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## **Conspicuous consumption for social parity**

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**Abstract:** The extant literature on status-signalling primarily adopts Veblen’s theory of class to caste and racial identities. This study aims to adopt a more suitable theoretical lens that is more relevant not only for class identities, but also for other identities such as caste and race. By viewing conspicuous consumption within the Stigma–Identity–Threat framework, this study analyses how socially disadvantaged groups in India respond to stigma through their consumption behaviour. Using two rounds of the India Human Development Survey data (2004–05 and 2011–12), we study whether disadvantaged social groups embrace or distance themselves from their stigmatized identity. We find that SC (Scheduled Castes), ST (Scheduled Tribes), and OBC (Other Backward Classes) households among caste groups, and Muslims among religious groups, tend to move away from their devalued identities. While OBCs achieve this through *productive* expenditures, SCs, STs, and Muslims use *unproductive* means

**Key words:** Stigma–Identity–Threat, conspicuous consumption, caste, class, status-signalling

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**Note:** As the research is part of Chinmayi Srikanth’s PhD thesis, the authors will hold copyright to facilitate publication of the thesis.

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# 1 Introduction

An entire literature dedicated to status-signalling behaviour among social groups such as race and caste is built on rather precarious notions (Charles et al. 2009; Kaus 2013; Khamis et al. 2012). The problem lies with a perfunctory treatment of racial or ethnic identity as identical to class identity. Status-signalling by way of conspicuous consumption was first formalized by Veblen—‘No class of society, not even the most abjectly poor, forgoes all customary conspicuous consumption’ (Veblen 1899)—but has unfortunately been blindly adopted to study status-signalling behaviour among ethnic or racial groups. This unbridled application has been so rampant that it is almost as good as saying Veblen’s theory is as much a theory of the *leisure* (dominant or upper) caste or race as it is a theory of the *leisure* class.

This study is motivated by the need to put an end to such blind adoption of theories to study status-signalling behaviour. In doing so, this study draws from a more socially grounded theory, Stigma–Identity–Threat, to provide the right framework to study status-signalling behaviour among social identity groups.

The purpose of this study is to explore whether those castes and religious groups that were historically disadvantaged and discriminated against compensate for their low social status by signalling to others that they are on par with the so-called dominant caste/class or religious groups. We also examine whether these differences hold up over time and comment on the role of positive discrimination, such as reservation policies, in channelling household expenditures towards more *productive* purposes. By using the Stigma–Identity–Threat Model as a theoretical basis, we also examine which of the socially disadvantaged groups respond to stigma by embracing their devalued social identity and which among these groups dissociate themselves from their identity. We find that SC (Scheduled Castes), ST (Scheduled Tribes), and OBC (Other Backward Classes) households dissociate themselves from their low social status by engaging in *unproductive* conspicuous consumption to signal status in 2004–05. By 2011–12, OBCs continue to distance themselves in ways that are different from SCs and STs—that is, through more *productive* expenditures such as education, health, and nutrition, whereas SCs and STs continue to distance themselves through *unproductive* conspicuous consumption. Affirmative action policies in the form of seat reservation in education and employment in India seems have reaped long-term benefits for OBCs, but not for SCs and STs.

The study also identifies the need for special policy interventions targeted towards Muslims, who are not only economically vulnerable but also socially vulnerable. Indian Muslims are found to perform poorly in most socio-economic indicators and have also been subject to *Islamophobia*, making them one of the most disadvantaged social groups in the country. Our results show that Muslims spend significantly more on *unproductive* conspicuous consumption compared to other religious groups. We find that such consumption is not motivated by cultural factors; rather, it is driven by a conscious need to distance themselves from their devalued identities.

The following subsections discuss the caste system and religion in India, followed by a brief review of the literature. Section 2 discusses the Stigma–Identity–Threat Model as the theoretical framework for this study. Section 3 describes the data used for analyses. In Section 4 the results are shown, along with additional robustness checks, while Section 5 discusses the results in light of India’s reservation policies and presents conclusions.

## 1.1 Disadvantage and the overlap of identities

The recognition that the study of identity must be unified with economics as an approach to understanding an agent’s behaviour and preferences (Akerlof and Kranton 2005, 2010) forms the starting point of this paper. Identity can be moulded by individuals on their own, but it needs to be done under cir-

cumstances that are inherited due to societal norms that define one's position in society (Darity Jr et al. 2006).

The part of one's identity that individuals have some control over (e.g. the identity they create for themselves through friendships or their role in an organization) is called relational identity. Categorical identities are those that are assigned by society from birth and are deep-rooted, such as the caste system. While relational identities allow some form of identification with heterogeneous groups through close interactions, categorical identities turn such heterogeneity into a cultural division of own-group and other-group which forms the basis for stratification (Davis 2015). Categorical and relational identities are thus social identities defined on the basis of social interactions or identification with one another.

