# How Does Religious Affiliation Affect Socio-Economic Outcomes? Evidence from the Religion-Caste Overlap in India

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#### Abstract

The effect of religious affiliation on individual socioeconomic outcomes is hard to isolate given the stratification within religious groups. One way to examine this would be to check if marginalised groups can improve their lot by changing their religious identity. India provides the ideal context to examine this question because of its unique setting, viz., that all major religions exhibit caste cleavages. We provide the first estimates of religious disparities within the most marginalised caste groups whose total population exceeds 300 million. We find that individuals from the most marginalised castes that identify as as Buddhists, Christians and Sikhs have higher levels of human capital, are in higher paying occupations, have more assets and lower self-reported experience of social stigmatization relative to their Hindu counterparts. These patterns are robust to including caste (Jāti) fixed effects suggesting that these results cannot be attributed solely to selection. Finally, using the Mahars as a specific example, we provide causal evidence on the impact of religion on socioeconomic outcomes.

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# 1 Introduction

A pertinent question related to identity choice is whether "minority ethnic groups can reformulate their identities in order to take advantage of opportunities denied their group" (Laitin, 1995)? There are instances of members of discriminated minority groups trying to escape stigma and discrimination by consciously adopting another non-stigmatized identity, for instance the phenomenon of "passing as white" in the American context, or Indians dropping/modifying their last names to conceal their lower ranked and/or stigmatizing caste affiliation. However, does this achieve its intended effect? In this paper, we investigate this question by examining the impact of changing religious affiliation by a group of stigmatised castes and provide direct evidence on returns to identity reformulation.

More broadly, the role of religion in affecting socioeconomic outcomes has given rise to a voluminous literature in the social sciences since the influential work of Weber (1905). More recently, economists have started to contribute to this topic (see Iannaccone 1998 and Iyer 2016 for reviews)<sup>1</sup>. Estimating the effect of religious identity on socioeconomic outcomes is complicated by the fact that its is potentially endogenous and/or correlated to other unobservable factors that also influence outcomes of interest. We study the effect of religious identity on socioeconomic outcomes in India by leveraging within-religion stratification and focusing on the outcomes of a very large group of marginalised and stigmatised castes or  $j\bar{a}tis$ . We observe that the lowest-ranked stigmatized castes that converted to Buddhism, Sikhism and Christianity managed to achieve better socio-economic outcomes relative to those who did not convert out of Hinduism.

#### 1.1 The Context

India's affirmative action programme is directed towards the most marginalised castes within three religions: Hinduism, Buddhism and Sikhism. The list of stigmatized  $j\bar{a}tis$  within these three religious groups is clubbed under the administrative category of Scheduled Castes (SCs). SCs comprise around 16.7% of the Indian population, i.e., their population is more than 300 million. While official affirmative action is restricted to three religions, all major religions in India (more broadly in South Asia) exhibit caste-like cleavages (Jodhka and Shah, 2010). Thus, the most marginalised groups within Muslims and Christians (who would most likely have converted out of Hinduism to escape caste discrimination) are officially not included in the SC list. However, in household surveys, lower-ranked Muslim or Christian individuals, when asked about their caste status, self-identify as SCs.

<sup>&</sup>lt;sup>1</sup>It is important to note that Iyer (2016, 395) argues "that economists and religion are closer than some might believe" and that "Ely's vision in founding the American Economic Association in 1885 was to bring the ethics and ideals associated with the Social Gospel movement into economics in order to foster cooperation and greater equality in society, but with a key role for historical and statistical analysis." In other words, Iyer argues that economics of religion has a much longer history than is often acknowledged.

The marginalization of the SCs principally stems from their stigmatized position in Hindu society. This led to SC individuals and groups deciding to exit Hinduism and (principally) adopt Buddhism, Christianity, Islam or Sikhism as their new religious denomination in the late nineteenth and early and midtwentieth century. Though there has been lot of work on analyzing the role of caste in India society, little is known about how do socioeconomic outcomes vary by religion within caste groups.

In this paper, we provide the first estimates of socioeconomic disparities by religion among those who self-identify as Scheduled Castes (SCs). In a next step, leveraging within caste (or  $j\bar{a}ti^2$ ) variation in religious affiliation, as well as using a case study of one particular jāti of Mahars from Maharashtra, we provide estimates of the impact of exiting the Hindu fold for the SCs in India.

# 1.2 Our Approach

Since little is known about the extent of disparities by religious affiliation for the SCs, we first compare the SC-Hindus with SC-Christians, SC-Muslims and SC-Others (Buddhists and Sikhs) on proxies for human capital and material well-being. Next, to be able to account for selection by different castes or  $j\bar{a}tis$  into different religious denominations, we estimate models with  $j\bar{a}ti$  fixed effects. The within  $j\bar{a}ti$  or caste comparison ensures that the documented differences by religious category among the SCs can not be attributed to preexisting differences among  $j\bar{a}tis$ .

