

# Ancient Epics in the Television Age: Religious Identity and the Rise of Hindu Nationalism in India\*

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## Abstract

How does strengthened religious identity affect society and politics? We study the impact of “Ramayan,” the massively popular televised version of the Hindu epic. We conduct difference-in-difference analyses, measuring Ramayan exposure with TV signal strength in Indian localities at the time of airing in 1987. Localities with higher Ramayan exposure saw persistently strengthened Hindu religious identity, measured by newborn names and dietary practices; short-run increases in Hindu-Muslim communal violence; and longer-run increases in electoral success for the Hindu nationalist Bharatiya Janata Party. Increased presence of Hindu religious schools is a likely mechanism behind long-run persistence of effects.

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## 1 Introduction

In 1987, India came to a standstill every Sunday morning. Streets emptied, shops closed, and families gathered around television sets, often sharing with neighbors. The cause of this nationwide pause was the broadcast of “Ramayan,” a televised adaptation of the ancient Hindu epic (Rajagopal, 2001). With an estimated 80 million viewers tuning in weekly, it became the most-watched program in Indian television history (Mankekar, 1999). Viewers often treated the broadcast as a religious event, adorning their TV sets with flowers and performing rituals before each episode (Mitra, 1993). In many ways, Ramayan wasn’t just a TV show; it was a cultural phenomenon that brought a centuries-old story to life for a modern audience, unifying viewers across a diverse nation through a shared narrative (Cusack, 2012).<sup>1</sup>

Can a temporary media event lead to a persistent strengthening of religious identity? If so, what would be the impacts on society and politics in the longer run? Through what mechanisms might such longer-run effects operate? We explore these questions by examining the effects of exposure to the Ramayan broadcast on Indian localities. We investigate how exposure to this cultural touchstone affected religious identity, communal relations, political outcomes, and educational institutions in the years that followed.

For causal identification, we exploit variation in TV signal strength at the time of the Ramayan show’s airing in 1987. We conduct difference-in-difference analyses with 1987 TV signal strength as a continuous measure of treatment intensity. Our analyses make use of panel data we assembled on cultural, social, political, and institutional outcomes for over 4,000 Indian localities from 1979-2000.

In this continuous difference-in-difference research design, causal identification relies on a “strong parallel trends” assumption (Callaway, Goodman-Bacon and Sant’Anna, 2025): in the absence of treatment, the average outcome trends for localities at different treatment intensities would have been parallel after conditioning on observed covariates, locality fixed effects, and state-year fixed effects. While this is a stronger assumption than “standard” parallel trends, it is plausible in our setting, due to dual reinforcing factors of our approach: plausibly arbitrary timing of local transmitter establishment during the mid-to-late 1980s Indian transmitter rollout wave, combined with use of an irregular terrain model to isolate variation in TV signal due to topography (while controlling for straight-line proximity to transmitters).

Causal identification is also supported by more usual elements of difference-in-difference research designs. Locality fixed effects control for time-invariant characteristics of localities.<sup>2</sup> We also control for any time-varying factors common to all locations within the same Indian state by including state-year fixed effects in regressions. In addition, we control for time-varying factors associated with a range of locality characteristics by including in the regression a vector of initial locality characteristics interacted with year fixed effects.

We find, first, that areas with higher Ramayan exposure (higher 1987 TV signal strength) experienced significant changes in cultural practices indicating strengthened religious identity.

<sup>1</sup>The Ramayan TV show experienced a resurgence in popularity when it was rebroadcast during the COVID-19 lockdown in India, again breaking viewership records (Verma, 2020).

<sup>2</sup>In other words, we do not need to assume that our treatment measure – TV signal strength in 1987 – is uncorrelated with time-invariant characteristics of places. Much of the earlier related literature using irregular terrain models to measure broadcast media exposure conducts cross-sectional analysis, so must make this assumption.

This manifests in two ways: Hindu parents became more likely to give their newborn sons common Hindu names, and lower-caste households showed increased adherence to orthodox Hindu dietary practices (vegetarianism). A one-standard-deviation increase in our measure of Ramayan exposure fully closes the vegetarianism gap between lower-caste and upper-caste Hindus. This finding is an instance of “Sanskritization,” the phenomenon in which lower-caste Hindus adopt the practices of upper castes (Srinivas, 1962).

Second, we find that higher exposure to Ramayan leads to an increase in violence between Hindus and Muslims. This increase is short-lived, peaking 4-5 years after the show’s broadcast. This increase in communal violence suggests that strengthened Hindu identity raised awareness of religious distinctions, exacerbating tensions between religious communities.

We then examine effects on electoral outcomes. We find that higher exposure to the show raises the probability that the Hindu nationalist Bharatiya Janata Party (BJP) wins state assembly elections. The electoral gains for the BJP come at the expense of the Indian National Congress (INC) party, which sees corresponding reductions in the probability of winning state assembly elections. These political effects prove more durable than the effects on communal violence, persisting throughout our study period to the year 2000.

We address a number of threats to causal identification. A first potential concern is that places receiving TV very early or very late (or never at all) may be on different time trends than places receiving TV around 1987, making them poor counterfactuals for estimating Ramayan’s effects. To address this, we show that our estimates are robust to restricting the sample to localities that received TV access as part of the large-scale government TV transmitter rollout in the mid-to-late 1980s. In this restricted sample, identification of Ramayan’s effects relies on comparisons between places that experienced large increases in TV signal in the 1984-1990 period, but that happened to get their increase prior to 1987 (in time for the Ramayan show) vs. just after 1987 (too late to watch Ramayan). This restriction ensures that our comparison is among places that experienced TV signal improvements at roughly similar times during a period of rapid, government-planned expansion. This approach reduces potential bias from including in the comparison group localities that got very early (e.g., 1970s) TV access, as well as localities with very late TV access (in the 1990s).

A key interpretation issue is whether our effects are due to general TV access itself, rather than exposure to the Ramayan TV show specifically in 1987. We can rule out this concern. We constructed measures of localities’ TV signal strength in all years of our data, and gauge robustness of regression results to their inclusion as control variables. The coefficient on 1987 Ramayan exposure remains virtually unchanged when controlling for contemporaneous TV signal strength (including lags), indicating that the effects we document are the effects of TV exposure in 1987, and not simply the effects of TV access in other years.

Another question is whether our results reflect exposure to other TV content airing in 1987, rather than Ramayan specifically. We offer several pieces of evidence against this interpretation. First, TV programming content analysis reveals that Ramayan was the first television show with a religious theme ever aired in India, and the only one in 1987. Second, using mentions in the Times of India newspaper as a proxy for viewership, we show that Ramayan’s popularity vastly exceeded any other television program of the era. Third, we find that the ef-

fects of Ramayan exposure are stronger in areas closer to religious pilgrimage sites associated with the Ramayana epic, consistent with the show resonating more in places with pre-existing cultural connections to the narrative. This pattern of treatment effect heterogeneity would be unlikely if content other than the Ramayan show itself were driving the treatment effect.

A more specific concern along these lines is that our findings might be driven by exposure to news on television in 1987, rather than exposure to the Ramayan show. If news access were driving our results, we would expect similar effects from radio access, which also provided news coverage during this period. However, we find that FM radio signal strength in 1987 shows no similar effects on our outcomes, even though radio provided comparable access to news on current events. The absence of an effect of radio access helps rule out that exposure to news is the mechanism behind our findings.

Finally, we address potential confounding with the Ram Janmabhoomi movement, a Hindu nationalist campaign that gained momentum in the late 1980s and culminated in the demolition of the Babri Masjid in 1992 (van der Veer, 1994). This movement could potentially confound our results if its local intensity was correlated with Ramayan exposure. We measure exposure to the Ram Janmabhoomi movement through proximity to the Ram Rath Yatra, traveling political and religious rallies organized by the BJP in 1990 that were the key mobilizing events for the movement. Our estimated effects of Ramayan exposure are robust to inclusion of controls for proximity to the Ram Rath Yatra route. This indicates that the effects we attribute to Ramayan are not confounded by exposure to the Ram Janmabhoomi movement.

We propose a conceptual framework that ties together our empirical results. Exposure to the Ramayan TV show strengthened Hindu religious identity, leading to increased adoption of Hindu names and dietary practices. This strengthened identity sharpened the delineation between Hindus and non-Hindus, contributing to short-term increases in Hindu-Muslim communal violence. Strengthened religious identity also made Hindus more responsive to the BJP's Hindu-nationalist platform, leading to improved electoral performance for the party in state elections over the longer term. The long-term persistence of effects may operate through feedback loops due to policy and institutional changes that continue to strengthen Hindu identity in future years. These feedback mechanisms could work through direct government action (such as changes to educational curricula or support for Hindu cultural institutions) or through non-governmental actors whose expansion is facilitated by the changed political and cultural environment. Such institutional channels could explain how a temporary media event generates lasting political consequences.

Motivated by this conceptual framework, we provide empirical evidence for one concrete feedback mechanism: the expansion of Rashtriya Swayamsevak Sangh (RSS) schools. The RSS, the ideological parent organization of the BJP, operates an extensive network of educational institutions that explicitly promote Hindu cultural values and nationalist ideology. We find that areas with higher Ramayan exposure see increased presence of RSS schools, with the effect emerging gradually through the 1990s – precisely when the BJP was experiencing electoral gains in these same areas. This expansion of RSS schools may reflect, first, that Ramayan exposure strengthened Hindu identity in local populations, making them more receptive to institutions promoting Hindu values; in addition, BJP electoral victories may have additionally

facilitated RSS school expansion through supportive policies or access to public resources. By reshaping both the cultural landscape and the distribution of political power, Ramayan created conditions for institutional changes that continued to reinforce Hindu identity formation.

Our study contributes to interconnected literatures in political economy and the economics of identity and culture. Our primary contribution is to provide empirical evidence supporting theoretical models linking identity changes with shifts in political equilibria. Recent theoretical work emphasizes how culture and institutions interact to produce social equilibria that can shift in response to external shocks (Acemoglu and Robinson, 2025). Akerlof and Kranton (2000) highlight how identity influences individual behavior and choices, laying the groundwork for understanding the interplay between identity formation and socio-political dynamics. Sambanis and Shayo (2013) develop a theoretical framework in which social identification is endogenous and shifts in response to external factors, potentially affecting conflict and political behavior. Their model predicts that strengthening ethnic or religious identification can increase intergroup tensions and reshape political equilibria. Besley and Persson (2021) similarly predict that strengthened group identities can lead to the emergence of identity-based political movements and electoral success for parties that represent these identities. Bonomi, Gennaioli and Tabellini (2021) model how identity interacts with beliefs to generate political conflict, showing how identity salience can lead to polarization even when groups share common interests. Despite these theoretical predictions, causal evidence on how identity shifts reshape political outcomes remains limited, and evidence on mechanisms of long-run persistence is even more scarce.

We provide unusual evidence for a full causal chain through which changes in identity lead to shifts in political equilibria, and persist over time. We show that temporary exposure to religious entertainment content causes strengthened Hindu identity, increases in intergroup conflict, and persistent political realignment favoring Hindu nationalist parties. Crucially, we identify a specific institutional mechanism – the expansion of RSS schools – through which a temporary identity shock can cause lasting cultural and political change. In sum, we provide empirical support for theoretical predictions relating identity shifts with political outcomes, while also revealing a feedback mechanism through which effects on identity and political outcomes can become self-sustaining.<sup>3</sup>

Because the initial factor initiating the causal chain we study is a broadcast TV show, our work is also related to the literature on the impacts of mass media on cultural, social, and political outcomes. We consider our contributions to the literature on the economics of mass media to be secondary, rather than primary. We highlight the Ramayan show as the cause of the initial strengthening of religious identity. But the show was only a temporary phenomenon (lasting for just 1.5 years), so we emphasize more strongly the subsequent consequences of this identity strengthening: short-run inter-group conflict, longer-run BJP electoral success, and the feedback loop via religious educational institutions that leads to long-run persistence of identity and political effects.

<sup>3</sup>Related work, Solá (2025), finds that Pentecostal church growth in Brazil (due to Bible translations to local languages, rather than media exposure) raises vote shares of right-wing and evangelical candidates.

While we consider our connection to the mass media economics literature to be only secondary, we offer some thoughts about how our work may be distinguished in that context. This is a large literature, so our discussion of the related work is selective.

Studies of the impacts of *religious* broadcast media are the most highly related to our work. Wang (2021) shows that exposure to Father Coughlin's explicitly political Catholic radio broadcasts affected voting and anti-Semitic attitudes in the 1930s U.S. In Brazil, Buccione and Mello (2023) examine how Pentecostal radio broadcasting aimed at religious conversion caused social changes (fertility and female labor force participation) and increased vote share for Pentecostal candidates. In contrast with these papers that study religious mass media programming with explicit political or religious conversion objectives, we study religiously-themed entertainment content that was not intended to affect politics or promote religious conversion. In addition, our work is distinguished by identifying a feedback mechanism (religious school establishment) behind long-run persistence of effects.

Other related studies document impacts of media exposure on cultural and social outcomes. The 1915 U.S. film "The Birth of a Nation" has been found to increase racial hate and KKK membership (Ang, 2023), while also increasing patriotism and reconciliation between North and South (Esposito et al., 2023). Armand et al. (2024) show that radio broadcasting of civil rights narratives reduced racial discrimination in the U.S. Blouin and Mukand (2019) examine how Rwandan radio propaganda designed to reduce ethnic salience helped foster national (rather than ethnic) identity. Exposure to TV soap operas has been found in India to raise women's status (Jensen and Oster, 2009), and in Brazil to reduce fertility (La Ferrara, Chong and Duryea, 2012) and raise divorce rates (Chong and La Ferrara, 2009). Grosfeld et al. (2024) find that exposure to secular content on TV reduced religiosity in post-communist Poland. Our work differs by looking beyond cultural and social outcomes to political impacts, and by documenting a long-run feedback mechanism via religious schools.

Another set of related research examines the impact of mass media on political outcomes. Gentzkow (2006) finds that TV access reduces voter turnout in the U.S. Exposure to the conservative channel Fox News has been shown to increase Republican vote share in the U.S. (DellaVigna and Kaplan, 2007; Martin and Yurukoglu, 2017). Enikolopov, Petrova and Zhuravskaya (2011) find that exposure to an opposition TV channel raises vote shares of opposition parties in Russia. Yanagizawa-Drott (2014) finds that propaganda radio incites killings during the Rwandan genocide. DellaVigna et al. (2014) find that Croatian exposure to Serbian radio raises anti-Serb sentiment and voting for extremist parties. Adena et al. (2015) show that radio access facilitated the rise of the Nazis in Germany. Durante, Pinotti and Tesei (2019) demonstrate that exposure to Berlusconi's TV channel in Italy raised long-term support for Berlusconi's party; mechanisms at play include reduced cognitive sophistication and civic-mindedness (for those exposed as youth), as well as higher loyalty to the Berlusconi channel (for older adults). Our work shares with these studies an interest in downstream electoral outcomes, but differs in our extensive exploration of identify shifts earlier in the causal chain, as well as our evidence on the feedback loop via religious school establishment.

Among studies on India specifically, Mitra and Ray (2014) develop a theory of Hindu-Muslim conflict, elaborating how economic incentives interact with ethnic divisions to gener-

ate violence. Religious and cultural events have been shown to influence political behavior and communal tensions (Blakeslee, 2014; Baral, Nellis and Weaver, 2021; Iyer and Shrivastava, 2018). Atkin, Colson-Sihra and Shayo (2021) establish links between Hindu-Muslim conflict and religious dietary restrictions. Understanding these dynamics is particularly important given the economic consequences of religious divisions in India: Asher et al. (2024) document how residential segregation by religion affects access to public services, while Kalra (2021) shows that communal violence leads to residential segregation that affects educational outcomes. Chowdhury et al. (2025) study cultural and political impacts of RSS schools. We build on this body of work by demonstrating causal effects of identity strengthening on cultural practices, intergroup conflict, political outcomes, and religious school establishment.

Methodologically, our study relates to prior research using Irregular Terrain Models (ITM) of electromagnetic signal propagation to generate plausibly exogenous variation in media exposure (Olken, 2009; Yanagizawa-Drott, 2014). We combine this approach with panel data methods (Gentzkow, 2006; DellaVigna and Kaplan, 2007; Gentzkow and Shapiro, 2008; Chong and La Ferrara, 2009; Jensen and Oster, 2009; La Ferrara, Chong and Duryea, 2012). This methodological combination of ITM methods with panel data, while not unique, is unusual and enables us to estimate the impact of the Ramayan broadcast while making weaker identification assumptions than ITM studies that use purely cross-sectional data.

The paper proceeds as follows. Sections 2 and 3 provide background on television in India and the Ramayan broadcast, respectively. Section 4 describes our data, and Section 5 our empirical strategy. Section 6 presents our primary analyses of naming patterns, dietary practices, communal violence, and electoral outcomes. Section 7 presents additional analyses addressing threats to causal identification. Section 8 outlines a conceptual framework, followed by analysis of religious schools as a mechanism of persistence in Section 9. Section 10 concludes.

## 2 Television in India

Television broadcasting in India began in 1959 with experimental transmissions in Delhi (Kumar, 1998), with regular broadcasts commencing in 1965. The 1970s saw gradual expansion to major cities (Singhal and Rogers, 1989); TV remained primarily an urban phenomenon during this decade (Johnson, 2000). For the 1982 Asian Games in New Delhi, the government invested heavily in TV transmitters (Kohli-Khandekar, 2010), and thereafter followed an ambitious expansion plan. The number of active transmitters increased from 18 in 1981 to 170 in 1985, and the share of the population with at least “weak” TV signal coverage increased from 15.0% to 32.9% (Table 1). During this period, the national broadcaster Doordarshan began airing popular entertainment programs.

Television coverage continued to increase during the 1980s, providing 40.6% of the population with weak TV signal or better (186 transmitters) in 1987, rising to 50.1% (483 transmitters) by 1990. This period spans the airing of Ramayan (1987-88) and forms the core of our study’s focus. The rapid expansion of TV access in the 1980s occurred in an environment of limited viewing options—Doordarshan maintained a monopoly with a single national channel. This contrasts with the multi-channel environment that developed after economic liberalization in 1991, when the government allowed private and foreign broadcasters to enter

the market (Thussu, 2007). Our analysis thus captures the effects of Ramayan during a period when television was a novel and powerful medium in many Indian households, with viewers having essentially no alternative TV programming options.

### 3 The Ramayan Television Series

“Ramayan,” the televised adaptation of the Hindu epic Ramayana, was a watershed moment in Indian television history (Rajagopal, 2001). Produced by Ramanand Sagar for the state-owned broadcaster Doordarshan, this 78-episode series aired from January 1987 to July 1988 and brought the ancient Hindu epic to life for a modern audience (Mankekar, 1999).<sup>4</sup>

The Ramayana narrates the life of Ram, an avatar of the Hindu god Vishnu. Dating back 2,500 years, it is considered one of the two key religious texts in Hinduism (along with the Mahabharata). The TV adaptation closely followed the original narrative, depicting Ram’s exile from his kingdom, the abduction of his wife Sita by the demon king Ravan, and the subsequent war to rescue her (Cusack, 2012). The series portrayed ideal gender roles and family relationships based on traditional Hindu values (Mankekar, 1999), with Ram presented as the perfect son, brother, and king, and Sita embodying the ideal of wifely devotion. This faithfulness to the source material lent the series its quasi-religious status among viewers. The show’s production values were groundbreaking for Indian television at the time, using special effects, elaborate costumes, and dramatic music to create a compelling visual spectacle (Mankekar, 1999). For many viewers who had previously encountered these narratives only through oral traditions or text, this was an entirely new medium through which to experience the epic.

The show aired every Sunday morning at 9:30 AM, a time traditionally associated with religious activities in Indian households (Mitra, 1993). This scheduling amplified the series’ impact, transforming television watching into a communal religious experience. Many viewers would bathe before watching, dress in clean clothes, and perform small pujas (worship rituals) in front of their TV sets (Rajagopal, 2001).

Prior to Ramayan’s airing in 1987, there had never been a broadcast TV show in India with a religious theme. The start of the series therefore represented a step-function in religious TV content in India. To document this quantitatively, we collected data on all 176 television serials broadcast on Indian public networks from 1980 to 2000. Appendix Figure A4 presents these data, highlighting the absence of religious shows prior to 1987.

Ramayan’s television viewership was unprecedented in India.<sup>5</sup> The show’s popularity was staggering, with estimates suggesting that over 80 million people tuned in to watch each episode (Rajagopal, 2001). According to Ninan (1995), the series regularly achieved a viewership share of over 80% in urban areas, with even higher percentages in rural regions. At its peak, during the episode depicting Ram’s coronation, over 100 million viewers were estimated to be watching simultaneously (Mankekar, 1999), remarkable given that only about

<sup>4</sup>Following Hindi transliteration conventions, the final “a” in “Ramayan” and “Ram” is typically not pronounced or written in common usage. In English scholarship on the ancient epic text, the formal Sanskrit transliteration “Ramayana” is conventionally used for the title, and the deity is referred to as “Rama”. The television series followed common pronunciation, using “Ramayan” as its official Hindi title and referring to the deity as “Ram”.

<sup>5</sup>Lutgendorf (1990) notes, “Never before had such a large percentage of South Asia’s population been united in a single activity, never before had a single message instantaneously reached so enormous [an] audience.”

30 million television sets existed in India at the time (Singhal and Rogers, 1989). The phenomenon of “community viewing” emerged, with people gathering in large groups around single television sets, often in public spaces or at neighbors’ homes. Mitra (1993) reported instances of entire villages assembling to watch the show. During its broadcast, streets in many cities would become deserted, and even train schedules were adjusted to accommodate the show’s timing (Rajagopal, 2001).

Many have argued that the Ramayan series played a crucial role in standardizing and disseminating a particular version of Hindu mythology across a diverse nation (Rajagopal, 2001; Guha, 2007). In a country with numerous regional and linguistic variations of the epic, the TV series provided a unifying narrative that transcended local differences.<sup>6</sup> Datta et al. (1990) say, “For the first time, all Hindus across the country saw and at the same time listened to the same thing: the serial, in fact, introduced a congregational imperative into Hinduism.”

The social and political impacts of Ramayan were unintentional on the part of the government. At the time of airing, the national government was led by the secular Indian National Congress (INC) party, not the BJP (Rajagopal, 2001). The primary motivation for airing Ramayan was to increase advertising revenue for Doordarshan (Mankekar, 1999) and to expand TV viewership.<sup>7</sup> This distinguishes our study from research on propaganda or explicitly political media: Ramayan was entertainment content whose effects on identity, society, and politics were unintended consequences.

## 4 Data

Here we briefly describe the data we use to measure exposure to Ramayan, as well as data on outcome and control variables. For further details, see Appendix Section B. Table 2 displays summary statistics for all our key variables.

### 4.1 Television Data

Our measure of exposure to Ramayan is estimated TV signal strength at the beginning of 1987 (just before the show started airing). We also construct a time-varying measure of TV signal strength over the entire time period of our analyses to separately estimate the impact of access to television on the same outcome variables. The measure varies annually, as well as spatially at a very fine-grained level, across 1-kilometer grid cells for the entirety of India. We aggregate grid-cell-level signal strength measures to various locality levels.

We compile comprehensive data on 1,181 TV transmitters operated by Doordarshan, the national broadcaster, between 1965 and 2000. Our data sources include archival records from the Doordarshan Audience Research Unit, Ministry of Information and Broadcasting annual reports and documents, Press Information Bureau press releases, and Right to Information

<sup>6</sup>Guha (2007) notes, “The televised epic was introducing subtle changes in this pluralistic and decentralized religion.”

<sup>7</sup>Ramanand Sagar, the show’s creator, faced initial skepticism from officials and had to lobby extensively before the series was approved for broadcast (Lutgendorf, 1990). S.S. Gill, Secretary of Information and Broadcasting at the time, recalled that Prime Minister Rajiv Gandhi initially hesitated to approve the show, fearing it might cater primarily to a Hindu audience. Gill, who described himself as “a strong leftist,” argued that Ramayan is a national epic and part of the majority culture, emphasizing that there was nothing partisan about the project. The intention, he argued, was not to shift the political balance between majority and minority communities but to raise the government’s influence by bolstering TV viewership (Rajagopalan, 2020).

filings. For each transmitter, we collect location coordinates, power, height, frequency, commissioning dates, and upgrade or decommissioning dates. Details on data sources and construction procedures are provided in Data Appendix Section B.5.

To measure TV signal strength, we apply an Irregular Terrain Model (ITM) of signal propagation (Hufford, 2002; Crabtree and Kern, 2018). The ITM models how TV signals propagate considering obstacles in irregular terrain, using digital elevation data at 30-meter resolution. We overlay a 1-kilometer grid over India (approximately 4.5 million grid cells) and calculate two measures of signal strength for each transmitter-grid cell pair: *freespace signal strength*, which captures hypothetical signal assuming unobstructed transmission (varying inversely with squared distance), and *actual signal strength*, which incorporates terrain and interference.

For each grid cell and year, we identify the transmitter providing the strongest actual signal. We then aggregate from grid cells to locality levels using population-weighted averages based on 1980 gridded population data. Weighting accounts for non-uniform distribution of population within localities. *Ramayan* first aired in January 1987, so we use January 1987 TV signal strength as our measure of exposure to the *Ramayan* show. Figure 1 displays actual signal strength and transmitter locations at four-year intervals from 1979 to 1999, illustrating the expansion of TV coverage throughout our analysis period.

In Table 1, we show statistics for our measures of actual signal strength at the assembly constituency level and for all of India from 1970 to 2000. Statistics under “Assembly Constituencies” are averages across assembly constituencies (which themselves are population-weighted averages across grid cells within assembly constituencies). Statistics in the “India” columns are population-weighted averages across all grid cells in the country. Under “Signal”, we display the population-weighted average actual signal strength in dBm (decibel milliwatts). The threshold for “weak” television reception defined by the Advanced Television Systems Committee (ATSC) guidelines is -68 dBm, and so we display under “Weak Coverage” the share of the population with average signal above this threshold (ATSC, 2010).