Alternatively, identity can be defined for every individual. The idea that identity is not a singular term, but a set of overlapping roles, personalities, and affiliations, has set the stage for a new paradigm. Intersectionality, or an intersection of identities that are not mutually exclusive as is often misconstrued, is a concept that came from Crenshaw's (1989) need to bring Black women's experience of racial discrimination to the forefront rather than treating Black women's experience as similar to that of Black people in general. In the same way, caste is generally studied by isolating it from religion, and vice-versa.

Our study recognizes a priori that discrimination and disadvantage manifest in many forms of fluctuating intensities, depending on the identities that an individual possesses or the intersectionality of caste, religion, and gender.

The role of identity is highlighted in our choice of two pertinent variables: caste and religion as distinct in their roots while interdependent in their existence. We also include gender, but it serves as a demographic control in our analysis since the unit of analysis is a household and an overwhelming majority of household heads are male.

## 1.2 The caste system

The word 'caste' means lineage, race, or breed. Its etymology can be traced back to the Portuguese word *Casta* (Dumont 1980). Prior to the onset of trade with the Portuguese, Indians followed a system of *Jati*. This system came from the age-old system of caste hierarchy called the *Varna* system. This system partitions people into a hierarchy of five endogamous groups that are assigned by birth, namely, the *Brahmins*, *Kshatriyas*, *Vaisyas*, *Sudras*, and *Ati-Sudras*. The *Ati-Sudras* are called *Avarnas*, which means their position in society is so low and their jobs so menial that they are not considered a part of the *Varna* order. The *Varna* system existed during a time when economies were primitive. When economies grew in complexity, the number of *Jatis* increased.<sup>1</sup> The caste system finds its existence in the form of a binary construct or dualism—'purity' and 'impurity/pollution' (Dumont 1980). Purity is associated with the so-called 'caste-Hindus' or the 'upper castes', while impurity is a feature of the so-called 'lower castes'.

In principle, the caste system is confined to Hindus, but there is considerable ambiguity surrounding this belief. For a system that has been in existence for nearly 2,500 years in a country of Hindus and where conversion to other religions came only 500 years later, it is reasonable to assume that the caste system applies to everyone, regardless of their religion. While the reason for conversion from Hinduism was to do away with caste-based identity affiliations for many, ironically their caste identity lived on despite the adoption of a different religion.<sup>2</sup>

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<sup>1</sup> According to the Mandal Commission Report there are 3,743 *Jatis* (Mandal 1980).

<sup>2</sup> Even Buddhism, which is considered to be a casteless faith, makes a distinction between *Brahmins* and *Others* (Radhakrishnan 2004).

Although in 1955 untouchability was officially abolished,<sup>3</sup> generations of discrimination have curtailed access to resources, education, and health, which has perpetuated an individual's social backwardness and crept into the economic realm. The latter has been discussed by Siddique (2011) and Banerjee et al. (2009). Discrimination also affects individuals' perception of themselves in society, especially if they belong to a lower caste. Hoff and Pandey (2006, 2014) use an experimental study to show that revealing one's caste hampers their performance in tests by inhibiting confidence.<sup>4</sup> A similar study was carried out by Ambady et al. (2001) for Asian American girls. Afridi et al. (2015) study the role of identity on performance in the Chinese context. Hoff et al.'s (2011) study lays emphasis on the so-called upper castes' internalization of their superior identity through an experiment where they were more likely to punish violators of norms than the so-called lower castes.

From the earlier discussion, there is ample reason to believe that affirmative action policies must be enforced not only for generations of discrimination endured by lower castes but also to bring them to the mainstream of development. Having said that, it must be recognized that caste has as much to do with consciousness as it has to do with identity (Beteille 1996). While reservation addresses the latter, caste consciousness is a greater issue to deal with and can hardly be addressed by policies.

In India, reservation laws have been in place for the socially and educationally backward. The law groups castes based on their degree of social and educational backwardness as Scheduled Castes, Scheduled Tribes, and Other Backward Classes.<sup>5</sup>

The SCs, also known as *Dalits*, include those castes that are former 'untouchables'. STs<sup>6</sup> are outside the purview of the caste system and referred to as forest-dwellers or *Adivasis*. OBCs, formerly *Shudras*, are referred to as 'socially and educationally backward'. While the reservation for SCs is limited to only Hindus, Sikhs, Jains, and Buddhists, OBC reservation<sup>7</sup> encompasses all religions. The 'general' category is a term used to refer to a group of people who do not benefit from reservation—that is, they belong to 'Forward Caste' groups such as *Kshatriyas*, *Vaisyas*, and *Brahmins*.

Borooah (2010) finds that health outcomes changed depending on the social group to which people belonged in India. Blunch and Gupta (2020) use IHDS data to study the existence of a gap in awareness of the treatment of diarrhoea and child mortality for caste groups. The study finds a gap in health-related knowledge that is in favour of women belonging to higher castes. This is attributed to better access to healthcare in addition to better education. Women belonging to the ST group are found to be most disadvantaged in this regard. The results are consistent for child mortality as well, since the knowledge gap is linked to prenatal and neonatal health.