However, there is still the concern that even within  $j\bar{a}tis$ , there could be selection into religion based on characteristics that matter for socioeconomic outcomes. To be able to address this concern, we employ the Mahars as a case study. Mahar is a large stigmatized  $j\bar{a}ti$  from the state of Maharashtra. Dr. B.R. Ambedkar, Chairman of the drafting committee of the Indian constitution, independent India's first law minister and one of the most significant anti-caste reforms belonged the Mahar jāti. Towards the end of his life, Ambedkar reached the conclusion that the deeply stigmatising practice of untouchability was an integral part of the Hindu caste system which would keep individuals locked into a permanent state of inequality with those at the bottom of the hierarchy condemned to a life of servitude. He came to the realisation that no piecemeal reform could rid Hinduism of this scourge, and decided to leave Hinduism and embrace Buddhism for its ideals of equality. Ambedkar organised a formal public ceremony for himself and his supporters in Nagpur on 14 October 1956, where some half a million of his supporters decided to convert with him<sup>3</sup>. The choice of the site of Nagpur, as we discuss later, was driven principally by historical reasons rather than any practical considerations. Therefore, we employ distance from Nagpur as an instrument to predict the probability of converting to Buddhism for Mahars, and to estimate the socioeconomic outcomes associated with the adoption of the Buddhism. We also provide evidence to show

 $<sup>^2</sup>$ jāti, meaning caste, is the contemporary manifestation of the caste system. See Deshpande 2017 for a detailed explanation.

<sup>&</sup>lt;sup>3</sup>He passed away soon thereafter in December 1956.

that for the other non-Hindu SCs in Maharashtra, the distance from Nagpur is uncorrelated to their socioeconomic outcomes.

#### 1.3 Main Results

The baseline comparison draws on data from the National Family Health Survey of 2019-21 (NFHS-5) with a sample size of 159,197 individuals. Our results show that SC-Christians and SC-Others (Buddhists and Sikhs) have higher levels of human capital and more assets than SC-Hindus. SC-Muslims have the worst socioeconomic outcomes. For instance, SC-Hindus have 6.9 years of completed schooling and 12% of them have attained more than secondary schooling. The commensurate figures for SC-Christians, SC-Others and SC-Muslims are 7.27 and 14%, 8.13 and 14% and 5.54 and 6%, respectively.

We then draw on data from the Indian Human Development Survey 2011-12, which is one the few data sources that has information on  $j\bar{a}ti$  affiliation. We implement our empirical estimates with jāti fixed effects and find similar patterns to those in the NFHS-V. For instance, whereas SC-Hindus have 5.2 years of completed schooling, SC-Muslims have on average 2.38 years fewer and SC-Christians and SC-Others have 1.41 and 0.85 years more years, respectively. Similarly, looking at occupational outcomes, SC-Christians and SC-Others are 13 and 9.2% points less likely to be in lower-ranked occupations, namely, employed as an agricultural laborer, construction worker or in a traditional castebased stigmatized occupation compared to SC Hindus. The economic import of comparing agricultural laborers, construction workers and those in a traditional caste-based stigmatized occupation to the rest of the occupations is reflected in annual incomes: whereas the median annual income of individuals who are agricultural laborers, construction workers or in caste-based stigmatized occupation is INR 52,000, the median increases to INR 90,000 for those employed in the other occupations.<sup>4</sup>

Comparing Hindu and Buddhist Mahars using the instrumental variable approach shows similar patterns as documented with the analysis using  $j\bar{a}ti$  fixed effects. The first stage regressions show that distance from Nagpur is negatively and significantly correlated to the probability of a Mahar individual adopting Buddhism, and the F-statistics are consistently above 40. The second stage results show that Buddhist Mahars have 1.85 additional years of schooling and are 33% more likely to be in the higher earning occupations, that is, not be an agricultural laborer, construction worker or in a caste-based stigmatized occupation. Moreover, the distance from Nagpur is seen to be uncorrelated to outcomes for the non-Mahar non-Hindu SCs, suggesting that distance from Nagpur does not violate the exclusion restriction.

The results from the three exercises provide a consistent picture: SC-Muslims have the worst outcomes, followed by the SC-Hindus, with SC-Christians and SC-Others (Buddhists and Sikhs) exhibiting the best outcomes across a whole range of indicators. Our results provide empirical support to Ambedkar's belief,

<sup>&</sup>lt;sup>4</sup>The appendix Table ?? provides the list of occupations included in the two categories.

viz., that the most stigmatized and oppressed – the Dalits – would be better-off exiting Hinduism and embracing more egalitarian religions.

Our results suggest that incorporating religion in the analysis of caste would help provide a more accurate picture of the extent of caste disparities in India.