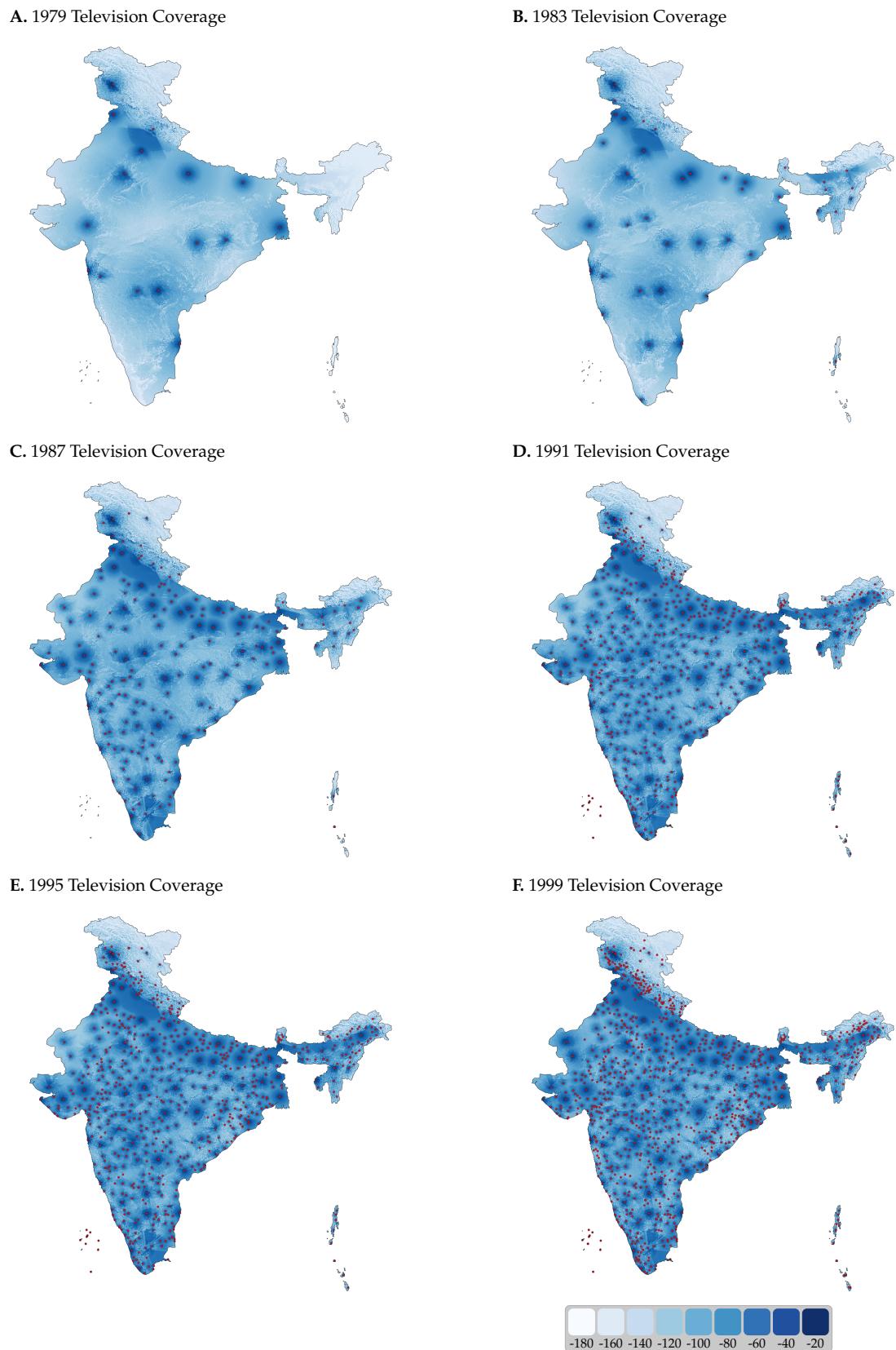
During the 1980s, television coverage expanded rapidly. In 1980, only 15.0% of the population had a television broadcast signal of at least the weak reception level. This increased substantially to 40.6% by 1987, and to 55.6% by 2000 (column 7). In 1982, India hosted the Asian Games and commissioned 20 transmitters in order to broadcast the event to a larger audience, marking the introduction of television to the masses. The largest annual increase in television coverage occurred during 1984, when the government launched a massive TV expansion plan, launching a transmitter per day; from 1984 to 1985, share of the Indian population with at least weak reception increased substantially from 18.2% to 32.9%.

In regression equations, we normalize the TV signal variable by dividing it by its sample standard deviation. Coefficients on TV signal in general ( $TVSignal_{it}$  and its lags) as well as of signal in 1987 ( $Ramayan_i$ ) will be interpreted as impacts of one-standard-deviation changes.

## 4.2 Radio Data

To conduct a placebo test, we construct measures of FM radio signal strength for India in 1987 using the same methodology as for television data. We obtain data on FM radio transmitters from the 1987 edition of the World Radio TV Handbook (Frost, 1987), which reports the location, power, and frequency of all transmitters operating in that year. We apply the same

**Figure 1 - Television Coverage Expansion: Actual Television Signal Strength in Four-Year Intervals**



*Notes:* This figure displays actual television signal strength in dBm at the 1 by 1-kilometer grid for India for the start of 1979, 1983, 1987, 1991, 1995 and 1999 for each panel respectively. The actual television signal strength in dBm is estimated using an irregular terrain model. Darker shades of blue represent greater signal strength. Transmitter locations are depicted with red circles.

Table 1 - Summary Statistics of Television Expansion

Year (1)	Active Transmitters (2)	Assembly Constituencies		India	
		Signal Strength (3)	Weak Coverage (4)	Signal Strength (5)	Weak Coverage (6)
1970	1	-172.2	2.4	-167.5	1.8
1971	1	-172.2	2.4	-167.5	1.8
1972	1	-172.2	2.4	-167.5	1.8
1973	2	-154.3	3.3	-148.3	3.4
1974	5	-150.8	4.9	-146.0	4.6
1975	5	-150.8	4.9	-146.0	4.6
1976	9	-117.1	8.7	-113.3	9.2
1977	9	-117.1	8.7	-113.3	9.2
1978	14	-109.8	11.9	-105.6	12.9
1979	16	-107.7	12.4	-102.8	13.6
1980	18	-106.9	13.7	-101.9	15.0
1981	18	-106.9	13.7	-101.9	15.0
1982	19	-105.7	14.2	-100.9	15.3
1983	41	-96.6	17.4	-95.8	17.3
1984	43	-96.0	18.0	-95.0	18.2
1985	170	-81.4	30.9	-78.9	32.9
1986	178	-77.6	35.8	-74.9	38.4
1987	186	-76.2	37.8	-73.6	40.6
1988	229	-74.2	40.3	-72.3	42.5
1989	287	-72.6	42.4	-71.1	44.1
1990	483	-69.3	48.4	-68.0	50.1
1991	522	-68.5	50.1	-67.2	51.9
1992	531	-68.2	50.5	-66.8	52.5
1993	544	-67.7	51.5	-66.2	53.7
1994	559	-67.8	51.6	-66.3	53.8
1995	690	-67.4	52.3	-65.8	54.7
1996	748	-67.4	52.4	-65.8	54.8
1997	840	-67.1	52.9	-65.6	55.3
1998	947	-66.8	53.5	-65.4	55.8
1999	1,048	-66.9	53.5	-65.4	55.7
2000	1,082	-66.9	53.4	-65.5	55.6
Units		4,110		1	

Notes: For each year, we refer to the start of the year (1 January). Column 2 reports the number of active transmitters. The units of observation are 4,110 in the “Assembly Constituencies” columns, and the entire country in the “India” columns. All statistics are averages at the unit of observation. Signal Strength measures the population-weighted average actual signal where population weights are based on 1980 gridded data. Weak Coverage measures the percentage of the population with at least weak television signal, -68 dBm (ATSC, 2010).

ITM used for television signal propagation, which is appropriate for FM broadcasting since the model is calibrated for frequencies between 20 and 20,000 MHz. Following the same procedure as for TV data, we calculate actual and freespace FM radio signal strength for each 1-kilometer grid cell, then aggregate to locality levels using population-weighted averages.

The threshold for “weak” FM radio coverage is -68 dBm (ITU Radiocommunication Sector, 1990). This threshold coincidentally equals the value used for “weak” television coverage, facilitating direct comparison. FM radio provides a useful placebo because it offered news coverage during this period but did not broadcast the Ramayan show. If our television signal effects were driven by access to news rather than Ramayan specifically, we would expect similar effects from FM radio signal strength. Details on radio transmitter data, ITM parameters, and signal calculations are provided in Data Appendix Section B.6.

### 4.3 Names

Naming patterns are widely regarded as important markers of cultural identity. We examine whether exposure to Ramayan led to an increase in the likelihood newborns are given names typically prevalent among Hindus. The outcome of interest is the share of individuals residing in location  $i$  and born in year  $t$  who have a “common” Hindu name. We define a “common” Hindu name as a name among the top ten Hindu names in state  $s$ . Top names are identified for each state  $s$  as the ten most popular names among Hindu males residing in state  $s$  and born between 1900 and 1970 (the decade prior to our period of analysis), similar to Bazzi, Fiszbein and Gebresilasse (2020). Since we are able to access very spatially disaggregated electoral roll data on names, we can conduct the names analysis at very granular locations, down to the PIN code (postal code) level. For consistency across outcome variables, we aggregate data to the level of 3,085 state assembly constituencies across 21 states.<sup>8</sup> In robustness checks, we conduct the names analyses at the more disaggregated PIN code level and find similar results.

Names data are from Sood and Dhingra (2023), which provides electoral roll data for different states with identifiers at the PIN code level. Without data on religious identity, we identify a person as Hindu if their father’s full name is classified as Hindu using the multi-religion algorithm of Chaturvedi and Chaturvedi (2024). We restrict the sample to males because fathers’ names are only available for unmarried females. For details, see Data Appendix Section B.2.1. We list the top 10 Hindu names for each Indian state in Appendix Table A1.<sup>9</sup>

### 4.4 Vegetarianism

The consumption data come from the 1982 and 1999 waves of the Additional Rural Incomes Survey (ARIS)/Rural Economic & Demographic Survey (REDS). For 227 villages and 3,656 unique households in our balanced panel, we observe the total annual consumption of meat, fish, and egg products, either home-produced or purchased. We define “vegetarianism” as an indicator variable equal to 1 if the household reports no consumption of meat, fish, and eggs (and 0 otherwise). Our sample consists of 3,226 Hindu households, of which 42% are vegetarian. Vegetarianism is more prevalent among upper-caste households (51%) than among lower-caste households (38%). For details, see Data Appendix Section B.2.2.

### 4.5 Hindu-Muslim Conflict

For Hindu-Muslim conflict data, we rely on Varshney et al. (2006) and Mitra and Ray (2014). Varshney et al. (2006) provide data on the number of Hindu-Muslim conflicts up to 1995. We use Mitra and Ray (2014), which extends the dataset through 2000. For our analysis, we focus on the period from 1979 to 2000. The dataset includes references to the main source where

<sup>8</sup>These states and union territories, using the pre-2000 boundaries, include Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Goa, Gujarat, Haryana, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal.

<sup>9</sup>While the vast majority of the top names appear clearly Hindu, a handful appear odd, such as “Aabdu” in Assam and “John” in Meghalaya. Our approach identifies Hindus on the basis of father’s name, and not the individual’s own name (which is of course endogenous), but leads to these odd cases where fathers who the algorithm identifies as Hindu have sons with seemingly non-Hindu names. An alternate approach that classifies individuals as Hindu on the basis of their *own* name eliminates the handful of seemingly non-Hindu names from the list of top names and also allows us to examine names of females (by avoiding the need to have the father’s name). Results for both genders are consistent with our primary findings. See Appendix Section C for details.

the conflict is reported. A communal riot is defined as an event characterized by violence involving two or more groups identified along communal lines, such as religious or ethnic affiliations, engaging in direct confrontation with one another. It is important to note that events involving violence directed solely at the police or involving a single communal group do not qualify as communal riots. To geolocate the conflict events, we manually read all the source newspaper articles and extracted the most disaggregated neighborhood mentioned in each news report. We then geolocated all the conflicts at the neighborhood level using the Google Maps API and manually verified the geolocations.

Using these data, we define “any conflict”: an indicator variable equal to 1 if a Hindu-Muslim conflict occurred in the locality, and 0 otherwise. We also construct measures for violent conflicts (those with at least one injury or death) and deadly conflicts (those with at least one death). For details, see Data Appendix Section B.2.3.

#### 4.6 Elections

We examine whether exposure to Ramayan influences political outcomes, focusing on state assembly elections. We use electoral data from the “LokDhaba: Indian Election Dataset” provided by the Trivedi Centre for Political Data (Agarwal et al., 2021). Our data span 1979 to 2000 and cover 4,062 constituencies in 27 states and union territories, including information on votes received by different political parties in each election.

Our primary political outcome is an indicator equal to one if the Bharatiya Janata Party (BJP) wins the state legislative assembly election in the constituency, and 0 otherwise. We also examine secondary outcomes: whether the BJP fields a candidate (indicator equal to one if fielded, zero otherwise), and BJP vote share in the constituency. We also construct conditional measures that restrict the sample to only constituencies in which the BJP fielded candidates (these analyses are labeled “conditional” in results tables). We also include analyses for the Indian National Congress (INC) in the Appendix. For details, see Data Appendix Section B.2.4.

#### 4.7 RSS Schools

We obtain data on the presence of RSS-affiliated schools from a public school directory that reports establishment year and address. Using these data, we define “any RSS school”: an indicator variable equal to 1 if the locality contains at least one RSS-affiliated school, and 0 otherwise. For details, see Data Appendix Section B.2.5.

#### 4.8 Control Variables

We include a range of control variables (interacted with time fixed effects) in regressions to account for potential differential time effects across locations. These controls include variables related to population, geography, climate, and agricultural productivity. The control variables are constructed from data from the Indian Census as well as a variety of international gridded datasets. For details, see Data Appendix Section B.3.

### 5 Empirical Approach

We seek to shed light on the impact of exposure to Ramayan on cultural outcomes, social conflict, and political outcomes. Our units of analysis for most of our analyses are Indian assembly

Table 2 - Summary Statistics of Key Variables

	Mean (1)	Std. Dev. (2)	Percentiles					Obs. (8)
			10 <sup>th</sup> (3)	25 <sup>th</sup> (4)	50 <sup>th</sup> (5)	75 <sup>th</sup> (6)	90 <sup>th</sup> (7)	
<i>Panel A. Ramayan TV Exposure</i>								
1987 TV signal strength (dBm)	-76.2	24.0	-104.7	-95.1	-77.7	-59.4	-43.7	4,110
1987 TV freespace signal (dBm)	-48.3	10.7	-61.0	-55.8	-49.3	-42.4	-34.0	4,110
<i>Panel B. Percentage of Hindu Male Newborns Given Certain Names</i>								
Top 10 Hindu names	4.45	3.10	1.07	2.29	3.92	5.97	8.41	61,630
Top 5 Hindu names	2.44	1.97	0.45	1.08	2.04	3.34	4.92	61,630
Top 3 Hindu names	1.59	1.53	0.20	0.60	1.23	2.15	3.43	61,630
Rama name	0.47	0.82	0.00	0.00	0.22	0.55	1.15	61,630
Ramayan primary character names	0.71	0.93	0.00	0.10	0.44	0.95	1.70	61,630
Ramayan primary actor names	0.95	0.98	0.00	0.18	0.61	1.57	2.34	61,630
<i>Panel C. Percentage of Vegetarians</i>								
Hindu households	42.47	49.43						6,452
Hindu lower caste households	37.74	48.47						3,926
Hindu upper caste households	51.23	49.98						2,526
<i>Panel D. Hindu-Muslim Conflict Outcomes</i>								
Any conflict	0.55	7.42						90,420
Any violent conflict	0.48	6.88						90,420
Any deadly conflict	0.40	6.29						90,420
<i>Panel E. State Assembly Electoral Outcomes</i>								
Voter turnout	62.14	14.27	44.32	53.60	63.48	71.85	79.01	19,505
BJP unconditional victory	13.83	34.52						19,506
BJP conditional victory	23.48	42.39						11,486
BJP unconditional vote share	13.50	17.75	0.00	0.00	2.91	26.50	42.98	19,506
BJP conditional vote share	22.93	17.86	1.94	5.44	20.84	37.71	48.07	11,486
INC unconditional victory	36.79	48.23						19,506
<i>Panel F. RSS Schools Outcomes</i>								
Any RSS school	24.83	43.20						90,420
<i>Panel G. 1981 Census District Outcomes</i>								
Total population (000s)	1,700	1,211	247	866	1,657	2,322	3,048	417
Percentage of males	48.83	12.08	49.17	50.52	51.36	52.89	53.96	417
Percentage of rural	76.06	23.98	51.15	72.51	83.86	90.63	93.90	417
Percentage of literates	32.23	14.93	17.86	23.06	30.55	41.39	50.36	417
Percentage of scheduled tribes	13.50	23.89	0.00	0.07	2.19	13.67	51.26	417
Percentage of scheduled caste	12.05	8.94	0.00	3.81	13.05	18.20	23.60	417
Percentage of Hindustani speakers	44.23	43.98	0.77	3.52	14.88	97.92	99.60	417
<i>Panel H. Population Outcomes</i>								
1980 population (000s)	166.8	108.6	28.5	101.7	162.0	215.7	279.4	4,110
<i>Panel I. Geographic Outcomes</i>								
Geographic area (km <sup>2</sup> )	783.0	1608.2	70.1	266.0	537.9	1026.7	1584.5	4,110
Temperature (°C)	24.8	3.6	21.2	24.6	25.5	26.6	27.4	4,110
Precipitation (mm)	111.5	63.5	54.2	70.1	94.8	127.6	205.0	4,110
Elevation (m)	364.5	506.9	21.2	68.3	214.5	464.1	797.9	4,110
Slope (degrees)	3.7	5.9	0.6	0.7	1.3	3.3	10.3	4,110
Maximum caloric yield (000s)	18,960	8,029	8,271	12,136	18,883	25,014	30,826	4,110

Notes: This table includes summary statistics of key variables. The unit of analysis, number of units and sample period (where relevant) for each panel is as follows: A, H and I (4,110 assembly constituencies); B (3,085 assembly constituencies, 1979 to 1998); C (3,226 Hindu families, 1982 and 1999); D and F (4,110 assembly constituencies, 1979 to 2000); E (4,062 assembly constituencies, 1979 to 2000); and G (417 districts). Statistics for Panel C use survey weights. Temperature and precipitation data are monthly averages from 1971 to 1980. Maximum caloric yield uses data for 1980. All binary and share variables have been scaled by 100.

constituencies observed annually from 1979 to 2000.<sup>10</sup> We measure a locality's "treatment in-

<sup>10</sup>For analysis of vegetarianism, our units of analysis are households surveyed in 1982 and 1999, with the TV exposure for these households calculated at the village level.

tensity” (the intensity of its exposure to Ramayan) as its TV signal strength at the start of 1987, just as the show’s first episode aired. Our empirical analyses implement a difference-in-difference approach to take advantage of the spatial variation in Ramayan treatment intensity combined with variation over time (from before to after the program aired).

### 5.1 Regression Equation at the Locality Level

We estimate the following difference-in-difference regression equation to estimate the treatment effect of Ramayan for locality-level outcomes in panel data:

$$Y_{it} = \beta_0 + \beta_1 Ramayan_i \times Post_t + \sum_t \gamma'_t \mathbf{X}_{i,\text{base}} + \delta_i + \theta_{st} + \epsilon_{it} \quad (1)$$

The unit of observation is a location  $i$  in year  $t$ . For our main empirical analyses, we primarily use state assembly constituencies as the unit of analysis.<sup>11</sup>  $Y_{it}$  is an outcome variable (e.g., the share of newborns given common Hindu names, or an indicator for the BJP winning an election). The variable  $Ramayan_i \equiv TVSignal_{i,1987}$  is TV signal strength at the start of 1987 for location  $i$  (see Appendix Figure A1 for this variable at the assembly constituency level). All measures of TV signal strength are normalized by dividing each measure by its sample standard deviation. The variable  $Post_t$  is an indicator for years 1987 and after, capturing years during and after the Ramayan show’s airing.

The regression includes location fixed effects,  $\delta_i$ , which account for any time-invariant differences across locations.  $\theta_{st}$  are state-year fixed effects, which account for any changes over time common to all units within the same Indian state.<sup>12</sup>  $\epsilon_{it}$  is a mean zero error term. For all coefficient estimates, we report Conley (1999) standard errors, accounting for spatial correlation (using a 100 km radius) as well as autocorrelation over time for each location.

$\mathbf{X}_{i,\text{base}}$  is a vector of location-specific baseline and time-invariant controls. This vector is interacted with a full set of year fixed effects (the coefficient vector  $\gamma_t$  is year-specific). Inclusion of this vector interacted with year fixed effects controls flexibly for differential time effects (more flexibly than linear trends) that are correlated with a location’s baseline characteristics. The vector contains district-level controls from the 1981 census: total population, percentage of male population, percentage of rural population, percentage of literate population, percentage of scheduled tribes population, percentage of scheduled caste population and percentage of Hindustani (Hindi and Urdu) speaking population. It also includes controls at the assembly constituency level: population (1980), geographic characteristics (area, average elevation, average slope, average temperature from 1971-1980, average precipitation from 1971-1980 and average maximum caloric yield for 1980) and 1980 TV signal strength (actual and freespace).

Among the controls in the vector  $\mathbf{X}_{i,\text{base}}$ , a particularly crucial one is  $FreespaceSignal_{i,1987}$  – TV signal strength if there were no physical obstacles to TV signal propagation. This captures

<sup>11</sup>The names, conflict and RSS schools outcomes can be aggregated to different levels, since they are constructed from data that are geographically finer-grained than assembly constituencies. This is not the case for electoral outcomes, which are only available at the assembly constituency level. For consistency, we present results for all three sets of outcomes at the same unit of analysis. Our results for names, conflict and RSS schools outcomes are robust to conducting them at the more granular PIN code level (see Appendix Table A10).

<sup>12</sup>We use the term “states” to refer to states and union territories in India. There are 4,110 assembly constituencies in 27 Indian states and union territories in our analysis, although we only have names data for 21 of those states.

simple proximity to TV transmitters, conditional on the power of the transmitters. TV transmitter locations are endogenous: they are located in cities or district headquarters, and thus the areas closer to TV transmitters most likely vary along many characteristics from those in areas further away from TV transmitters. We therefore do not use mere physical proximity to TV transmitters (freespace TV signal strength) as our measure of exposure to Ramayan. Rather, we control for freespace signal strength while using actual signal strength as the measure of exposure to Ramayan. In this way, we use the variation in signal strength due to topographical barriers ( $Ramayan_i$ ) while controlling for the unobservables associated with mere proximity to TV transmitters ( $FreespaceSignal_{i,1987}$ ). With  $FreespaceSignal_{i,1987}$  included in the vector  $\mathbf{X}_{i,\text{base}}$  (and thus interacted with year fixed effects), our identification of the effect of exposure to Ramayan exploits only variation in 1987 TV signal driven by irregular terrain between the locality and TV transmitters, and not mere physical (as-the-crow-flies) proximity to transmitters.

**Coefficient of interest.**  $\beta_1$  on  $Ramayan_i \times Post_t$  is the coefficient of interest. Due to normalization of  $Ramayan_i$  by its standard deviation,  $\beta_1$  is interpreted as the causal impact of a one-standard-deviation increase in actual signal strength on the outcome variable. It is identified from changes in the dependent variable for a locality over time (from before to after 1987) that are associated with the locality's actual TV signal strength at the start of 1987, net of flexible time effects associated with the vector of controls  $\mathbf{X}_{i,\text{base}}$ .

## 5.2 Regression Equation at the Household Level

We also estimate the following difference-in-difference regression equation to estimate the treatment effect of Ramayan on vegetarianism, a household-level outcome:

$$Y_{hvt} = \beta_0 + \beta_1 Ramayan_v \times Post_t + \sum_t \gamma'_t \mathbf{X}_{v,\text{base}} + \delta_h + \theta_{st} + \epsilon_{hvt} \quad (2)$$

The unit of observation is a household  $h$  in village  $v$  in year  $t$ . We observe two time periods, 1982 and 1999, and restrict the sample to households present in both waves, yielding a balanced household panel.<sup>13</sup> Households are assigned to their village of residence in 1982 to avoid bias from endogenous household mobility. Equation 2 is estimated using 1982 household survey weights.

$Y_{hvt}$  is an outcome variable.  $Ramayan_v$  is 1987 TV signal strength in village  $v$ . The variable  $Post_t$  is an indicator for years 1987 and after (which in this case is an indicator for the year 1999). Household fixed effects  $\delta_h$  account for time-invariant differences across households. State-year fixed effects  $\theta_{st}$  account for changes over time common to all households within the same Indian state.  $\mathbf{X}_{v,\text{base}}$  is the village-level counterpart of  $\mathbf{X}_{i,\text{base}}$  and it contains the same set of baseline and time-invariant controls as in equation (1), but constructed at the village level. Most importantly, the vector  $\mathbf{X}_{v,\text{base}}$  also includes  $FreespaceSignal_{v,1987}$  for reasons discussed earlier. This vector is interacted with a full set of year fixed effects.  $\epsilon_{hvt}$  is a mean zero error term. We report Conley (1999) standard errors, accounting for spatial correlation (using a 100 km radius) as well as autocorrelation over time for each household.

<sup>13</sup>Over the 17-year interval between waves, some households branched into new units (e.g. when children left to establish their own households) so that multiple 1999 household records are linked to a single 1982 household identifier. We address this by recombining these split 1999 households into a single observation corresponding to the original 1982 household.

**Coefficient of interest.**  $\beta_1$  on  $Ramayan_v \times Post_t$  is the coefficient of interest, and is interpreted as the causal impact of a one-standard-deviation increase in signal strength on the outcome variable. It is identified from changes in the dependent variable for a household over time that are associated with its residential village's TV signal strength at the start of 1987, net of time effects associated with the vector of controls  $X_{v,\text{base}}$ .

### 5.3 Difference-in-Difference with Continuous Treatment

Recent econometrics research has identified that in difference-in-difference research designs with continuous treatments, such as ours, causal identification must invoke a “strong parallel trends” assumption: in absence of treatment, the average outcome trends for localities at different treatment intensities would have been parallel (after conditioning on observed covariates and fixed effects) (Callaway, Goodman-Bacon and Sant’Anna, 2025). This assumption is stronger than “standard” parallel trends. The multiple sources of variation in Ramayan exposure make this assumption plausible in our setting. We take advantage of spatial variation in local TV signal in 1987 (driven by topographical interference, controlling for straight-line proximity to transmitters), along with plausible arbitrariness in timing of TV transmitter rollout during the 1980s (so that some places happened to get better signal in time for Ramayan’s 1987 airing, while others only got signal improvements slightly later). These multiple sources of variation in Ramayan exposure make it plausible to assume that a locality’s treatment intensity is conditionally uncorrelated with trends in outcome variables. It is implausible that the TV signal variation across localities at the start of 1987 resulting from these combined sources of variation reflects intentional planning by policymakers to target greater TV signal improvements to localities with different trends in outcome variables, or that were expected to have distinct treatment effects of Ramayan exposure.

We also follow the suggestion of Callaway, Goodman-Bacon and Sant’Anna (2025) to summarize average level treatment effects by conducting analyses with the Ramayan exposure measure expressed as an indicator (binary) variable. We discuss these results below in Section 7.1 (Appendix Table A7.) Substantive conclusions are robust to estimating treatment effects using this binary Ramayan exposure variable.

## 6 Primary Analyses

In this section, we present regression analyses on how exposure to the Ramayan show reshaped cultural identity and, in turn, affected social and political outcomes in India. We first examine religious identity formation, by estimating Ramayan’s effects on naming of newborns and vegetarianism. We then examine effects of Ramayan on broader social and political variables: Hindu-Muslim conflict and electoral outcomes.

### 6.1 Names

First, we analyze the impact of Ramayan on newborn name choices. We estimate regression equation (1) where the dependent variable is the share of Hindu male newborns given one of the top ten Hindu names for their state. We present regression results in Table 3.<sup>14</sup> We

<sup>14</sup>Results are robust to alternative outcomes such as top three or top five Hindu names (see Appendix Table A2).

