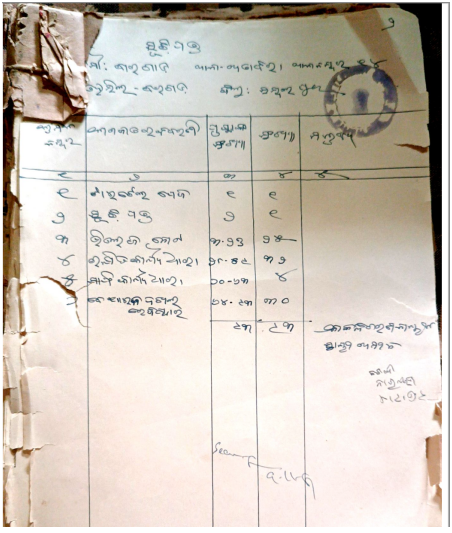
3. Balance and Robustness Checks:

   3.1 Digitize 1887 land records for all households in sample villages:
   - Name, father's name, caste/ tribe, size of plot
   - Village governance positions
   - Tax incidence (1906)
   - Match 1887 village boundaries to current villages

   3.2 Village-level geographic data (GAEZ rice suitability, etc.)

   3.3 Digitize 1961 village-level administrative data on agricultural labor markets, tax incidence, etc.

Historical Natural Experiment: 1887 Land Records Data



Roadmap

Empirical Specification

Exploit discontinuous change in Adivasi share on either side of the Mahanadi River boundary:

$$y_{i,v} = \alpha + \gamma East + f(\text{location}_v) + \beta X_{i,v} + \epsilon_{i,v}$$

- $f(\text{location}_v)$: Local linear polynomial for geographic location of village v (Calonico et al. 2014; Gelman 2019)
- X_i : Age, enumerator fixed effects, and survey time fixed effects.
- Cluster standard errors at the village level
- Show results for fixed bandwidth of 20km on each side of river
- Survey sample: Hindu middle-rank caste men

Villages East and West of River Look Similar Pre-Migration Shock

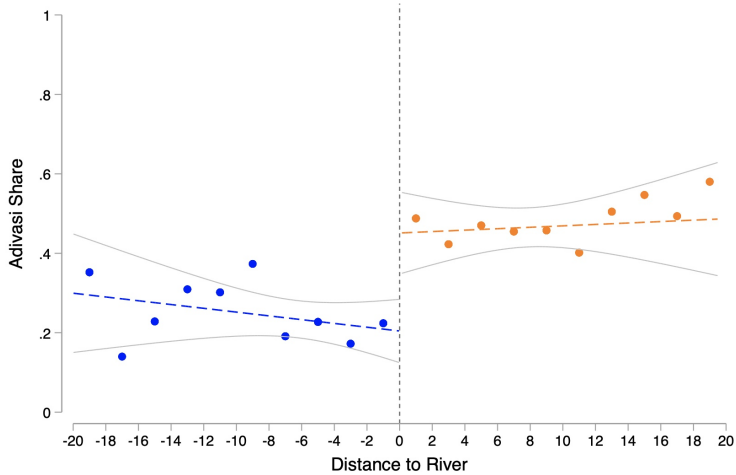
Villages East and West of River Look Similar Pre-Migration Shock

	(1) 1887 Adivasi Population Share	(2) 1887 Adivasi Land Share	(3) 1887 Village Headman is Adivasi
East	0.001	0.025	-0.030
	(0.046)	(0.054)	(0.062)
Mean for West of River	0.454	0.371	0.154
	[0.250]	[0.246]	[0.364]
Villages	117	113	125

▸ Balance on geographic characteristics ▸ Balance on Hindu demographics

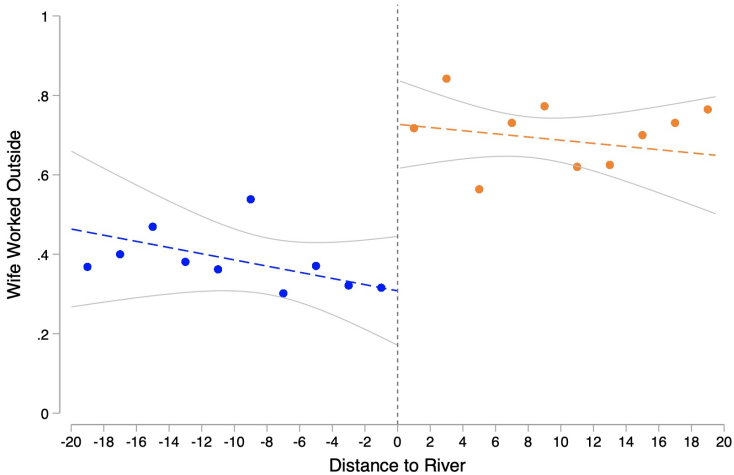
Roadmap

RDD First Stage: Adivasi Share East and West of River



Adivasi Share West of River: 0.25
Coefficient East of River: 0.24***

RDD Second Stage: Hindu FLFP Higher East of River



As Adivasi population share doubles from 25%-49%, the likelihood that Hindu women work for pay increases by between 43-63% ▸ FLFP Table

Stigma Against FLFP Lower East of River

	Own Beliefs		Community Beliefs	
	(1)	(2)	(3)	(4)
	Believe Work Appropriate	Aspiration: Housewife DIL	Caste Believes Work Appropriate	Caste Prefers Housewife DIL
East	0.092	-0.199***	0.111*	-0.166**
	(0.068)	(0.075)	(0.059)	(0.078)
Mean for West of River	0.739	0.571	0.638	0.630
	[0.440]	[0.495]	[0.481]	[0.483]
N	813	798	861	773
Villages	143	143	143	143

- As Adivasi population share shifts from 25%-49%, share of Hindu men who prefer their son marries a housewife decreases by 35%

Negative Evidence for Labor Demand- or Supply-Based Explanations

Negative Evidence for Labor Demand- or Supply-Based Explanations

1. Women's Labor Supply: ▸ Labor Supply Results
   - Women's agricultural wages ↓ as Adivasi share ↑
   - No difference in knowledge of current wage rate; knowledge of work opportunities; childcare availability; perceived safety of women's work
   - No evidence of change in preference for Hindu vs. Adivasi landowner

2. Women's Labor Demand: ▸ Labor Demand Results
   - No difference in the probability that landowners hire at least some women
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   - No difference in price received for crop output

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3. Overall Impact: ▸ Labor Earnings and Yields
   - Hindu women's labor earnings 43% higher east of river
   - Agricultural yields 16% higher east of river

RDD Robustness: Key Identifying Assumptions

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   - Hindu population share and composition (caste rank) do not change on east side of river pre- vs. post-migration shock ▸ Results
   - Results are robust to excluding villages close to the bridge (donut hole) ▸ Results
   - Population growth west of river is not correlated with pre-migration Adivasi share ▸ Results

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   - Concern: population density 10% lower east of river
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4. Impacts on Hindu behavior only via change in Adivasi population share ▸ Result
   - Concern: population density 10% lower east of river
   - New settlers primarily cleared land, some purchased existing plots
   - Conditional on distance to town, population density does not predict FLFP or other caste rule adherence in Central India sample
   - RDD results hold when controlling for population density

RDD Robustness: Alternative Specifications

- Results are robust to:

  Alternative bandwidths ▸ Results

  Alternative kernels, polynomials, and controls ▸ Results

  Standard error adjustments to account for spatial auto-correlation ▸ Results

  Alternative p-values based on randomization inference. ▸ Results

Taking Stock

- What We Have Shown:
  - Cross-sectional evidence from Central India: Lower Hindu adherence to women's seclusion purity rule when living alongside Adivasis
  - Causal evidence consistent: increased Adivasi presence leads to substantial increase in Hindu FLFP, decrease in women's seclusion norm (e.g. stigma against work)
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  - Negative evidence for market-based channels as key driver of impact
- Next Steps: Positive evidence for cultural transmission
  - Impacts on adherence to *other* purity norms: caste segregation, food taboos
  - Test prediction: decrease in Hindu gender purity norms adherence *only* when Adivasi group in village has more equal gender norms

Caste Purity Rules

Manusmriti purity rules cover five areas (Dirks 2011):

1. Female Seclusion
2. Marriage
3. Food and Drink
4. Caste Segregation
5. Occupations *(Not covered in paper)*

Adivasi Presence and Hindu Adherence to Caste Purity Rules

Increased Adivasi population share associated with lower Hindu adherence to caste purity rules:

1. Female Seclusion
   - ↑ Hindu FLFP *(cross-sectional and RDD evidence)*
   - ↓ Practice of *purdah* *(cross-sectional evidence)*
   - ↑ Hindu women's self-reported mobility, participation in politics *(cross-sectional evidence)*
2. Marriage
   - ↓ Practice of dowry *(cross-sectional evidence)*
   - ↓ Ban on widow remarriage *(cross-sectional evidence)*
   - ↓ Fully arranged marriage *(cross-sectional evidence)*
3. Food and Drink
   - ↓ Alcohol taboo *(cross-sectional evidence)*
   - ↓ Meat taboo *(cross-sectional and RDD evidence)*
4. Caste Segregation

▸ Cross Sectional Evidence - Details

Adivasi Presence and Hindu Adherence to Caste Segregation Rules

- Segregation of castes is considered “lynchpin” of caste system (Munshi 2019)
- Purity rules dictate separation between castes even of same rank (e.g. no inter-marriage), but *especially* between castes of different ranks
- “Untouchability”: Higher-rank castes should not come into contact—via direct physical touch, or touch from sharing water/ food—with lower-rank castes
- Practice of untouchability strongly associated with violence against low-rank Hindus and Adivasis (Bros and Couttenier 2015)

Adivasi Discrimination Lower East of River

	(1) Practice Adivasi Untouchability	(2) Adivasi Ranks $\geq$ Middle Caste in Hierarchy
East	-0.298***	0.118**
	(0.110)	(0.052)
Mean for West of River	0.643	0.061
	[0.480]	[0.240]
N	835	375
Villages	143	143

- As Adivasi population share shifts from 25%-49%, practice of Adivasi untouchability decreases by 47%

Caste-Based Discrimination Lower East of River

	(1) Practice Low-Caste Untouchability	(2) Integrated High- and Low-Caste Hamlet
East	-0.081**	0.203**
	(0.040)	(0.080)
Mean for West of River	0.959	0.567
	[0.199]	[0.499]
N	361	133
Villages	143	133

- As Adivasi population share shifts from 25%-49%, untouchability against low-caste Hindus decreases by 9%

Stronger Hindu-Adivasi Social and Financial Ties East of River

Elicit social network and find that as Adivasi population share shifts from 25%-49%...