### 1.3 Religious groups in India

Religion and caste are inextricably woven into India's social and cultural fabric. It must be recognized that multiple identities interact to generate varying degrees of inequality, of which privilege and disadvantage are intrinsic to the euphemism 'cultural diversity'. The caste system is unique to Hinduism—the majority religion in India. But it extends far beyond Hinduism. The caste system covers all religions, and discrimination is pervasive. Fuller (1976) discusses how Christians in Kerala have formed factions based on the caste they converted from and the time of their conversion; there is also evidence of en-

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<sup>3</sup> As per Article 17 of the Indian Constitution.

<sup>4</sup> Which is consistent with Cadinu et al.'s (2005) study on stereotype threat.

<sup>5</sup> In 2019 it was agreed to give 10 per cent reservation to a new group recognized as the 'Economically Weaker Section' (EWS) in public educational institutions and employment.

<sup>6</sup> SCs and STs were known as 'Depressed Classes' prior to independence.

<sup>7</sup> Each state has discretion over who to include under this category.

dogamy. The practice of endogamy and the recognition of caste-based hierarchy is also common in Islam (Levy 2000).<sup>8</sup>

As of the 2011 Census, Hindus make up 80 per cent of the population, Muslims account for 14 per cent, Christians comprise 2 per cent, and Sikhs, Buddhists, Jains, and other religious groups each form less than per cent (Thrippangottur 2011).<sup>9</sup> Although Muslims are the second largest religious group after Hindus, they are still seen as a minority. Part of this owes to the recognition of Sikhs, Jain, and Buddhists as not too different from Hindus both in terms of religious practices and the eyes of the law. These religious groups are believed to be native to the Indian subcontinent and are called *Dharmic* religions (Adams 2007), owing to which they also benefit from reservations for the SC groups among them. Muslims and Christians, however, only benefit from OBC reservations when the state recognizes their social and educational backwardness. Among them, Christians, to a large extent, have benefited from education since the spread of Christianity has always been associated with education.<sup>10</sup>

Muslims have lagged in more indicators of socio-economic development than one. Table D2 in the Appendix shows that Muslims lag in both social and economic indicators. Muslims continue to have the lowest household income, the poorest educational outcomes, and the least household asset ownership compared to all other religious groups. They are also highly susceptible to health issues due to poor access to healthcare networks and lack of awareness, especially among Muslim women (Blunch and Gupta 2020). The oppression that Muslims and SCs are subject to also manifests in poor mental health (Gupta and Coffey 2020). Childers and Chiou (2016) find that Christians are more prone to hypertension, diabetes, and heart disease compared to Hindu *Brahmins*. Hussain et al. (2019) study Islamophobia that manifests in hate crimes towards Muslims and assert that they are a particularly vulnerable group in India. Their stigmatized identity is also internalized by Muslims, making them feel socially insecure (Zainuddin 2003).

#### 1.4 A brief review of literature

Bros (2014) contends that the process of discrimination consists of three layers: (1) an adverse mindset or attitude towards the person being discriminated; (2) the expectation of this negative attitude by the person who is discriminated against; and (3) a diminished self-image as a result of internalization of this expectation. We study patterns of conspicuous consumption among caste and religious identity groups as a response to this diminished self-image.

Conspicuous consumption as a concept first found mention in Veblen's *The Theory of the Leisure Class* (1899). He described it as a method 'of demonstrating the possession of wealth' that is not confined to the wealthy. This is evident from his contention that 'the last items of this category of consumption are not given up except under stress of the direct necessity. Very much of squalor and discomfort will be endured before the last trinket or the last pretence of pecuniary decency is put away' (Veblen 1899).

For the purpose of this study, it is important to make a distinction between 'conspicuous consumption' and 'visible consumption'. Charles et al. (2009) define visible consumption as 'consumption of items that are readily observable in anonymous social interactions' and they 'are portable across interactions'.

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<sup>8</sup> Muslims of foreign origin and upper caste Hindu converts are the *Saiyids*, while *Pathans* and *Mughals* are the *Kshatriyas* of Islam.

<sup>9</sup> Sikhs are about 1.7 per cent of the population, while Buddhist, Jains, and other religions are less than 1 per cent each.

<sup>10</sup> Copland (2006) writes '[The missionaries] saw education as a means to their hallowed goal of conversion and redemption', much like the British East India Company, which brought them together in their shared goals of imparting Western education.

This study finds its place in conspicuous consumption literature that is based on the premise that such consumption stems from a need to signal one's status. An illustration of status-seeking behaviour in theoretical terms warrants the inclusion of status, either directly (Ireland 1994) or indirectly<sup>11</sup> (Bagwell and Bernheim 1996; Glazer and Konrad 1996) in an individual's utility function. The utility an individual derives from status in a signalling model is directly proportional to others' beliefs about their income. Status-seeking is known to create distortions in utilities of individuals because it goes against the classic consumption theory that higher permanent income is reflected in higher consumption while lower permanent income leads to lower consumption (Friedman 1957; Modigliani and Brumberg 1954).