Table 3 - Impacts of Ramayan on the Percentage of Hindu Male Newborns Given Top 10 Names

	Percentage of Hindu Male Newborns Given Top 10 Names				
	(1)	(2)	(3)	(4)	(5)
Ramayan $\times$ Post	0.184*** (0.052)	0.238*** (0.055)	0.225*** (0.056)	0.225*** (0.056)	0.225*** (0.053)
Dep. var. mean	4.446	4.446	4.446	4.446	4.446
Dep. var. std. dev.	3.102	3.102	3.102	3.102	3.102
Units	3,085	3,085	3,085	3,085	3,085
Observations	61,630	61,630	61,630	61,630	61,630
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

Notes: This table presents coefficient estimates from differences-in-differences regressions at the assembly constituency level related to naming patterns of Hindu male newborns. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. An individual is determined to be Hindu if their father's full name is classified to be most likely a Hindu name. A top Hindu name is determined at the state level (to account for cultural differences across states) by ranking all first names of Hindu males born between 1900 and 1970, prior to our study period. *Ramayan* is the actual TV signal strength at the beginning of 1987 (population-weighted average within location, normalized by the standard deviation). *Post* is a binary variable equal to 1 if the year is 1987 or later. Constituency and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. *1980 TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

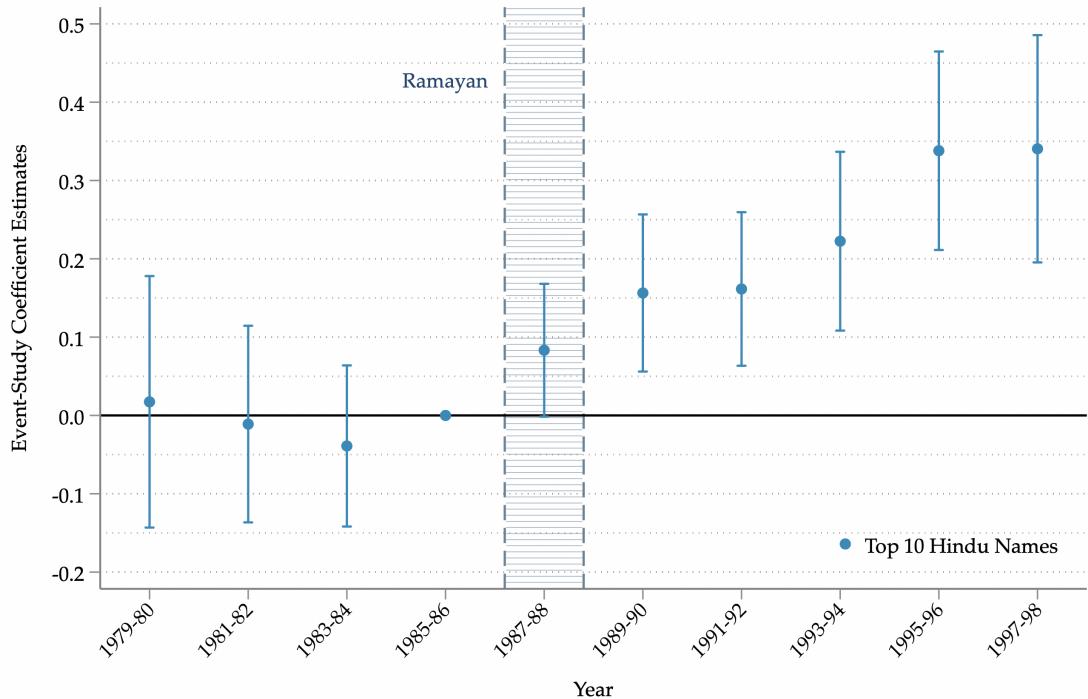
show coefficient estimates on  $\text{Ramayan}_i$  in regressions that include increasingly inclusive sets of control variables: column 1 includes only location fixed effects, state-year fixed effects, and 1987 freespace signal times year fixed effects; column 2 adds geographic controls times year fixed effects; column 3 adds 1980 TV signal times year fixed effects; column 4 adds population controls times year fixed effects; and column 5 adds census controls times year fixed effects. (All results tables in this section will have this structure.)

Coefficient estimates reveal a positive and robust effect of Ramayan exposure on Hindu families' choices to give newborns common Hindu names. The coefficient on  $\text{Ramayan}_i$  is positive and always statistically significantly different from zero at the 1% level, and remains stable with the inclusion of more controls (from the first to the last column). In the last column of the table, with the most-inclusive set of controls, the coefficient on  $\text{Ramayan}_i$  indicates that a one-standard-deviation increase in  $\text{Ramayan}_i$  (TV signal strength in 1987) leads to 0.225 percentage points higher share of newborns given a top-ten Hindu name. This effect is roughly 5% of the dependent variable mean, and 7% of the dependent variable standard deviation.

It is also of interest to understand the dynamics of this effect. In Figure 2 we show an event-study plot, estimating the impact of  $\text{Ramayan}_i$  in different periods (two-year windows) pre- and post-Ramayan (with 1985-86 as the base period).<sup>15</sup> We estimate these event-study

<sup>15</sup>In this and subsequent event-study graphs, we maintain the presentation of effects in periods defined as two-year windows. Two-year windows will be particularly useful for event studies of state electoral outcomes, because in

Figure 2 - Impacts of Ramayan on the Percentage of Hindu Male Newborns Given Top 10 Names



Notes: This figure plots coefficients from an event-study regression at the assembly constituency level. The dependent variable is the percentage of Hindu male newborns given *Top 10 Hindu Names*. The dependent variable has been scaled by 100. The treatment variable is *Ramayan*, actual TV signal strength at the beginning of 1987. The treatment variable is interacted with two-year windows, where the 1985-86 period is omitted. The full set of controls is included (see Table 3 for the list). Conley (1999) standard errors are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. Confidence intervals are presented at the 95% level.

coefficients by replacing the  $\text{Ramayan}_i \times \text{Post}_t$  interaction term in equation (1) with interaction terms between  $\text{Ramayan}_i$  and indicators for each two-year time period (excluding 1985-86, which serves as the reference period).

The first pattern of interest is that there is no evidence of any worrying pre-trend in the pre-Ramayan period. No coefficient is statistically significantly different from zero in the pre-period, and the pre-trend is flat. The positive impact of Ramayan exposure on Hindu naming choices is immediately apparent in 1987-88, as soon as the show starts airing. The coefficients are statistically significantly different from zero at conventional levels in all post-treatment periods, and monotonically increase in magnitude as the years progress.

A question that arises is whether this increase in choice of common Hindu names reflects simply an increase in naming newborns after *characters* or *actors* in the Ramayan TV show. If so, this may not be reflective of stronger religious identity formation, but simply increased salience or popularity of Ramayan character or actor names. We test this by conducting a similar analysis, but where the outcome variable is the share of children named: 1) *Rama* and its variants (for the show's main character), 2) *Rama* plus names of other primary characters (and their variants), and 3) the names of the *actors* playing primary characters in the show.

We show corresponding coefficients for these other names outcomes in Appendix Table A3. The results here are strikingly different from the results in Table 3: there is *no* apparent effect of Ramayan exposure on the frequency of naming newborns after Ramayan characters or

some years there are few or no states that have elections. Event-study graphs that present year-by-year (annual) coefficients yield the same conclusions, but are noisier.

Table 4 - Impacts of Ramayan on Vegetarianism

	Household Consumption Outcomes				
	(1)	(2)	(3)	(4)	(5)
<i>Panel A. Vegetarian (Hindu Sample)</i>					
Ramayan × Post	1.667 (4.719)	6.370 (4.649)	9.773** (4.323)	10.085** (4.425)	8.428** (4.292)
Dep. var. mean	42.469	42.469	42.469	42.469	42.469
Dep. var. std. dev.	49.430	49.430	49.430	49.430	49.430
Units	3,226	3,226	3,226	3,226	3,226
Observations	6,452	6,452	6,452	6,452	6,452
<i>Panel B. Vegetarian (Lower-Caste Hindu Sample)</i>					
Ramayan × Post	8.460* (4.754)	14.056*** (4.836)	15.699*** (4.662)	15.835*** (4.751)	14.372*** (5.380)
Dep. var. mean	37.737	37.737	37.737	37.737	37.737
Dep. var. std. dev.	48.473	48.473	48.473	48.473	48.473
Units	1,963	1,963	1,963	1,963	1,963
Observations	3,926	3,926	3,926	3,926	3,926
<i>Panel C. Vegetarian (Upper-Caste Hindu Sample)</i>					
Ramayan × Post	-7.401 (6.252)	-4.337 (6.098)	0.099 (5.442)	0.089 (5.382)	0.331 (5.283)
Dep. var. mean	51.227	51.227	51.227	51.227	51.227
Dep. var. std. dev.	49.985	49.985	49.985	49.985	49.985
Units	1,263	1,263	1,263	1,263	1,263
Observations	2,526	2,526	2,526	2,526	2,526
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

Notes: This table includes coefficient estimates from differences-in-differences regressions at the household level. The dependent variable is an indicator equal to 1 if the household consumed only vegetarian food (no meat, fish, or eggs), based on total annual consumption of home produced or purchased goods. Regressions and summary statistics are weighted using survey weights. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. Panel A reports results for all Hindu households, while Panels B and C report results separately for lower-caste and upper-caste Hindu households, respectively. *Ramayan* is the actual TV signal strength at the beginning of 1987 (population-weighted average, normalized by standard deviation). *Post* is a binary variable equal to 1 if the year is 1987 or later. For list of control variables, see Table 3. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

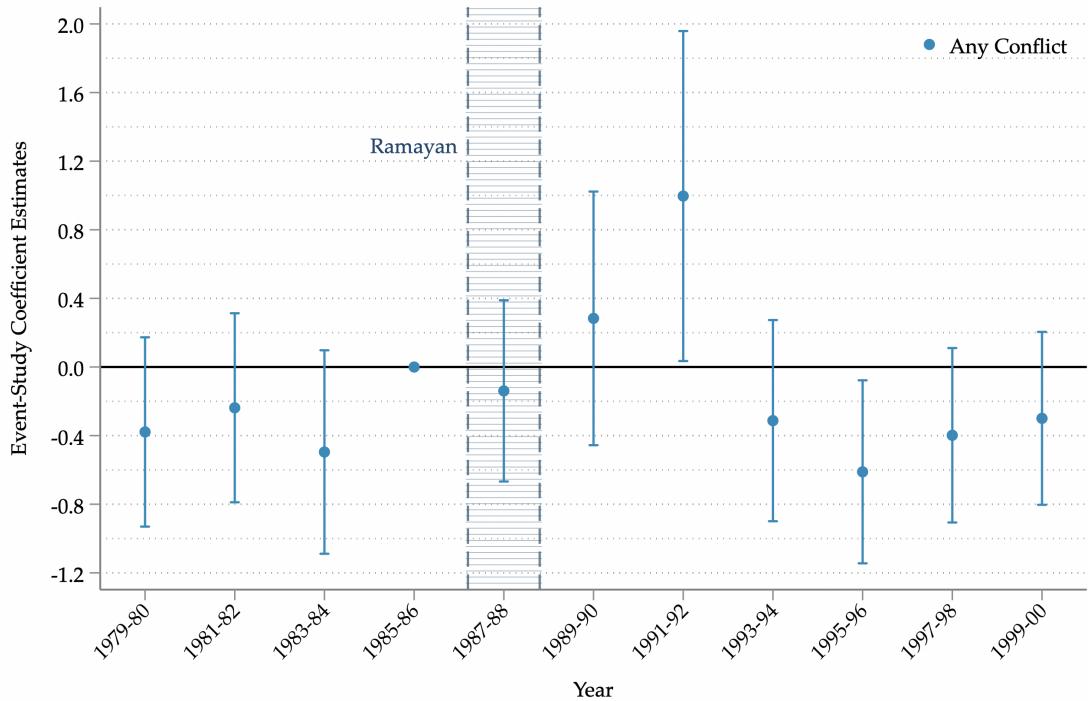
actors in the show. In the most-inclusive regression (column 5), coefficient estimates are small in magnitude (compared to the coefficients in Table 3) and none are statistically significantly different from zero.<sup>16</sup> We conclude from this set of analyses that the change in newborn naming is more likely to reflect an increase in the strength of Hindu religious identity, rather than simply a (more mundane) affinity for the names of Ramayan show characters or actors.

## 6.2 Vegetarianism

Dietary choices can serve as powerful markers of religious and cultural identity. Complementing our findings on naming patterns, we examine whether Ramayan exposure influenced the extent of an orthodox Hindu dietary practice: vegetarianism.

<sup>16</sup>There is smattering of statistically significant coefficients in other columns, but these are not robust to inclusion of controls. Some are in fact negative (the bottom panel, columns 1-3); negative coefficients would indicate that parents avoid naming newborns after the actors in the show.

Figure 3 - Impacts of Ramayan on Hindu-Muslim Conflict



Notes: This figure plots the coefficients from an event-study regression at the assembly constituency level. The dependent variable is *Any Conflict*, a binary variable equal to 1 if there was any Hindu-Muslim conflict and 0 otherwise. The dependent variable has been scaled by 100. The treatment variable is *Ramayan*, the actual TV signal strength at the beginning of 1987. The treatment variable is interacted with indicators for two-year time periods; the 1985-86 period is omitted. The full set of controls is included (see Table 3 for the list). Conley (1999) standard errors are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. Confidence intervals are presented at the 95% level.

We estimate equation (2) using a balanced panel of 3,226 Hindu households observed in both 1982 and 1999. The results are reported in Table 4. Panel A presents estimates for all Hindu households. We find a positive effect of *Ramayan* exposure on vegetarianism. In the final column, which includes our most comprehensive set of controls, the coefficient is statistically significantly different from zero at the 5% level and indicates that a one-standard-deviation increase in *Ramayan* exposure is associated with an 8.4 percentage point increase in vegetarianism (relative to the dependent variable mean of 42%).

In Panel B we restrict the sample to lower-caste Hindu households. The estimated effect is substantially larger, stable across specifications, and statistically significant in all columns (at the 1% level from column 2 onward). Panel C shows no evidence of an effect for upper-caste Hindu households, with a precise null estimate in the final column.

These changes in eating habits among lower-caste Hindus may be interpreted as an instance of “Sanskritization”, a process through which castes or tribes lower in the social hierarchy adopt upper-caste practices (Srinivas, 1962). The sample mean vegetarianism rate in our data is 37.7% for lower-caste households, and 51.2% for upper-caste households – a 13.5 percentage point gap. A one-standard-deviation increase in *Ramayan* exposure leads to a 14.4 percentage point increase in vegetarianism among lower-caste households, fully closing the vegetarianism gap between lower-caste and upper-caste households.

Table 5 - Impacts of Ramayan on Hindu-Muslim Conflict

	Hindu-Muslim Conflict Outcomes				
	(1)	(2)	(3)	(4)	(5)
<i>Panel A. Any Conflict (Full Sample from 1979 to 2000)</i>					
Ramayan × Post	0.248** (0.122)	0.264* (0.146)	0.252* (0.139)	0.245* (0.139)	0.209 (0.138)
Dep. var. mean	0.554	0.554	0.554	0.554	0.554
Dep. var. std. dev.	7.423	7.423	7.423	7.423	7.423
Units	4,110	4,110	4,110	4,110	4,110
Observations	90,420	90,420	90,420	90,420	90,420
<i>Panel B. Any Conflict (Short Sample from 1979 to 1992)</i>					
Ramayan × Post	0.747*** (0.178)	0.786*** (0.211)	0.750*** (0.211)	0.729*** (0.211)	0.658*** (0.212)
Dep. var. mean	0.744	0.744	0.744	0.744	0.744
Dep. var. std. dev.	8.592	8.592	8.592	8.592	8.592
Units	4,110	4,110	4,110	4,110	4,110
Observations	57,540	57,540	57,540	57,540	57,540
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

Notes: This table includes coefficient estimates from differences-in-differences regressions at the assembly constituency level related to Hindu-Muslim conflict outcomes. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. *Any Conflict* is a binary variable equal to 1 if there was any Hindu-Muslim conflict and 0 otherwise. Panel A includes the full sample of years from 1979 to 2000, while Panel B includes a short sample from 1979 to 1992. *Ramayan* is the actual TV signal strength at the beginning of 1987 (population-weighted average, normalized by standard deviation). *Post* is a binary variable equal to 1 if the year is 1987 or later. For list of control variables, see Table 3. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

### 6.3 Hindu-Muslim Conflict

Violent conflict between religious groups would be perhaps the most extreme manifestation of strengthened religious identities and magnified awareness of in-groups and out-groups. We analyze whether a locality's exposure to Ramayan leads to increases in Hindu-Muslim conflict.

We start with an event-study graph, Figure 3, that is analogous to Figure 2 above, but where the outcome is an indicator for the assembly constituency having had any Hindu-Muslim conflict. While coefficients in the pre-Ramayan period are slightly negative, none of them are statistically significant, and they show no clear trend. In the post-period, coefficients are positive in 1989-92, but small and close to zero in all other years. There appears to be a short-run increase in conflict in only the immediate post-Ramayan years.

We display regression estimates of impacts on Hindu-Muslim violence from estimating assembly-constituency panel regressions following equation (1) in Table 5. Because the effect of Ramayan on conflict in the event-study graph appears to be only short-run, we estimate regression equation (1) for not only the full analysis period (up to 2000) in Panel A, but also for data up to 1992 only (to estimate the short-run effect separately) in Panel B.

Panel A – the effect through 2000 – indicates a small positive effect on conflict that is of marginal statistical significance when all controls are included. In Panel B, which estimates the impact of Ramayan exposure in the short run up to 1992, the coefficient is positive and stat-

Table 6 - Impacts of Ramayan on State Assembly BJP Victory

	BJP Victory				
	(1)	(2)	(3)	(4)	(5)
Ramayan × Post	2.378** (1.035)	3.542*** (1.128)	3.477*** (1.109)	3.951*** (1.113)	3.220*** (1.105)
Dep. var. mean	13.827	13.827	13.827	13.827	13.827
Dep. var. std. dev.	34.519	34.519	34.519	34.519	34.519
Units	4,062	4,062	4,062	4,062	4,062
Observations	19,506	19,506	19,506	19,506	19,506
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

Notes: This table includes coefficient estimates from differences-in-differences regressions at the assembly constituency level for state assembly electoral outcomes. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. *Victory* is a binary variable equal to 1 if the BJP party wins the election and 0 otherwise, including if the party did not field a candidate. *Ramayan* is the actual TV signal strength at the beginning of 1987 (population-weighted average, normalized by standard deviation). *Post* is a binary variable equal to 1 if the year is 1987 or later. For list of control variables, see Table 3. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

istically significantly different from zero at conventional levels in all regressions. Coefficient estimates are not highly sensitive to the set of control variables in either panel.

In sum, higher Ramayan exposure causes greater Hindu-Muslim conflict in the short run (through 1992) that do not persist. Results are similar when we focus on more violent conflict, such as those involving injuries or deaths (see Appendix Table A4).

#### 6.4 Electoral Results

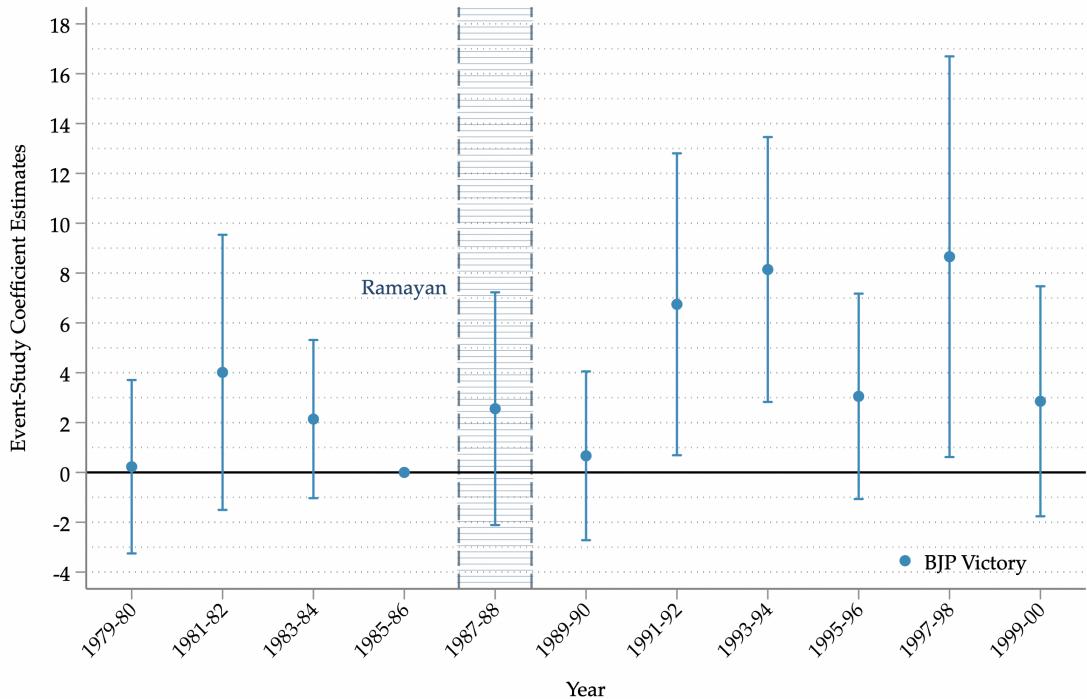
Having established the Ramayan TV show's influence on religious identity and practices and conflict across religious lines, it is natural to examine whether this heightened religious consciousness translated into electoral behavior, particularly in terms of voting along religious lines. We now ask whether exposure to Ramayan influences electoral success of India's major Hindu nationalist party, the Bharatiya Janata Party (BJP). We estimate regression equation (1) for an indicator for the BJP winning in a state assembly election. Results are in Table 6.

We find that exposure to Ramayan has a large and positive impact on the probability the BJP wins state assembly elections. The coefficient increases in magnitude across columns as controls are included and is statistically significantly different from zero in all specifications (at the 1% level when all controls are included).<sup>17</sup>

We examine the dynamics of the Ramayan treatment effect on BJP electoral victory in Figure 4. There is no obvious indication of worrying pre-trends – coefficients in the pre-Ramayan years fluctuate and show no clear trend. In the post-Ramayan years, the impact on BJP victory probability becomes large and positive in 1991-92, and mostly remains so in subsequent periods. Our finding that Ramayan exposure increases BJP electoral success aligns with the

<sup>17</sup> Appendix Table A6 shows similarly sized positive coefficient estimates on *Ramayan<sub>i</sub>* for BJP victories in national parliamentary (*Lok Sabha*) elections. However, they are not statistically significantly different from zero at conventional levels, consistent with lower power because parliamentary constituencies are larger than assembly constituencies, yielding fewer units and less variation in TV signal exposure.

Figure 4 - Impacts of Ramayan on BJP State Assembly Victory



Notes: This figure plots the coefficients from an event-study regression at the assembly constituency level for state assembly elections. The dependent variable is *BJP Victory*, a binary variable equal to 1 if the BJP wins the election and 0 otherwise, including if the party did not field a candidate. The dependent variable has been scaled by 100. The treatment variable is *Ramayan*, the actual TV signal strength at the beginning of 1987 (population-weighted average, normalized by standard deviation). The treatment variable is interacted with indicators for two-year time periods; the 1985-86 period is omitted. The full set of controls is included (see Table 3 for the list). Conley (1999) standard errors are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. Confidence intervals are presented at the 95% level.

analysis of Jaffrelot (1996) on how Hindu nationalist movements have strategically used cultural symbols and narratives to mobilize electoral support.

How might the impact of Ramayan on BJP victories have come about? We investigate further political outcomes in additional regressions in Appendix Table A5. Results in Panel A indicate positive, albeit modest, impacts on BJP vote share that are not statistically significantly different from zero at conventional levels. The coefficients are positive, however, consistent with the increase in BJP electoral wins.

In Panel B, we investigate whether exposure to Ramayan affects whether the BJP fields a candidate. This is relevant to investigate because increased support for the BJP could lead the party to either increase the share of seats it competes in, or lead it to be strategically more focused on a smaller number of seats. Coefficients are negative and statistically significantly different from zero at the 5% level in all columns. The negative coefficient may suggest strategic behavior on the part of the BJP in deciding where to field candidates, and may also be the result of formation of alliances with other parties to divide contested seats.

Regressions in Panels C and D limit the sample to assembly constituencies in which the BJP fields a candidate. In this selected subset of locations, exposure to Ramayan is associated with higher probability of BJP victory (Panel C) and higher BJP vote share (Panel D). Coefficients in all regressions for these outcomes are statistically significant at conventional levels.

In Panel E of the table we show impacts of Ramayan exposure on the probability of a victory by the Indian National Congress (INC, the Congress party). Results for this outcome are

consistent with the findings that Ramayan causes more BJP victories: coefficients on Ramayan exposure are negative for INC victory (and statistically significant from column 2 onwards).

## 7 Additional Analyses

In this section we provide discussion and additional analyses to clarify interpretation of the primary results presented above in Section 6.

### 7.1 Alternate Specifications of Ramayan Exposure

Our primary analyses use a continuous measure of Ramayan exposure: a locality's population-weighted average TV signal strength in 1987. We examine here robustness of our findings to alternate specifications of Ramayan exposure. We focus on regressions with the full set of controls for four main outcomes: (i) top ten Hindu names; (ii) vegetarianism for lower-caste Hindus; (iii) Hindu-Muslim conflict (the short sample up to 1992); and (iv) BJP victory in state elections. (All results tables in this section will have this structure.)

We present coefficient estimates for alternate Ramayan exposure measures in Appendix Table A7. In Panel A, Ramayan exposure is expressed as an indicator variable for the locality's population-weighted average TV signal strength in 1987 being above the "weak" TV reception threshold, -68 dBm (ATSC, 2010). This indicator has a mean of 0.355. In Panel B, we measure Ramayan exposure as the fraction of the locality's population with at least "weak" TV signal in 1987 (mean 0.378, standard deviation 0.417).

All coefficients in the table are positive, and seven out of eight are statistically significantly different from zero at conventional levels.<sup>18</sup> For both alternate definitions of Ramayan exposure, the substantive findings reflect results from our primary analyses: having stronger TV signal when the show aired leads to strengthened Hindu identity (as expressed in newborn names and vegetarianism), more Hindu-Muslim conflict in the short run, and greater BJP electoral success in the long run.

The results in Panel A for the "binarized" measure of Ramayan exposure also help address concerns about interpretation of continuous treatment effects in difference-in-difference analyses (Callaway, Goodman-Bacon and Sant'Anna, 2025). Substantive conclusions about the effects of Ramayan exposure (higher TV signal strength in 1987) do not depend on specifying the Ramayan exposure measure as a continuous variable.

### 7.2 Restriction to Mid-to-Late 1980s TV Rollout Sample

One potential concern is that places receiving television very early or very late (or never at all) may be on different time trends than places receiving TV around 1987, making them poor counterfactuals for estimating Ramayan's effects. Early adopters – typically major urban centers that received TV in the 1970s – may differ systematically from later adopters in ways that correlate with outcome trends. Similarly, localities that received TV very late (in the 1990s) or never at all may also be on distinct trajectories. Any such differential trends could bias our estimates of the effects of Ramayan.

India's television expansion occurred in distinct phases, with particularly rapid growth during the mid-to-late 1980s. As shown in Table 1, the share of India's population with at

<sup>18</sup>The exception is the Panel B coefficient in the conflict regression, for which the t-statistic is 1.54.