#### 1.4 Literature

Our work is closely related to the literature that tries to estimate the effect of religion on socioeconomic outcomes. Becker and Woessmann (2009) show that Protestants do better than Catholics on a range socioeconomic outcomes in 19th century Prussia, and provide evidence to show that these gaps stem primarily from differences in human capital. To overcome the problem of endogeneity they use distance from Wittenberg, the birthplace of the Reformation, as an instrument for the diffusion of Protestantism. Other work have analyzed the impact of religion on the intensive margin: for example, using the exogenous timing of Ramadan to explore the effects of religious fasting on outcomes (Almond and Mazumder, 2011; Majid, 2015), or comparing successful and unsuccessful applicants to a lottery Pakistan uses to allocate its limited supply of Hajj visas to estimate the impact on pilgrims of performing the Hajj pilgrimage to Mecca (Clingingsmith et al., 2009).

Turning to India, the existing evidence on estimating the link between religious identity and outcomes typically treats religious identity as exogenous. This is because as Iyer (2016, 411) notes "In India, the Middle East, Tibet, or Indonesia, one is born into a religion and "choice" in this instance typically means giving up one's right to live within the community of one's birth. Practically speaking then, people do not have a choice of religion. This implies that many people may practice a religion that they do not approve of, or which even harms their interests." The situation aptly describes our setting, as the stigmatization of SCs arises primarily from their position in the caste hierarchy within Hinduism. This is what prompted Ambedkar to leave Hinduism and embrace the more egalitarian Buddhism.

The question of selection based on socioeconomic characteristics into religious denomination, and how they affect our estimates is an important question. In Section 5, based on evidence from the existing literature (Weber, 1958; Botticini and Eckstein, 2005; Saleh, 2018), as well as analyzing how our estimates change across the different methodologies, suggest that selection based on socioeconomic characteristics, if anything, is negative, and thus we are underestimating the returns to reformulation of religious identity for minority groups.

The finding that SC-Christians and SC-Others (primarily Buddhists and Sikhs) do better than the SC-Hindus, while SC-Muslims do worse, raises important questions regarding the channels at play. In Section 5, we discuss the mechanisms and tentatively suggest that the effects can be attributed to a mix of how religion and institutions interact. In particular, how affirmative action is extend to only certain religious categories, and the role of Catholic missions in promoting education among the Christian community.

The rest of the paper is organized as follows: Section 3 introduces the data

and the empirical strategy; Section 4 presents the main results and Section 5 provides a discussion and conclusion.

# 2 The Scheduled Castes and Religion

The ancient manifestation of the caste system in the Indian subcontinent, believed to be roughly 3500 years old, is represented by the *varna* system, which classified individuals into initially four, later five groups that were hereditary, endogamous and occupation specific. These were Brahmins (teachers, priests, repositories of all textual knowledge, intermediaries between individuals and God); Kshatriyas (warriors, often royalty); Vaisyas (moneylenders, traders, merchants) and the lowest ranked Sudras (those doing all manual and menial tasks). Over time, the group of Sudras split into two, with those performing the most menial, degrading occupations that involved contact with human or animal corpses, excreta or bodily fluids, being regarded as impure and therefore untouchable. These were the *Ati Sudras*, the lowest of the low. Their occupations were manual scavenging (removal of human excreta from laterines without sewers), cremating the dead, midwifery, butchers, leather workers etc.

While the varna system had detailed rules that governed various interactions related to commensality, entry into different parts of the house, economic and social interactions between the different varnas such that some interactions were permitted while others were not. However, all contact with the Ati Sudras or untouchables was to be shunned as even their mere shadow on the bodies of the other varna members was believed to make the latter impure. Thus, untouchables lived on the edge of the village, in an isolated settlement, they were not allowed to drink water from the same source as the others, they were not allowed entry into temples, if the village was on a riverbank, the untouchable hamlet would be located downstream, not upstream. Before untouchability was abolished, they were not allowed entry into public spaces, like schools or offices, for the fear that they would contaminate the others with their presence. The untouchable hamlets were (and continue to be) the poorest and most deprived parts of villages.

While the top three varnas were called *savarnas*, i.e. those with a varna, the Ati Sudras, who were below the line of ritual purity were called *avarnas*, literally, without a varna. Thus, paradoxically, they were 'included' in the varna system by being excluded from it. The Sudras, who performed manual labour were also regarded as very low in the varna hierarchy, but did suffer from the degrading stigma of untouchability.

There have been significant anti-untouchability leaders and movements throughout history in different parts of India. During the British rule, there was a conscious attempt, both by the British administration as well as the more progressive princely states that were not directly under British rule, to expand education and jobs to untouchables. In order to identify communities that would be eligible for such benefits, the British administration compiled a list of "Depressed Classes" that included untouchable castes, marginalised tribes and other low-ranked groups. Members of Depressed Classes were eligible for protective and affirmative policies in the form of reservations or quotas in educational institutions and government jobs.