These models owe a great deal to Veblen's (1899) conceptualization of conspicuous consumption where individuals consume certain goods for signalling wealth. Veblen (1899) brings out the difference between two motives for engaging in conspicuous consumption: 'invidious comparison' and 'pecuniary emulation'. Invidious comparison is when a person of a higher class consumes conspicuous goods to differentiate themselves from those belonging to a lower class. Pecuniary emulation is motivated by the need for lower-class individuals to associate themselves with higher-class groups. While invidious consumption aims at differentiation, pecuniary emulation is driven by imitation for social acceptance. The latter is well known in India through the practice of *Sanskritization*, where subjects of lower caste affiliations adopt rituals of the upper caste groups (*Brahmins*) (Srinivas 1956).

One of the earliest models<sup>12</sup> of signalling was proposed by Glazer and Konrad (1996). Although Glazer and Konrad's (1996) study focuses on invidious comparison, it is relevant even in explaining pecuniary emulation behaviour. Alexis (1970) carried out the first known study on differences in consumption among Black people, but it was Charles et al. (2009) who established that Black people's expenditure on conspicuous consumption is greater than that of White people, not only empirically, but also theoretically.

Conspicuous consumption as a theme also features in studies outside of the United States. Kaus (2013) analyses data for South Africa and finds that Black and 'Coloured' households spend more than White households on conspicuous consumption. Mnisi and Ngongo (2021) discuss the importance of conspicuous consumption among four African subcultures and how this helps in re-humanization. The role of conspicuous consumption in marriage market signalling is studied in the Chinese context by Grier et al. (2016).

While a majority of studies have been preoccupied with finding evidence for spending on conspicuous goods as stimulated by status-seeking behaviour, there are a few that seek to determine the constituents of conspicuous consumption. Heffetz (2004) was the first to do this using a survey for US,<sup>13</sup> followed by Charles et al. (2009).<sup>14</sup> Khamis et al. (2012) use a survey design similar to that of Charles et al. (2009), which is the only survey available for India.

Extant literature on conspicuous consumption in India has found evidence for high expenditure on conspicuous goods made by OBCs (Khamis et al. 2012),<sup>15</sup> while Jaikumar et al. (2018) show that there

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<sup>11</sup> Here, status comes from a relation between consumption and price—that is, it is a function of consumption for a consumer and price for a producer.

<sup>12</sup> Which is based on the premise that people are more likely to make donations to an organization if the audience concerned are more likely to know about the donation.

<sup>13</sup> Thereby constructing multiple versions of the 'Visibility Index' using scoring or by considering the percentage of respondents who reported high (low) visibility and then ranking them.

<sup>14</sup> Their study draws from Heffetz's (2004) questionnaire with the addition of a question on income elasticity.

<sup>15</sup> Khamis et al. (2012) use a variable, 'social group' that includes both religion and caste. The study pertains to the period 2004–05.

is a positive effect of conspicuous consumption on a person's perception of their subjective economic well-being, and Linssen et al. (2011) find that the opposite is true.<sup>16</sup> Bellet and Sihra (2016) study conspicuous consumption as a cause for malnutrition<sup>17</sup> and Roychowdhury (2016) studies conspicuous consumption as a response to a rise in inequality. Kumar and Kumra (2021) explore the effect of watching TV on conspicuous consumption expenditure.

Some studies also focus on specific components of conspicuous consumption. Bloch et al. (2004) focus on wedding celebrations<sup>18</sup> whereas, for Ramakrishnan et al. (2020), expenditure on vehicles forms the basis of the study. Financing conspicuous consumption expenditure using household debt is explored by Ramakrishnan et al. (2020). Banerjee and Duflo (2007) discuss the tendency of the poor to spend more on entertainment,<sup>19</sup> alcohol, and tobacco rather than food which will help increase productivity.

## 2 Status-signalling revisited

It must be borne in mind that when Veblen wrote *A Theory of the Leisure Class* he referred purely to economic class. He referred to the difference between the wealthy and the poor. As discussed in the previous section, Veblen makes a distinction between two important motivations for status-signalling behaviour: (1) pecuniary emulation and (2) invidious comparison. The former is when the poor try to emulate the rich, while the latter refers to excessive consumption of luxury goods by the rich to set themselves apart from other rich people. According to Veblen, status-signalling is a motive in itself—people signal status because they want to be like the wealthy, and when they are wealthy they want to be associated with superlative wealth. Since this study explores pecuniary emulation, we shall discuss only this motive henceforth.

Pecuniary emulation ceases to exist when the poor become wealthy. In other words, the only difference between those engaging in pecuniary emulation and those who do not is the dearth of economic resources. To use this theory to explain status-signalling behaviour would only make sense if social hierarchy or claims of superiority or inferiority are exactly aligned with the system of economic class. This frame was appropriate given Veblen's subject of study—a racially homogeneous group of citizens differentiated only by their economic resources. This modelling frame would imply that if a group that is socially shunned or racially discriminated against accumulates wealth, they wouldn't need to signal status anymore as they would feel themselves at par with other rich people regardless of their social backgrounds. We know all too well that this isn't true and sounds preposterous, to say the least. Social identity is far too complex and intricate to be treated as similar to economic or class identity.