Table 7 - Impacts of Ramayan for the TV Rollout Sample

	Percentage of Hindu Male Newborns Given Top 10 Names (1)	Vegetarianism (Lower-Caste Hindu Sample) (2)	Any Hindu-Muslim Conflict (Short Sample) (3)	BJP State Assembly Victory (4)
<i>Panel A. Full Sample</i>				
Ramayan × Post	0.225*** (0.053)	14.372*** (5.380)	0.658*** (0.212)	3.220*** (1.105)
Dep. var. mean	4.446	37.737	0.744	13.827
Dep. var. std. dev.	3.102	48.473	8.592	34.519
Units	3,085	1,963	4,110	4,062
Observations	61,630	3,926	57,540	19,506
<i>Panel B. TV Rollout Sample (TV Signal Below Weak Threshold in 1984 and Above Weak Threshold in 1990)</i>				
Ramayan × Post	0.199** (0.085)	12.806 (9.168)	0.649 (0.497)	5.312*** (1.801)
Dep. var. mean	4.139	34.722	1.028	12.653
Dep. var. std. dev.	2.633	47.609	10.088	33.248
Units	890	661	1,188	1,182
Observations	17,787	1,322	16,632	5,706

*Notes:* This table includes coefficient estimates from differences-in-differences regressions for different samples. Columns (1), (3) and (4) are at the assembly constituency level, while column (2) is at the household level. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. Panel A uses the full sample. Panel B restricts the sample to units in the mid-to-late 1980s TV rollout window defined as having signal strength below the “weak” threshold in 1984 but above it by 1990. The “weak” threshold is -68 dBm, following Advanced Television Systems Committee guidelines. *Ramayan* is the actual TV signal strength at the beginning of 1987 (population-weighted average, normalized by standard deviation). *Post* is a binary variable equal to 1 if the year is 1987 or later. The full set of controls is included (see Table 3 for the list). Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

least weak TV coverage increased dramatically from 18.2% in 1984 to 50.1% by 1990. This concentrated expansion was the result of a deliberate government infrastructure rollout, as the state sought to extend television access nationwide after hosting the 1982 Asian Games.

To address concerns about differential trends, we restrict our sample to localities that enjoyed large improvements in TV access during this 1984-1990 rollout period, three years on either side of when Ramayan was first broadcast. We retain only localities whose population-weighted average TV coverage changed from below to above the “weak” TV signal strength threshold (-68 dBm) between January 1984 and January 1990. In this restricted sample, identification of Ramayan’s effects relies on comparisons between places that experienced large increases in TV signal during the same government expansion wave, but whose signal improvement timing happened to fall just before versus just after the Ramayan broadcast. Localities that gained improved TV signal in 1985 could enjoy the signal improvement when Ramayan aired in 1987-88, while those that gained TV signal improvements only in 1989 could not. Because all of these localities received TV signal improvements within a narrow window as part of the same planned expansion, they are plausibly on more similar trajectories than the full sample, which includes both 1970s early-TV localities and 1990s late-TV localities.

We present results in Table 7. For ease of comparison, Panel A reproduces our main estimates from the full sample (previously shown in Tables 3, 4, 5, and 6). Panel B presents estimates for the subset of localities that gained TV access during the 1984-1990 rollout. Coefficient estimates in the restricted sample are remarkably similar to the full-sample estimates across all four key outcomes. This stability of point estimates suggests that our full-sample results are not driven by differential trends among very early or very late TV adopters.

Table 8 - Impacts of Ramayan and Television

	Percentage of Hindu Male Newborns Given Top 10 Names (1)	Vegetarianism (Lower-Caste Hindu Sample) (2)	Any Hindu-Muslim Conflict (Short Sample) (3)	BJP State Assembly Victory (4)
<i>Ramayan</i> × Post	0.245*** (0.060)	12.805** (6.255)	0.577** (0.280)	3.452*** (1.303)
<i>TVSignal</i> <sub>t</sub>	0.154*** (0.053)	-2.714 (17.996)	-0.016 (0.187)	-0.439 (1.327)
<i>TVSignal</i> <sub>t-1</sub>	-0.033 (0.067)	-20.278 (25.256)	0.493* (0.269)	0.008 (2.187)
<i>TVSignal</i> <sub>t-2</sub>	-0.111* (0.062)	26.610 (25.530)	-0.309 (0.254)	-1.541 (1.948)
Dep. var. mean	4.446	37.737	0.744	13.827
Dep. var. std. dev.	3.102	48.473	8.592	34.519
Units	3,085	1,963	4,110	4,062
Observations	61,630	3,926	57,540	19,506

Notes: This table includes coefficient estimates from differences-in-differences regressions augmented with contemporaneous TV signal variables. Columns (1), (3) and (4) are at the assembly constituency level, while column (2) is at the household level. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. *Ramayan* is the actual TV signal strength at the beginning of 1987 (population-weighted average, normalized by standard deviation). *Post* is a binary variable equal to 1 if the year is 1987 or later. We augment our main specification with contemporaneous, one-year lagged and two-year lagged actual TV signal strength at time *t*: *TVSignal*<sub>i,t</sub>, *TVSignal*<sub>i,t-1</sub> and *TVSignal*<sub>i,t-2</sub> respectively, in addition to the corresponding variables for freespace signal. The full set of controls is included (see Table 3 for the list). Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

As expected, standard errors are substantially larger in the restricted sample, which contains only about 30% as many localities as the full sample. Consequently, only two of the four Ramayan coefficients in Panel B are statistically significant at conventional levels despite similar point estimates. However, the stability of coefficient magnitudes across panels provides reassurance that our full-sample estimates are not biased by including localities that received TV signal improvements very early or very late.

### 7.3 Are Effects Due to TV Signal Strength in General?

It is important to differentiate the effect of Ramayan exposure (measured as TV signal strength in 1987 specifically) from the effect of variation in TV signal strength in general across all years in the analysis. We do this by augmenting equation (1) with controls for contemporaneous TV signal in locality *i* and year *t*, *TVSignal*<sub>i,t</sub>, as well as its first and second lags in addition to the corresponding controls for freespace signal. We estimate the following regression equation:

$$Y_{it} = \beta_0 + \beta_1 Ramayan_i \times Post_t + \sum_t \gamma_t' \mathbf{X}_{i,\text{base}} + \delta_i + \theta_{st} + \sum_{k=0}^2 (\tau_k TVSignal_{i,t-k} + \phi_k FreespaceSignal_{i,t-k}) + \epsilon_{it} \quad (3)$$

Results are in Table 8. (These coefficient estimates should be compared to the estimates collected in Table 7, Panel A.) Across all these key outcomes, the coefficient on *Ramayan*<sub>i</sub> changes very slightly or becomes even larger in magnitude, compared to corresponding coefficients in prior tables that do not include the controls for contemporaneous TV signal.

The stability of the coefficient on Ramayan to inclusion of controls for contemporaneous TV signal suggests that the effects in prior tables are not due to general variation in TV sig-

nal strength (across years), but rather due to TV signal strength specifically in 1987, which determines exposure to the Ramayan TV show.

## 7.4 Was it Ramayan or Something Else on TV in 1987?

Above, we documented that the effects in prior tables reflect the impact of exposure to TV in 1987, and not general access to TV across the whole time period of analysis. Another question is whether the effects we find are due to the Ramayan TV show specifically, versus other concurrent TV programming in 1987-88.

We provide data on TV programming and print media coverage of TV shows to argue that Ramayan in particular should be driving the effects we estimate, and not something else on TV in 1987. In addition, we show that the effects of Ramayan are stronger in localities closer to religious sites connected to the Ramayana epic. This pattern is highly suggestive that the Ramayan show itself drives the treatment effect, rather than some other non-Ramayan TV content. Finally, we rule out that exposure to news programming is driving the Ramayan effect with a placebo test: we show that exposure to FM radio – which also provides news, but not the Ramayan show – has no similar effect on outcomes.

### 7.4.1 Religious Content Analysis

Prior to the introduction of Ramayan in 1987, no TV shows with a religious theme had ever been broadcast in India. We display in Appendix Figure A4 counts of the number of television serials being broadcast in different years from 1980 to 2000. In each year we show the number of non-religious shows (in light gray), and separately those with religious themes (in dark gray). Prior to 1987, there were no shows with religious themes at all. The single religious-themed show that appears in 1987 is Ramayan.

### 7.4.2 Mentions in *Times of India*

We assembled data to show that Ramayan's popularity exceeded by far the popularity of any other show in India – not just in 1987, but also over the entire time period of analysis (1979-2000). Precise historical viewership data, by show and over time, is not available. Instead, we gauge the popularity of television shows by extracting data from the Times of India (TOI), one of India's oldest and most widely circulated newspapers.

Using the universe of TOI articles from 1980 to 1999, we compute the number of mentions of various television shows as a measure of their popularity. The rationale is that shows capturing widespread public attention and becoming central to societal discourse would be mentioned more frequently in a major media outlets like the TOI.<sup>19</sup>

Appendix Figure A5 presents the number of TOI mentions of the Ramayan show, compared to the average number of mentions of other television shows broadcast during the 1980s. The horizontal axis tracks time, with year zero marking the initial broadcast of each show, while the vertical axis represents the number of article mentions. The dashed blue line indicates mentions of Ramayan, while the dotted black line shows the average mentions of other shows, with 95% confidence intervals. The figure reveals that Ramayan's cultural footprint,

<sup>19</sup>We analyzed over 1.5 million articles published in the Times of India (TOI) using a keyword-based approach to identify articles related to specific TV shows. To minimize false positives, we focused on articles that mentioned the name of the show alongside keywords such as 'TV' or 'television.'

as measured by TOI mentions, surged dramatically following its release, peaking within two years of its initial broadcast. In stark contrast, mentions of other shows remained relatively stable in periods before and after their release.

Are there any other shows with mentions similar in magnitude to Ramayan's, which might be concealed in the average across of all other shows? We also show the raw data on number of TOI mentions for all shows over the entire time period (1980-2000) in Appendix Figure A6. No other show has nearly the same number of mentions as Ramayan. Ramayan has 286 TOI mentions, while the next-closest figure is the 156 mentions of Hum Log, a soap opera about a middle-class Indian family that aired in 1984-1985.

Ramayan's substantially higher media coverage is a reflection of the show's unprecedented cultural impact. These data further support the idea that our observed effects in our analyses are driven by exposure to Ramayan, rather than other TV content.

#### 7.4.3 Heterogeneity with Respect to Distance from Religious Sites

We test whether the effects of Ramayan exposure vary with proximity to religious sites associated with the Ramayana epic. If the show itself drives our results, rather than other concurrent TV content, we would expect effects to be larger in areas with prior cultural connections to the Ramayana narrative. Such geographic heterogeneity in treatment effects would be difficult to explain if non-Ramayan content were the primary driver.

Figure A2 displays the locations of sites traditionally associated with the Ramayana and Mahabharata epics in India. These sites represent places of pilgrimage and cultural significance linked to events and characters in the respective narratives.

To test for heterogeneous treatment effects by proximity to Ramayana sites, we augment equation (1) by adding an interaction term between  $Ramayan_i \times Post_t$  and log distance from location  $i$  to the nearest Ramayana site. A negative coefficient on this interaction term would indicate that Ramayan exposure has larger effects in areas closer to Ramayana sites.

Results are in Table 9, Panel A. In all regressions, the interaction term with distance to Ramayana sites is negative, and statistically significant at conventional levels in three out of four cases (the exception is the regression for vegetarianism). The effects of Ramayan exposure decline with distance from Ramayana sites, supporting the interpretation that the content of the show itself (rather than other programming) drives the observed impacts.

To rule out that these results simply reflect proximity to any religious site (which might proxy for, say, general religiosity) we conduct a placebo test using sites associated with the Mahabharata, the other major Hindu epic. Panel B of Table 9 presents results from regressions that include both the interaction with distance to Ramayana sites and an analogous interaction with distance to Mahabharata sites. If Panel A results merely reflected proximity to important Hindu religious sites in general, we would expect similar attenuation patterns for both epics.

The placebo test reveals a clear contrast. Coefficients on the Mahabharata distance interaction term are mostly smaller in magnitude and statistically indistinguishable from zero in all regressions. Meanwhile, the coefficients on the Ramayana site distance interaction remain similar in magnitude and significance to those in Panel A.<sup>20</sup> This differential pattern strongly

<sup>20</sup>The exception is vegetarianism, in which the coefficient switches sign but is far from statistical significance.

**Table 9 - Impacts of Ramayan and Distance to Religious Sites**

	Percentage of Hindu Male Newborns Given Top 10 Names (1)	Vegetarianism (Lower-Caste Hindu Sample) (2)	Any Hindu-Muslim Conflict (Short Sample) (3)	BJP State Assembly Victory (4)
<i>Panel A. Impacts by Distance to Ramayana Sites</i>				
Ramayan × Post	0.198*** (0.054)	8.623* (5.105)	0.602*** (0.215)	2.649** (1.096)
Ramayan × Post × RamayanaSiteDistance	-0.089*** (0.031)	-0.442 (2.992)	-0.325* (0.168)	-1.302* (0.684)
Dep. var. mean	4.446	37.737	0.744	13.827
Dep. var. std. dev.	3.102	48.473	8.592	34.519
Units	3,085	1,963	4,110	4,062
Observations	61,630	3,926	57,540	19,506
<i>Panel B. Impacts by Distance to Ramayana and Mahabharata Sites</i>				
Ramayan × Post	0.196*** (0.053)	9.076* (5.366)	0.613*** (0.216)	2.661** (1.109)
Ramayan × Post × RamayanaSiteDistance	-0.087*** (0.031)	2.051 (2.902)	-0.326* (0.168)	-1.202* (0.690)
Ramayan × Post × MahabharataSiteDistance	-0.002 (0.031)	-2.795 (2.394)	-0.048 (0.125)	-0.705 (0.683)
Dep. var. mean	4.446	37.737	0.744	13.827
Dep. var. std. dev.	3.102	48.473	8.592	34.519
Units	3,085	1,963	4,110	4,062
Observations	61,630	3,926	57,540	19,506

Notes: This table includes coefficient estimates from differences-in-differences regressions augmented with additional variables for distances to religious sites. Columns (1), (3) and (4) are at the assembly constituency level, while column (2) is at the household level. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. Panel A includes distance to *Ramayana* sites, while Panel B includes distance to both *Ramayana* and *Mahabharata* sites. *Ramayana* is the actual TV signal strength at the beginning of 1987 (population-weighted average, normalized by standard deviation). *Post* is a binary variable equal to 1 if the year is 1987 or later. *RamayanaSiteDistance* and *MahabharataSiteDistance* are the normalized log distances from the unit centroid to religious sites associated with the *Ramayana* and *Mahabharata* respectively. The full set of controls is included (see Table 3 for the list). Distances to sites interacted with year fixed effects are also included as additional controls. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

suggests that the geographic heterogeneity reflects cultural affinity specific to the *Ramayana* narrative, rather than general religiosity or proximity to Hindu pilgrimage sites in general.

In sum: *Ramayan* exposure has systematically larger effects in localities closer to sites associated with the *Ramayana* epic. There is no corresponding heterogeneity with respect to distance to *Mahabharata* sites. This pattern of treatment effect heterogeneity provides evidence that the television show's specific content – its presentation of the *Ramayana* narrative – drives our estimated impacts, rather than exposure to other television programming airing in 1987.

#### 7.4.4 Placebo Test: Effects of 1987 Radio Access

A more specific concern is that our findings might be driven by exposure to news on television in 1987, rather than exposure to the *Ramayan* show. Television provided access not only to entertainment programming but also to current news coverage.<sup>21</sup> If news access were the primary mechanism behind our results, we would expect similar effects from radio, which also provides current news coverage. We test this possibility by examining whether FM radio signal strength in 1987 generates comparable effects on key outcomes.

By 1987, India had virtually universal AM radio coverage (Ministry of Information and Broadcasting, 1988). However, FM radio access varied substantially across localities since

<sup>21</sup>News events that one might worry about include the Ram Jhanmabhoomi movement (see Section 7.5 below).

it was still new with limited geographic reach. We construct measures of FM radio signal strength using the ITM methodology (see Data Appendix Section B.6 for details).

We estimate regressions that augment our main specification by including a measure of FM radio coverage in 1987 (the share of the population with weak FM radio signal) interacted with a post-1987 indicator, alongside a comparable Ramayan exposure measure (share of population with weak TV signal in 1987).

Results are in Appendix Table A8. This specification serves two purposes. First, most importantly, it provides a placebo test of whether access to another broadcast medium that delivered news content generates similar effects. Second, it addresses potential omitted variable bias: if radio access is correlated with television access and independently affects outcomes, excluding it could bias our Ramayan coefficient.

The results provide evidence against the news access interpretation. Across all four key outcomes, the coefficient on FM radio coverage is never statistically significantly different from zero. Moreover, the radio coefficients are negative for three of the four outcomes, the opposite sign from what we would expect if news access were driving our television results.

Importantly as well, inclusion of the radio access control does not attenuate the Ramayan exposure coefficients. Coefficients on Ramayan in Appendix Table A8 should be compared with coefficients in Panel B of the prior Appendix Table A7, in which the Ramayan exposure measure is share of population with weak signal strength. Three out of four of the Ramayan coefficients become larger in magnitude with the inclusion of the radio access variable on the right hand side, and all remain statistically significant at conventional levels. This indicates that radio access is not a confounding omitted variable.

The contrast between television and radio effects is telling because both media provided comparable access to news on current events during this period. Yet only television access – specifically, access at the time of the Ramayan broadcast – affects our outcomes. This pattern provides additional support to the interpretation that exposure to the Ramayan show itself, rather than to news or other general broadcast content, drives the effects we document.

## 7.5 Was it Ramayan or the Ram Janmabhoomi movement?

We now argue that the effects we attribute to Ramayan exposure are not due to the Ram Janmabhoomi movement. The Ram Janmabhoomi movement was a Hindu nationalist campaign whose aim was to build a temple dedicated to the Hindu god Ram at a site in Ayodhya, Uttar Pradesh, where the Babri Masjid stood. The movement claimed that the mosque was built on the exact birthplace (*janmabhoomi*) of Ram after destroying a pre-existing temple. The movement gained increasing prominence over the course of the 1980s. A key event in the movement was the Ram Rath Yatra, a traveling political and religious rally organized by L.K. Advani of the Bharatiya Janata Party (BJP) in September and October 1990. The procession traveled across northern India in a vehicle modeled after a mythological chariot, aiming to gather support for the construction of a Ram temple at the disputed Babri Masjid site.<sup>22</sup>

<sup>22</sup>The Ram Janmabhoomi movement culminated in the demolition of the Babri Masjid by Hindu activists on December 6, 1992, leading to widespread communal violence across India (van der Veer, 1994). The conflict has remained a contentious issue in Indian politics and society for decades. A 2019 Supreme Court verdict allowed for the construction of a Ram temple at the site while allocating alternative land for a mosque (Rajagopal, 2019). Other

Table 10 - Impacts of Ramayan and the Ram Rath Yatra Route

	Percentage of Hindu Male Newborns Given Top 10 Names (1)	Vegetarianism (Lower-Caste Hindu Sample) (2)	Any Hindu-Muslim Conflict (Short Sample) (3)	BJP State Assembly Victory (4)
<i>Ramayan</i> × <i>Post-1987</i>	0.224*** (0.053)	14.243*** (5.321)	0.666*** (0.212)	3.275*** (1.105)
<i>YatraDistance</i> × <i>Post-1990</i>	0.059** (0.030)	5.809 (4.842)	-0.345* (0.195)	-1.145 (0.764)
Dep. var. mean	4.446	37.737	0.744	13.827
Dep. var. std. dev.	3.102	48.473	8.592	34.519
Units	3,085	1,963	4,110	4,062
Observations	61,630	3,926	57,540	19,506

*Notes:* This table includes coefficient estimates from differences-in-differences regressions augmented with additional variables related to the Ram Rath Yatra route. Columns (1), (3) and (4) are at the assembly constituency level, while column (2) is at the household level. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. *Ramayan* is the actual TV signal strength at the beginning of 1987 (population-weighted average, normalized by standard deviation). *YatraDistance* is the log distance from the unit centroid to the Ram Rath Yatra route. *Post-1987* and *Post-1990* are binary variables equal to 1 if the year is 1987 or later and 1990 or later respectively. The full set of controls is included (see Table 3 for the list). Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

Given its prominence, it is important to address whether the Ram Janmabhoomi movement poses a threat to causal identification of the effect of Ramayan exposure. There is partial temporal overlap between the two: the Ram Janmabhoomi movement gained momentum in the late 1980s and early 1990s, overlapping with the period of Ramayan broadcast and its aftermath. The Ram Janmabhoomi movement also may have affected many of the same outcomes we study – Hindu identity, Hindu-Muslim conflict, and BJP electoral success. That said, the intensity of the Ram Janmabhoomi movement likely varied across different regions of India, and it is unclear whether its intensity correlates with Ramayan exposure. If the intensity of the Ram Janmabhoomi movement at the locality level is correlated with Ramayan exposure (TV signal strength in 1987), it could bias our estimates of the impact of Ramayan exposure.

We conduct additional empirical analyses that measure intensity of the Ram Janmabhoomi movement via proximity to the Ram Rath Yatra. Appendix Figure A3 displays a map of the Ram Rath Yatra route (using data from Blakeslee (2018) and Kalra (2021)). The intensity of the Ram Janmabhoomi movement at the locality level is likely to have been higher the closer a locality was to the Ram Rath Yatra. For each location in our analysis, we construct the variable *YatraDistance*, the logarithm of the distance from the location's centroid to the closest point on the Ram Rath Yatra. The Ram Rath Yatra occurred in 1990, so to capture the impact in 1990 and after we interact this term with an indicator variable for years 1990 and after.

Regressions presented in Table 10 modify equation (1) by adding the term *YatraDistance* × *Post1990*. The coefficient on *Ramayan* × *Post1987* is remarkably stable when *YatraDistance* × *Post1990* is added to the regression; estimates are barely changed vis a vis corresponding regressions where this term is not included. We conclude that our estimate of the Ramayan effect is not confounded by an omitted variable in the form of proximity to the Ram Rath Yatra.<sup>23</sup>

papers have studied the impact of the Ram Rath Yatra on Hindu-Muslim conflict, segregation (Kalra, 2021) and BJP electoral support (Blakeslee, 2018).

<sup>23</sup>Separately, the coefficient on *YatraDistance* × *Post1990* itself does not show the same patterns as the Ramayan effect. It is positive in columns 1 and 2, indicating that greater distance from the Yatra route increases the propensity for Hindu male newborns to be given common Hindu names and for lower-caste households to practice vegetari-

All told, there is no evidence supporting concerns that the causal effect of Ramayan exposure on our outcomes of interest is due to a potential confounding factor: proximity to the Ram Rath Yatra, a key measure of exposure to the Ram Janmabhoomi movement.

## 8 Conceptual Framework

We propose a conceptual framework to tie together our various findings, depicted in Figure 5.

Exposure to Ramayan strengthens Hindu cultural identity by presenting a unified, nationally broadcast version of Hindu mythology. For the first time, diverse Hindu communities across India experienced the same standardized narrative simultaneously, transcending regional variations of the epic. This reinforcement of cultural identity manifests in concrete behavioral changes. Parents increasingly give their newborn sons common Hindu names that signal religious affiliation. Lower-caste Hindu households adopt vegetarianism, a practice traditionally associated with upper castes.

Strengthened Hindu identity leads to sharper delineation between Hindu in-groups and non-Hindu out-groups, particularly Muslims.<sup>24</sup> This heightened group consciousness increases the salience of religious differences in social and political contexts. The show's narrative – depicting the conflict between Ram and the demon king Ravan – may have reinforced awareness of religious boundaries. The amplified in-group/out-group dynamics contribute to increased social tensions between Hindus and Muslims. In the short term, this manifests as an increase in Hindu-Muslim communal violence.

The BJP, as the primary party associated with Hindu nationalism, is uniquely positioned to benefit from heightened religious consciousness among voters. Strengthened Hindu identity and increased religious polarization translate into electoral gains for the BJP.

The electoral success of the BJP creates opportunities for policies and institutional changes that further strengthen Hindu cultural identity, establishing a self-reinforcing cycle. This feedback loop represents a critical mechanism for the long-term persistence of Ramayan's effects. The feedback can operate through multiple channels, both governmental and non-governmental. Such a feedback mechanism aligns with the framework of Acemoglu and Robinson (2025), who emphasize how cultural configurations interact dynamically with institutions and political power, with changes in one domain potentially triggering discontinuous shifts in others.

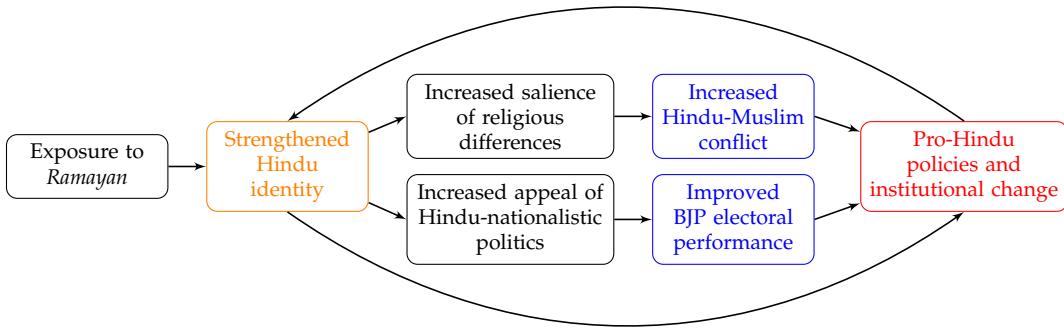
On the governmental side, when the BJP gains control of state governments, it can directly shape policy and public institutions in ways that continue to reinforce Hindu religious identity. This might include changes to school textbooks, support for Hindu cultural festivals, or preferential treatment for Hindu religious institutions.

Beyond direct government action, feedback can also operate through non-governmental actors whose activities are facilitated by the changed political and cultural environment. In areas where Ramayan has strengthened Hindu identity and the BJP has gained political power,

anism. (It is unclear why this would be the case.) The negative and statistically significant coefficient in column 3 indicates that lower distance (higher proximity) to the Yatra route raises Hindu-Muslim violence. The coefficient is negative but imprecise (and not statistically significant) in column 4 for BJP victory.

<sup>24</sup> Appendix Table A9 reports heterogeneous effects for our four main outcomes by local Muslim population share: effects on Hindu-identity outcomes (top names and vegetarianism) are similar across areas, whereas effects on Hindu–Muslim conflict and BJP electoral victory are substantially larger and entirely driven by high-Muslim localities, where out-group boundaries are likely to be more salient, consistent with this mechanism.

**Figure 5 - Conceptual Framework: Ramayan's Effects on Cultural Identity and Political Outcomes**



non-governmental organizations that promote Hindu nationalism may find more receptive populations and more supportive political conditions for expansion. While these organizations are not part of the government apparatus, their growth may be indirectly facilitated by government policies, funding decisions, or simply by the general population's increased receptivity to institutions that reinforce Hindu identity.

This conceptual framework demonstrates how media exposure to religious content can have cascading effects across cultural, social, and political domains. The pathway runs from initial identity strengthening, through short-term increases in intergroup conflict, to long-term political realignment, with feedback mechanisms facilitating persistence.

## 9 Mechanisms of Feedback Effects: RSS Schools

The above conceptual framework proposes that the persistence of Ramayan's effects operates through feedback mechanisms in which institutional changes continue to strengthen Hindu identity even after the Ramayan show has ended. We now test for the presence of one specific institutional channel: the establishment of Rashtriya Swayamsevak Sangh (RSS) schools.

The RSS is the ideological parent organization of the BJP and operates an extensive network of educational institutions across India under the umbrella of Vidya Bharati. These schools explicitly promote Hindu cultural values, Sanskrit language instruction, and nationalist ideology as part of their curriculum. Unlike government schools, RSS institutions actively work to instill a particular vision of Hindu identity in their students. Growth of RSS schools may depend on receptivity from local populations; the strengthened Hindu identity resulting from exposure to the Ramayan show is likely to have enhanced the receptivity of localities to RSS school establishment. While RSS schools are private institutions rather than government entities, their expansion may also be indirectly facilitated by BJP political power through supportive policies, favorable regulatory treatment, or access to public resources. Overall, RSS schools may represent an important institutional mechanism through which strengthened religious identity can be transmitted across generations and reinforced over time.