When India became independent in 1947, it abolished untouchability and made it punishable by law. It also modified the Depressed Classes list to draw two schedules – a list of Scheduled Castes (formerly untouchable castes) and Scheduled Tribes (list of the most marginalised indigenous tribal groups). Initially, the SC list comprised of groups that adhered to Hinduism and Budhhism as Dr.B.R. Ambedkar had led the conversion out of Hinduism due to his belief that untouchability was an integral part of the Hindu caste system and no piecemeal reform was possible. Very soon, the SC list also included Sikh SCs, which is ironical, as Sikhism is explicitly more egalitarian than Hinduism. Many untouchables also converted to Islam and Christianity in the hope of escaping stigma and marginalisation. Legally, they are not regarded as SCs as affirmative action is given only to Hindu, Buddhist and Sikh SCs. However, Dalit Muslims and Christians (lowest ranked within their respective religions) have been demanding reservation and identify themselves as SC in household surveys.

# 3 Data and method

To descriptively examine differences in socioeconomic outcomes by religion for the SCs, we employ the National Family Health Survey of 2019-22 (NFHS-V). This is a representative data set with information on 159,197 SC individuals aged 15-49. Breaking down by religion shows that 88.66% are SC-Hindus, 2.10% are SC-Muslims, 1.92% are SC-Christians and 7.33% are SC-Others. For children, we have data on 45,116 SC children aged 0-5 with the religious breakup being 89.70%, 2.68%, 1.65% and 5.98% being Hindus, Muslims, Christians and Others, respectively. We employ this data to look at differences by religious identity within the SC group on three broad proxies for socioeconomic status: (i) human capital proxied by years of completed schooling and share with more than secondary schooling; (ii) material well being as captured by the proportion of individuals in the bottom 40% of the asset distribution and a wealth index factor score; and (iii) child health as proxied by the height-for-age Z-score and the share of children who are stunted, an indicator of chronic malnourishment.

The NFHS-V has the benefit of being a very large data set, however, it only provides information on the caste/tribe group, and not the Jāti of the individual. Thus, the comparison based on the NFHS-V faces the concern that different Jātis selected themselves into different religious categories.

For instance, the wealthier and/or more educated Jātis decided to convert to a religion other than Hinduism. Thus, now the observed differences between religious groups which are function of pre-existing differences could wrongfully be interpreted as the effect of adopting a different religious denomination. To address this concern, we rely on the Indian Human Development Survey-II from the year 2011-12 (IHDS-II). The IHDS-II has the benefit of being one of the few data sources that provides jāti affiliation for individuals. We thus consider all

jātis belonging to the SC group and having variation in religious identity. This gives us a sample 9342 individuals with 91% Hindus, 0.42% Muslims, 1.5% Christians and 7.4% Others. Table 1 shows the name of jātis that are included in our sample and their breakdown by religion. Some of the largest Jātis in our data with variation in religious identity are the groups called the *Chamars*, the Madigas, Ramdasias, Mahars, Valmikis. We are now able to compare the socioeconomic outcomes of SC individuals from the same jāti but having a different religious denomination. More specifically, we estimate the following regression:

$$O_{ijr} = \beta_0 + \beta_1 J \bar{a} t i_j + \beta_{2r} \text{Religion}_r + \beta_3 X_{ijr} + \epsilon_{ijr}$$
 (1)

where,  $O_{ijr}$  is the outcome for individual i from Jāti j and religion r.  $J\bar{a}ti_j$  refers to the Jāti fixed effect. Religion, is a set of dummies for our three religious groups of interest: Muslims, Christians and Others, and where Hindu is the omitted category. The vector  $X_{ijr}$  includes controls for age, rural-urban residence classified into 4 categories and region dummies and the standard errors are clustered at the level of the primary sampling unit. The main class of outcomes we consider are: (i) human capital proxied by years of completed education; (ii) occupation proxied a dummy that takes the value 1 when individual is not an agricultural laborer, construction worker or in one of the caste-stigmatized occupations and 0 otherwise; (iii) material well-being proxied by a standardized asset Index which is a standardized index of a list of total household assets (0-33); (iv) social stigmatization as proxied by if a household reports experiencing untouchability.

The analysis including jāti fixed effects allows us to rule out that the observed differences between SCs of different religious denominations are a pure reflection of different sub groups or jātis having selected themselves into different religious denominations. However, there still remains the potential concern that individuals whose ancestors opted out of Hinduism are positively selected. In other words, the estimates even from estimating Equation 1 are biased. To address this concern, we now employ a case study based approach where we can exploit an exogenous factor predicting the probability of opting out of Hinduism. In particular, we consider the case of Mahars. The Mahars are the group to which B.R Ambedkar, the head of the drafting committee of the Indian constitution, belonged. He was one of the most important social reformers fighting to improve the position, and end discrimination, against the SCs. He was one of the key architects behind the inclusion of affirmative action for the SCs in higher education, government jobs and politics in the Indian constitution.

<sup>&</sup>lt;sup>5</sup>The five regions we consider are the North (Jammu and Kashmir, Himamchal Pradesh, Punjab, Chandigarh, Harayan and Delhi); BIMARU (Bihar, Rajasthan, Uttar Pradesh, Uttarakhand, Jharkhand, Chattisgarh and Madhya Pradesh); South (Andhra Pradesh, Karanataka, Kerala and Tamil Nadu); Eaast (West Bengal and Orrisa); and West (Gujarat, Maharashtra and Goa). The online appendix shows that the results are very similar in magnitude when we include state dummies rather than region fixed effects. However, due to the small sample sizes the standard errors increase and turn some of the coefficients statistically insignificant.