Belonging to a socially stigmatized identity group may itself be enough to cause people to signal status, irrespective of their economic resources. It is necessary to conceptualize it further for better understanding. A person belonging to an 'inferior' caste or race is defined by this affiliation from birth and carries with them the burden of their identity throughout their life. There is a permanent void that (s)he is trying to fill to gain acceptance from others, or at least (s)he hopes to be treated as others' equal. The problem with such identity affiliations is that they cannot ever cease to exist, unlike class identity which is fluid and can change with the accumulation of wealth. If a socially backward group comes across wealth, economic power does not replace their social backwardness. Social affiliation persists regardless of wealth

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<sup>16</sup> Linssen et al. (2011) use primary data for rural Orissa, while Jaikumar et al. (2018) use panel data from IHDS.

<sup>17</sup> Due to a diversion of income from food to conspicuous expenditure.

<sup>18</sup> Using primary data collected for a few districts in the Indian state of *Karnataka* to discover that it is consistent with status-signalling theory.

<sup>19</sup> Includes social functions such as weddings and festivals, television.



accumulation. To treat social identity as identical to economic class is deeply flawed. While the latter allows for some fluidity, the former is immutable.

Bros (2014) discusses the influence of caste on one's perceived social identity, the internalization of which leads to low self-esteem. This low self-esteem is what causes a void that people try to fill through status-signalling. Bros (2014) finds that at higher levels of income and education they have a better perception of their social identity, but their lower caste status still affects this perception. The process of discrimination is said to have three layers: (1) an adverse mindset towards the person being discriminated; (2) the expectation of this adverse mindset by the person being discriminated; and (3) a diminished self-worth as a result of this internalization (Bros 2014). As pointed out in the first layer by Bros (2014), the bias or negative mindset need not always end up in discrimination, which entails some action or behaviour to affirm an inherent prejudice, but it may prevail as a stigma. Irrespective of the presence or absence of discrimination, this palpable stigma could manifest itself in the actions of the stigmatized in more subtle ways, such as spending choices.

This recognition paves the way for a deeper understanding of status-signalling behaviour as an action that serves a greater psychological purpose than Veblen has addressed.

Stigmatization occurs when an individual is portrayed as having certain characteristics or traits that are devalued in a given social setting (Goffman 1963). Stigma, however, is not merely a set of negative feelings towards a person of certain colour, race, caste, or religion. It is an outcome of a 'collective process by which a racial group comes to redefine another racial group' (Blumer 1958; see also Darity Jr 2008).

We position our study within a broad framework of the Stigma–Identity–Threat Model (Davis 2015). This model contends that individuals respond to the stigma which is a potential threat to their identity by placing weights either on their devalued identity or away from such identity (Steele 1997). In essence, an identity threat causes an individual to embrace his/her group affiliation or distance themselves from it.<sup>20</sup> We observe the expenditure on conspicuous goods of households of various caste and religious groups to ascertain their response to an identity threat. We measure this response based on whether disadvantaged caste or religious groups demonstrate status-signalling behaviour.

As discussed in Section 1.1, identity is considered as the sum of categorical social identity (CSI) and relational social identities (RSI). We posit that by responding to stigma by distancing from or embracing one's low social status, an individual places different weights on his/her CSI and RSI. Embracing one's identity would mean allowing categorical factors to dominate, which in turn curtails relational identity since people associate themselves less with heterogeneous groups and more with their existing identity group.<sup>21</sup> In this manner, they accept their lower social identity where the categorical identity dominates and compromises their relational identity. That is, by holding on to categorical identities, individuals develop pro-own-group associations which make it difficult for them to interact with heterogeneous groups, on the one hand, and allow categorical rigidities to limit their opportunities in the relational sphere, on the other. When individuals choose to distance themselves from their devalued identity, they place greater weight on their relational identity than on their categorical identity. The act of signalling one's status through conspicuous consumption is an act of demonstrating one's relational identity. By signalling one's status through conspicuous consumption, with a hope to reach a higher

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<sup>20</sup> Branscombe et al. (1999) and Jetten and Branscombe (2009) argue that people embrace their devalued identity as a response to stigma, whereas Ellemers et al. (1990) contend that distancing from one's devalued group offsets the stigma they face.

<sup>21</sup> 'Likeness' in social psychology is defined on the basis of categorical identity. For example, two individuals of the same caste are 'like' one another while two individuals of the same position in an organization are 'unlike' one another if their caste backgrounds are different.

level of status than it actually is, individuals indicate their need to mingle with groups that are more ‘unlike’ themselves.