We test whether areas with higher exposure to Ramayan subsequently experienced greater expansion of RSS schools. Our RSS school data come from the Vidya Bharati Alumni Network, a public directory of schools linked to the RSS. We successfully geolocate approximately 9,100 schools and aggregate these to the assembly constituency level, creating a binary indicator for whether any RSS school is present in a constituency.

Table 11 - Impacts of Ramayan on RSS Schools

	Any RSS School				
	(1)	(2)	(3)	(4)	(5)
Ramayan × Post	-0.366 (0.826)	1.889** (0.881)	2.073** (0.907)	1.999** (0.908)	2.247** (0.931)
Dep. var. mean	24.833	24.833	24.833	24.833	24.833
Dep. var. std. dev.	43.205	43.205	43.205	43.205	43.205
Units	4,110	4,110	4,110	4,110	4,110
Observations	90,420	90,420	90,420	90,420	90,420
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

Notes: This table includes coefficient estimates from differences-in-differences regressions at the assembly constituency level related to RSS-affiliated school outcomes. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. *Any RSS School*, a binary variable equal to 1 if there is an RSS-affiliated school, and 0 otherwise. *Ramayan* is the actual TV signal strength at the beginning of 1987 (population-weighted average, normalized by standard deviation). *Post* is a binary variable equal to 1 if the year is 1987 or later. For list of control variables, see Table 3. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

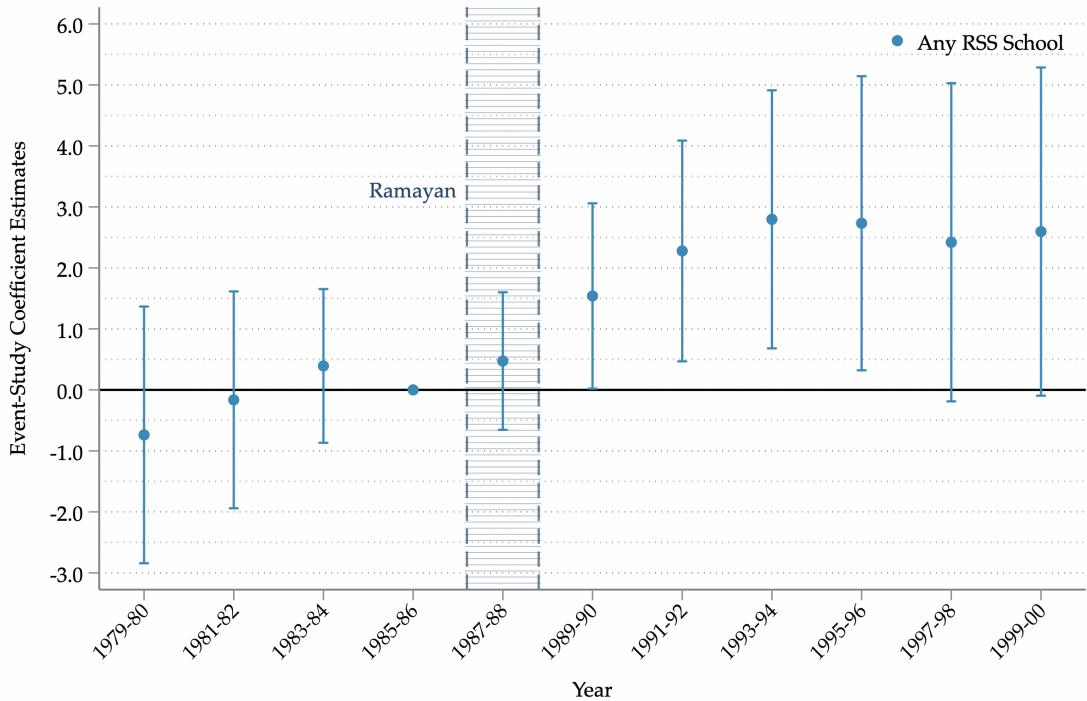
We estimate regression equation (1) where the outcome variable is the presence of any RSS school. Results are presented in Table 11. The coefficient on Ramayan exposure is positive and statistically significant at the 5% level across all specifications from column 2 onwards. In the most complete specification (column 5), a one-standard-deviation increase in Ramayan exposure leads to a 2.2 percentage point increase in the probability that a constituency has an RSS school (relative to the dependent variable mean of 24.8%).

The event study in Figure 6 reveals the temporal dynamics of this effect. There is no evidence of differential pre-trends: coefficients in the pre-Ramayan period are small and not statistically significantly different from zero. Following the Ramayan broadcast, coefficients become positive and grow over time, consistent with a gradual expansion process. The effect size rises through the mid-1990s and then stabilizes.

The temporal pattern of effects is consistent with the feedback mechanism operating through two complementary channels. First, and most directly, Ramayan exposure strengthened Hindu religious identity in local populations, making them more receptive to educational institutions that promote Hindu cultural values – an effect that operates independently of any political changes. Second, BJP electoral victories in these same areas may have additionally facilitated RSS school expansion through supportive policies, favorable regulatory treatment, or access to public resources. Together, these channels – population receptivity enhanced by Ramayan exposure and political support enabled by BJP electoral success – create conditions that facilitate the establishment of RSS educational institutions, which in turn continue to reinforce Hindu identity formation among younger cohorts.

This finding provides direct empirical support for the feedback mechanism proposed in our conceptual framework. The Ramayan broadcast did not just affect cultural practices, communal violence, and elections. It also created conditions favorable to institutional changes – specifically, the establishment of RSS schools – that continued to shape religious identity form-

Figure 6 - Impacts of Ramayan on RSS Schools



Notes: This figure plots the coefficients from an event-study regression at the assembly constituency level. The dependent variable is *Any RSS School*, a binary variable equal to 1 if there is an RSS-affiliated school, and 0 otherwise. The dependent variable has been scaled by 100. The treatment variable is *Ramayan*, the actual TV signal strength at the beginning of 1987. The treatment variable is interacted with two-year windows, where the 1985-86 period is omitted. The full set of controls is included (see Table 3 for the list). Conley (1999) standard errors are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. Confidence intervals are presented at the 95% level.

ation long after the Ramayan broadcast ended. This institutional channel helps explain the remarkable persistence of political effects from a temporary media event.

## 10 Conclusion

We study how shifts in religious identity can affect intergroup conflict and long-run political change in India. Our analyses exploit spatial variation in television signal strength determining exposure to the Ramayan TV show in 1987-88. We find a cascade of effects following exposure to the Ramayan broadcast. First, the show strengthened Hindu religious identity, as evidenced by two distinct cultural shifts: Hindu parents became significantly more likely to give their newborn sons traditionally Hindu names, and lower-caste Hindu households substantially increased their adoption of vegetarianism – a traditionally upper-caste practice. Second, strengthened Hindu identity led to sharper boundaries between religious groups, manifesting in increased Hindu-Muslim communal violence in the short run. Third, the show had durable political consequences. Areas with greater Ramayan exposure saw systematically higher electoral success for the Hindu nationalist Bharatiya Janata Party (BJP) in state assembly elections, with effects persisting throughout our study period to 2000.

We identify a concrete mechanism through which temporary media exposure generated permanent political change: the expansion of Rashtriya Swayamsevak Sangh (RSS) schools. The RSS, the ideological parent organization of the BJP, operates educational institutions that explicitly promote Hindu cultural values and nationalist ideology. We find that localities with higher Ramayan exposure became more likely to have RSS schools. This institutional expan-

sion is a feedback mechanism through which initial identity shifts – reinforced by subsequent BJP political success – become persistent over time. By reshaping both the cultural landscape and the distribution of political power, Ramayan created conditions for institutional changes that perpetuate its effects long after the original broadcast.

Our study makes key contributions to the economics of identity and political economy. First, we provide evidence of a rich causal chain through which identity shifts reshape political equilibria – from initial identity strengthening through intergroup conflict to political realignment. While theoretical work predicts these dynamics, empirical evidence tracing a full causal pathway has been scarce. What's more, we identify a specific feedback mechanism that can explain long-run persistence. The expansion of RSS schools shows how temporary shocks to identity can generate permanent change through institutional channels that sustain identity formation across cohorts who never experienced the original media event.

Looking forward, this research opens several avenues for future inquiry. First, while we identify RSS school expansion as one feedback mechanism, investigation into other institutional channels – such as changes in government hiring practices, shifts in educational curricula, or the establishment of cultural organizations – could reveal additional pathways through which identity shifts become embedded in society. Second, research could examine the conditions under which identity-strengthened populations translate their cultural preferences into sustained political change. What determines whether strengthened identity leads to durable political realignment versus temporary electoral shifts? Third, comparative studies examining how religious or ethnic identity shifts affect political outcomes across different institutional contexts could help establish the generalizability of our findings and identify which political structures are most susceptible to identity-driven realignment. Fourth, investigation into the intergenerational transmission of politically-relevant identities through institutions like RSS schools could illuminate how initial identity shocks persist even as cohorts who experienced the original shock are replaced by younger generations.

In conclusion, our study demonstrates that strengthened group identity can fundamentally reshape political equilibria through cascading effects on intergroup relations, electoral behavior, and institutions. The Ramayan case illustrates how a temporary identity shock – in this instance triggered by a television broadcast – can generate self-sustaining political change when identity shifts enable electoral victories that in turn facilitate institutional developments reinforcing those same identities. Understanding these dynamics is crucial for diverse democracies where competing identity-based political movements vie for power. As societies worldwide grapple with issues of identity politics, religious nationalism, and political polarization, our findings highlight the importance of recognizing that identity shifts, once initiated, can become locked in through institutional channels that perpetuate their political consequences across generations. The challenge for policymakers and citizens is not simply managing current identity-based tensions, but recognizing how today's identity shifts may reshape tomorrow's political landscape through feedback mechanisms that outlast the original catalyst.

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## A Appendix Tables and Figures

Table A1 - List of State-Level Top Ranked Names of Hindu Males

		Rank of Name				
		1 and 2 (1)	3 and 4 (2)	5 and 6 (3)	7 and 8 (4)	9 and 10 (5)
Andhra Pradesh	Venkata	Apparao	Satyanaaryana	Nagaswararaao	Enkateshwari	
	Sathyanaaryan	Subbarao	Chinna	Ramarao	Venkateshwaraao	
Arunachal Pradesh	Wangsu	Singh	Pansa	Kumar	Wangpan	
	Bdr	Wangsa	Das	Tsering	Prasad	
Assam	Aabdul	Prodeep	Onil	Babul	Khogen	
	Gopal	Dileep	Aah	Xubhax	Xunil	
Bihar	Raam	Suresh	Mahendra	Vijay	Krishna	
	Rajendra	Shiv	Ashok	Surendra	Shankar	
Goa	Prakash	Chandrakant	Ashok	Anand	Jose	
	Suresh	Narayan	Krishna	Ramesh	Gurudas	
Gujarat	Rameshbhai	Ramanbhai	Bhikhhabhai	Kantibhai	Maganbhai	
	Babubhai	Mohanbhai	Bharatbhai	Govindbhai	Somabhai	
Haryana	Raam	Krishna	Ome	Rajendra	Jagdish	
	Ramesh	Raaj	Jaya	Suresh	Subhash	
Himachal Pradesh	Raam	Prem	Jagdish	Rotion	Dharm	
	Ramesh	Amar	Prakaash	Ome	Krishna	
Karnataka	Basappa	Siddappa	Yellappa	Basavaraja	Bhimappa	
	Mallappa	Hanamanta	Lakshmana	Maruti	Shivappa	
Madhya Pradesh	Raam	Jagdish	Ashok	Mangilal	Mohan	
	Ramesh	Babulal	Suresh	Rajendra	Narayan	
Maharashtra	Ashoke	Ramesh	Prakash	Shivaji	Pandurang	
	Suresh	Lakshman	Shankar	Narayan	Sanjay	
Manipur	Tomba	Kumar	Chaoba	Ibohal	Biren	
	Ibomcha	Rajen	Haokip	Ibotombi	Yaima	
Meghalaya	Ram	Dilip	Gopal	Francis	Philip	
	John	Abdul	Krishna	Sunil	Suresh	
Mizoram	Malsawma	Lalthlamuana	Lalhmingliana	Laltanpuia	Vanlalruata	
	Lalrinawma	Lalhmangaiha	Lalhmachhuana	Lalhmingthanga	Lalnunmawia	
Orissa	Bhagabana	Suresh	Gobinda	Sudarshan	Gopala	
	Bijay	Ramchandra	Sharat	Narajna	Dujyoudhana	
Punjab	Raam	Mahinder	Sukhdev	Joginder	Balveer	
	Darshan	Baldev	Balwinder	Sarinder	Avtaar	
Rajasthan	Raam	Mohan	Ramesh	Babulal	Kailash	
	Jagdish	Shankar	Gopal	Omprakash	Bhanwar	
Tamil Nadu	Aarumugam	Subramani	Murugan	Subramanian	Ramasamy	
	Rajendran	Ganesan	Murugesan	Manii	Perumaal	
Tripura	Narayan	Pradeep	Dileep	Suneel	Ravinder	
	Swapan	Ranjit	Onil	Roton	Gopal	
Uttar Pradesh	Raam	Suresh	Ashok	Jagdish	Surendra	
	Rajendra	Ramesh	Shiv	Vijay	Moe	
West Bengal	Swapan	Ashoke	Shankar	Dileep	Biswanath	
	Topon	Gopal	Sukumar	Narayan	Subhash	

*Notes:* This table includes the list of top-ranked names of Hindu males born from 1900 to 1970. An individual is determined to be Hindu if their father's full name is classified to be most likely a Hindu name. For each state, if names are not recorded with the Latin alphabet, all names are first transliterated into the Latin alphabet. Depending on the naming conventions of each state, we identify each individual's first name. We then rank all of the names in a state for the period of relevance. In total, approximately the names of 100 million Hindu males born between 1900 and 1970 were used to determine these top names. See Data Appendix Section B.2.1 for details.

**Table A2 - Impacts of Ramayan on the Percentage of Hindu Male Newborns Given Top 3 and 5 Names**

	Percentage of Hindu Male Newborns Given Top Names				
	(1)	(2)	(3)	(4)	(5)
<i>Panel A. Percentage of Newborns Given Top 3 Names</i>					
Ramayan × Post	0.053*	0.100***	0.105***	0.107***	0.091***
	(0.030)	(0.033)	(0.032)	(0.033)	(0.030)
Dep. var. mean	1.594	1.594	1.594	1.594	1.594
Dep. var. std. dev.	1.528	1.528	1.528	1.528	1.528
Units	3,085	3,085	3,085	3,085	3,085
Observations	61,630	61,630	61,630	61,630	61,630
<i>Panel B. Percentage of Newborns Given Top 5 Names</i>					
Ramayan × Post	0.140***	0.209***	0.198***	0.202***	0.170***
	(0.037)	(0.040)	(0.040)	(0.040)	(0.038)
Dep. var. mean	2.445	2.445	2.445	2.445	2.445
Dep. var. std. dev.	1.973	1.973	1.973	1.973	1.973
Units	3,085	3,085	3,085	3,085	3,085
Observations	61,630	61,630	61,630	61,630	61,630
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

*Notes:* This table includes coefficient estimates from differences-in-differences regressions at the assembly constituency level related to naming patterns of Hindu male newborns. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. An individual is determined to be Hindu if their father's full name is classified to be most likely a Hindu name. A top Hindu name is determined at the state-level (to account for cultural differences across states) by ranking all first names of Hindu males born between 1900 and 1970, prior to our study period. All measures of TV signal strength are population-weighted averages and normalized. *Ramayan* is the actual TV signal strength at the beginning of 1987. *Post* is a binary variable equal to 1 if the year is 1987 or later. Constituency and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. 1980 *TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

**Table A3 - Impacts of Ramayan on the Percentage of Hindu Male Newborns Given Ramayan Names**

	Percentage of Hindu Male Newborns Given Ramayan Names				
	(1)	(2)	(3)	(4)	(5)
<i>Panel A. Percentage of Hindu Male Newborns Given the Name Rama</i>					
Ramayan × Post	-0.022 (0.018)	0.019 (0.019)	0.013 (0.018)	0.015 (0.018)	-0.008 (0.016)
Dep. var. mean	0.475	0.475	0.475	0.475	0.475
Dep. var. std. dev.	0.821	0.821	0.821	0.821	0.821
Units	3,085	3,085	3,085	3,085	3,085
Observations	61,630	61,630	61,630	61,630	61,630
<i>Panel B. Percentage of Hindu Male Newborns Given Names of Primary Characters from Ramayan</i>					
Ramayan × Post	0.005 (0.019)	0.044** (0.021)	0.040** (0.019)	0.041** (0.019)	0.016 (0.018)
Dep. var. mean	0.708	0.708	0.708	0.708	0.708
Dep. var. std. dev.	0.931	0.931	0.931	0.931	0.931
Units	3,085	3,085	3,085	3,085	3,085
Observations	61,630	61,630	61,630	61,630	61,630
<i>Panel C. Percentage of Hindu Male Newborns Names of Primary Actors from Ramayan</i>					
Ramayan × Post	-0.048** (0.019)	-0.012 (0.020)	0.006 (0.020)	0.005 (0.020)	0.009 (0.019)
Dep. var. mean	0.946	0.946	0.946	0.946	0.946
Dep. var. std. dev.	0.981	0.981	0.981	0.981	0.981
Units	3,085	3,085	3,085	3,085	3,085
Observations	61,630	61,630	61,630	61,630	61,630
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

*Notes:* This table includes coefficient estimates from differences-in-differences regressions at the assembly constituency level related to naming patterns of Hindu male newborns. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. An individual is determined to be Hindu if their father's full name is classified to be most likely a Hindu name. To account for spelling differences, the name *Rama* includes the following additional variants: *Ram*, *Raam* and *Raama*. The primary character names from Ramayan, with spelling variants, include: *Rama*, *Ram*, *Raam*, *Raama*, *Laxman*, *Lakshman*, *Lakshmana*, *Lakshmanna*, *Laxmanan*, *Sita*, *Sitham*, *Seetaa*, *Seetha*, *Hanuman* and *Maruti*. The primary actor names from Ramayan, with spelling variants, include *Arun*, *Arvind*, *Sunil*, *Suneel*, *Suneela* and *Dara*. All measures of TV signal strength are population-weighted averages and normalized. *Ramayan* is the actual TV signal strength at the beginning of 1987. *Post* is a binary variable equal to 1 if the year is 1987 or later. Constituency and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. *1980 TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

**Table A4 - Impacts of Ramayan on Additional Hindu-Muslim Conflict Outcomes**

	Hindu-Muslim Conflict Outcomes				
	(1)	(2)	(3)	(4)	(5)
<i>Panel A. Any Deadly Conflict (Full Sample from 1979 to 2000)</i>					
Ramayan × Post	0.230** (0.108)	0.228* (0.129)	0.191 (0.122)	0.185 (0.122)	0.130 (0.119)
Dep. var. mean	0.397	0.397	0.397	0.397	0.397
Dep. var. std. dev.	6.289	6.289	6.289	6.289	6.289
Units	4,110	4,110	4,110	4,110	4,110
Observations	90,420	90,420	90,420	90,420	90,420
<i>Panel B. Any Violent Conflict (Full Sample from 1979 to 2000)</i>					
Ramayan × Post	0.251** (0.117)	0.270* (0.140)	0.250* (0.132)	0.242* (0.133)	0.174 (0.131)
Dep. var. mean	0.476	0.476	0.476	0.476	0.476
Dep. var. std. dev.	6.880	6.880	6.880	6.880	6.880
Units	4,110	4,110	4,110	4,110	4,110
Observations	90,420	90,420	90,420	90,420	90,420
<i>Panel C. Any Deadly Conflict (Short Sample from 1979 to 1992)</i>					
Ramayan × Post	0.617*** (0.161)	0.630*** (0.189)	0.554*** (0.184)	0.538*** (0.184)	0.453** (0.184)
Dep. var. mean	0.532	0.532	0.532	0.532	0.532
Dep. var. std. dev.	7.273	7.273	7.273	7.273	7.273
Units	4,110	4,110	4,110	4,110	4,110
Observations	57,540	57,540	57,540	57,540	57,540
<i>Panel D. Any Violent Conflict (Short Sample from 1979 to 1992)</i>					
Ramayan × Post	0.699*** (0.172)	0.744*** (0.203)	0.681*** (0.199)	0.661*** (0.199)	0.548*** (0.200)
Dep. var. mean	0.633	0.633	0.633	0.633	0.633
Dep. var. std. dev.	7.929	7.929	7.929	7.929	7.929
Units	4,110	4,110	4,110	4,110	4,110
Observations	57,540	57,540	57,540	57,540	57,540
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

*Notes:* This table includes coefficient estimates from differences-in-differences regressions at the assembly constituency level related to Hindu-Muslim conflict outcomes. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. *Any Violent Conflict* is a binary variable equal to 1 if there was any Hindu-Muslim conflict with at least one registered death or injury and 0 otherwise. *Any Deadly Conflict* is a binary variable equal to 1 if there was any Hindu-Muslim conflict with at least one registered death and 0 otherwise. All measures of TV signal strength are population-weighted averages and normalized. *Ramayan* is the actual TV signal strength at the beginning of 1987. *Post* is a binary variable equal to 1 if the year is 1987 or later. Constituency and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. *1980 TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

Table A5 - Impacts of Ramayan on Additional State Assembly Electoral Outcomes

	State Assembly Electoral Outcomes				
	(1)	(2)	(3)	(4)	(5)
<i>Panel A. BJP Vote Share</i>					
Ramayan × Post	0.205 (0.385)	0.610 (0.417)	0.485 (0.413)	0.592 (0.414)	0.522 (0.422)
Dep. var. mean	13.501	13.501	13.501	13.501	13.501
Dep. var. std. dev.	17.751	17.751	17.751	17.751	17.751
Units	4,062	4,062	4,062	4,062	4,062
Observations	19,506	19,506	19,506	19,506	19,506
<i>Panel B. BJP Fields a Candidate</i>					
Ramayan × Post	-2.810** (1.149)	-3.002** (1.230)	-2.748** (1.240)	-2.642** (1.253)	-3.028** (1.291)
Dep. var. mean	58.884	58.884	58.884	58.884	58.884
Dep. var. std. dev.	49.206	49.206	49.206	49.206	49.206
Units	4,062	4,062	4,062	4,062	4,062
Observations	19,506	19,506	19,506	19,506	19,506
<i>Panel C. BJP Conditional Victory</i>					
Ramayan × Post	7.035*** (1.931)	8.701*** (2.000)	7.974*** (1.979)	8.499*** (1.995)	7.349*** (2.059)
Dep. var. mean	23.481	23.481	23.481	23.481	23.481
Dep. var. std. dev.	42.390	42.390	42.390	42.390	42.390
Units	3,622	3,622	3,622	3,622	3,622
Observations	11,486	11,486	11,486	11,486	11,486
<i>Panel D. BJP Conditional Vote Share</i>					
Ramayan × Post	1.487** (0.629)	1.962*** (0.635)	1.265** (0.627)	1.278** (0.627)	1.266** (0.642)
Dep. var. mean	22.928	22.928	22.928	22.928	22.928
Dep. var. std. dev.	17.860	17.860	17.860	17.860	17.860
Units	3,622	3,622	3,622	3,622	3,622
Observations	11,486	11,486	11,486	11,486	11,486
<i>Panel E. INC Victory</i>					
Ramayan × Post	-2.148 (1.446)	-3.528** (1.592)	-3.309** (1.610)	-3.262** (1.614)	-3.327** (1.643)
Dep. var. mean	36.794	36.794	36.794	36.794	36.794
Dep. var. std. dev.	48.226	48.226	48.226	48.226	48.226
Units	4,062	4,062	4,062	4,062	4,062
Observations	19,506	19,506	19,506	19,506	19,506
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

Notes: This table includes coefficient estimates from differences-in-differences regressions at the assembly constituency level for state assembly electoral outcomes. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. *Fields a Candidate* is a binary variable equal to 1 if the party fielded a candidate in the election and 0 otherwise. *Victory* is a binary variable equal to 1 if the party wins the election and 0 otherwise. *Vote Share* is the proportion of votes in the constituency that the party received. "Conditional" outcomes exclude constituencies in which the party did not field a candidate. All measures of TV signal strength are population-weighted averages and normalized. *Ramayan* is the actual TV signal strength at the beginning of 1987. *Post* is a binary variable equal to 1 if the year is 1987 or later. Constituency and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. *1980 TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

Table A6 - Impacts of Ramayan on National Parliamentary Electoral Outcomes

	BJP Victory				
	(1)	(2)	(3)	(4)	(5)
Ramayan × Post	1.902 (2.549)	3.990 (2.667)	5.416* (2.839)	5.196* (2.874)	2.136 (2.962)
Dep. var. mean	22.726	22.726	22.726	22.726	22.726
Dep. var. std. dev.	41.913	41.913	41.913	41.913	41.913
Units	537	537	537	537	537
Observations	3,199	3,199	3,199	3,199	3,199
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

Notes: This table includes coefficient estimates from differences-in-differences regressions at the parliamentary constituency level for national parliamentary electoral outcomes. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. *Victory* is a binary variable equal to 1 if the BJP party wins the election and 0 otherwise, including if the party did not field a candidate. All measures of TV signal strength are population-weighted averages and normalized. *Ramayan* is the actual TV signal strength at the beginning of 1987. *Post* is a binary variable equal to 1 if the year is 1987 or later. Constituency and state-year fixed effects are included. All controls are interacted with year fixed effects. The sample includes the following years, for which there was a general election: 1984, 1989, 1991, 1996, 1998 and 1999. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. *1980 TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

**Table A7 - Impacts of Ramayan Using Binary and Share of Population Exposure Measures**

	Percentage of Hindu Male Newborns Given Top 10 Names (1)	Vegetarianism (Lower-Caste Hindu Sample) (2)	Any Hindu- Muslim Conflict (Short Sample) (3)	BJP State Assembly Victory (4)
<i>Panel A. TV Signal Above Weak Threshold (Binary)</i>				
Ramayan × Post	0.261*** (0.067)	32.617*** (10.068)	0.585* (0.304)	3.265** (1.309)
Dep. var. mean	4.446	37.737	0.744	13.827
Dep. var. std. dev.	3.102	48.473	8.592	34.519
Treated units	1,078	578	1,461	1,454
Control units	2,007	1,385	2,649	2,608
Units	3,085	1,963	4,110	4,062
Observations	61,630	3,926	57,540	19,506
<i>Panel B. Share of Population with Weak Signal Strength</i>				
Ramayan × Post	0.333*** (0.086)	29.927*** (10.363)	0.605 (0.394)	4.643*** (1.724)
Dep. var. mean	4.446	37.737	0.744	13.827
Dep. var. std. dev.	3.102	48.473	8.592	34.519
Units	3,085	1,963	4,110	4,062
Observations	61,630	3,926	57,540	19,506
Unit fixed effects	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes
1980 TV controls	Yes	Yes	Yes	Yes
Population controls	Yes	Yes	Yes	Yes
Census controls	Yes	Yes	Yes	Yes

*Notes:* This table includes coefficient estimates from differences-in-differences regressions using different measures of exposure to Ramayan. Columns (1), (3) and (4) are at the assembly constituency level, while column (2) is at the household level. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. All measures of TV signal strength are population-weighted averages. In Panel A, *Ramayan* is a binary variable equal to 1 if the actual TV signal strength is above the weak threshold of -68 dBm at the beginning of 1987. In Panel B, *Ramayan* is the share of the population with weak TV coverage (having a TV signal strength of at least -68 dBm) at the beginning of 1987. *Post* is a binary variable equal to 1 if the year is 1987 or later. Unit and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. *1980 TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