- Hindus twice as likely to have an Adivasi friend
- Hindus 2.5 times as likely to have Adivasi contact that can ask for financial assistance
- Stronger Hindu-Adivasi social ties not “mechanical”: decrease in measure of in-group bias
- Higher-status Hindus also relatively more likely to have Dalit (low-status Hindu) social contacts

▸ Detailed Results

Roadmap

Exploiting Heterogeneity in Adivasi Gender Norms

1. Summary ▸ Context ▸ Assumptions

- Follow Boserup (1970) and Alesina et al. (2013), classify Adivasi tribes according to whether historically practiced plough vs. hoe agriculture
- Assumption 1: No selection into/ out of villages based on Adivasi historical gender norms
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- Use IHDS for Central India states, includes free-text tribe name for each HH
- Classify 500 tribes with coding rule: identify at least 2 ethnographic/ historical sources per group which describe historical agriculture practices

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3. Results ▸ Balance Check

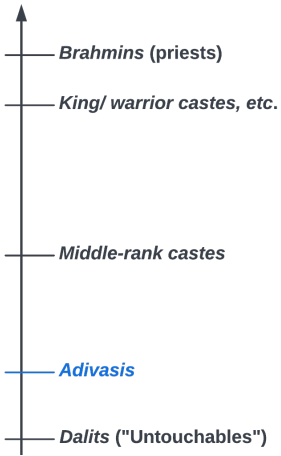
- First stage: Historical agriculture practice predicts Adivasi gender norms today ▸ Results
- Second stage: Impacts on Hindu FLFP, adherence to women's seclusion and marriage purity rules *only* in villages where Adivasi had historically gender-equal agriculture ▸ Results
- Second stage: No difference in impacts for caste segregation and food taboo purity rules ▸ Results

Roadmap

Interpretation: Bottom-Up Cultural Change

Why does increased population share of a *low-status* out-group lead to increased social integration and to convergence towards that group's cultural practices?

Interpretation: Bottom-Up Cultural Change



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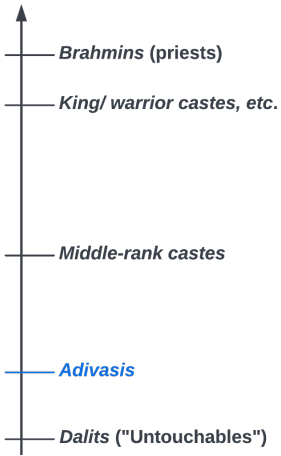

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- Individuals endowed with ethnicity, where ethnic groups ranked along social hierarchy
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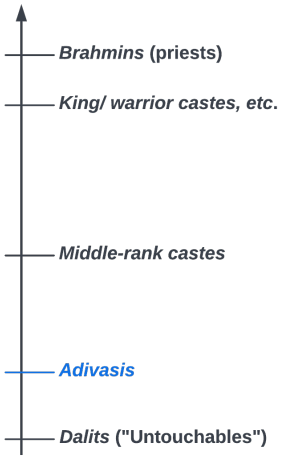

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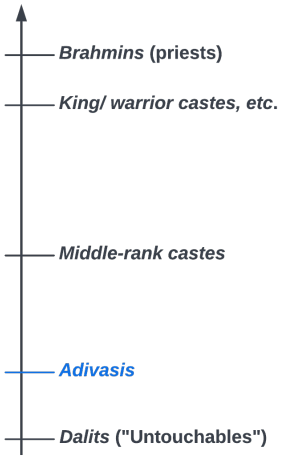
- Material payoffs increasing in group's size, political power, or economic resources; decreasing in cost of norms adherence
- Can assimilate with other ethnic group by adhering to that group's norms and behavior, but limited by initial social (rank) distance (Shayo 2020, Fouka et al. 2021)

Interpretation: Bottom-Up Cultural Change

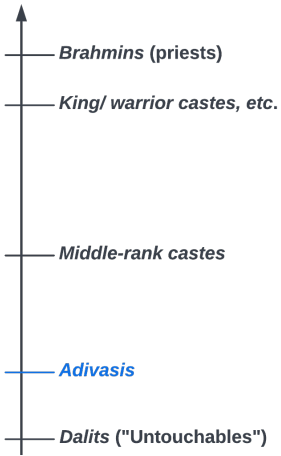


Interpretation of our results:

- As *relative value* of social and economic interactions with Adivasis increases, Hindus less likely to adopt cultural practices that will create social distance from Adivasis

  $\rightarrow$ As Adivasi share increases, Hindu adoption of purity rules decreases

Interpretation: Bottom-Up Cultural Change



Predictions:

1. Inverse-*U* shape: Adivasi-share impacts strongest for Hindus from "middle-rank" castes
   - In data, impacts driven by middle-rank Hindus; low impact on high or low rank ▸ Results
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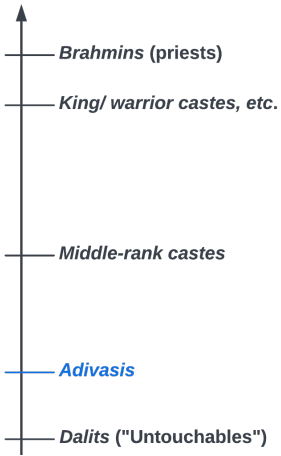

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   - Dalits and Adivasis have low take-up of purity norms even when in minority
2. Numerical dominance is a substitute for economic/ political dominance
   - When lower-status groups are dominant—numerically, economically, or politically—groups above them less likely to separate (Srinivas 1966, Dumont 1970)

Interpretation: Bottom-Up Cultural Change

Positive evidence on importance of *relative value* of Adivasi political and economic power:

- Exploit variation British colonial policy, Adivasis in some districts given “village watchman” position
- Watchman has tax-free land and political power
- Find, even at low levels of Adivasi population share, that historical watchman position leads to ↓ lower Adivasi discrimination and ↓ lower Hindu purity rule adherence today

▸ Watchman Block Results ▸ Watchman Block Figure

Roadmap

Discussion and Policy Implications

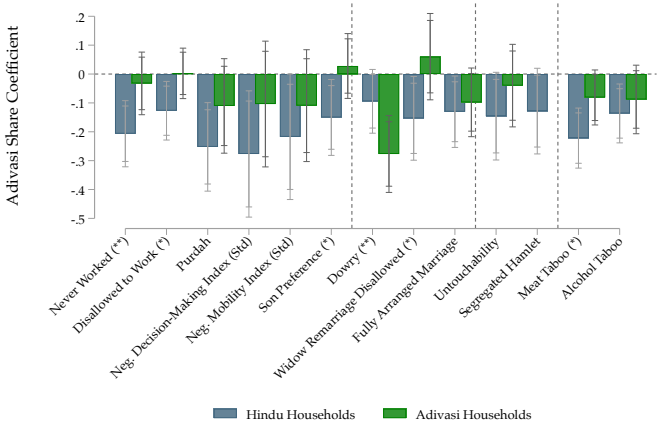
1. Evidence of social integration and subsequent inter-group norms transmission
   - Channel: evidence for change in Hindus' preferences and in social cost of deviating from caste norms

2. Inter-group norms transmission has important impacts on social and economic outcomes
   - Women's empowerment and economic behavior
   - Discrimination
   - Future research: efficiency of local governance, occupational segregation, etc.

3. Evidence of bottom-up cultural change
   - Larger share of lower status out-group weakens set of rules for behavior that promote inequality
   - Similar decrease in Adivasi discrimination and weakening of caste purity rules when Adivasis allocated more land and political power ▸ Watchman Block Results
   - Implications for policy: quotas or other interventions to give power to marginalized groups can lead to both reduction in discrimination and change in norms and behavior of dominant group

Thank You!

Asymmetric Effects: Hindu Presence Has No Impact on Adivasi Take-up of Caste Rules



Asterisks indicate whether the level of significance for the difference in coefficients between Hindu and Adivasi households.

Back

Purity Rules Adherence in Sambalpur at Time of Migration Shock

Social Norms by Group in 1890-1906

	Caste Adherence
FLFP	34%
Meat Taboo	×
No Widow Remarriage	×
Low-Caste Untouchability	✓
Adivasi Untouchability	×

Data 1890-1906: Census and British Settlement Reports

Back

Historical Purity Norms Adherence by Caste Rank

Social Norms by Group in 1890-1906

	High Ranked	Middle Ranked	Low Ranked
FLFP	16%	34%	37%
Meat Taboo	✓	×	×
No Widow Remarriage	✓	×	×
Low-Caste Untouchability	✓	✓	–
Adivasi Untouchability	×	×	×

Caste Sample: High - Brahmin; Low - Dalits; Middle - Bhandari, Chasa, Dumal, Goud, Keut, Kulta, Kumhar, Mali, Meher, Teli
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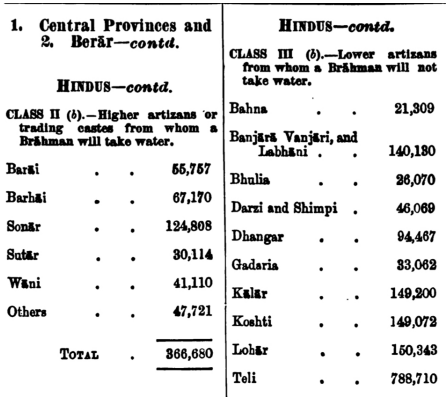
Back

British Colonial Period and Promotion of Brahmin Purity Norms



1. Central Provinces and 2. Berār—*contd.*

HINDUS—*contd.*

CLASS II (b).—Higher artizans or trading castes from whom a Brāhman will take water.

Barāi	55,757
Barhāi	67,170
Sonār	124,808
Sutār	30,114
Wāni	41,110
Others	47,721
TOTAL	366,680

HINDUS—*contd.*

CLASS III (b).—Lower artizans from whom a Brāhman will not take water.