Relational identity is not just limited to friendship or kinship, it also includes role-based interactions such as that in an organization. Improving one’s relational identity in the latter case would come from *productive* investments in education and health. We call such expenditures *productive* methods of stimulating RSI. Here, we define *productive* goods as similar to ‘merit goods’, conceptualized by Musgrave (1956, 1959) and more recently discussed by Besley (1988). Merit goods refer to those goods whose consumption must be promoted based on some merit and should not be allocated based on willingness to pay. Status-signalling by way of conspicuous consumption, on the other hand, comes at the expense of reducing pecuniary resources available for expenditure on *productive* purposes. This is categorized as expenditure on RSI that is *unproductive* as it improves the chances of an individual’s interaction with those ‘unlike’ him/her; however, in the long run such interactions in the absence of *productive* expenditure do little to improve their economic well-being. Therefore, from a socio-economic point of view, it is desirable that disadvantaged social groups place greater weight on relational social identity as long as it leads to an improvement in their long-term socio-economic well-being. It is worth noting that this need is well recognized by policies of affirmative action.

### 3 Data

#### 3.1 IHDS

The study makes use of two rounds of secondary data from the India Human Development Survey (IHDS), conducted by the National Council of Applied Economic Research (NCAER), New Delhi, and the University of Maryland. The first round (IHDS I) was conducted during the period 2004–05 (Desai and Vanneman 2010), and the second round (IHDS II) was conducted during the period 2011–12 (Desai and Vanneman 2015). IHDS is a panel survey encompassing multiple aspects of household consumption, income, land/property, health, and education, among others, and is representative of the diverse Indian population. The first round included 41,554 households, while the second round included 42,152 households. The survey consists of data from 34 states and union territories. For the purpose of this study, secondary data was used from both rounds of IHDS.

While income, expenditure, asset ownership, number of adults, and children are measured at the household level, variables such as caste, religion, gender, marital status, age, education, and occupation refer to the household head.

#### 3.2 Survey data

To ascertain the constituents of conspicuous consumption among Indians, primary data was collected from an online survey of 500 respondents from all states in India. By using various components of consumption expenditure that appear as part of IHDS I and II data, 18 consumption categories were constructed. The details of the constituents of each of the categories and their corresponding IHDS codes are shown in Table B1.

This is the first study to use such a survey in the Indian context with a nationally representative sample, in addition to ensuring a male-to-female ratio of respondents of 51:49, which is consistent with the 2011 Census sex ratio.<sup>22</sup>

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<sup>22</sup> As per the 2011 Census, the sex ratio for India is 943 females per 1,000 males (Thrippangottur 2011).

As part of the survey, along with demographic details, two sets of questions were asked on the respondents' assessment of visibility and income elasticity for 18 categories of consumption specified in Table B1.

A pilot survey was initially floated to determine the average time taken by a respondent to complete the survey. For the actual survey, we considered the responses of only those individuals who took at least 4 minutes for completion, as a reliability check. We also filtered the data to include only those respondents who had completed more than 12 years of education. Using this sample of 487 respondents we were able to determine which of the 18 categories of consumption expenditure could be treated as conspicuous consumption. Appendix C has the details of the survey.

Table 1 shows the percentage of respondents who reported high visibility and high income elasticity for each of the spending categories. Those categories that correspond to a percentage greater than 30 per cent for both high visibility and high income elasticity are treated as components of conspicuous consumption. These components are shown in Table 1 in bold. As a robustness check, this survey confirms the categories of consumption that one associates with conspicuous consumption, with the exception of the category 'Health'. This could likely be due to the availability bias owing to the COVID-19 pandemic. Therefore, the paper treats expenditure on conspicuous consumption as the sum of expenditure on *personal care, jewellery, clothing, vehicles, and entertainment services*.<sup>23</sup>

Table 1: Survey responses to questions on visibility and income elasticity

	% high visibility	% high income elasticity
Food on-premises	30%	37%
Food off-premises/restaurants	34%	29%
Paan, alcohol, and tobacco	56%	16%
<b>Personal care</b>	45%	31%
<b>Jewellery</b>	47%	31%
<b>Clothing</b>	37%	32%
Housing	41%	21%
Household consumables	37%	20%
Household furnishings	40%	22%
<b>Vehicle</b>	38%	32%
Other transportation	48%	23%
Utilities	36%	22%
Entertainment durables	29%	29%
<b>Entertainment services</b>	31%	34%
Social functions	39%	23%
Education	36%	28%
<b>Health</b>	33%	36%
Other	43%	30%

Note: the table shows the percentage of respondents who reported high visibility and high income elasticity, respectively for each of the consumption categories. Refer to Table B1 for details on the constituents of each of these categories. If the percentage of respondents who reported high visibility and high income elasticity was above 30 per cent, then the consumption category is considered to be part of conspicuous consumption. The categories shown in bold satisfy this cut-off criterion.

Source: authors' compilation.

In addition to the existing conspicuous consumption categories, we also categorize spending on *food off-premises, entertainment durables, and social functions* as *unproductive* expenditures. Even though some of these categories can be argued to add to economic well-being by improving one's income-earning potential and social networks, such benefits may be temporary if corresponding investments in *productive* expenditures on RSI such as *education and health* are not done.

<sup>23</sup> In Khamis et al. (2012), conspicuous consumption items were *personal transport equipment, footwear, vacations, furniture and fixtures, social functions, repair and maintenance, house rent, rent, entertainment, clothing and bedding, jewellery and ornaments, recreation goods, and personal goods*. Charles et al. (2009), on the other hand, used *clothing/jewellery, personal care, and vehicle* as visible spending components.