Table A8 - Impacts of Ramayan and Radio

	Percentage of Hindu Male Newborns Given Top 10 Names (1)	Vegetarianism (Lower-Caste Hindu Sample) (2)	Any Hindu-Muslim Conflict (Short Sample) (3)	BJP State Assembly Victory (4)
<i>Ramayan</i> × Post	0.375*** (0.070)	23.114** (10.039)	0.912*** (0.308)	6.270*** (1.489)
<i>FMSignal</i> <sub>1987</sub> × Post	-0.272 (0.170)	-33.229 (24.174)	-0.902 (0.816)	3.773 (4.913)
Dep. var. mean	4.446	37.737	0.744	13.827
Dep. var. std. dev.	3.102	48.473	8.592	34.519
Units	3,085	1,963	4,110	4,062
Observations	61,630	3,926	57,540	19,506
Unit fixed effects	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes
1980 TV controls	Yes	Yes	Yes	Yes
Population controls	Yes	Yes	Yes	Yes
Census controls	Yes	Yes	Yes	Yes
FM radio freespace controls	Yes	Yes	Yes	Yes

Notes: This table includes coefficient estimates from differences-in-differences regressions augmented with additional variables for FM radio coverage. Columns (1), (3) and (4) are at the assembly constituency level, while column (2) is at the household level. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. All measures of TV and FM radio signal strength are population-weighted averages. *Ramayan* is the share of the population with weak TV coverage (having a TV signal strength of at least -68 dBm) at the beginning of 1987. *FMSignal*<sub>1987</sub> is the share of the population with weak FM radio coverage (having an FM radio signal strength of at least 50 dB<sub>1V/m</sub> which is equivalent to -68 dBm) at the beginning of 1987. These measures of TV and FM radio signal strength were chosen to facilitate direct comparison. *Post* is a binary variable equal to 1 if the year is 1987 or later. Unit and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. *1980 TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. *FM radio freespace controls* include the unit-level freespace FM radio signal strength at the beginning of 1987. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

Table A9 - Heterogeneous Impacts of Ramayan by District Muslim Population Share

	Percentage of Hindu Male Newborns Given Top 10 Names (1)	Vegetarianism (Lower-Caste Hindu Sample) (2)	Any Hindu-Muslim Conflict (Short Sample) (3)	BJP State Assembly Victory (4)
<i>Panel A. High Muslim Districts</i>				
Ramayan × Post	0.219*** (0.060)	18.177** (8.443)	1.183*** (0.339)	5.875*** (1.603)
Dep. var. mean	4.693	38.756	1.159	15.041
Dep. var. std. dev.	3.252	48.719	10.705	35.749
Units	1,558	963	2,107	2,090
Observations	31,136	1,926	29,498	10,046
<i>Panel B. Low Muslim Districts</i>				
Ramayan × Post	0.151* (0.082)	16.585*** (6.091)	-0.054 (0.231)	-0.606 (1.628)
Dep. var. mean	4.195	36.901	0.307	12.537
Dep. var. std. dev.	2.919	48.254	5.529	33.116
Units	1,527	1,000	2,003	1,972
Observations	30,494	2,000	28,042	9,460
p-value: test of equality	[0.503]	[0.879]	[0.002]	[0.004]
Unit fixed effects	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes
1980 TV controls	Yes	Yes	Yes	Yes
Population controls	Yes	Yes	Yes	Yes
Census controls	Yes	Yes	Yes	Yes

Notes: This table includes coefficient estimates from differences-in-differences regressions for different samples. Columns (1), (3) and (4) are at the assembly constituency level, while column (2) is at the household level. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. We classify localities as High Muslim or Low Muslim based on whether their district's Muslim population share from the 1981 Census is above or below the median across districts. Panel A reports estimates for localities in High Muslim districts while Panel B reports estimates for localities in Low Muslim districts. All measures of TV signal strength are population-weighted averages and normalized. *Ramayan* is the actual TV signal strength at the beginning of 1987. *Post* is a binary variable equal to 1 if the year is 1987 or later. Unit and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. 1980 *TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

Table A10 - Impacts of Ramayan on Outcomes at the PIN Code Level

	PIN Code Level Outcomes				
	(1)	(2)	(3)	(4)	(5)
<i>Panel A. Percentage of Hindu Male Newborns Given Top 10 Names</i>					
Ramayan × Post	0.176*** (0.035)	0.208*** (0.036)	0.187*** (0.036)	0.189*** (0.036)	0.172*** (0.034)
Dep. var. mean	4.364	4.364	4.364	4.364	4.364
Dep. var. std. dev.	3.625	3.625	3.625	3.625	3.625
Units	13,780	13,780	13,780	13,780	13,780
Observations	274,113	274,113	274,113	274,113	274,113
<i>Panel B. Any Conflict (Full Sample from 1979 to 2000)</i>					
Ramayan × Post	0.044* (0.026)	0.050 (0.031)	0.045 (0.028)	0.040 (0.027)	0.020 (0.026)
Dep. var. mean	0.133	0.133	0.133	0.133	0.133
Dep. var. std. dev.	3.639	3.639	3.639	3.639	3.639
Units	19,475	19,475	19,475	19,475	19,475
Observations	428,450	428,450	428,450	428,450	428,450
<i>Panel C. Any Conflict (Short Sample from 1979 to 1992)</i>					
Ramayan × Post	0.150*** (0.039)	0.160*** (0.045)	0.148*** (0.042)	0.133*** (0.041)	0.102*** (0.039)
Dep. var. mean	0.178	0.178	0.178	0.178	0.178
Dep. var. std. dev.	4.214	4.214	4.214	4.214	4.214
Units	19,475	19,475	19,475	19,475	19,475
Observations	272,650	272,650	272,650	272,650	272,650
<i>Panel D. Any RSS School</i>					
Ramayan × Post	-0.365 (0.253)	0.585** (0.264)	0.566** (0.267)	0.426 (0.264)	0.587** (0.266)
Dep. var. mean	7.726	7.726	7.726	7.726	7.726
Dep. var. std. dev.	26.700	26.700	26.700	26.700	26.700
Units	19,475	19,475	19,475	19,475	19,475
Observations	428,450	428,450	428,450	428,450	428,450
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

Notes: This table includes coefficient estimates from differences-in-differences regressions at the PIN code level. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. An individual is determined to be Hindu if their father's full name is classified to be most likely a Hindu name. A top Hindu name is determined at the state-level (to account for cultural differences across states) by ranking all first names of Hindu males born between 1900 and 1970, prior to our study period. *Any Conflict* is a binary variable equal to 1 if there was any Hindu-Muslim conflict and 0 otherwise. Panel B includes the full sample of years from 1979 to 2000, while Panel C includes a short sample from 1979 to 1992. *Any RSS School*, a binary variable equal to 1 if there is an RSS-affiliated school, and 0 otherwise. All measures of TV signal strength are population-weighted averages and normalized. *Ramayan* is the actual TV signal strength at the beginning of 1987. *Post* is a binary variable equal to 1 if the year is 1987 or later. PIN code and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. *1980 TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

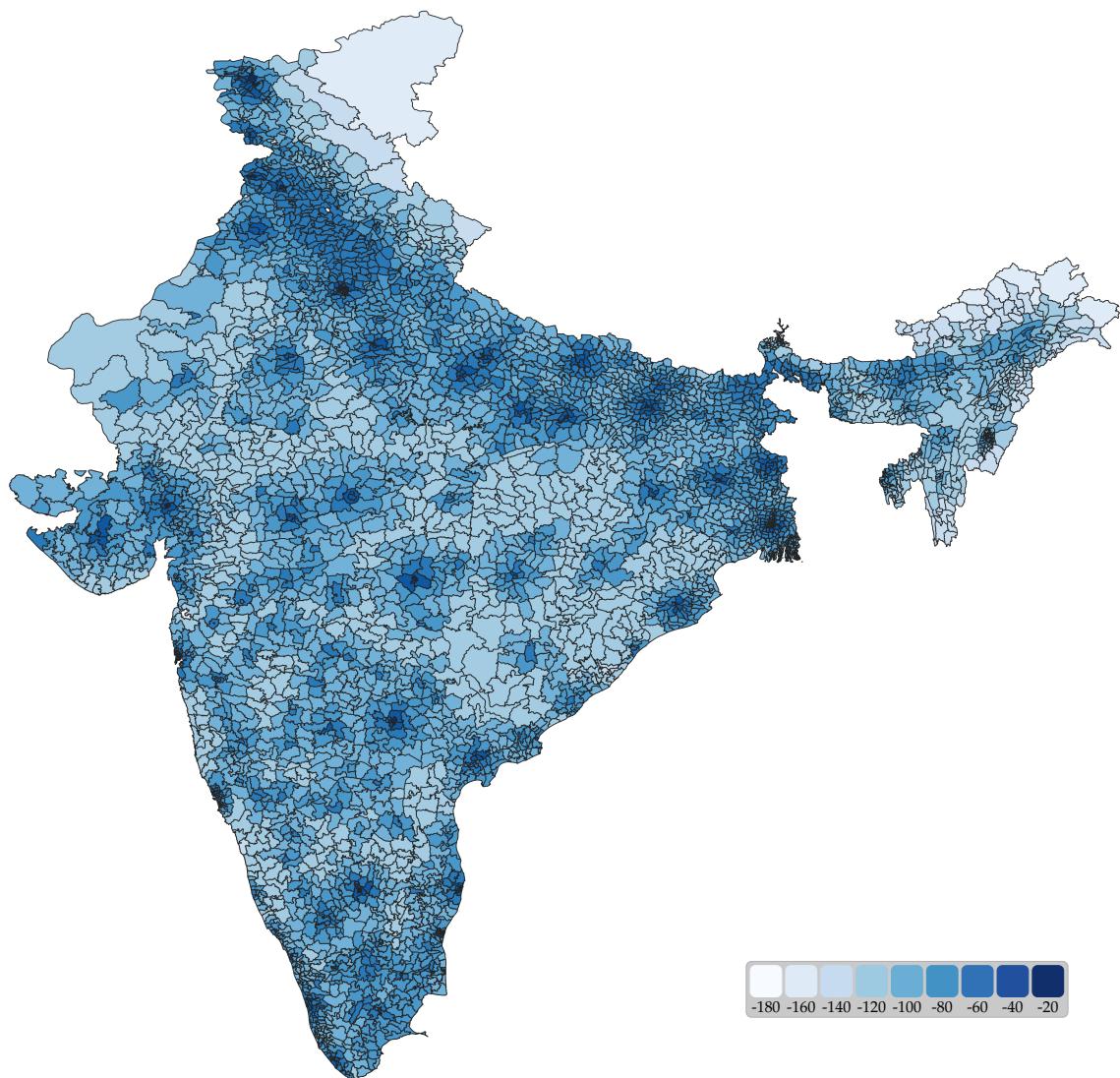
**Table A11 - Publication Years and Languages/Script in Names Dataset by States and Union Territories**

State	Year(s)	Language(s)
Andaman & Nicobar Islands	2017	English
Andhra Pradesh	2017	Telugu, English
Arunachal Pradesh	2017	English
Assam	2018	Bengali
Bihar	2017	Hindi
Chandigarh	2018	Hindi
Dadra & Nagar Haveli	2017	Gujarati, English
Daman & Diu	2017	Gujarati, English
Goa	2018	English
Gujarat	2017	Gujarati
Haryana	2018	Hindi
Himachal Pradesh	2017	Hindi
Jammu & Kashmir	2018	Hindi, English, and Urdu
Jharkhand	2018	Hindi
Lakshadweep	2017	Malayalam
Karnataka	2018	Kannada
Kerala	2018	Malayalam, English
Madhya Pradesh	2017	Hindi
Maharashtra	2018	Marathi
Manipur	2018	Manipuri, English
Meghalaya	2018	English
Mizoram	2018	English
Nagaland	2018	English
NCT OF Delhi	2018	Hindi, English
Odisha	2018	Odia
Punjab	2018	Punjabi
Puducherry	2018	Tamil, English
Rajasthan	2014	Hindi
Sikkim	2018	English
Tamil Nadu	2018	Tamil
Telangana	2017	Telugu
Tripura	2018	Bengali
Uttar Pradesh	2018	Hindi
Uttarakhand	2017	Hindi
West Bengal	2018	Bengali

*Notes:* This table includes information on the years and languages for each state used in the names data.

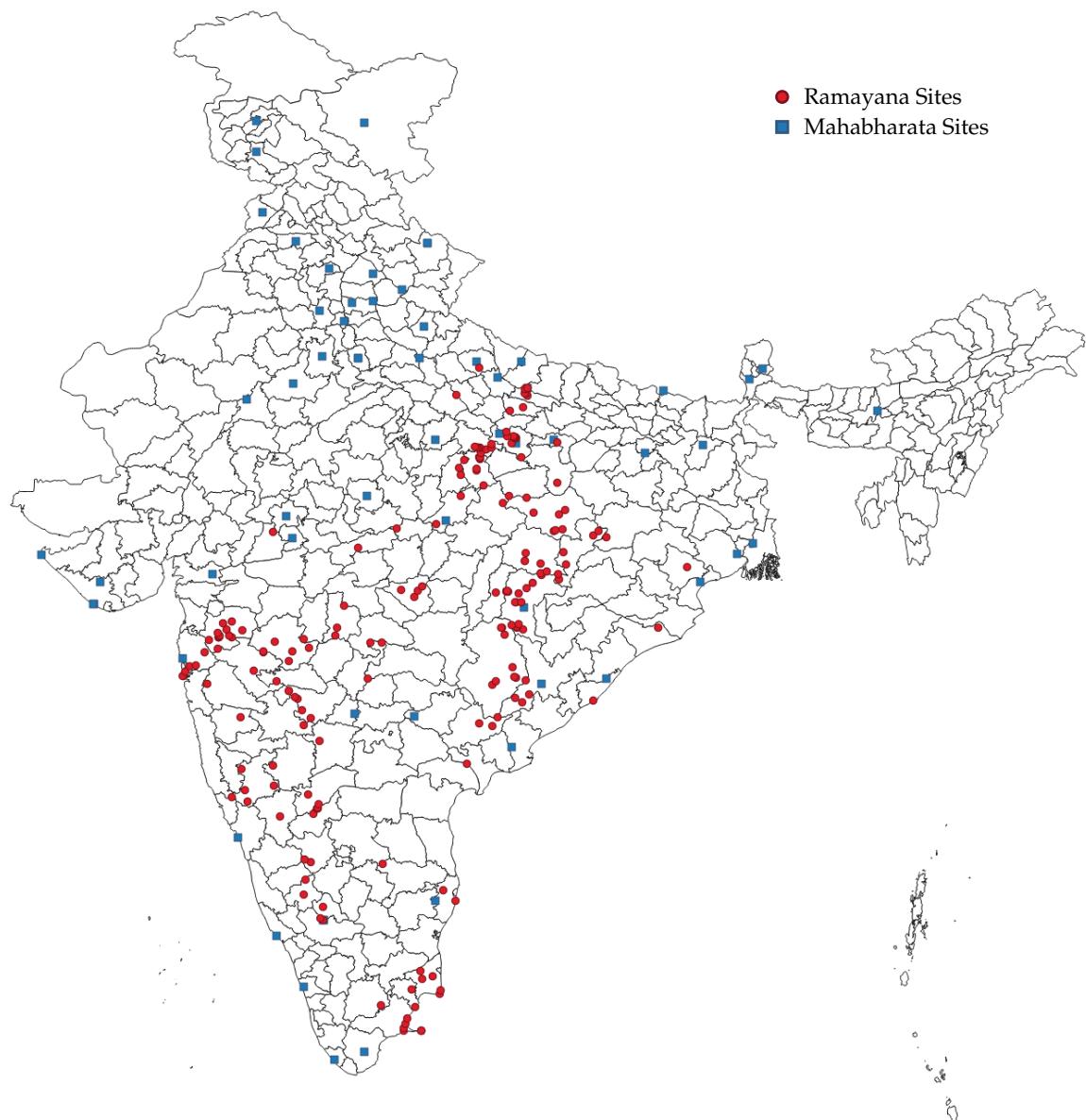
*Source:* [https://github.com/in-rolls/electoral\\_rolls/blob/master/README.md](https://github.com/in-rolls/electoral_rolls/blob/master/README.md)

**Figure A1 - Actual Television Signal Strength in 1987 at the Assembly Constituency Level**



*Notes:* This figure displays actual television signal strength in dBm at the assembly constituency level for the start of 1987. The actual television signal strength in dBm is estimated for each 1-kilometer grid cell using an irregular terrain model, which is then aggregated to the assembly constituency level using population-weighted averages. Darker shades of blue represent greater signal strength. The internal borders shown are assembly constituencies using the pre-2008 delimitation.

**Figure A2 - Religious Sites Associated with the Ramayana and Mahabharata**



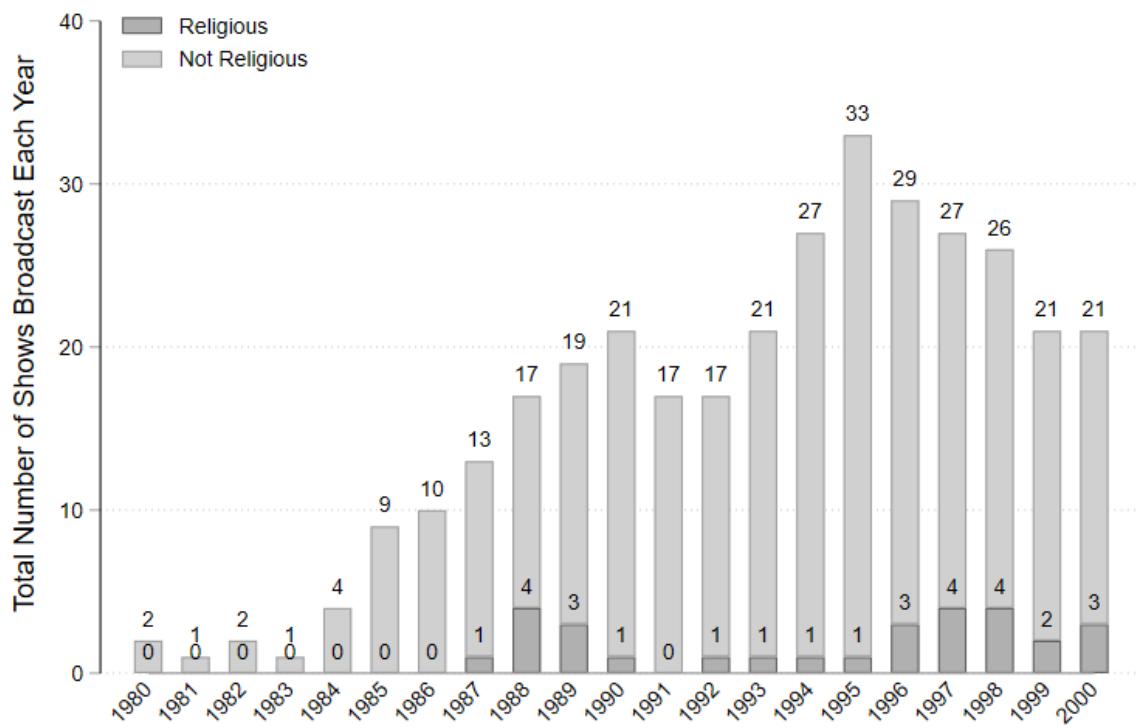
Notes: This figure displays religious sites associated with the Ramayana and Mahabharata in red circles and blue squares respectively. The internal borders shown are districts from the 1981 census.

**Figure A3 - The Route of the Ram Rath Yatra**



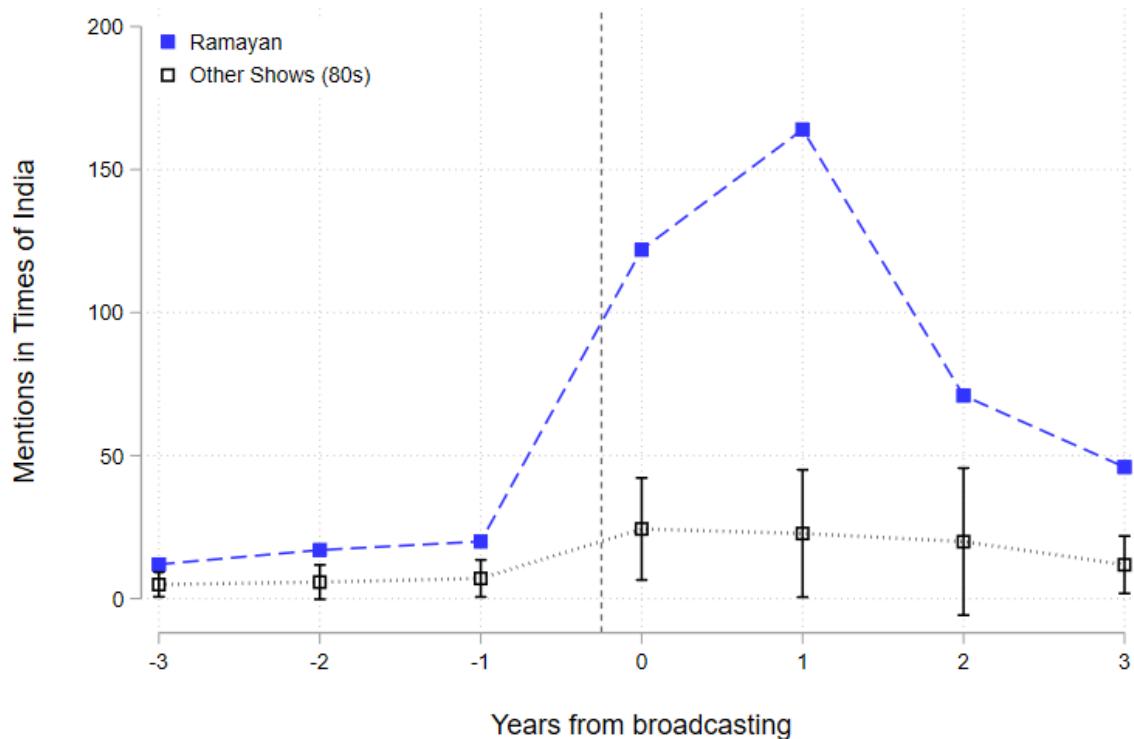
*Notes:* This figure displays in red the planned route to be covered by the Ram Rath Yatra, a political and religious march that began on the 25<sup>th</sup> of September 1990, and lasted until the 30<sup>th</sup> of October 1990. The internal borders shown are districts from the 1981 census. Source: Blakeslee (2018) and Kalra (2021).

**Figure A4 - Television Serials Broadcast on Indian Networks Since the 1980s**



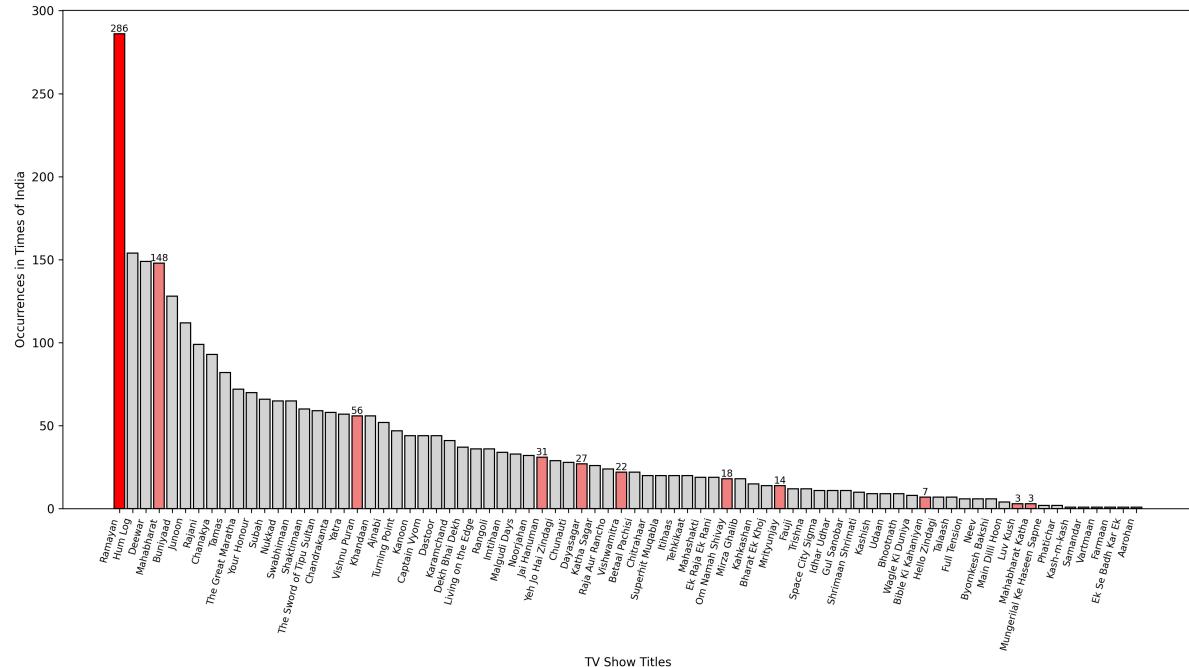
*Notes:* This figure displays the evolution of television programming in India from 1980 to 2000, illustrating the total number of shows broadcast each year by the public television broadcaster Doordarshan. The underlying data has been retrieved from Wikipedia [1, 2 and 3]. The bars are divided into religious and non-religious categories.

**Figure A5 - Mentions of Ramayan and Other 1980s Television Shows in the Times of India**



*Notes:* This figure presents the number of mentions of Ramayan (blue line) in the Times of India (TOI) compared to the average mentions of other television shows broadcast during the 1980s (dotted line). The horizontal axis represents the number of years before and after the shows' initial broadcasts, with year zero marking their debut. The vertical axis shows the number of TOI article mentions. The error bars indicate the confidence intervals around the average mentions of other shows.

**Figure A6 - Mentions of Ramayan and All Television Shows in the Times of India**



*Notes:* The figure shows the number of mentions for all television serials aired on Indian public networks between 1980 and 2000, focusing on the year of release and the subsequent year (further details are provided in Section 7.4.2). Only TV shows with at least one mention are included. Light-red bars indicate shows with a religious component.

## B Data Appendix

### B.1 Geographic Coordinates and Boundaries Data

We use geographic boundary data at four hierarchical levels in ascending size order: village, PIN codes, assembly constituencies and districts. Spatial merges based on the centroid of each geographic boundary are used to aggregate from smaller boundaries to larger boundaries. For villages, only coordinates are included, while larger units are polygons.

- **Villages:** We use data on the coordinates of 227 villages from the Additional Rural Incomes Survey (ARIS)/Rural Economic & Demographic Survey (REDS) data. We manually verify the longitude and latitude coordinates of all villages. Spatial variables are constructed using a 2km buffer around each village centroid.
- **PIN Code Shapefile:** This layer is derived from village boundaries using the postal-to-village mapping provided by the Department of Posts, Ministry of Communications, Government of India. The data is sourced from Postal GIS (<https://postalgis.nic.in>). Introduced in 1972, PIN codes are six-digit postal index numbers used by India Post, with each digit representing a specific geographic location. The dataset includes boundaries for a total of 19,475 PIN codes.
- **Assembly Constituencies Shapefile:** We utilize the map provided by ML InfoMap (2013c), focusing on the pre-2008 delimitation to match our timeline. For states that underwent bifurcation after 2000, we align the current constituencies with their corresponding pre-2000 counterparts. This involves matching modern constituencies with their earlier versions in Chhattisgarh-Madhya Pradesh, Jharkhand-Bihar, and Uttarakhand-Uttar Pradesh. However, we could not establish matches for 48 constituencies in Uttarakhand with their former boundaries. Overall, we have shapefiles for 4,110 assembly constituencies.
- **Districts:** We use district boundaries that correspond to the 1981 Census of India (ML InfoMap, 2013b).