His journey towards adopting Buddhism is well summarized by the Wikepdia stub, which we quote verbatim:

"around 1950, he began devoting his attention to Buddhism and travelled to Ceylon (now Sri Lanka) to attend a meeting of the World Fellowship of Buddhists. ... In 1955, he founded the Bharatiya Bauddha Mahasabha, or the Buddhist Society of India. In 1956, he completed his final work, *The Buddha and His Dhamma*, which was published posthumously.

After meetings with the Sri Lankan Buddhist monk Hammalawa Saddhatissa. Ambedkar organised a formal public ceremony for himself and his supporters in Nagpur on 14 October 1956. Accepting the Three Refuges and Five Precepts from a Buddhist monk in the traditional manner, Ambedkar completed his own conversion, along with his wife. He then proceeded to convert some 500,000 of his supporters who were gathered around him"

The mass conversion occurred in the city of Nagpur. According to Ambedkar, the reason he chose the city of Nagpur is best summarized by his own words as shown in the excerpt from his speech in Nagpur the morning of 15th October, 1956 at the conversion ceremony in Nagpur:

"Many people ask me why Nagpur was decided upon for this work. ... Those who read Buddhist history will come to know that in India, if anyone spread Buddhism, it was the Nag people. The Nag people were fearful enemies of the Aryans. ..... The Nag people spread the teaching of Buagwan Buddha all over India. Thus we are like Nag people. .....It seems that the Nag people lived chiefly in Nagpur and the surrounding country. So they call this city Nagpur, meaning city of Nags. ..... This is the main reason for choosing this place."

We thus propose using distance from Nagpur to the district of residence to as an instrument for the likelihood that a Mahar individual converts to Buddhism. The exclusion restriction thus amounts to the assumption that the only channel through which distance of a district from Nagpur matters for socioeconomic outcomes for Mahars is through increasing the probability of adopting the Buddhist denomination. This seems plausible given Ambedkar's motivations underlying the choice of Nagpur. To probe this assumption we also test if distance to Nagpur matters for the other Jātis in Maharashtra.

### 4 Results

# 4.1 Socioeconomic gaps from the NFHS-V

Panel 1A of Figure 1 shows the completed years of schooling, along with 95% confidence intervals, for the four groups. The SC-Others have 8.13 years of completed schooling as compared to 7.27, 6.90 and 5.54 for the SC-Christians,

SC-Hindus, and SC-Muslims. Panel 2A considers the share of the group which has at least enrolled in higher education. 14% of SC-Christians and SC-Others have at least enrolled in higher education, whereas the commensurate figure for the SC-Hindus and SC-Muslims is 12 and 6%, respectively. Thus, in terms of human capital outcomes we see a clear ordering with the SC-Others and SC-Christians having the best outcomes, followed by the SC-Hindus with the SC-Muslims lagging.

Panel 2 of Figure 1 considers the proxies for material well-being. Panel 2A shows that whereas 18 and 29% of SC-Others and SC-Christians belong to the bottom two quintiles of the asset distribution in the country. However, the comparable figures for SC-Hindus and SC-Muslims are 48 and 59%, respectively. Thus, the share of SC-Hindus and SC-Muslims is more than double the share of SC-Others at the bottom two quintiles of the asset distribution.

Panel C shows that 44 and 40 percent of SC-Muslims and SC-Hindu children under-5 are classified as stunted. The comparable figures for SC-Christians and SC-Others is 34 and 33 percent, respectively.

# 4.2 Within-Jāti analysis

Table 2 shows the results of estimating Equation 1 using IHDS-II. Column (1) considers the years of completed education as the dependent variable. It shows that the SC-Hindus have on average 5.20 years of schooling in 2011-12. The SC-Muslims on average have 2.38 fewer years of schooling. On the other hand, SC-Christians and SC-Others have 1.41 and 0.85 more years of schooling, respectively.

Turning to occupation outcomes, we consider as dependent variable the likelihood that an individual does not hold a job as a agricultural laborer, construction worker or one of the jobs we classify as stigmatized on caste ground.<sup>6</sup> The economic import of our occupation distinction is evident from the fact that the median income for individuals holding a job as a agricultural laborer, construction worker or one of the jobs we classify as stigmatized on caste ground is 52,000 INR compared to 90,000 INR for the other category. The results in column (2) show that whereas 26% of Hindu-SCs are in the more advantageous occupation, the SC-Muslims are a whole 18% points less likely to be so. This however is not statistically significant at conventional levels given the small sample size but is economically large and meaningful. The SC-Christians are 11% points more likely to be not holding the job as a agricultural laborer, construction worker or a stigmatized profession, and this is statistically significant at the 10% level. Finally, the SC-Others are 4.5% points more likely to be in the more advantageous occupation as compared to the SC-Hindus though again these are statistically insignificant.