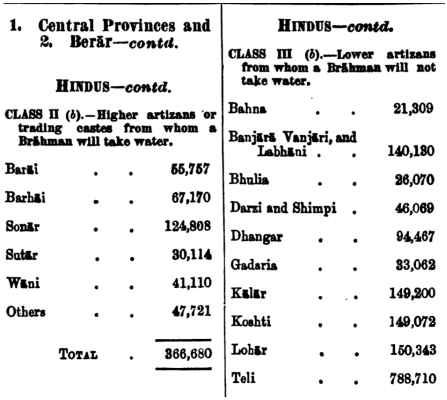
Bahna	21,309
Banjārā Vanjāri, and Labhāni	140,180
Bhulia	26,070
Darzi and Shimpi	46,069
Dhangar	94,467
Gadaria	33,062
Kalār	149,200
Koshti	149,072
Lohār	150,343
Teli	788,710

Figure: 1901 Census

- 1901 Census created explicit ranking of all caste groups, based on *distance* to Brahmins
- Relied on Brahmanical norms of purity (i.e. from Manusmriti) to rank castes (Risley 1901; Dirks 2001):
  - Whether Brahmins accepted water from caste (e.g. untouchability)
  - Whether caste practiced widow remarriage
  - Etc.
- "There was a general idea that the object of the census is... to fix the relative position of different castes and to deal with questions of social superiority... [which] gave rise to considerable agitation." (Census 1911)

Back

British Colonial Period and Promotion of Brahmin Purity Norms



1. Central Provinces and 2. Berār—*contd.*

HINDUS—*contd.*

CLASS II (*b*).—Higher artizans or trading castes from whom a Brāhman will take water.

Barāi	55,757
Barhāi	67,170
Sonār	124,808
Sutār	30,114
Wāni	41,110
Others	47,721
TOTAL	366,680

HINDUS—*contd.*

CLASS III (*b*).—Lower artizans from whom a Brāhman will not take water.

Bahna	21,309
Banjārā Vanjāri, and Labhāni	140,180
Bhulia	26,070
Darzi and Shimpi	46,069
Dhangar	94,467
Gadaria	33,062
Kalār	149,200
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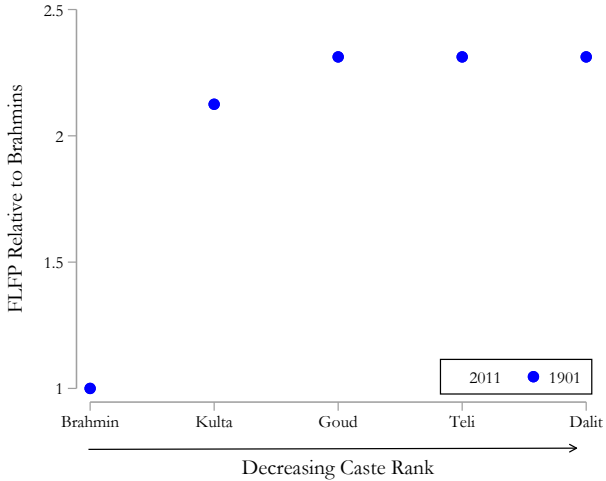
  - Whether Brahmins accepted water from caste (e.g. untouchability)
  - Whether caste practiced widow remarriage
  - Etc.
- Teli caste association (1935): “For the social condition of our caste...

  I.20. Any woman whose husband is alive should not engage in trade

  I.24. A woman whose husband is alive may not marry a second time”

▸ Back

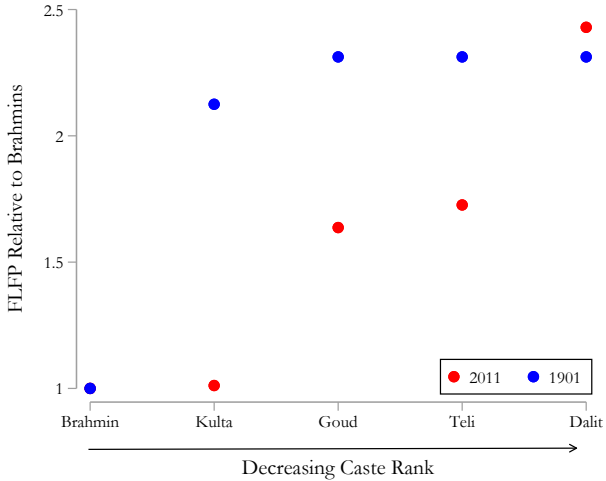
Distance from Brahmins and Adoption of Purity Norms



- Use 1901 Census rank castes according to status distance from Brahmins
- 1901 ranking not predictive of FLFP in 1911; aside from Brahmins castes look similar

Data: 1911 census, 2011 socio-economic and caste census

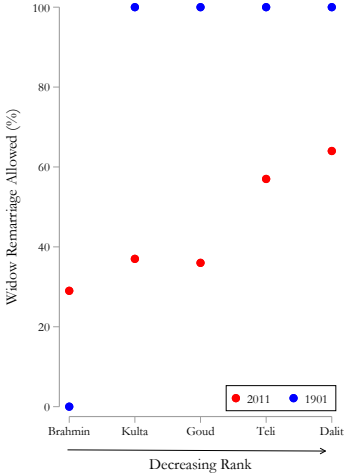
Distance from Brahmins and Adoption of Purity Norms

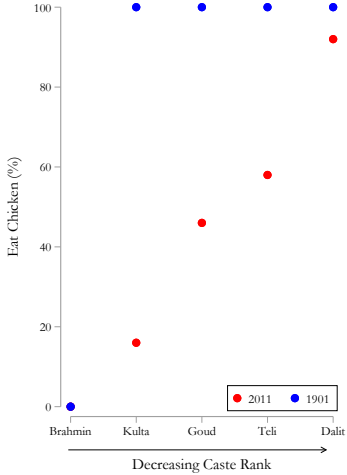


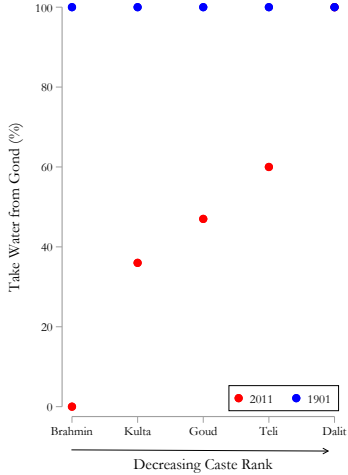
- Use 1901 Census rank castes according to status distance from Brahmins
- 1901 ranking not predictive of FLFP in 1911; aside from Brahmins castes look similar
- 1901 ranking strongly predictive of FLFP in 2011; overall convergence towards Brahmins

Data: 1911 census, 2011 socio-economic and caste census

Distance from Brahmins and Adoption of Purity Norms







Back

Identification Strategy: Heterogeneity in Historical Norms Across Adivasi Groups

- Heterogeneity in women's work and gender norms across Adivasi groups.
- Over 700 recognized tribes.
- Substantial variation in gender attitudes as measured by customary laws (divorce, inheritance laws); norms relating to marriage and co-habitation (payments, post-marriage settlement location); etc.

Back

Heterogeneity in Historical Norms Across Adivasi Groups

- Today, *all* Adivasi groups practice plough agriculture
- Follow Boserup (1970) and classify Adivasi groups into two categories:
  1. Adivasi that historically practiced shifting agriculture ($\rightarrow$ higher FLFP today).
  2. Adivasi that historically practiced plough agriculture ($\rightarrow$ lower FLFP today).

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- Several other norms important for gender equality map to this classification (e.g. ownership and female inheritance rights).

Back

Classifying Adivasi Groups According to Traditional Plough Use

- Use India Human Development Survey (IHDS), multi-topic household- and village-level survey
- The IHDS reports caste/ tribe names declared by respondents verbatim; sample includes 940 distinct clans and sub-tribes

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Step 1:

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Step 2:

- Code Adivasi groups according to traditional plough or non-plough agricultural practices
- Coding rule: identify at least 2 ethnographic/ historical sources per group which describe agriculture practices

Back

Empirical Specification

- Cross-sectional variation in Adivasi tribes across four neighboring states (Odisha, Chhattisgarh Madhya Pradesh, Rajasthan) in India Human Development Survey (IHDS):

$$y_{i,v} = \alpha + \beta_1 NonPloughAdivasiShare + \beta_2 PloughAdivasiShare + \gamma X_{i,v} + \epsilon_{i,v}$$

- X : Demographic characteristics and village geographic characteristics
- Cluster standard errors at the village level.
- Survey sample: Hindu middle-rank caste households

Back

Identification Strategy: Key Assumptions

1. No selection of Hindus into Adivasi villages based on Adivasi gender norms
   - 93% of both Hindus and Adivasis in IHDS Central India report family in village for $>$ 90 years
   - Historical evidence shows rates of FLFP high for both Hindus and Adivasis at time of village settlement
2. No unobservable characteristics common to non-plough Adivasi villages that are correlated with determinants of Hindu gender norms
   - All Hindus have historically done plough agriculture; Adivasi plough and non-plough villages do not look different in terms of crop or soil type
   - Adivasi plough and non-plough villages look similar on geographic characteristics and infrastructure

▸ Back

Villages with Plough vs. Non-Plough Adivasi Look Similar

	Distance to Nearest Town (1)	Distance to District HQ (2)	Any Private Primary School (3)	No Drainage System (4)	Share HHs Open Defecate (5)	Share HHs Electricity (6)	Share HHs Mobile Phone (7)
Traditionally Non-Plough Adivasi Share	4.493	8.954	-0.565***	0.071	-0.037	-0.135*	0.018
	(4.948)	(13.054)	(0.189)	(0.200)	(0.097)	(0.081)	(0.167)
Traditionally Plough Adivasi Share	0.223	7.616	-0.226	0.082	0.124	-0.170	-0.301
	(8.949)	(23.706)	(0.370)	(0.359)	(0.134)	(0.126)	(0.206)
p-value: Trad. Non-Plough Adivasi Share = Trad. Plough Adivasi Share	0.618	0.953	0.346	0.978	0.358	0.823	0.307
Outcome Mean for Adivasi Share = 0	14.938	51.124	0.403	0.496	0.812	0.781	1.311
Observations	198	198	198	198	198	198	198