### B.2 Outcomes Data

#### B.2.1 Names Data

The individual names data are obtained from Sood and Dhingra (2023). The dataset contains details on full names, gender, age and location (polling station information, PIN code, constituency, district and state). For all males, father's name is included. For females, either the name of their father or husband is included, depending on their marital status. Birth year is calculated from age. These data were collected by scraping and parsing PDFs of electoral rolls. Appendix Table A11 lists Indian state and union territories included in the names dataset, with year and language of publication. In total, we have 780,359,060 names from this dataset. For Dadra and Nagar Haveli, Delhi, Kerala, Nagaland and Sikkim, data on either the PIN codes or names of fathers are missing, so these states are excluded from the analysis. To maintain consistency with pre-2000 state boundaries, we combine modern-day Bihar and Jharkhand, Andhra Pradesh and Telangana, and Uttar Pradesh and Uttarakhand.

For all states where the names are not recorded in English, we transliterate all names into English using the IndicXlit package by AI4Bharat (Madhani et al., 2022). Using this package,

we transliterate from Assamese, Bengali, Gujarati, Hindi, Marathi, Oriya, Punjabi, Tamil and Telugu to English.

To classify households by religion, we rely on father’s name. As this is not collected for married women, we proceed using only the male sample. Using father’s full name, we use the support vector machine (SVM) algorithm for single names with multi-religion classification by Chaturvedi and Chaturvedi (2024) to classify households as Hindu, Muslim, Sikh, Christian, Jain or Buddhist.

For each individual, their full name consists of potentially multiple names. Naming patterns differ across states, with three main variants: First-Middle-Last, Last-First-Other and First-Other-Last. To identify an individual’s first name, we determine the most common naming patterns for each state through external sources, manual inspection and identifying the most common names for each ordered name. After the naming pattern is identified, we are then able to select the name that is most likely to be an individual’s first name.

We identify the popularity of a first name for males of each religion by restricting the sample to only individuals given the relevant group characteristics born between 1900 and 1970, prior to our study period. To account for cultural naming differences across states, we identify the rank of each name at the state level based on the number of individuals with that name. Therefore, for any integer  $n$ , we know the  $n^{\text{th}}$  ranked name for males with a certain religious classification. The list of top ten ranked state-level names for Hindu males is provided in Appendix Table A1. For individuals born during our study period, we are therefore able to assign a rank to their name.

Additionally, we record whether an individual has a name related to the *Ramayan* show. To account for spelling differences, the name *Rama* includes the following additional variants: *Ram*, *Raam* and *Raama*. The primary character names from Ramayan, with spelling variants, are: *Rama*, *Ram*, *Raam*, *Raama*, *Laxman*, *Lakshman*, *Lakshmana*, *Laxmana*, *Laxmanan*, *Sita*, *Sitham*, *Seetaa*, *Seetha*, *Hanuman* and *Maruti*. The primary actor names from Ramayan, with spelling variants, are: *Arun*, *Arvind*, *Sunil*, *Suneel*, *Suneela* and *Dara*.

At the individual level, for those born between 1979 and 1998, we have the following variables:

- **Birth Year:** The year of birth, calculated by subtracting age from the year that the electoral roll was published.
- **Religious Classification:** A variable that classifies each individual based on their father’s full name as either Hindu, Muslim, Sikh, Christian, Jain or Buddhist.
- **First Name Rank:** The rank of an individual’s first name based on the rank of names for individuals of the same sex, religious classification and state born between 1900 and 1970.
- **Name is *Rama*:** A binary variable equal to 1 if the name is *Rama*, accounting for spelling variants, and 0 otherwise.
- **Name is a Primary Character Name from *Ramayan*:** A binary variable equal to 1 if the name is one of the primary character names from Ramayan, accounting for spelling variants, and 0 otherwise.

- **Name is a Primary Actor Name from Ramayan:** A binary variable equal to 1 if the name is one of the primary actor names from Ramayan, accounting for spelling variants, and 0 otherwise.

The most consistent disaggregated unit for our names data is the PIN code level. We aggregate our individual data to the PIN code level for each birth cohort. Therefore, for each PIN code and birth cohort, we have the number of Hindu males, and the number of Hindu males with a given naming pattern. We are then able to calculate the percentage of Hindu male newborns given a naming pattern for each PIN code and year. From the PIN code level, we aggregate in the same way to larger units such as the assembly constituency. We have data for 3,085 assembly constituencies and 13,780 PIN codes as we do not have names data for all the states. We have the following aggregated variables for birth cohorts between 1979 and 1998, where  $n$  is any integer:

- Percentage of Hindu Male Newborns Given Top  $n$  Names
- Percentage of Hindu Male Newborns Given the Name *Rama*
- Percentage of Hindu Male Newborns Given Names of Primary Characters from *Ramayan*
- Percentage of Hindu Male Newborns Given Names of Primary Actors from *Ramayan*

### B.2.2 Consumption Data

Our consumption data come from the Additional Rural Incomes Survey (ARIS)/Rural Economic & Demographic Survey (REDS) waves of 1982 and 1999. Although designed primarily to collect detailed information on agricultural households, REDS also includes rich data on household consumption over the previous year (types of foods, quantities, and expenditures), as well as household demographics. REDS follows a given household across the survey waves, but also adds new households in each wave.

We define the household unit using the 1982 data, consisting of the 4,979 households surveyed in 1982. Of these households, we successfully match 3,879 to the 1999 wave. Attrition between waves arises mainly because some households were not re-interviewed, with a small additional share likely due to inconsistencies in the identification crosswalk across rounds. Over the 17-year interval between waves, some households branched into new units (e.g. when children left to establish their own households), so that multiple 1999 household records are linked to a single 1982 household identifier. We address this by recombining these split 1999 households into a single observation corresponding to the original 1982 household. We implement this by aggregating outcomes across the resulting 1999 household units. We assign households to their village of residence in 1982 and we use 1982 survey weights throughout. In total, we have a household panel consisting of 3,656 households across 227 villages. We then construct the following key variables for our analysis:

- **Vegetarian:** A binary variable equal to 1 if the household did not consume any meat, fish, or eggs in the year of the survey.
- **Hindu:** A binary variable equal to 1 if the household reported their religion as being Hinduism in the year 1982.
- **Lower-Caste Hindu:** A binary variable equal to 1 if the household is reported as being Hindu and belonging to one of the following caste categories in the year 1982: “Scheduled caste”, “Scheduled tribe”, “Backward caste” or “Non-classified Hindu”. The vari-

able equals 0 if the household is reported as being Hindu and belonging to either “Brahmin” or “Other upper caste” caste categories.

- **Upper-Caste Hindu:** A binary variable equal to 1 if the household is reported as being Hindu and belonging to one of the following caste categories in the year 1982: “Brahmin” or “Other upper caste”. The variable equals 0 if the household is reported as being Hindu and belonging to either “Scheduled caste”, “Scheduled tribe”, “Backward caste” or “Non-classified Hindu” caste categories.

### B.2.3 Hindu-Muslim Conflict Data

The Hindu-Muslim conflict data is from Varshney et al. (2006) and Mitra and Ray (2014). We use the data from 1979 until 2000. We improve on the existing dataset (Varshney et al., 2006) by manually geolocating events at the neighborhood level. The dataset is extended until 2000 by using 2 million articles in the *Times of India* and training an algorithm to detect articles related to the Hindu-Muslim conflict while cross-validating manually and then re-verifying the articles by reading them manually. A communal Hindu-Muslim riot is an event characterized by violence involving two or more groups identified along communal lines, such as religious or ethnic affiliations, engaging in direct confrontation with one another. It is important to note that events involving violence directed solely at the police or involving a single communal group do not qualify as communal riots. Our analysis only includes riots that have been classified as having the highest reliability for being a communal Hindu-Muslim riot. For each riot, information on reported injuries and deaths is included.

Given that each conflict event is geo-coded with coordinates, we are able to spatially aggregate the data to all 19,475 PIN codes and 4,110 assembly constituencies in our data. We have the following aggregated variables for each year between 1979 and 2000:

- **Any Conflict:** a binary variable equal to 1 if there was any Hindu-Muslim conflict and 0 otherwise.
- **Any Violent Conflict:** a binary variable equal to 1 if there was any Hindu-Muslim conflict with at least one registered death or injury and 0 otherwise.
- **Any Deadly Conflict:** a binary variable equal to 1 if there was any Hindu-Muslim conflict with at least one registered death and 0 otherwise.

### B.2.4 Electoral Data

Electoral data are obtained from LokDhaba: Indian Election Dataset provided by the Trivedi Center for Political Data (Agarwal et al., 2021). Our data span 1979 to 2000. This dataset contains detailed electoral information for each contesting candidate across state-level legislative assembly elections and Lok Sabha elections.

The dataset is rich, providing information on candidate names, political affiliations, vote shares, and election outcomes. This allows us to conduct a granular analysis of electoral dynamics at the constituency and party levels. Due to the 48 assembly constituencies in Uttarakhand that we are unable to match, we only have data for 4,040 assembly constituencies. The dataset includes the following key variables for the Bharatiya Janata Party (BJP) and Indian National Congress (INC) parties:

- **Victory:** a binary variable equal to 1 if the party wins the election and 0 otherwise. A value of 0 is assigned for elections in which the party did not field a candidate.
- **Vote Share:** the proportion of votes in the constituency that the party received, ranging from 0 to 1. A value of 0 is assigned for elections in which the party did not field a candidate.
- **Fields a Candidate:** a binary variable equal to 1 if the party fielded a candidate in the election and 0 otherwise.
- **Conditional Victory:** a binary variable equal to 1 if the party wins the election and 0 otherwise. Defined only for elections in which the party fielded a candidate (and is missing otherwise).
- **Conditional Vote Share:** the proportion of votes in the constituency that the party received, ranging from 0 to 1. Defined only for elections in which the party fielded a candidate (and is missing otherwise).

### B.2.5 RSS Schools Data

We construct constituency-level measures of RSS-affiliated school presence using data from the Vidyabharati Alumni Network (<https://www.vidyabharatalumni.org/find-school>), a public directory of schools linked to the Rashtriya Swayamsevak Sangh (RSS). The raw dataset contains about 11,500 entries with varying completeness in school names and addresses.

The raw school data underwent standard preprocessing to improve consistency and enable geographic mapping. This included the standardization of names and address fields to reduce variation in formatting and spelling across entries. Geographic coordinates and administrative identifiers—such as postal PIN codes—were obtained through reverse geocoding procedures. Approximately 9,100 out of 11,500 entries could be successfully geolocated. Each school was then linked to a PIN code and so we are able to spatially aggregate the data to all 4,110 assembly constituencies. There are several data limitations worth noting. First, address quality varies across entries, leading to regional differences in geocoding accuracy. Second, the size and enrollment of each school are unobserved, preventing the construction of capacity-weighted measures of organizational presence. We have the following aggregated variables for each year between 1979 and 2000:

- **Any RSS School:** a binary variable equal to 1 if there is an RSS-affiliated school, and 0 otherwise.

## B.3 Controls Data

This subsection provides details on the various controls used in our analyses. A unit-level control variable is defined based on the unit of analysis (e.g., PIN code or assembly constituency). The level of disaggregation and year (for time-varying outcomes) are listed in parentheses.

### B.3.1 Census Data

We use district-level data from the 1981 Census of India, available as attributes corresponding to 1981 District boundaries (ML InfoMap, 2013b). This includes district-level aggregates for the total population and the percentages of the population that are male, rural, literate, or belong to Scheduled Tribes and Scheduled Castes. District-level percentages of the population that are Hindustani speaking (those that speak Hindi or Urdu) for 1981 are derived from Padmanabha

(1987). Due to political and social unrest, Assam was not included in the 1981 Census. As a result, for Assam we instead use data values from the 1971 Census of India (ML InfoMap, 2013a) as proxies. Therefore, we have the following census controls:

- **Total Population** (District-Level, 1981)
- **Percentage of Male Population** (District-Level, 1981)
- **Percentage of Rural Population** (District-Level, 1981)
- **Percentage of Literate Population** (District-Level, 1981)
- **Percentage of Scheduled Tribes Population** (District-Level, 1981)
- **Percentage of Scheduled Caste Population** (District-Level, 1981)
- **Percentage of Hindustani Speaking Population** (District-Level, 1981)

### B.3.2 Geographic Area Data

For PIN codes and assembly constituencies, the geographic area of each unit in square kilometers is calculated using standard geospatial methods with the EPSG:7760 projected coordinate system, while we use survey data on geographic area in 1982 for villages:

- **Geographic Area** (Unit-Level)

### B.3.3 Population Data

To calculate population at disaggregated levels, we use the Global Population Count Grid Time Series Estimates (Center For International Earth Science Information Network-CIESIN-Columbia University, 2016). The raster data has a spatial resolution of 30 arc-seconds, corresponding to approximately 1-kilometer grid cells at the equator. Each grid cell contains an estimate for the population count in 1980. We spatially aggregate this population data to PIN codes and assembly constituencies using standard geospatial summing methods to obtain the total population count. For village-level population, we proxy the 1980 population by primarily using survey-based counts from 1982, resorting to the 1980 spatial population data only when the survey information is unavailable:

- **Population** (Unit-Level, 1980)

### B.3.4 Elevation and Slope Data

We use a digital elevation model (DEM) from the CGIAR Consortium for Spatial Information (CGIAR-CSI) which is available with a spatial resolution of approximately 30-meter grid cells at the equator (Jarvis et al., 2008). These raster data are derived from Shuttle Radar Topography Mission (SRTM) satellite images. Using elevation data in meters, we also calculate the slope for each grid cell in degrees. We spatially aggregate this elevation and slope data to villages, PIN codes and assembly constituencies using standard geospatial averaging methods to obtain the average elevation and average slope:

- **Average Elevation** (Unit-Level)
- **Average Slope** (Unit-Level)

### B.3.5 Temperature and Precipitation Data

Monthly average temperature and total precipitation raster data are from the Climate Research Unit Gridded Time Series (CRU TS) version 4.08 which is available with a spatial resolution of 30 arc-minutes, corresponding to approximately 56-kilometer grid cells at the equator (Har-

ris et al., 2020). Temperature is measured in degrees Celsius while precipitation is measured in millimeters. We temporally average each grid cell for all months from January 1971 to December 1980 so that we have grid-level averages for temperature and monthly precipitation. We spatially aggregate this temperature and precipitation data to villages, PIN codes and assembly constituencies using standard geospatial averaging methods to obtain the average monthly temperature and average monthly precipitation:

- **Average Monthly Temperature** (Unit-Level, 1971 to 1980)
- **Average Monthly Precipitation** (Unit-Level, 1971 to 1980)

### B.3.6 Maximum Caloric Yield Data

The maximum caloric yield per pixel is constructed taking inspiration from Galor and Özak (2016), which estimates the potential yield under levels of inputs and rain-fed agriculture for separate years. The raster data for potential yields are from the Global Agro-Ecological Zones (GAEZ) project of the Food and Agriculture Organization (FAO) and is available with a spatial resolution of approximately 5 arc-minutes, corresponding to approximately 9-kilometer grid cells at the equator. The yield per pixel measures estimate potential yield under low levels of inputs and rain-fed agriculture, reflecting the agricultural methods and techniques used in India prior to the Green Revolution. These potential yields are calculated for 31 crops and the maximum caloric yield is calculated by mapping the caloric content of these crops using SR28 reports from the U.S. Department of Agriculture. We calculate the maximum caloric yield using data from 1980. We spatially aggregate this caloric data to villages, PIN codes and assembly constituencies using standard geospatial averaging methods to obtain the average maximum caloric yield:

- **Average Maximum Caloric Yield** (Unit-Level, 1980)

## B.4 Proximity to Epic Sites and the Ram Rath Yatra Route

We construct unit-level measures of geographic proximity to locations referenced in the epics *Ramayana* and *Mahabharata*. These measures are used to capture the spatial closeness of each observation to symbolic sites mentioned in the two narratives. We also construct unit-level measures of geographic proximity to the route of the Ram Rath Yatra.

### B.4.1 Ramayana and Mahabharata Sites

Coordinates for *Ramayana* sites were collected from the Shri Ram Van Gaman Yatra portal (<https://www.ramyatra.com/Yatra-List/11/Shri-Ram-Vanagman-Yatra/1>), which documents locations traditionally associated with Lord Ram's exile. We extract site names and coordinates, retaining only those within modern-day India. The final list includes 195 locations. A similar procedure is followed for *Mahabharata* sites, using data from an annotated map published by the World History Encyclopedia (<https://www.worldhistory.org/image/5484/places-in-the-mahabharata>). After filtering, we retain 63 sites located in India.

For each observation in the dataset, we calculate the shortest surface distance to the nearest site in each set using coordinates (for village data) and centroids (for assembly constituency data). This yields two variables: distance to the closest Ramayan site and distance to the closest Mahabharat site. Both are measured in kilometers, then log-transformed and standardized.

These proximity variables are then used in the main analysis and interacted with the Ramayan exposure indicator to assess variation in effects by cultural distance.

There are a few limitations worth noting. The site lists are based on publicly available sources and reflect traditional or popular associations rather than official or archaeological verification. While the geographic precision may vary across entries, these datasets represent the most comprehensive and accessible approximations of epic-linked locations currently available. They provide a consistent framework to explore spatial variation in symbolic proximity, even if the historical accuracy of individual sites cannot be independently validated.

#### B.4.2 Ram Rath Yatra Route

We obtain the planned route to be covered by the Ram Rath Yatra, a political and religious march that began on the 25<sup>th</sup> of September 1990, and lasted until the 30<sup>th</sup> of October 1990, from Blakeslee (2018) and Kalra (2021). For each observation in the dataset, we calculate the shortest surface distance to the planned route using coordinates (for village data) and centroids (for assembly constituency data). This yields one variable: distance to the Ram Rath Yatra route, measured in kilometers, which is then log-transformed.

### B.5 Television Data

We construct annual measures of television signal strength from 1965 to 2000 for India. Constructing our television data involves four steps. First, we collect extensive details for the universe of television transmitters belonging to Doordarshan, the national broadcaster. Second, we overlay 1-kilometer grid cells for the entirety of India and calculate the signal strength between each transmitter and each grid cell using an Irregular Terrain Model (ITM), a model of broadcast signal propagation which takes topography into account. Third, for each year, we calculate the TV signal strength at each grid cell by identifying all transmitters in operation for the year, and selecting the maximum signal strength. Fourth, using the gridded TV signal data, we aggregate the signal using standard geospatial averaging methods where we weight using 1980 population to obtain a population-weighted measure of TV signal strength for each year. We provide further detail about each of these four steps below.

#### B.5.1 Transmitter Data

We construct a comprehensive dataset of the entire universe of TV transmitters commissioned by Doordarshan, the national broadcaster, between 1965 and 2000. Our dataset includes the following characteristics for each transmitter: location, coordinates, type, power, height, band, channel, frequency range, commissioning dates, and decommissioning dates where relevant. We record upgrades as new transmitters, given that transmitter characteristics change substantially after an upgrade. In total we have 1,181 transmitters across 1,007 locations that were in operation at some point up to January 1, 2000.

Our data sources involve a combination of archival records from the Doordarshan Audience Research Unit, Ministry of Information and Broadcasting (MIB) and Press Information Bureau (PIB), in addition to Right to Information (RTI) filings. Our data sources complement each other, as information is spread out across multiple sources. They also provide additional cross-checks to ensure the accuracy of our data. We also consulted current ministry officials and reviewed technical documents on their transmission systems to better understand key in-

puts for signal broadcasting, such as the frequency used to air the Doordarshan channel, the average height of transmission towers, and the polarization of TV waves.

We provide additional details for our sources:

- **Doordarshan Audience Research Unit Reports:** The Doordarshan Audience Research Unit released several reports to provide basic information to the public on television broadcasting in India. Published in 1987, the Doordarshan report *Television India* includes details on the location, precise commissioning date and power of all transmitters that were in existence as of March 1987 (Doordarshan Audience Research Unit, 1987). In the 1990s, additional reports were released, including a list of all existing transmitters. We use Doordarshan reports for 1993, 1994, 1995, 1996, 1999 and 2002.
- **Ministry of Information and Broadcasting (MIB) Annual Reports and Documents:** The MIB Annual Reports were released annually during the 1990s, but less frequently during the 1980s. These reports include sections about achievements in the most recent fiscal year as well as plans for the upcoming year, both of which often provide specific information on transmitters. There is also a section specifically for Doordarshan, which is usually more detailed. We read through all of these sections and manually compiled any information related to transmitters. There are also occasionally appendix tables that either include information on the existing network of transmitters, commissioned transmitters in the past fiscal year, or planned transmitters. The extent of information on transmitters varies substantially across reports. We use MIB annual reports for the 1980-1981, 1983-1984, 1985-1986, 1987-1988, 1989-1990, 1990-1991, 1991-1992, 1992-1993, 1993-1994, 1994-1995, 1995-1996, 1996-1997, 1997-1998, 1998-1999 and 1999-2000. Additionally, the MIB Estimates Committee Report for 1988-1989 includes specific information for TV transmitters in border areas.
- **Press Information Bureau (PIB) Press Releases:** We search through the entire history of archival PIB press releases, publicly available at <https://archive.pib.gov.in>, to identify hundreds of relevant press releases. Most of these press releases were issued in the 1980s, when television was still relatively new and the PIB would publish a press release for each commissioned transmitter, often with accompanying characteristics.
- **Right to Information (RTI) Documents:** Through RTI filings with Doordarshan, we received two documents. First, a document with details of all transmitters upgraded to higher power transmitters including the types of transmitters and specific upgrade dates. Second, a document with details on commissioning dates, height, power, channel and frequency ranges for 716 transmitters. This list mainly includes the most recent transmitter in each location, and so the majority of these transmitters were commissioned in the 1990s.

We provide additional details for each characteristic in our dataset:

- **Commissioning Dates:** We have exact commissioning dates for 874 transmitters, and impute dates for the remaining 307 transmitters. We have exact dates for all transmitters commissioned by March 1987 from the Doordarshan Audience Report *Television India* (Doordarshan Audience Research Unit, 1987). Therefore, for 1 January 1987, which we use as our measure of Ramayan exposure, we have complete coverage of exact commis-

sioning dates. Afterwards, we impute commissioning dates for a subset of transmitters for which we are unable to find exact dates. The RTI documents provide exact dates for all transmitters involved in upgrades, and the majority of transmitters commissioned in the 1990s. PIB press releases also contain exact dates which we use to supplement our other data. We have many snapshots of existing transmitters, as well as records of newly commissioned and planned transmitters throughout our resources to narrow down the commissioning window to be as narrow as possible for the 307 transmitters. We impute the commissioning date to be the earliest date in the expected commissioning window. From 1993 onward, the Doordarshan Audience Research Unit released several reports and the MIB Annual Reports included appendix tables with lists of existing transmitters. This means that we can often narrow down imputed dates to fiscal year windows, and even specific months. Between 1988 and 1993 however, we have no Doordarshan reports, and the MIB Annual Reports for 1987-1988, 1989-1900, 1990-1991 and 1991-1992 do not include any relevant Appendix tables. The PIB archives are also missing press releases for only the year 1989. While the number of transmitters increased relatively modestly between 1990 and 1993, there was a large number of transmitters commissioned very quickly in 1988 and 1989 as part of a crash TV expansion program. To impute the correct years for these transmitters, we rely on the fact that in the 1993 Doordarshan Audience Research Unit report, existing transmitters are listed chronologically. We are able to therefore work backwards, and given that we have dates for a subset of those transmitters, we are significantly able to narrow down the commissioning window for imputation.

- **Upgrades and Decommissioning Dates:** The RTI document with upgrade information provides us with the most comprehensive source of information on upgrades and decommissioning dates. When a transmitter is upgraded, we record that it has been decommissioned, and that a new transmitter has been commissioned in the same location. Upgrades are relatively rare, but significantly change the characteristics of the transmitter which is why we record it as a new transmitter. On rare occasions, transmitters are decommissioned without being upgraded, and we record this as well. Usually this happens when a more powerful transmitter is commissioned nearby, rendering a transmitter redundant.
- **Locations and Coordinates:** Locations of transmitters are recorded at the city or town level. To obtain the precise latitude and longitude coordinates of the TV transmitters, we use a manual extensive search method to find these transmitters using satellite imagery from Google Maps and Google Earth. For each location, we iteratively search using four steps. First, we searched for the Doordarshan transmitter. Second, we searched for the Doordarshan headquarters in that area as this is where transmitters were often located. Third, we searched for the All India Radio (AIR) transmitter or office as it is likely that the TV transmitter would also be located there. Fourth, we use the centroids of the city/town when all other searches have failed. Across all 1,008 unique locations, we find the TV transmitter for 48 locations, the Doordarshan headquarters for 390 locations, the AIR

transmitter or office for 123 locations, and rely on city/town centroids for the remaining 446 locations.

- **Type and Power:** There are five main types of transmitters during this period, which almost always correspond to their power: high powered transmitters (HPTs) with a power of 10 kW; medium powered transmitters (MPTs) with a power of 1 kW; low powered transmitters (LPTs) with a power of 0.1 kW; very low powered transmitters (VLPTs) with a power of 0.02 kW; and transposers (TRANs) with a power of 0.01 kW. We have data on transmitter type for virtually all of our transmitters, but only have exact power for 820 transmitters. Only for 88 of these 820 transmitters do we have a recorded power that is not equal to one of the five listed, with 83 of them being 0.3 and 0.5 kW. We therefore impute the transmitter's power based on its type accordingly for the remaining 361 transmitters. We also account for the fact that the term MPT was only introduced towards the end of our sample, as these transmitters would have previously been classified as an LPT in earlier documents.
- **Height:** The RTI list of transmitters is our primary source for transmitter heights. Occasionally PIB press releases also mention heights. We have heights data recorded for 579 transmitters, and with this data, we find that there is a clear correlation between height and transmitter type. We find that almost all of the transmitters with heights (524 out of the 579) are either 30m, 45m, 100m or 150m tall. Therefore, for the remaining 602 transmitters, we impute height according to the transmitter's type as follows: HPTs (150m), MPTs (100m), LPTs (45m), VLPTs (30m) and TRANs (30m).
- **Band, Channel and Frequency:** Transmitters are assigned a channel, which corresponds to a frequency range for their broadcasting. For example, channel 5 corresponds to a frequency range of 174-181 MHz. The RTI list of transmitters is our primary source for transmitter channels, and also provides us with a mapping from channels to frequency ranges. The PIB press releases provide us with substantial amounts of information on bands and channels for transmitters in the 1980s. We have data on channels for 712 of our transmitters. The vast majority of transmitters (85.7%) use Band III, which is considered to be the optimal band for TV broadcasting and consists of channels 5 to 12, although we have channels ranging from 2 to 34. The distribution of our transmitters across Band III is relatively uniform and unrelated to power. Therefore, we do not impute using transmitter characteristics. Rather, for the 469 transmitters without channel data, we uniformly impute with the lowest channel in Band III, corresponding to a frequency range of 174-181 MHz.