Column (3) considers the asset index, which is a count of the total number of assets a household owns which takes a minimum value of 0 and a maximum

 $<sup>^6{</sup>m The~jobs~classified}$  as stigmatized are: maids, sweepers, launderers, barbers, tanners, shoemakers, carpenters and potters.

value of 33.7 SC-Hindus households on average own 12.83 assets. The SC-Christians and SC-Others on average own 1.9 and 1.6 assets more on average. On the other hand, SC-Muslims own 1.2 assets less on average, though this is statistically insignificant.

The last outcome examines if exiting the Hindu fold reduces the extent of social stigmatization. One of the principle demonstrations of the belief in ritual purity is the practice of untouchability, which is one of the central cornerstones defining the caste hierarchy. We see that on average 17% of SC-Hindus households report having experienced the practice of untouchability in the last five years. SC-Muslims and SC-Others are 17 and 12% points less likely to report experiencing any form of untouchability. On the other hand, we observe no difference between the extent of social stigmatization that SC-Hindus and SC-Christians face.

# 4.3 Mahars as a case study

We now consider the jāti of Mahars as a case study to estimate the causal returns from exiting Hinduism and adopting Buddhism. Empirically, we employ log distance from Nagpur as an instrument for the Mahar's probability of adopting Buddhism. There are 776 Mahars in the IHDS-II with 75% being Hindus and 25% being Buddhists, and all resident in the state of Maharashtra.

We re-estimate Equation 1 but now however restrict the sample to Mahars and instrument the dummy for Buddhist with the distance from Nagpur. The results are shown in Table 3. Panel B which shows the first stage results shows that distance from Nagpur is negative and significantly correlated with the probability of a Mahar individual adopting Buddhism. The F-statistic is above the value of 40 in all four specifications and suggests that distance from Nagpur is indeed a relevant instrument.

Panel A of Table 3 shows the results of the second stage. Column (1) shows that the mean years of completed schooling for the Hindu Mahars is 7.53. The coefficient on the Buddhist dummy is positive and significant. It shows that Buddhist Mahars have on average 1.85 additional years of schooling. Column (2) shows that 45% of Hindu Mahars hold a job that is not of an agricultural laborer, construction worker or in a stigmatized occupation. However, Buddhist Mahars are 16% points more likely to be in the more favorable occupation.

Column (3) and (4) consider the household level outcomes. In column (3), we consider the total number of assets the household owns. Hindu Mahars own 17 assets on an average, whereas the Buddhist Mahars own half an asset more though the coefficient is far from statistically significant. Finally, in column (4), we consider the experience of untouchability as the dependent variable. 22% of Mahar Hindu households report experiencing untouchability in the past 5 years. On the other hand, Buddhist Mahar households are 16% points less likely to report experiencing untouchability in the past 5 years though it is not significant at conventional levels (p=0.13).

<sup>&</sup>lt;sup>7</sup>The list of assets and more details can be found here.

The first stage regressions show that distance from Nagpur is a relevant instrument for the adoption of Buddhism by Mahars. Moreover, the rationale forwarded by Ambedkar himself for the choice of Nagpur as the site of the mass conversion suggests that the choice of the location was exogenous to socioeconomic concerns and thus plausibly satisfies the exclusion restriction. To further probe this assumption, we now regress the log distance from Nagpur on the same four dependent variables. However, we now restrict the sample to individuals who do not belong to the Mahar group and adopt a religion different from Hinduism. The results are shown in Table 4. Distance from Nagpur is seen to be not a statistically significant correlate of years of schooling, occupation or assets for non-Hindu-SCs who are not Mahars but reside in Maharashtra.<sup>8</sup>

# 5 Discussion and Conclusion

Our results show that SCs who adopted Christianity or the other religions (primarily Sikhism and Buddhism) do better than SC-Hindus on a wide range of socioeconomic indicators. However, SCs who adopted Islam exhibit worse socioeconomic outcomes. These patterns are consistent across different set of methodologies, even when we account for selection through jati fixed effects or an instrumental variable approach.

Nonetheless, we can ask if selection based on socioeconomic characteristics into religious denomination is biasing our estimates, and if so, in which direction? The existing literature seems to suggest that individuals with poorer socioeconomic status are the ones who tend to change their religious affiliation. For instance, Weber noted that conversions to Christianity and Islam in India were more likely among the marginalized Hindu caste groups (Weber, 1958)[6]. Another example would be the case of the Jewish. Botticini and Eckstein (2005) argue that Rabbinic Judaism's emphasis on literacy to be able to read the Torah and the Talmud led to the exit of Jews who were not interested in obtaining education. This in turn made the remaining Jews into a smaller but better-off minority. Similarly, Saleh (2018), analysing the differences between Muslims and Coptic Christians shows that imposition of a poll tax on non-Muslims from the year 641 to 1856 in Egypt led to poorer Copts converting to Islam, leading Copts to shrink into a better-off minority.