Back

First Stage: Non-Plough Adivasi Women Are More Likely To Work

	Adivasi Women		
	Ever Worked	(Inverted) Seclusion Index	(Inverted) Marriage Restrictions Index
	(1)	(2)	(3)
Woman is Traditionally Non-Plough Adivasi	0.107**	0.317**	0.304*
	(0.045)	(0.157)	(0.157)
Outcome Mean for Traditionally Plough Adivasi	0.802	0.249	-0.010
N	483	483	483
Villages	100	100	100

Back

Second Stage: Non-Plough Adivasi Share Effects on Hindu Women

	Hindu Women			
	Ever Worked	(Inverted) Seclusion Index	(Inverted) Marriage Restrictions Index	HH Earnings from Agricultural Labor (asinh)
	(1)	(2)	(3)	(4)
Traditionally Non-Plough Adivasi Share	0.562***	0.828***	0.790***	3.904***
	(0.083)	(0.202)	(0.144)	(0.835)
Traditionally Plough Adivasi Share	0.175	0.295	-0.154	0.207
	(0.209)	(0.304)	(0.405)	(1.748)
p-value: Trad. Non-Plough Adivasi Share = Trad. Plough Adivasi Share	0.064	0.130	0.032	0.049
Outcome Mean for Adivasi Share = 0	0.495	-0.001	0.002	3.504
N	1,835	1,836	1,836	1,658
Villages	197	198	198	197

Back

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Villages	197	198	198	197

Back

Non-Plough Adivasi Share Effects on Other Outcomes

	Hindu Women		
	No Untouchability (1)	Any Meat (2)	No Milk (3)
Traditionally Non-Plough Adivasi Share	0.124	0.532***	0.540***
	(0.126)	(0.112)	(0.092)
Traditionally Plough Adivasi Share	0.034	0.162	0.249
	(0.270)	(0.296)	(0.288)
p-value: Trad. Non-Plough Adivasi Share = Trad. Plough Adivasi Share	0.762	0.228	0.338
Outcome Mean for Adivasi Share $= 0$	0.384	0.446	0.246
Observations	1,835	1,835	1,836
Villages	198	198	198

Back

RDD Balance

	(1) 1941-1961 Ave Land Value (Rs./Acre)	(2) 1961 Price Received Rice (Rs./Tambi)	(3) 2022 Price Received Rice (Rs./Kg)
East	37.476	0.010	-0.945
	(57.761)	(0.018)	(0.778)
Mean for West of River	878.952	0.232	17.021
	[315.282]	[0.057]	[3.033]
Villages	91	112	143

Back

RDD Geographic Balance

	(1) Elevation	(2) Slope	(3) Log Flow Accumulation	(4) Rice Suitability	(5) Forest Share
East	4.366	0.445**	0.914	0.344	0.026
	(3.369)	(0.177)	(0.686)	(0.286)	(0.028)
Mean for West of River	178.693	0.589	2.063	1.448	0.042
	[41.582]	[1.106]	[1.408]	[0.455]	[0.069]
N	142	142	142	142	142
Villages	142	142	142	142	142

▸ Back - 1887 Balance Check ▸ Back - Key Identifying Assumptions

Hindu Demographics East and West of River Look Similar Today

	Households				Villages		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Literate	Occupation: Farmer	Owns Any Land	Total Land	High Rank Caste Share	Middle Rank Caste Share	Low Rank Caste Share
East	-0.035	0.034	-0.038	-0.964	0.020	-0.084	0.064
	(0.049)	(0.088)	(0.095)	(0.768)	(0.038)	(0.062)	(0.066)
Mean for West of River	0.880	0.805	0.731	3.114	0.070	0.515	0.415
	[0.325]	[0.396]	[0.444]	[4.420]	[0.077]	[0.204]	[0.198]
N	861	861	861	861	141	141	141
Villages	143	143	143	143	141	141	141

▸ Back - 1887 Balance Check ▸ Back - Hindu Labor Earnings ▸ Back - Key Identifying Assumptions

Balance in 1887

	(1) 1887 Adivasi Population Share	(2) 1887 Adivasi Land Share	(3) 1887 Village Headman is Adivasi
East	0.001	0.025	-0.030
	(0.046)	(0.054)	(0.062)
Mean for West of River	0.454	0.371	0.154
	[0.250]	[0.246]	[0.364]
Villages	117	113	125

Back

Hindu FLFP Higher East of River

	Census Data	Survey Data	
	(1)	(2)	(3)
	Occupation: Worker	Occupation: Worker	Wife Worked Outside
East	0.129**	0.143**	0.375***
	(0.056)	(0.072)	(0.082)
Mean for West of River	0.205	0.336	0.374
	[0.404]	[0.473]	[0.484]
N	25,342	856	856
Villages	142	143	143

Back

Effect of Population Density on Norms Adherence

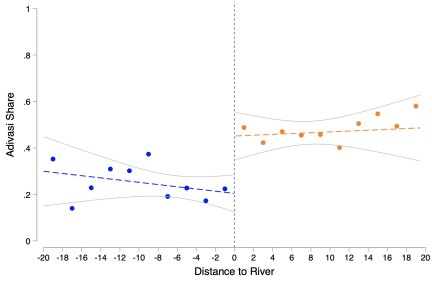
Back

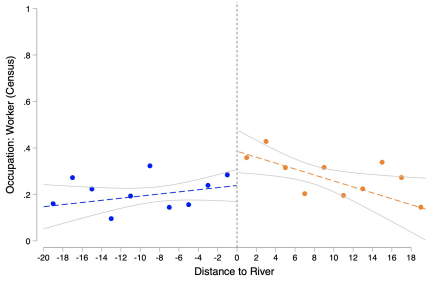
Table: Effect of Density on Hindus

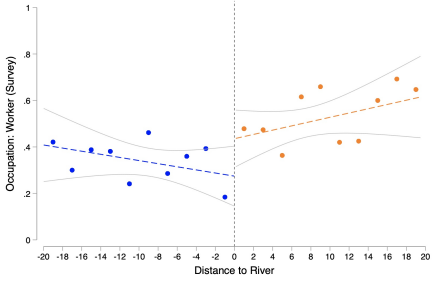
	(1) Mean	(2) Population Density
Panel A: Seclusion		
Ever Worked	0.493	-0.011
	[0.500]	(0.008)
Allowed to Work	0.735	0.004
	[0.441]	(0.012)
Own Decision to Work	0.421	-0.012
	[0.494]	(0.011)
Practice Purdah	0.741	-0.021**
	[0.438]	(0.010)
Can Attend Panchayat Meeting	0.091	0.001
	[0.287]	(0.004)
Can Visit Health Center Alone	0.640	-0.005
	[0.480]	(0.008)
Can Visit Friend Alone	0.780	-0.015**
	[0.414]	(0.007)
Can Take Public Transport Alone	0.475	-0.009
	[0.499]	(0.008)
Panel B: Food		
Men Eat First	0.335	0.012
	[0.472]	(0.011)
Alcohol Taboo	0.670	0.010
	[0.454]	(0.010)
Meat Taboo	0.375	0.003
	[0.484]	(0.006)
Panel C: Marriage		
Widow Remarriage Prohibited	0.360	0.006
	[0.480]	(0.011)
Practice Dowry	0.777	0.002
	[0.416]	(0.007)
No Choice in Spouse	0.558	-0.037***
	[0.497]	(0.008)
Panel D: Intercaste Relations		
Intercaste Marriage Prohibited	0.763	-0.006
	[0.425]	(0.009)
Practice Untouchability	0.133	0.006
	[0.339]	(0.007)

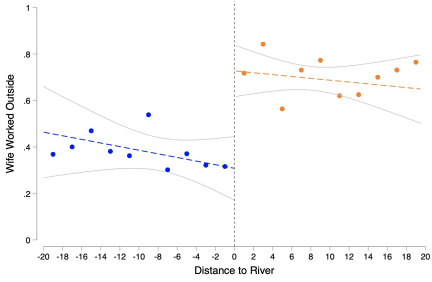
uses population density and controls for area

RDD Plots









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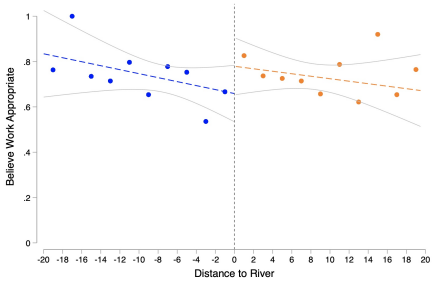
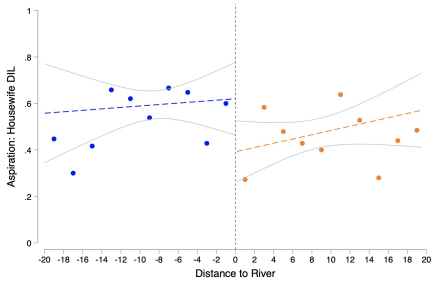
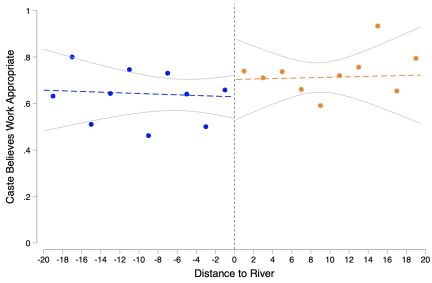
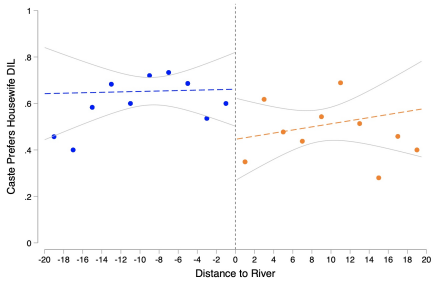
RDD Plots