### B.5.2 Transmitter Gridded Signal Data

For each transmitter, we create a raster covering India with a spatial resolution of 30 arc-seconds, corresponding to approximately 1-kilometer grid cells, resulting in a total of 4.5 million grid cells. For all 1,181 transmitters in our dataset, this results in approximately 5.3 billion transmitter and grid cell pairs. Consequently, we create a separate transmitter signal raster dataset for each transmitter. For each transmitter and grid cell pair, we construct three variables:

- **Distance from the Transmitter:** The shortest straight-line distance (as the crow flies) between the transmitter and the centroid of the grid in kilometers.
- **Freespace Signal Strength from the Transmitter:** The theoretical signal strength at the centroid of the grid cell from the transmitter, assuming propagation through unobstructed free space without interference. This is measured in decibels relative to one milliwatt (dBm).
- **TV Signal Strength from the Transmitter:** The actual signal strength at the centroid of the grid cell from the transmitter, incorporating real-world factors such as terrain, obstructions, and interference. This is measured in decibels relative to one milliwatt (dBm).

Using data on the transmitter's coordinates, distance is calculated using standard geospatial methods. For our measures of freespace and TV signal strength, we use the *itmlogic* package by Oughton et al. (2020), which implements a Longley-Rice Irregular Terrain Model (ITM) of signal propagation, which models the strength of TV signals considering obstacles in irregular terrain pioneered by Longley (1968). For each transmitter and grid cell pair, we use point-to-point prediction, which uses a sample of up to 600 points between the grid and the transmitter, accounting for terrain (Hufford, 1995). We model the terrain using a digital elevation model (DEM) from the CGIAR Consortium for Spatial Information (CGIAR-CSI) which is available with a spatial resolution of approximately 30-meter grid cells at the equator (Jarvis et al., 2008). We adapt the *itmlogic* code to improve efficiency, and make it more flexible for parallel computing.

Our parameters and assumptions for the ITM are as follows:

- **Operating Frequency:** We use the midpoint frequency of the transmitter's frequency range as the operating frequency. For example, a transmitter with channel 5 and a frequency range of 174-181 MHz will be assigned a frequency of 177.5 MHz.
- **Broadcasting Antenna Height:** We use the transmitter's height.
- **Receiving Antenna Height:** We assume that the receiving antenna is 10m high.
- **Confidence Levels for Predictions:** 50.
- **Reliability Levels for Predictions:** 50.
- **Polarization Selection:** Horizontal.
- **Terrain Relative Permittivity:** 15.
- **Climate Selection:** Continental subtropical.
- **Surface Refractivity:** 320

The outputs that our code produces are actually measures of freespace and TV signal loss, rather than signal strength. To calculate the signal strength in dBm, we first convert the power of the transmitter from kW to dBm using the following formula:  $Power_{dBm} = 10 \times \log_{10} (Power_{kW} \times 10^6)$ . This is the signal strength of the transmitter at its source. Therefore, to calculate the freespace and TV signal strengths, we subtract the freespace and TV signal loss from  $Power_{dBm}$  respectively.

### B.5.3 TV Gridded Signal Data

Using the gridded signal data from individual transmitters, we construct a raster dataset representing TV signal coverage for each year. For each year, we calculate the signal measures

for 1 January by first identifying the set of transmitters operating on this date. For each grid cell, we compare all of the transmitters in operation and determine the best transmitter, the one with the highest TV signal strength. Additionally, we classify the TV signal strength for each grid into five TV coverage levels based on various thresholds for television reception recommended by the Advanced Television Systems Committee (ATSC) guidelines (ATSC, 2010). The coverage levels, with the lower bound threshold for TV signal strength in parentheses, are: minimum (-83 dBm), weak (-68 dBm), moderate (-53 dBm) and strong (-28 dBm). If the TV signal strength is below -83 dBm, then there is no coverage. Therefore, for each year and grid cell pair, we construct five variables:

- **Best Transmitter Identifier:** An identifier for the transmitter that provides the highest TV signal strength at the centroid of the grid when considering all transmitters in operation.
- **Distance from the Best Transmitter:** The shortest straight-line distance (as the crow flies) from the centroid of the grid to the best transmitter, measured in kilometers.
- **Freespace Signal Strength:** The theoretical signal strength at the centroid of the grid cell from the best transmitter, assuming unobstructed free space propagation without interference. This is measured in decibels relative to one milliwatt (dBm).
- **TV Signal Strength:** The actual signal strength at the centroid of the grid cell, accounting for real-world factors such as terrain, obstructions, and interference, by considering all transmitters in the operation. This is measured in decibels relative to one milliwatt (dBm).
- **TV Coverage Level:** A classification of whether the grid has no, minimum, weak, moderate or strong TV coverage, based on the TV signal strength at the centroid of the grid cell.

#### B.5.4 TV Aggregated Signal Data

In order to aggregate the gridded TV signal data to our units of analysis with boundaries (e.g., PIN codes and assembly constituencies), we use gridded data on 1980 population counts to construct weighted averages within geographic boundaries. Our population data comes from the Global Population Count Grid Time Series Estimates (Center For International Earth Science Information Network-CIESIN-Columbia University, 2016) with a spatial resolution of 30 arc-seconds, corresponding to approximately 1-kilometer grid cells at the equator. This grid is identical to the 1-kilometer grid cells used in our TV signal calculations. Weighting accounts for the fact that populations are not uniformly dispersed within localities, and allows us to place a higher weight on TV signal strength in areas that are more densely populated when taking the weighted average.

We use standard geospatial averaging methods to obtain population-weighted averages of freespace and TV signal strengths. We also use standard geospatial summing methods to obtain the population-weighted share of grids with minimum, weak, moderate and strong TV coverage. Due to population weighting, these measures correspond to the share of the population with minimum, weak, moderate and strong TV coverage. When aggregating to units of analysis with only point coordinates (e.g., villages), we assign variables based on the grid cell that contains the point coordinates. Therefore, for each unit and year, we construct six variables:

- **Average Freespace Signal Strength:** The population-weighted average theoretical signal strength for the unit, assuming unobstructed free space propagation without interference. This is measured in decibels relative to one milliwatt (dBm).
- **Average TV Signal Strength:** The population-weighted average actual signal strength for the unit, accounting for real-world factors such as terrain, obstructions, and interference. This is measured in decibels relative to one milliwatt (dBm).
- **Minimum TV Coverage:** The share of the population in the unit with minimum TV coverage, defined by having a TV signal strength of at least -82 dBm.
- **Weak TV Coverage:** The share of the population in the unit with weak TV coverage, defined by having a TV signal strength of at least -68 dBm.
- **Moderate TV Coverage:** The share of the population in the unit with moderate TV coverage, defined by having a TV signal strength of at least -53 dBm.
- **Strong TV Coverage:** The share of the population in the unit with strong TV coverage, defined by having a TV signal strength of at least -28 dBm.

## B.6 Radio Data

We construct measures of FM radio signal strength for India in 1987. We follow the same four-step procedure used for the television data, since FM radio propagation in the standard broadcast band (88–108 MHz) is well described by the Longley–Rice Irregular Terrain Model (ITM), which is calibrated for frequencies between 20 and 20,000 MHz and is therefore appropriate for FM broadcasting. We obtain data on radio transmitters from the 1987 edition of the World Radio TV Handbook (Frost, 1987), which reports the location, power, and frequency of all transmitters operating in that year. In 1987, all FM transmitters in India operated at 107.1 MHz. We impute the transmitter height to 200 m, based on archival records for typical FM broadcast towers in this period. All other model parameters are identical to those used for the television data. We can therefore compute the average freespace and actual FM radio signal strengths in exactly the same way as for TV.

To make our television and FM radio measures comparable, we define a radio-specific threshold for “weak” signal strength based on engineering standards. For FM radio, the threshold for weak coverage of a portable receiver is -68 dBm, which coincides with the value we use for television, although this equality is coincidental. The field strength recommended by the ITU for stereophonic FM reception with a portable receiver is  $50 \text{ dB}\mu\text{V/m}$  (ITU Radiocommunication Sector, 1990), which is also the threshold adopted by Yanagizawa-Drott (2014). This recommendation is expressed in terms of field strength, so we convert it to received signal power (in dBm) using  $P = E - 20 \times \log_{10}(F) - 77.2$ , where  $P$  is received power in dBm,  $E$  is field strength in  $\text{dB}\mu\text{V/m}$ , and  $F$  is frequency in MHz (Haslett, 2007). Since all FM transmitters in our setting operate at 107.1 MHz, this implies a reception threshold of  $P = 50 - 20 \times \log_{10}(107.1) - 77.2 \approx -68 \text{ dBm}$ , assuming zero receiver-antenna gain.

## B.7 Data Processing

Calculations involving nearly a billion names and gridded data are computationally intensive. To handle this, we perform all calculations of Data Appendix Sections B.2.1 and B.5.2 to B.5.4 on the University of Michigan’s Great Lakes High-Performance Computing (HPC) cluster. We

optimize our code for parallel computing to fully leverage the 36 cores available per node. For name-related tasks, transliteration is the most computationally demanding, while religious classification is comparatively faster. For the transmitter gridded signal data, processing a single transmitter on a 36-core node takes approximately one hour from start to finish. In total, processing the names data requires around 10 computing days, while the transmitter data takes around 50 computing days to complete.

## C Names Analysis Appendix

In our main analysis, we determine a person as Hindu – specifically as having a Hindu parent – if their father’s full name is classified as Hindu using the multi-religion algorithm by Chaturvedi and Chaturvedi (2024). We adopt this approach because our objective is to study naming choices made by Hindu parents for their newborn children. As a robustness check, we implement an alternative classification that uses the newborn’s *own* full name (rather than the father’s) to determine whether the newborn is Hindu, again using the same multi-religion algorithm. For expositional clarity, we refer to this alternative analysis as studying newborns with Hindu (full) names.

This robustness exercise introduces two mechanical changes. First, the set of “top” Hindu first names is re-defined: we rank names using individuals whose *own* full name is classified as Hindu and who were born between 1900 and 1970, rather than individuals whose *father’s* full name is classified as Hindu. Second, the analysis sample is re-defined: we restrict attention to newborns whose *own* full name is classified as Hindu, instead of newborns whose father’s full name is classified as Hindu. A further advantage of this approach is that it allows us to analyze female newborns as well, since it does not require fathers’ names (which are unavailable for married women in our data).

We report the state-level top ten Hindu names under this alternative classification for males and females in Appendix Tables C1 and C2. As expected, the male list in Appendix Table C1 overlaps substantially with the main list reported in Appendix Table A1.

Regression results using this alternative classification are reported in Appendix Table C3. Panel A presents estimates for male newborns and Panel B presents estimates for female newborns. In both panels, the coefficient on  $Ramayan_i$  is positive, stable across specifications, and always statistically significant at the 1% level. Appendix Figures C1 and C2 present corresponding event-study estimates for male and female newborns, respectively. We document dynamics that closely mirror those in Figure 2: effects emerge immediately during the Ramayan broadcast period (1987-88) and increase in magnitude in all subsequent post-treatment periods.

Table C1 - List of State-Level Top Ranked Names of Males with Hindu Names

	Rank of Name				
	1 and 2 (1)	3 and 4 (2)	5 and 6 (3)	7 and 8 (4)	9 and 10 (5)
Andhra Pradesh	Venkata	Apparao	Satyanarayana	Nagaswararao	Enkateshwarlu
	Sathyaranayanan	Subbarao	Chinna	Ramarao	Venkateshwararao
Arunachal Pradesh	Wangsu	Singh	Pansa	Kumar	Wangpan
	Bdr	Wangsa	Das	Tsering	Prasad
Assam	Gopal	Onil	Aah	Xunil	Chondro
	Prodeep	Dileep	Xubhax	Khogen	Babul
Bihar	Raam	Suresh	Mahendra	Moe	Surendra
	Rajendra	Shiv	Ashok	Vijay	Krishna
Goa	Prakash	Chandrakant	Ashok	Anand	Gurudas
	Suresh	Narayan	Krishna	Ramesh	Santosh
Gujarat	Rameshbhai	Ramanbhai	Bhikhambhai	Kantibhai	Somabhai
	Babubhai	Mohanbhai	Bharatbhai	Govindbhai	Maganbhai
Haryana	Raam	Krishna	Ome	Rajendra	Jagdish
	Ramesh	Raaj	Jaya	Suresh	Subhash
Himachal Pradesh	Raam	Prem	Jagdish	Rotion	Krishna
	Ramesh	Amar	Prakaash	Dharm	Ome
Karnataka	Basappa	Siddappa	Yellappa	Basavaraja	Maruti
	Mallappa	Hanamanta	Lakshmana	Bhimappa	Shivappa
Madhya Pradesh	Raam	Jagdish	Ashok	Suresh	Narayan
	Ramesh	Babulal	Mangilal	Mohan	Rajendra
Maharashtra	Ashoke	Ramesh	Prakash	Shivaji	Pandurang
	Suresh	Lakshman	Shankar	Narayan	Sanjay
Manipur	Tomba	Kumar	Chaoba	Ibotombi	Biren
	Ibomcha	Rajen	Haokip	Ibohal	Mani
Meghalaya	Ram	Gopal	Sunil	Anil	Suresh
	Dilip	Krishna	John	Ranjit	Pradip
Mizoram	Malsawma	Lalthlamuana	Lalhmingiana	Laltanpuia	Lalnunmawia
	Lalrinawma	Lalhmangaiha	Lalhmachhuana	Lalhmingthanga	Vanlaluwa
Orissa	Bhagabana	Ramchandra	Gobinda	Sudarshan	Gopala
	Bijay	Suresh	Sharat	Narajna	Dujyoudhana
Punjab	Raam	Mahinder	Sukhdev	Balveer	Gurdev
	Darshan	Baldev	Sarinder	Avtaar	Jarnail
Rajasthan	Raam	Mohan	Ramesh	Babulal	Kailash
	Jagdish	Shankar	Gopal	Omprakash	Bhanwar
Tamil Nadu	Aarumugam	Subramani	Murugan	Murugesan	Ramasamy
	Rajendran	Ganesan	Subramanian	Manii	Perumaal
Tripura	Narayan	Ranjit	Dileep	Gopal	Ravinder
	Swapan	Pradeep	Onil	Suneel	Subhash
Uttar Pradesh	Raam	Suresh	Ashok	Jagdish	Moe
	Rajendra	Ramesh	Shiv	Vijay	Surendra
West Bengal	Swapan	Gopal	Topon	Dileep	Biswanath
	Ashoke	Shankar	Sukumar	Narayan	Subhash

Notes: This table includes the list of top-ranked names of males with Hindu names born from 1900 to 1970. An individual is determined to have a Hindu name if their own full name is classified to be most likely a Hindu name. For each state, if names are not recorded with the Latin alphabet, all names are first transliterated into the Latin alphabet. Depending on the naming conventions of each state, we identify each individual's first name. We then rank all of the names in a state for the period of relevance.

Table C2 - List of State-Level Top Ranked Names of Females with Hindu Names

	Rank of Name				
	1 and 2 (1)	3 and 4 (2)	5 and 6 (3)	7 and 8 (4)	9 and 10 (5)
Andhra Pradesh	Lakshmi	Lakshmamma	Ramanamma	Subbamma	Venkatamma
	Satyavathi	Venkata	Narayananamma	Nagamma	Ramulamma
Arunachal Pradesh	Devi	Wangsa	Maya	Wangpan	Pertin
	Wangsu	Pansa	Drema	Deori	Tayeng
Assam	Beena	Xabitri	Onima	Lokhyi	Onjoli
	Baxonti	Benu	Komola	Bimola	Hajera
Bihar	Meena	Urmila	Sumitra	Manju	Maalati
	Shaanti	Geetaa	Seetaa	Sushila	Savitri
Goa	Laxmi	Rukmini	Sunita	Anita	Savitri
	Maria	Parvati	Laximi	Anandi	Geeta
Gujarat	Savitaben	Manjulaben	Kantaben	Lilaben	Hansaben
	Shantaben	Shardaben	Maniben	Champaben	Lakshmben
Haryana	Krishna	Bimla	Raaj	Raam	Roshni
	Kamala	Kamlesh	Tosh	Savitri	Shaanti
Himachal Pradesh	Kamala	Satyaa	Kaanta	Leela	Sheela
	Vimla	Nirmala	Krishna	Kaushalya	Savitri
Karnataka	Gangavva	Lakshmibai	Shantavva	Mallavva	Shantabai
	Yellavva	Mahadevi	Parvati	Basavva	Nilavva
Madhya Pradesh	Kamala	Sushila	Geetaa	Munni	Gitabai
	Kamlabai	Ramkali	Raam	Savitri	Lilabai
Maharashtra	Shantabai	Lakshmi	Shobha	Kamal	Sunita
	Suman	Lakshmibai	Vimal	Sushila	Parvati
Manipur	Memcha	Tombi	Ibemhal	Thoibi	Bimola
	Memma	Devi	Ongbi	Sanahanbi	Maya
Meghalaya	Maya	Mary	Regina	Anita	Sumitra
	Bina	Rita	Mina	Kristina	Rina
Mizoram	Lalnunmawii	Malsawmi	Lalrinpuii	Lalthlamuani	Vanlalruati
	Laltanpuii	Lalhmangaihi	Lalnuntluangi	Lalrinmawii	Lalhmingliani
Orissa	Basanti	Shantilata	Sulochana	Laxmi	Nishamani
	Pramila	Malati	Satyabhama	Kuntala	Kumudini
Punjab	Surjit	Mahinder	Charanjit	Ranjit	Balveer
	Amarjit	Baljit	Kulwant	Sarinder	Raaj
Rajasthan	Kamala	Prem	Vimla	Seetaa	Pushpa
	Geetaa	Shaanti	Bhanwari	Sushila	Shanti
Tamil Nadu	Latsumi	Saanthi	Saroja	Sellammaal	Vasantha
	Saraswati	Palaniyammaal	Mallika	Raani	Muniyammaal
Tripura	Geeta	Lakkhi	Aroti	Shefali	Mayarani
	Kalpana	Sobita	Anjali	Sandhya	Malati
Uttar Pradesh	Kalawati	Kamala	Nee	Shaanti	Geetaa
	Savitri	Raam	Sushila	Vimla	Shakuntala
West Bengal	Sandhya	Geeta	Lakkhi	Malati	Anjali
	Kalpana	Saraswati	Sobita	Shefali	Komla

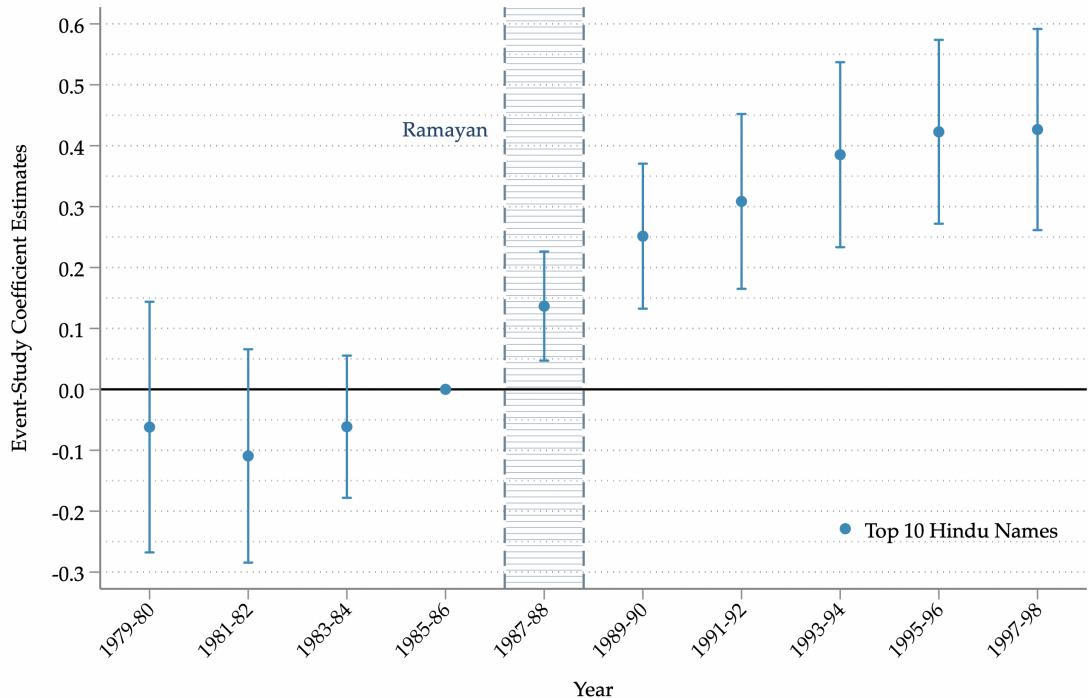
Notes: This table includes the list of top-ranked names of females with Hindu names born from 1900 to 1970. An individual is determined to have a Hindu name if their own full name is classified to be most likely a Hindu name. For each state, if names are not recorded with the Latin alphabet, all names are first transliterated into the Latin alphabet. Depending on the naming conventions of each state, we identify each individual's first name. We then rank all of the names in a state for the period of relevance.

**Table C3 - Impacts of Ramayan on the Percentage of Newborns with Hindu Names Given Top 10 Names**

	Percentage of Newborns with Hindu Names Given Top 10 Names				
	(1)	(2)	(3)	(4)	(5)
<i>Panel A. Percentage of Male Newborns with Hindu Names Given Top 10 Names</i>					
Ramayan × Post	0.342*** (0.064)	0.379*** (0.067)	0.362*** (0.070)	0.360*** (0.070)	0.380*** (0.066)
Dep. var. mean	4.705	4.705	4.705	4.705	4.705
Dep. var. std. dev.	3.380	3.380	3.380	3.380	3.380
Units	3,085	3,085	3,085	3,085	3,085
Observations	61,639	61,639	61,639	61,639	61,639
<i>Panel B. Percentage of Female Newborns with Hindu Names Given Top 10 Names</i>					
Ramayan × Post	0.210*** (0.058)	0.210*** (0.063)	0.185*** (0.064)	0.180*** (0.065)	0.173*** (0.065)
Dep. var. mean	4.246	4.246	4.246	4.246	4.246
Dep. var. std. dev.	3.113	3.113	3.113	3.113	3.113
Units	3,081	3,081	3,081	3,081	3,081
Observations	61,584	61,584	61,584	61,584	61,584
Unit fixed effects	Yes	Yes	Yes	Yes	Yes
State-year fixed effects	Yes	Yes	Yes	Yes	Yes
Freespace controls	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	Yes	Yes
1980 TV controls	No	No	Yes	Yes	Yes
Population controls	No	No	No	Yes	Yes
Census controls	No	No	No	No	Yes

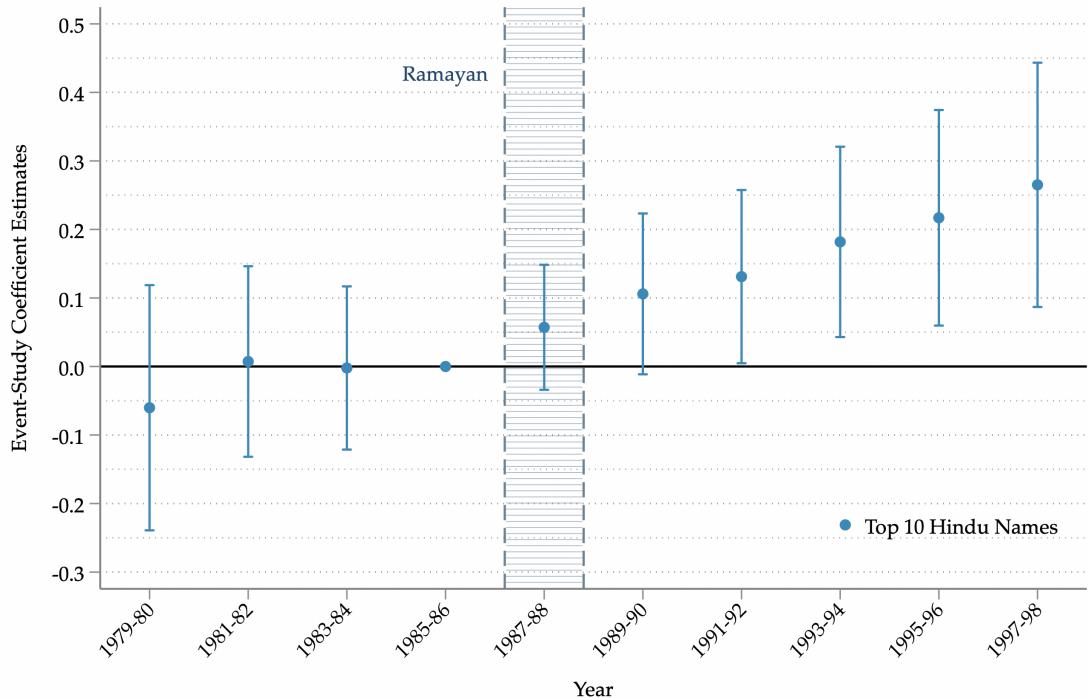
*Notes:* This table includes coefficient estimates from differences-in-differences regressions at the assembly constituency level related to naming patterns of male and female newborns with Hindu names. All dependent variables have been scaled by 100, so coefficient estimates can be interpreted in percentage points. An individual is determined to have a Hindu name if their own full name is classified to be most likely a Hindu name. A top Hindu name is determined at the state level (to account for cultural differences across states) by ranking all first names of newborns with Hindu names born between 1900 and 1970 separately for males and females, prior to our study period. All measures of TV signal strength are population-weighted averages and normalized by the standard deviation. *Ramayan* is the actual TV signal strength at the beginning of 1987. *Post* is a binary variable equal to 1 if the year is 1987 or later. Constituency and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. *1980 TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors in parentheses are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. 1%, 5% and 10% statistical significance are indicated with \*\*\*, \*\*, and \* respectively.

**Figure C1 - Impacts of Ramayan on the Percentage of Male Newborns with Hindu Names Given Top 10 Names**



*Notes:* This figure plots the coefficients from an event-study regression at the assembly constituency level. The dependent variable is the percentage of male newborns with Hindu names given *Top 10 Hindu Names*. The dependent variable has been scaled by 100. The treatment variable is *Ramayan*, actual TV signal strength at the beginning of 1987. The treatment variable is interacted with two-year windows, where the 1985-86 period is omitted. Constituency and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. 1980 *TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. Confidence intervals are presented at the 95% level.

**Figure C2 - Impacts of Ramayan on the Percentage of Female Newborns with Hindu Names Given Top 10 Names**



*Notes:* This figure plots the coefficients from an event-study regression at the assembly constituency level. The dependent variable is the percentage of female newborns with Hindu names given *Top 10 Hindu Names*. The dependent variable has been scaled by 100. The treatment variable is *Ramayan*, actual TV signal strength at the beginning of 1987. The treatment variable is interacted with two-year windows, where the 1985-86 period is omitted. Constituency and state-year fixed effects are included. All controls are interacted with year fixed effects. *Freespace controls* include the unit-level freespace TV signal strength at the beginning of 1987. *Geographic controls* include unit-level controls for: (i) geographic area; (ii) average elevation; (iii) average slope; (iv) average temperature from 1971-1980; (v) average precipitation from 1971-1980; and (vi) average maximum caloric yield for 1980. 1980 *TV controls* include unit-level controls for: (i) actual TV signal strength at the beginning of 1980; and (ii) freespace TV signal strength at the beginning of 1980. *Population controls* include the unit-level population in 1980. *Census controls* include district-level controls from the 1981 census for: (i) total population; (ii) percentage of male population; (iii) percentage of rural population; (iv) percentage of literate population; (v) percentage of scheduled tribes population; (vi) percentage of scheduled caste population; and (vii) percentage of Hindustani speaking population. Conley (1999) standard errors are calculated using a 100 km radius and accounting for autocorrelation over time for each unit. Confidence intervals are presented at the 95% level.