Thus, existing evidence seems to suggest that, if anything, there is negative selection. In our context this implies that we underestimate the effect of leaving the Hindu fold. Our results also seem to suggest the same pattern: for instance, the difference between SC-Hindus and SC-Christians based on NFHS-V which does not account for selection suggests a gap of 0.37 years in favor of the SC-Christians. Within Jati estimates suggest a gap of 1.41 years in favor of the SC-Christians. Similarly, the gap between SC-Hindus and SC-Others is 1.23 years based on the NFHS-V, whereas the instrumental variable estimates suggest a gap of 1.85 years in favor of the SC-Buddhists.

<sup>&</sup>lt;sup>8</sup>Column (4), however, shows that distance from Nagpur is positively correlated with the experience of untouchability.

With regard to the SC-Buddhists there also have been journalistic reports documenting that SCs who converted to Buddhism seem to do better than those who remained Hindus. However, could it be that "neo-Buddhists (SC-Buddhists) are more inclined towards education than (Hindu) Dalits? Or is there a greater possibility that Dalits turn to Buddhism after attaining education?" Our evidence here suggests that rather than selection, the improvement in the socioeconomic outcomes of the Buddhist Mahars can be attributed to Ambedkar's call for education, which consequently results in their improved social status.

Our other important result is that whereas SC-Others (primarily Buddhists and Sikhs) and SC-Christians do better than SC-Hindus, the latter do better than SC-Muslims. One key institutional feature distinguishing the SC-Others from SC-Christians and Muslims is access to affirmative action. The third paragraph of the Constitution stipulates that "no person who professes a religion different from Hinduism shall be deemed to be a member of Scheduled Caste." However, this were amended and affirmative action was granted to SC-Sikhs and SC-Buddhists since 1956 and 1990, respectively. Despite their repeated demands, SC-Christians and SC-Muslims were denied affirmative action on the grounds that caste does not exist in Christianity or Islam. Thus, one potential reason for the better performance of the SC-Others is that exiting the Hindu fold did not come at the expense of losing access to affirmative action, an important route to upward mobility. Thus, this enabled them to retain the advantages of affirmative action and at the same time minimize their stigmatized status.

On the other hand, SC-Muslims not only lost access to affirmative action due to exiting Hinduism but as the Hindu-Muslim divide was exacerbated due to the events of the partition, they faced a "double-sided" disadvantage: not having really escaped their stigmatized status (Robinson, 2007; Trivedi et al., 2016) and at the same time having opted into a religious group which is today one of the most socioeconomically disadvantaged in the country (Sachar et al., 2006). While the SC-Christians are also not eligible for affirmative action, however, the educational success of SC-Christians can be partly ascribed to the educational initiatives taken to spread Christianity among SCs (Webster, 2001), and especially higher education spurred by the Catholic missions (Castelló-Climent et al., 2018).

The results of our paper suggest that members of marginalised groups can potentially alter their stigmatised status by changing their religion. However, religious conversion does not guarantee escape out of stigmatization. Concerted affirmative or protective policies, such as reservations or quotas in India or a strong focus on education, are needed to reduce the severity of marginalisation even after conversion. The case of SC Muslims illustrates that if members move to yet another stigmatised and discriminated against group, their marginalisation can in fact get compounded.

<sup>&</sup>lt;sup>9</sup>See here.

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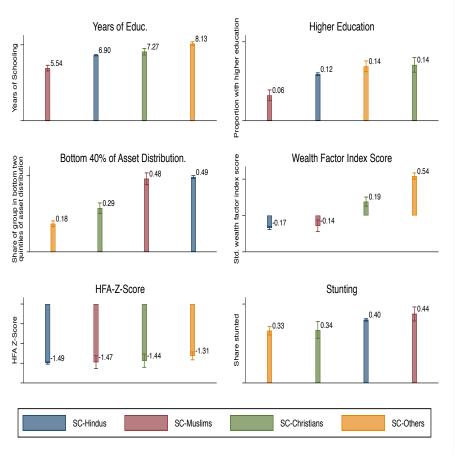
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Jati Name	Sample Size	Traditional Occupation
CHAMAR	2214	Tanning leather
MADIGA	727	Tannery, leatherwork and small handicrafts
RAM / RAMDASIA	693	leather tanners and shoemakers
BALMIKI	660	manual scavengers
MAHAR	621	remover of carcasses.
ADHIKARNATAKA	595	Karnataka Aboriginal
MALA	517	agricultural labourers
KOHLI	482	Fishing
NAYAKA	405	Kerala Indigenous
BHIL	367	Indigenous
PARAYAR	343	Musicians and labourers
BAGDI	180	Fishing
GANDA	168	weavers and village watchmen
MUNDA	152	indigenous (basketwork and weaving)
DHOBI	148	Washerman
GOUDS	140	toddy tapping
GONDA	137	Indigenous
RAI SIKH	134	Rope-making
KUMHAR	121	Potters
VASAVA	116	Indigenous
LOHAR	104	Blacksmith
SMALLER JATIS	1544	
Total	9,342	

Notes: The table presents the list of key jatis that are included in our within jati analysis. The data is from IHDS-2011-12.