#### 4.1 Caste and religion-based differences in conspicuous consumption

To analyse the difference in conspicuous consumption among different caste and religious groups during two time periods (2004–05 and 2011–12), we use five specifications of the following model.<sup>24</sup> This model is adapted from the existing specifications used in Charles et al. (2009) and Khamis et al. (2012):

$$\ln(\text{Conspicuous}_i) = \beta_0 + \beta_1 OBC_i + \beta_2 SC_i + \beta_3 ST_i + \beta_4 Muslim_i + \beta_5 Christian_i + \beta_6 OtherReligion_i + \phi \ln(\text{TotalExpenditure}_i) + \theta X_i + \eta_i \quad (1)$$

where the dependent variable is the log of expenditure on conspicuous goods, *OBC*, *SC*, and *ST* are caste dummies with the *General* category as the base, and *Muslim*, *Christian*, and *OtherReligion* are religion dummies with *Hindu* as the base religion.  $\ln(\text{TotalExpenditure})$  is the log of the total expenditure of a household. For  $\ln(\text{TotalExpenditure})$  a vector of income controls is used as instruments, *X* is a vector of demographic and wealth controls, the details of which are discussed in Table 2.

The dependent variable is the log of conspicuous consumption, which is the sum total of all consumption categories in bold in Table 1, except for the category *Health*.

The independent variables vary according to specifications. The first specification has only caste and religion dummies as independent variables, while the second specification has caste, religion, and income controls. Income controls include the log of current household income where it is positive, a quadratic in income, years of education completed, and occupation dummies determined by the National Classification of Occupations 1968 (NCO 1968). The third specification has the log of total consumption expenditure at the household level instead of income controls.<sup>25</sup> The fourth specification uses a two-stage least square (2SLS) specification where the log total consumption expenditure is instrumented with income controls.<sup>26</sup> The final specification adds demographic and wealth controls to this specification. These controls include the gender and marital status of the household head, the age of the household head, the number of adults and the number of children in the household, a dummy variable for whether the household belongs to an urban area, a dummy for whether the household is poor, state fixed effects, and the variable *Asset Index*, which is constructed to serve as a proxy for household wealth. We use endogeneity tests to ascertain whether consumption expenditure is endogenous for a particular category of consumption. If there is no endogeneity, we use an OLS estimation. For all specifications with instrument variables, including those for category-wise consumption expenditure as the dependent variable, specifications and instruments are chosen according to Hansen’s J test, which measures the overall validity of the instrumental variables included.

<sup>24</sup> IHDS I and IHDS II can be combined into a panel dataset. However, the use of panel data is generally not appropriate given that our explanatory variables of interest are time-invariant. Moreover, the Hausman specification test performed on our panel data model favoured a fixed effects model, which is specifically incapable of estimating the effects of our main time-invariant explanatory variables on any dependent variable.

<sup>25</sup> The use of total expenditure as a variable in Equation (1) will lead to the following issues: (1) total expenditure is endogenous in Equation (1), where the dependent variable, conspicuous consumption expenditure, is a specific component of the total consumption expenditure; and (2) measurement error in total expenditure would create a bias in the estimates of Equation (1).

<sup>26</sup> Since the permanent income hypothesis states that consumption is a function of permanent income, we substitute income with consumption (Friedman 1957). In a status-signalling model, a person with a low socio-economic status would feel the need to portray himself/herself as similar to a high-status group. Since consumption is a function of one’s permanent income, an individual indulging in conspicuous consumption is essentially signalling that (s)he has a high income, whereas, in reality, they do not. In this manner, income controls are uncorrelated with conspicuous consumption, but correlated with total consumption, which is why we use income controls as instruments.

Table 2 shows that with the fourth and fifth specifications, households belonging to the SC category spend 8.4 per cent more on conspicuous consumption than those belonging to the General category in the absence of demographic and wealth controls, while they spend 3 per cent more with the addition of these controls. ST's expenditure is not too different from that of General category households, while households belonging to the OBCs spend 2.2 per cent more than the base category. As of 2004–05 there is evidence of conspicuous consumption among lower caste groups, which is consistent with the status-signalling theory.

Muslims spend about 3.4 per cent more on conspicuous consumption than Hindus, which is the highest among all religious groups.

Table 4 reports IV regression estimates for each of the components of conspicuous consumption separately for 2004–05. It is observed that SC households spend more than General category households on all items under conspicuous consumption except *jewellery* and *clothing*. The categories under which SC households spend more than their General category counterparts include *vehicle* and *entertainment services*, which are respectively 17 per cent and 29 per cent more than that of the base category. ST households spend 130 per cent more on *entertainment services*, while they spend less than General category households on all other consumption categories. This is likely to explain why their overall expenditure on conspicuous goods is not too high, as seen in Table 2. The differential spending of OBC households on *vehicles* is 15 per cent more than the base category, while it is nearly 6 per cent more on *entertainment services*. By observing Table 5, one may deduce that a major portion of the expenditure on conspicuous consumption comes from disproportionately low spending on *housing*: about 117 per cent less for SC, 150 per cent less for ST, and 30 per cent less for OBC households. Another expenditure category where there is considerably lower spending compared to the base category is *education*: SC households spend 44 per cent less, ST households spend nearly 70 per cent less, and OBCs spend 30 per cent less. ST households also spend 72 per cent less than the base category on *health*.