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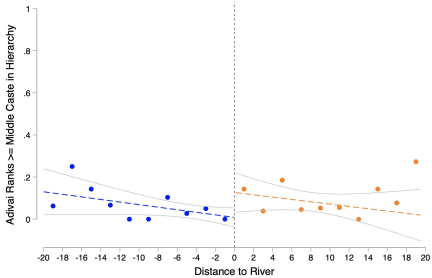
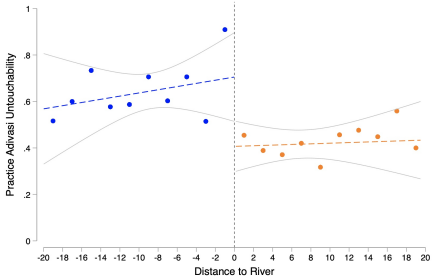
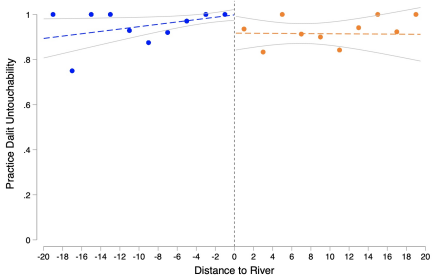
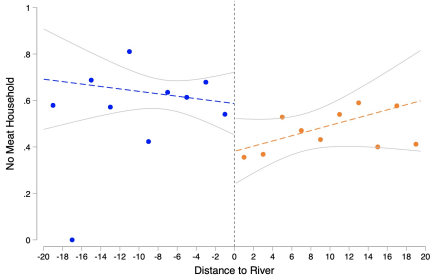
RDD Plots









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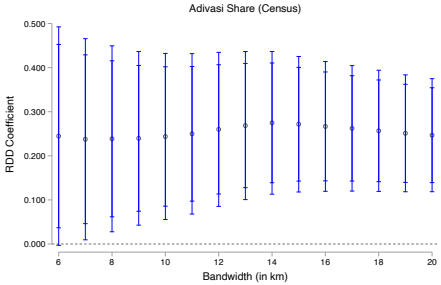
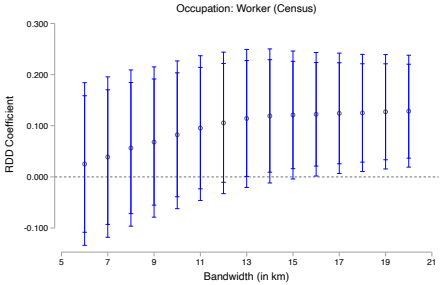
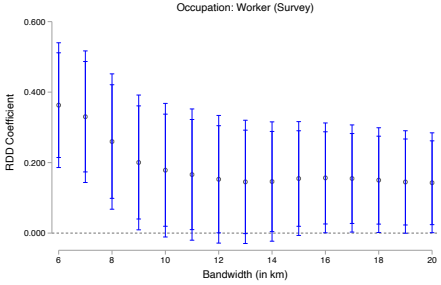
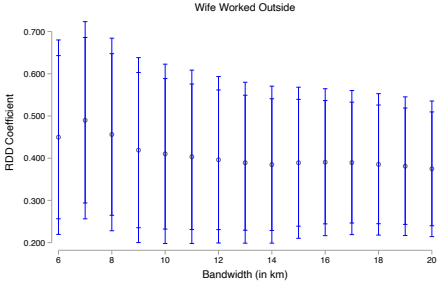
Robustness checks - Different Bandwidths









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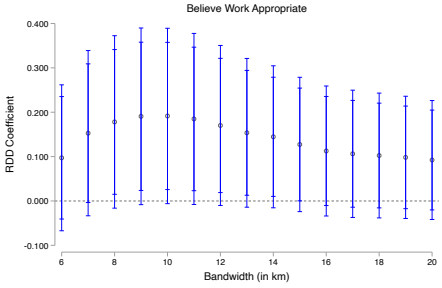

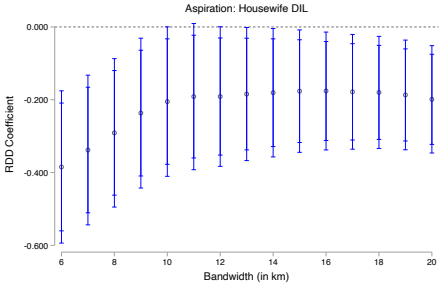

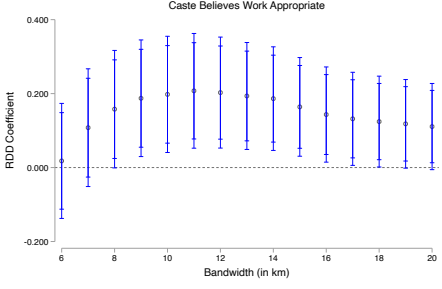

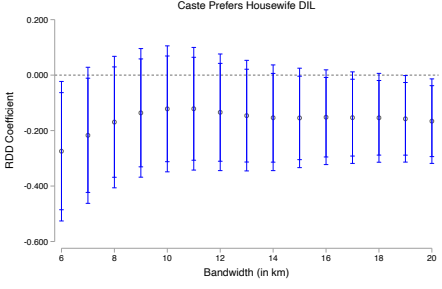

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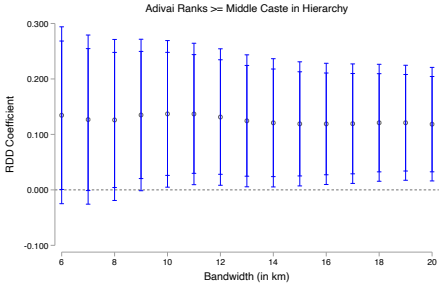
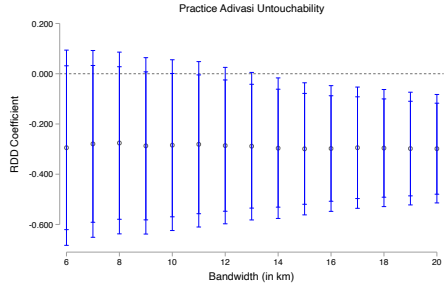
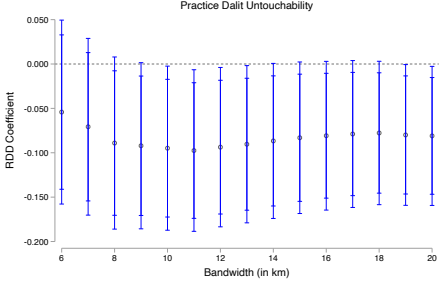
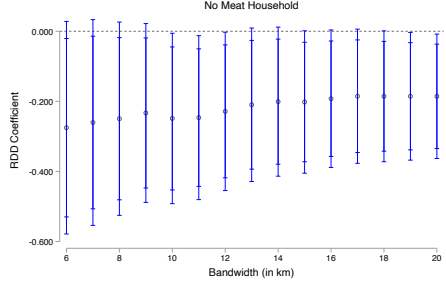
Robustness checks - Different Bandwidths









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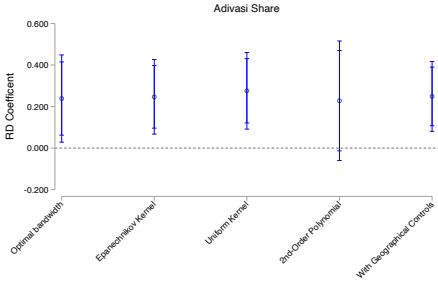
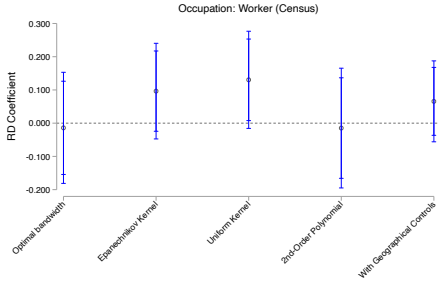
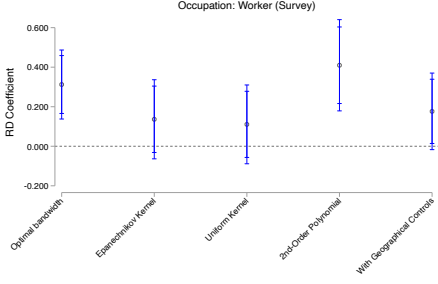
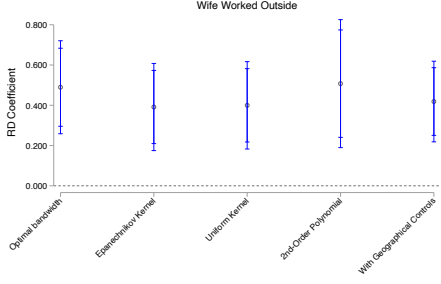
Robustness checks - Different Specifications









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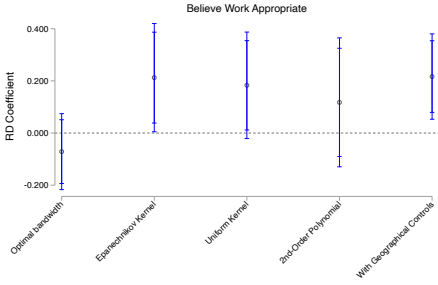