Table 1: Principal SC-ST jatis with Variation in Religious Identity



Notes: The data is from the Nation Family Health Survey-IV, 2015-16 and consists of a total sample of 144,688 SC individuals aged 15-49 in the first two rows and 45,924 SC children in the last row, respectively.

Figure 1: Human capital, assets and child health by religion for the Scheduled Castes  $\,$ 

	Yrs. of	Not agrc. lab.,	Asset	Expr.
	educ	const. or stigm.	Index	UT
	(1)	(2)	(3)	(4)
Muslims	-2.38***	-0.15	-1.17	-0.19*
	(0.87)	(0.11)	(1.24)	(0.10)
Christians	1.41**	0.13	1.85***	-0.0097
	(0.60)	(0.089)	(0.59)	(0.052)
Other	0.85**	0.092*	1.58***	-0.12**
	(0.34)	(0.046)	(0.46)	(0.054)
Jati Fixed Effects	Yes	Yes	Yes	Yes
Dummies for Age	Yes	Yes	Yes	Yes
Dummies for Region	Yes	Yes	Yes	Yes
Dummies for Urban	Yes	Yes	Yes	Yes
Dummies for Gender	Yes	Yes	Yes	Yes
Mean SC-Hindus	5.20	0.27	12.83	0.17
Observations	9,296	2,041	2,749	8,709
R-squared	0.407	0.281	0.489	0.201

Clustered standard errors in parentheses

Notes: The data is from the IHDS-2011-12. The estimation is restricted to individuals belonging to the Scheduled Castes. Region consists of dummies for north, south, east, west and BIMARU.

Table 2: Outcomes of SC by religion: Within Jati estimates

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

(1)	(2)	(3)	(4)		
Panel A - Second stage 2SLS					
Yrs. of	Not agrc. lab.,	Asset	Expr.		
educ	const. or stigm.	Index	UT		
1.85***	0.16***	0.55	-0.16		
(0.41)	(0.059)	(1.22)	(0.11)		
7.53	0.45	17.12	0.22		
Panel B - First Stage 2SLS					
DV -Buddhist Dummy					
-0.53***	-0.54***	-0.53***	-0.52***		
(.077)	(.068)	(.077)	(.078)		
47.86	62.60	46.43	44.59		
Panel C	- Controls in Fig	rst and Sec	ond Stage 2SLS		
Yes	Yes	Yes	Yes		
Yes	Yes	Yes	Yes		
Yes	Yes	Yes	Yes		
587	287	170	148		
0.523	0.396	0.525	0.095		
	educ  1.85*** (0.41) 7.53  -0.53*** (.077) 47.86  Panel C Yes Yes Yes Yes 587	Panel A - Sec Yrs. of educ Not agrc. lab., const. or stigm.  1.85*** 0.16*** (0.41) (0.059) 7.53 0.45  Panel B - Fin DV -Budd -0.53*** (.077) (.068) 47.86 62.60  Panel C - Controls in Fin Yes	Panel A - Second stage 2 Yrs. of Not agrc. lab., Asset educ const. or stigm. Index  1.85*** 0.16*** 0.55 (0.41) (0.059) (1.22) 7.53 0.45 17.12  Panel B - First Stage 2  DV -Buddhist Dummy -0.53*** -0.54*** -0.53*** (.077) (.068) (.077) 47.86 62.60 46.43  Panel C - Controls in First and Sec Yes		

Notes: The data is from the IHDS-2011-12. The estimation is restricted to individuals belonging to the Jati Mahars from the Scheduled Castes from the state of Maharashtra.

Table 3: Comparing the Hindu and Buddhist Mahars: IV Regressions

	Yrs. of educ	Not agrc. lab., const. or stigm.	$\begin{array}{c} {\rm Asset} \\ {\rm Index} \end{array}$	Expr. UT
	(1)	(2)	(3)	(4)
Ln. Distance to Nagpur	-0.67	-0.041	1.01	0.21***
	(0.50)	(0.062)	(1.04)	(0.061)
Dummies for Age	Yes	Yes	Yes	Yes
Dummies for Urban	Yes	Yes	Yes	Yes
Dummies for Gender	Yes	Yes	Yes	Yes
Observations	551	255	149	126
R-squared	0.515	0.566	0.532	0.177

Clustered standard errors in parentheses

Table 4: Correlation between distance from Nagpur and socioeconomic outcomes for other SC-Jatis

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01  $Y_{ig} = \alpha + \beta_1 Treat_{ig} * Post_{ig} + \beta_2 Treat_{ig} + +\beta_3 * Post_{ig} + G_g + X_{[}ig + \epsilon_{ig}$ Notes: The data is from the IHDS-2011-12. The estimation is restricted to individuals belonging to the SCs who are not Mahars nor Hindus from the state of Maharashtra.