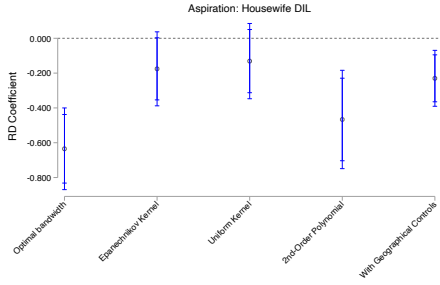

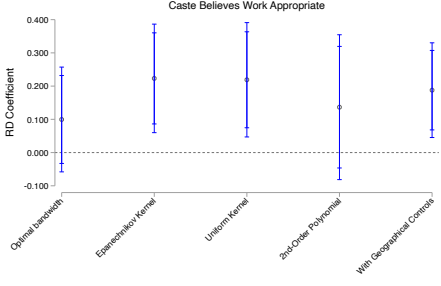

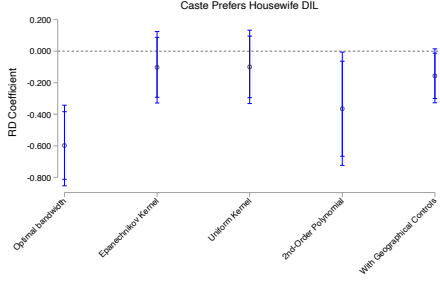

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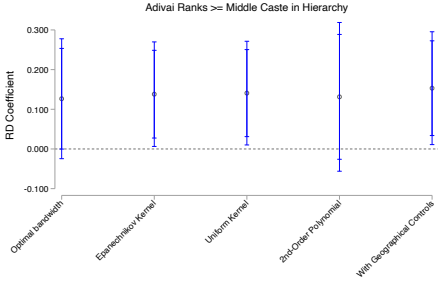
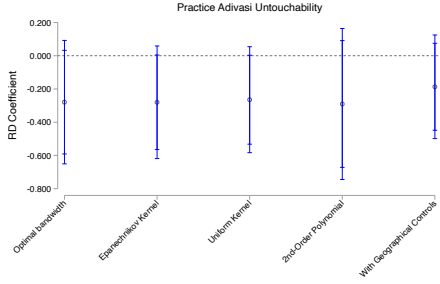
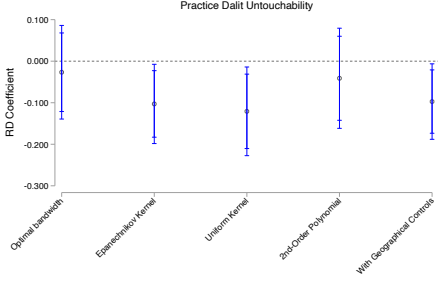
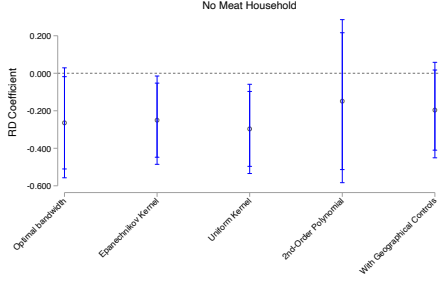
Robustness checks - Different Specifications









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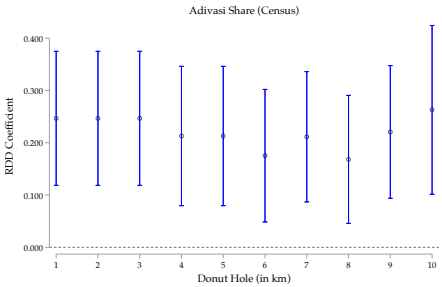
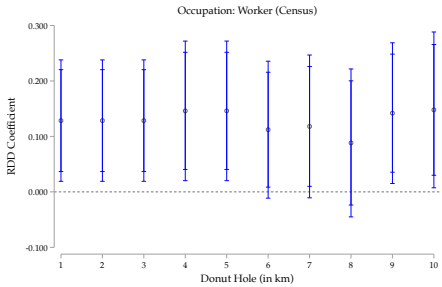
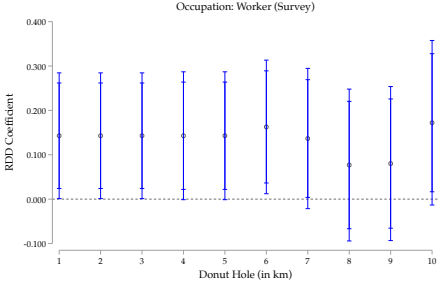
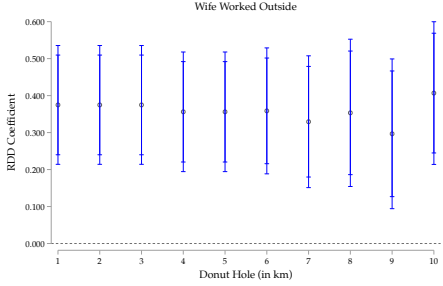
Robustness checks - Donut Hole









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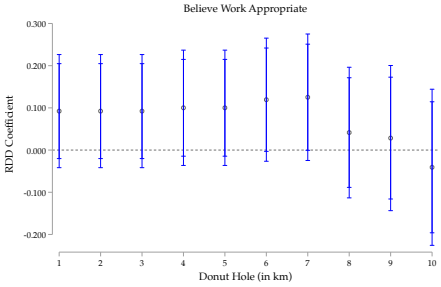
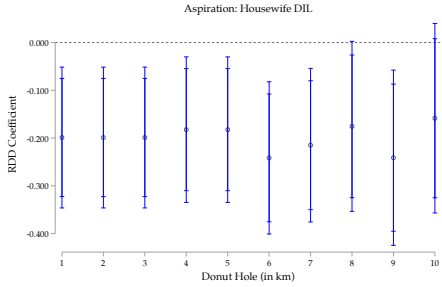
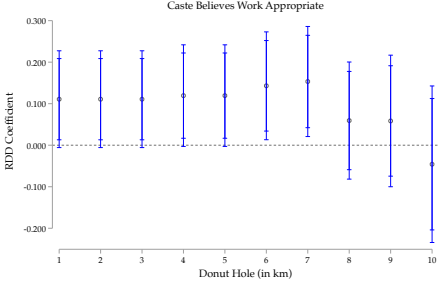
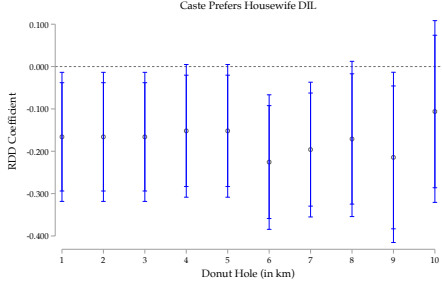
Robustness checks - Donut Hole









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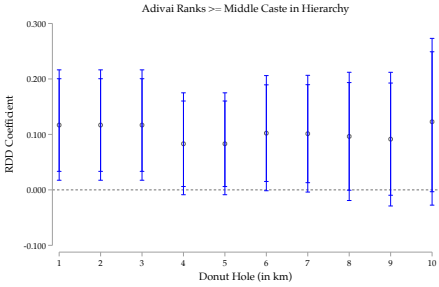
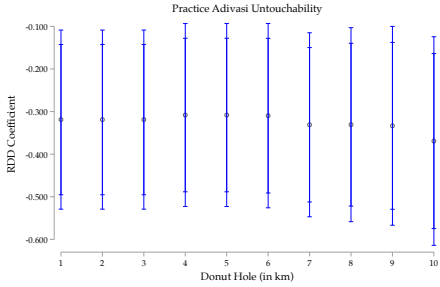
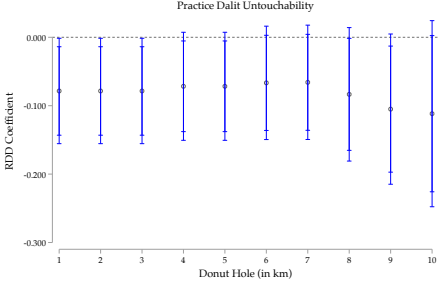
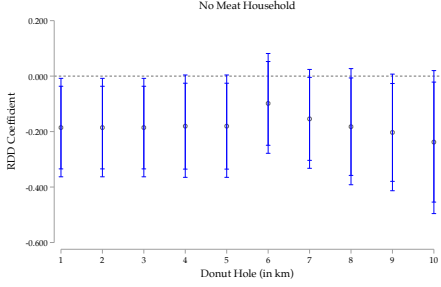
Robustness checks - Donut Hole



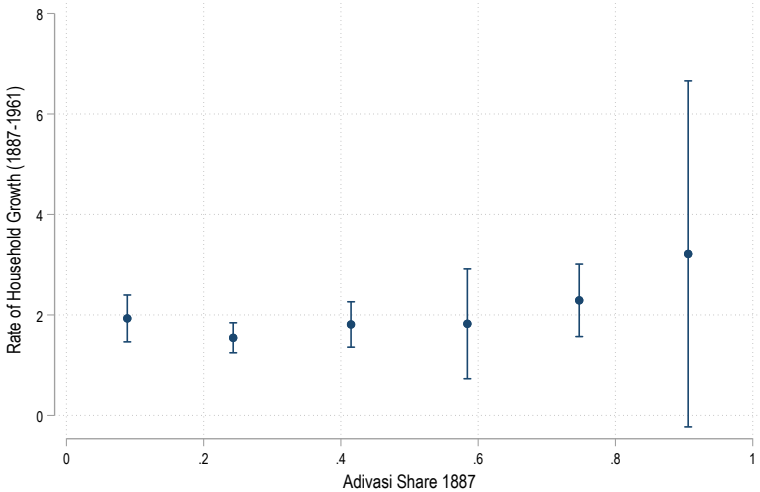






Back

Population Growth West of River



Robustness checks - Conley Standard Errors

Variable	Estimate	S.E.	p-value
Adivasi Share	0.074	(0.074)	0.074
Occupation: Worker (Census)	0.042	(0.042)	0.042
Occupation: Worker (Survey)	0.054	(0.054)	0.054
Wife Worked Outside	0.064	(0.064)	0.064
Believe Work Appropriate	0.045	(0.045)	0.045
Aspiration: Housewife DIL	0.073	(0.073)	0.073
Caste Believes Work Appropriate	0.048	(0.048)	0.048
Caste Prefers Housewife DIL	0.082	(0.082)	0.082
No Meat Household	0.081	(0.081)	0.081
Adivai Ranks >= Middle Caste in Hierarchy	0.046	(0.046)	0.046
Practice Low-Caste Untouchability	0.030	(0.030)	0.030
Practice Adivasi Untouchability	0.084	(0.084)	0.084

Back

Robustness checks - Randomization Inference

Variable	p-value
Adivasi Share	0.002
Occupation: Worker (Census)	0.016
Occupation: Worker (Survey)	0.098
Wife Worked Outside	0.001
Believe Work Appropriate	0.258
Aspiration: Housewife DIL	0.020
Caste Believes Work Appropriate	0.127
Caste Prefers Housewife DIL	0.056
No Meat Household	0.056
Adivasi Ranks >= Middle Caste in Hierarchy	0.084
Practice Low-Caste Untouchability	0.146
Practice Adivasi Untouchability	0.009

Back

Negative Evidence for Labor Supply or Demand Explanations

	Labor Demand			Labor Supply			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Hire Women	Price Received Rice (Rs./Kg)	Rice Output Per Acre (Kg)	Women's Daily Wage (Rs.)	Know Current Wage	Know of Agri Labor Opportunities	Childcare Available
East	-0.115	-0.945	260.147**	-54.276***	0.018	-0.064	-0.073
	(0.070)	(0.778)	(131.107)	(14.184)	(0.027)	(0.045)	(0.061)
Mean for West of River	0.848	17.021	1572.402	279.176	0.964	0.953	0.607
	[0.360]	[3.033]	[652.842]	[44.658]	[0.188]	[0.212]	[0.489]
N	532	307	507	357	373	331	855
Villages	143	143	143	143	143	143	143

▸ Back - Labor Supply and Demand ▸ Back - RDD Assumptions

Hindu Labor Earnings and Agricultural Yields Higher East of River

	Households		Landowners			Market
	(1) Female Earnings from Agricultural Labor (asinh)	(2) Male Earnings from Agricultural Labor (asinh)	(3) Number of women-days hired	(4) Number of men-days hired	(5) Rice Output Per Acre (asinh)	(6) Women's Daily Wage (in Rs)
East	1.243*	0.305	40.172**	11.063	260.147**	-56.677***
	(0.686)	(0.791)	(18.036)	(18.586)	(131.107)	(19.595)
Mean for West of River	2.808	3.188	52.281	9.634	1572.402	276.755
	[4.401]	[4.608]	[350.247]	[35.913]	[652.842]	[38.716]
N	807	807	519	519	507	104
Villages	143	143	143	143	143	104

▸ Back - Labor Supply and Demand

Stylized Facts: Adivasi Presence and the Strength of Caste Purity Rules

- 2011 India Human Development Survey (IHDS), representative survey data with extensive coverage of purity norms; 648 villages across nine Central India states
- Link *Manusmriti* codes to IHDS survey questions:

By twice-born men [Brahmins], a widow must not be appointed to cohabit with any other than her husband; for they who appoint her to another man, will violate the eternal law (IX:64)

"In your community (jati), for a family like yours, is it permissible for a widow to remarry?"

- Code verses related to: 1. Female Seclusion; 2. Marriage; 3. Caste Segregation; 4. Food Taboos

▸ Back - Cross Sectional Evidence Summary

Empirical Specification

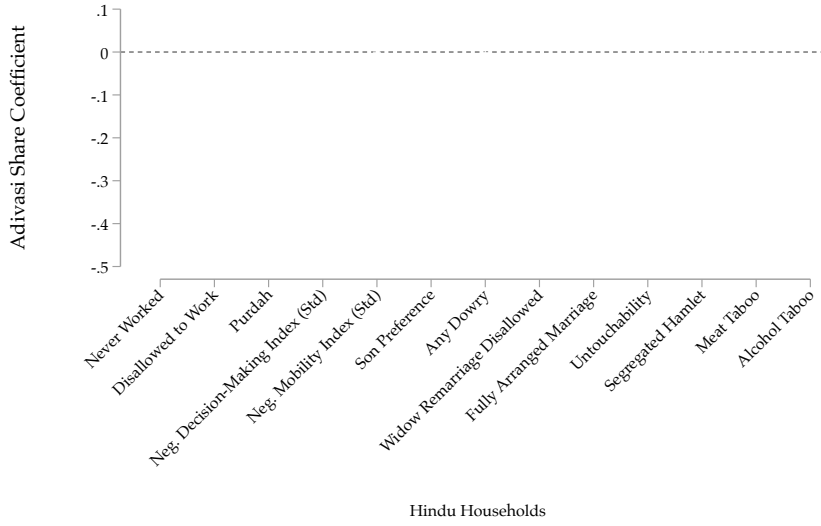
Cross-sectional variation in village-level Adivasi share across 8 central states in India:

$$y_{i,v} = \alpha + \beta AdivasiShare + \gamma X_{i,v} + \epsilon_{i,v}$$

- X_i : caste type.
- Cluster standard errors at the village level.
- Survey sample: Hindu households.

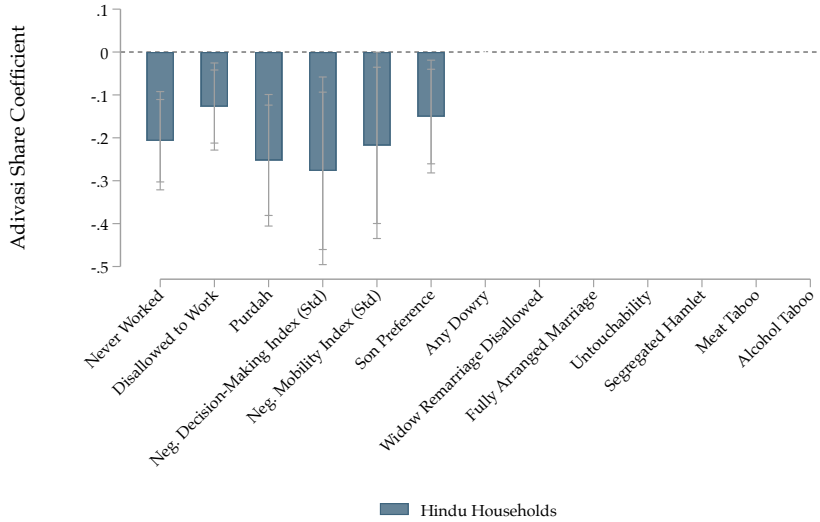
▸ Back - Cross Sectional Evidence Summary

Adivasi Share and Hindu Adherence to Caste Purity Rules



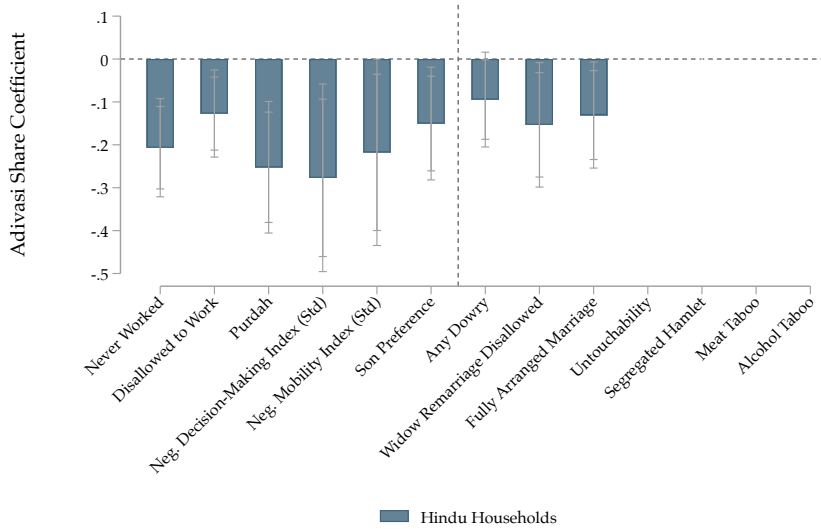
▸ Back - Cross Sectional Evidence Summary

Fact 1. Adivasi Share and Lower Hindu Adherence to Female Seclusion Rules



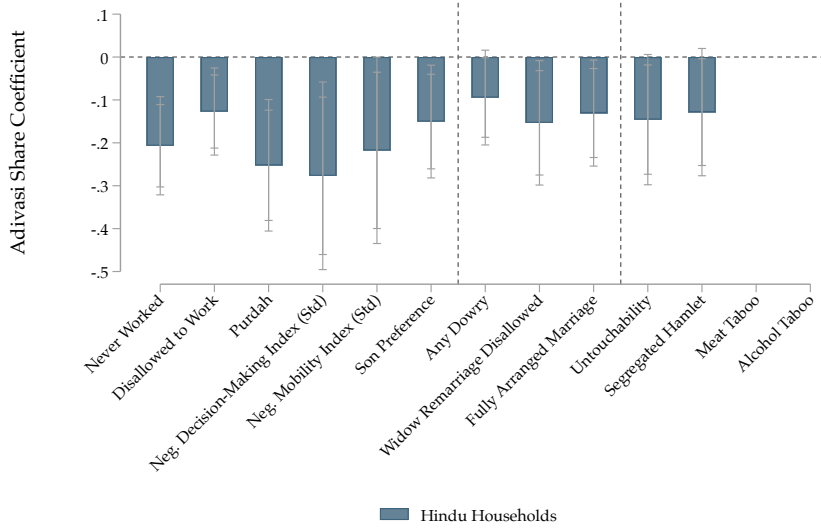
▸ Back - Cross Sectional Evidence Summary

Fact 2. Adivasi Share and Lower Hindu Adherence to Marriage Purity Rules



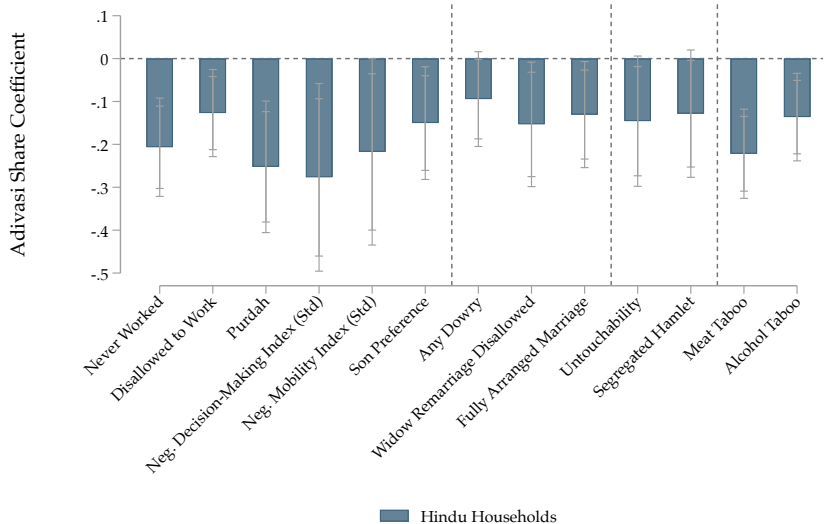
▸ Back - Cross Sectional Evidence Summary

Fact 3. Adivasi Share and Lower Hindu Adherence to Caste Segregation Rules



▸ Back - Cross Sectional Evidence Summary

Fact 4. Adivasi Share and Lower Hindu Adherence to Purity Food Taboos



Asymmetric Effects: Hindu Presence Has No Impact on Adivasi Take-up of Caste Rules

▸ Results

▸ Back - Cross Sectional Evidence Summary

Stronger Hindu-Adivasi Social and Financial Ties East of River

Back

	(1)
	Own Caste Network Index
East	-0.099
	(0.096)
Mean for West of River	0.001
	[0.508]
N	861
Villages	143

- Index includes list of friends with whom: (a) socialize; (b) ask advice; (c) ask financial assistance; (d) ask manpower assistance

Stronger Hindu-Adivasi Social and Financial Ties East of River

Back

	(1) Own Caste Network Index	(2) Other Middle/High-Rank Caste Network Index
East	-0.099	-0.548***
	(0.096)	(0.131)
Mean for West of River	0.001	0.002
	[0.508]	[0.608]
N	861	861
Villages	143	143

- Index includes list of friends with whom: (a) socialize; (b) ask advice; (c) ask financial assistance; (d) ask manpower assistance

Stronger Hindu-Adivasi Social and Financial Ties East of River

Back

	(1) Own Caste Network Index	(2) Other Middle/High-Rank Caste Network Index	(3) Adivasi Network Index
East	-0.099	-0.548***	0.693***
	(0.096)	(0.131)	(0.146)
Mean for West of River	0.001	0.002	-0.002
	[0.508]	[0.608]	[0.625]
N	861	861	861
Villages	143	143	143

- 2.5 times as likely to have Adivasi contact can ask for financial assistance; twice as likely to have Adivasi friend with whom socialize

Stronger Hindu-Adivasi Social and Financial Ties East of River

Back

	(1) Own Caste Network Index	(2) Other Middle/High-Rank Caste Network Index	(3) Adivasi Network Index	(4) Low-Rank Caste Network Index
East	-0.099	-0.548***	0.693***	0.019
	(0.096)	(0.131)	(0.146)	(0.181)
Mean for West of River	0.001	0.002	-0.002	-0.002
	[0.508]	[0.608]	[0.625]	[0.630]
N	861	861	861	861
Villages	143	143	143	143

- Measure of in-group bias:

$$\frac{\text{Share in Network (Ingroup)}}{\text{Share in Network (Outgroup)}} = \lambda \frac{\text{Share in Village (Ingroup)}}{\text{Share in Village (Outgroup)}}$$

Stronger Hindu-Adivasi Social and Financial Ties East of River

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	[0.508]	[0.608]	[0.625]	[0.630]
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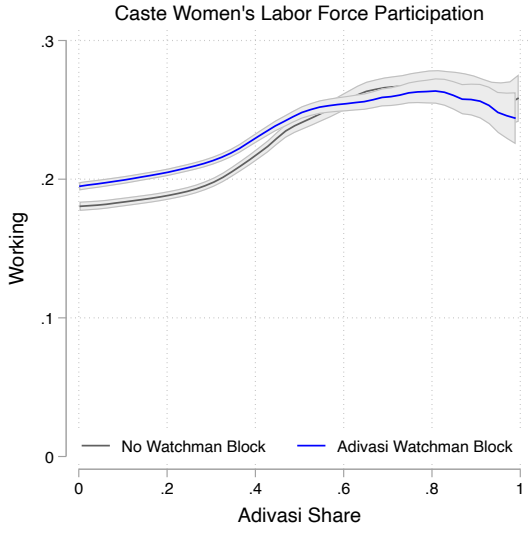
- In-group bias (relative to Adivasi) decreases from 20 to 5.9 (*)
- In-group bias (relative to low-rank caste) decreases from 32 to 14.3 (*)

Historical Natural Experiment: Shifting Adivasi Political Power



▸ Back

Historical Natural Experiment: Shifting Adivasi Political Power

- In three districts (Feudatory States) of Odisha, British colonial government assigned position of village watchman to Adivasi priest (*Jhankhar*); status quo is to assign position based on merit

- Historical record states that decision was ad-hoc, response to needing to quickly put in place administrative structure after death of ruler (1849) (Russell 1885; Maddox 1901; O'Malley 1909; Hamid 1921; Pati 1986)

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- Watchman position included guaranteed, tax-free land and tax income from all other village households (Central Provinces Land Act 1882)
- British reports document political power and social capital of *jhankhar* in watchmen districts (Dewar 1906; O'Malley 1909; Cobden-Ramsey 1911; Hamid 1921)
- Watchman position abolished post-independence, but 1962 Orissa Land Reform allowed *jhankhar* households to keep land (Board of Revenue 1962)

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$\longrightarrow$ Compare caste purity norm outcomes in villages on either side of watchmen district borders

Caste Purity Norms Weaker Today in Former Watchmen Blocks

Table: Purity Norms Using Watchman Block Assignment

	(1) Village Has Adivasi Jhankar	(2) Adivasi Priest Own Wedding	(3) Practice Untouchability	(4) Believe Work Appropriate	(5) Meat Taboo
Watchman Block	0.16***	0.17***	-0.07***	0.05**	-0.13***
	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)
Mean for Not Watchman Block	0.51	0.69	0.87	0.66	0.69
	[0.50]	[0.46]	[0.33]	[0.47]	[0.46]
N	2884	1964	1836	2028	2353
Village	1330	859	804	872	1061

Sample: Sarpanchs and Ward Members in District Border Blocks

Back

Geographic Balance Checks for Watchmen Analysis

	(1) Adivasi Share	(2) Elevation	(3) Slope	(4) Log Flow Accumulation	(5) Rice Suitability	(6) Forest Share
Watchman Block	0.009	18.854***	-0.040	-0.040	0.006	-0.009
	(0.015)	(1.566)	(0.030)	(0.232)	(0.019)	(0.008)
Mean for Not Watchman Block	0.159	148.004	0.312	2.777	1.294	0.037
	[0.150]	[12.977]	[0.302]	[2.363]	[0.208]	[0.086]
Villages	443	443	443	443	443	443

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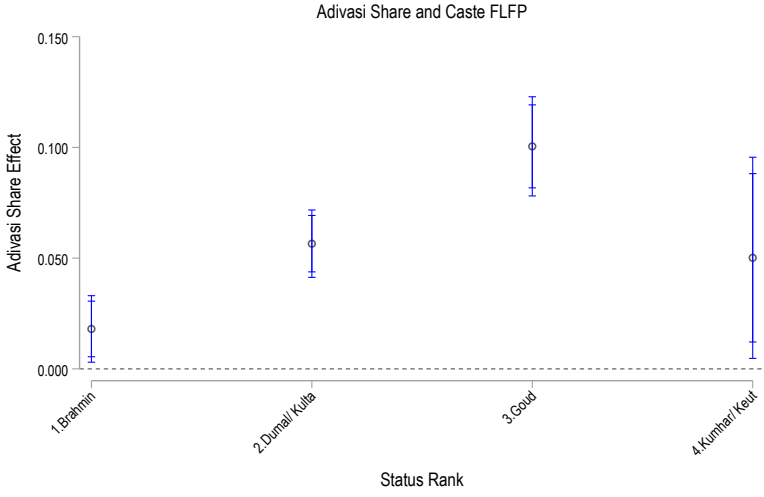
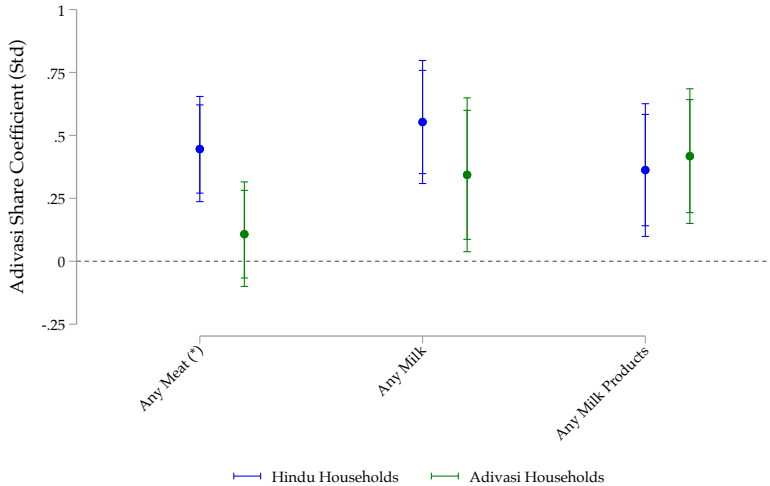
Non-Monotonic Effects of Adivasi Population Share with Caste Rank



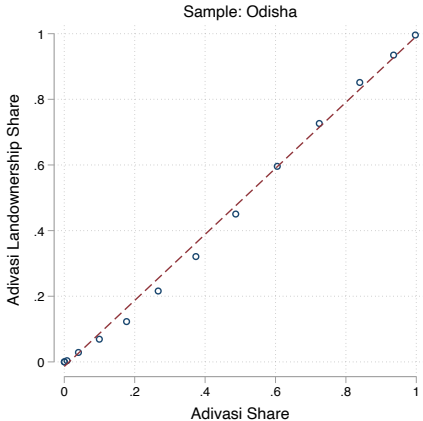
Impacts of Adivasi share on Hindu women's labor force participation highest for women from middle-rank castes ▸ Back

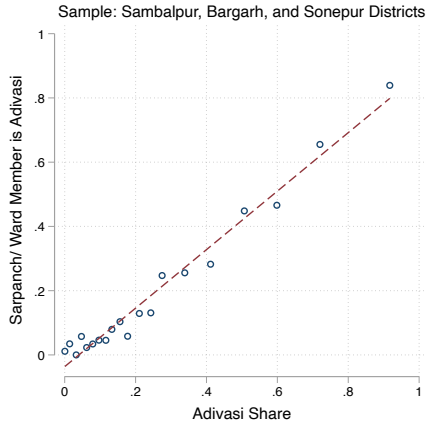
Symmetric Effects: Food Cultural Practices



Hindus traditionally drink milk but perceive meat to be impure; Adivasis traditionally eat meat but perceive it to be back luck to drink milk ▸ Back

Adivasi Wealth and Political Power Increase With Adivasi Population Share





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