Among religious categories, Muslims spend 59 per cent more on *entertainment services* and 4 per cent more on *personal care* than their Hindu counterparts. It is important to note that Muslims as a group spend the least on *education* at around 125 per cent less than Hindu households. They also spend 44 per cent less on *housing* than the base group.

From Table 5 one may also infer that SC and ST, and in some cases OBC, households display greater spending differences in comparison with General households in categories that have some elements of conspicuousness. This can be explained by excessive spending on *alcohol and tobacco*, where OBC, SC, and ST households spend 33, 80, and 70 per cent more, respectively, than the base group. Under *restaurants*, ST households spend 140 per cent more than the General category, while OBCs spend about 11 per cent more.<sup>27</sup> Spending on *social functions* is also higher among the three groups, although not significantly. SC and ST households spend more on *entertainment durables*. Muslims are the only religious groups to demonstrate significantly different spending patterns in comparison with Hindus. This is apparent in their expenditure on *restaurants* and *alcohol and tobacco*, which are 77 and 29 per cent higher than the base category. The latter is especially extraordinary given the prohibition of the consumption of alcohol in Islamic culture. Muslims also demonstrate extremely low spending on *education*, which is 128 per cent less than Hindu households.

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<sup>27</sup> Visiting restaurants and the use of stimulants such as alcohol are discussed as examples of 'association seeking' within the context of the caste system by Basu (1989).

Table 2: Caste and religion-based differences in log conspicuous consumption 2004–05

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
(1) No controls	–0.320*** (0.015)	–0.513*** (0.017)	–0.972*** (0.025)	–0.201*** (0.021)	0.172*** (0.034)	0.213*** (0.030)		41,265
(2) Addition of income controls	–0.087*** (0.019)	–0.156*** (0.028)	–0.495*** (0.049)	–0.098*** (0.024)	–0.057 (0.040)	0.098*** (0.037)		15,876
(3) Addition of total expenditure controls	–0.058*** (0.011)	–0.062*** (0.013)	–0.203*** (0.019)	–0.111*** (0.014)	0.039* (0.022)	0.003 (0.023)		41,265
(4) Instrumenting for total expenditure with income controls	0.044*** (0.017)	0.084*** (0.026)	–0.021 (0.035)	–0.027 (0.020)	0.003 (0.035)	–0.030 (0.034)	12.558 (0.184)	15,876
(5) Addition of wealth and demographic controls to specification (4)	0.022 (0.017)	0.031 (0.024)	–0.008 (0.037)	0.034 (0.022)	0.014 (0.035)	–0.043 (0.035)	6.213 (0.102)	15,787

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of conspicuous consumption expenditures among households belonging to various caste and religious groups for IHDS I (2004–05). Specification (1) corresponds to Equation (1) in which the dependent variable is the log of conspicuous consumption expenditure and the independent variables are caste and religion dummies; the other variables are excluded from this specification. The base for the caste dummy is 'General', while the base category for the religion dummy is 'Hindu'. Specification (2) includes income controls in addition to the caste and religion dummies. These income controls include the log of household income for positive values of household income, a cubic in the household income, education measured as the number of years of education completed, and occupation classified as 7 divisions for which 6 dummies have been assigned. Specification (3) uses the log of total expenditure as an additional variable to specification (1). Specification (4) is an IV regression where the log of total household expenditure is instrumented with the same income controls used in specification (2). Like Specification (4), (5) is also an IV regression where the log of total household expenditure is instrumented with income controls; additionally, independent variables that serve as demographic and wealth controls are included. The demographic controls include state dummies, a rural–urban dummy, a dummy for the household head's marital status, a dummy indicating the household head's gender, the number of children in the household, and the number of adults in the household. Wealth control uses the *Asset Index* explained in Appendix A. While (1)–(5) are standard specifications, the inclusion or exclusion of variables from the IV specifications is determined by Hansen's J test for the overall validity of the instrumental variables. In (5) 'occupation' is excluded from the instruments.

Source: authors' calculations.

Table 3: Caste and religion-based differences in log conspicuous consumption expenditure 2011–12

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
(1) No controls	0.408*** (0.024)	0.127*** (0.022)	-0.108*** (0.024)	-0.104*** (0.020)	0.235*** (0.041)	-0.095* (0.052)		41,894
(2) Addition of income controls	0.078*** (0.028)	-0.007 (0.028)	-0.113*** (0.034)	0.051* (0.030)	-0.039 (0.041)	0.046 (0.046)		15,709
(3) Addition of total expenditure controls	-0.008 (0.016)	-0.069*** (0.014)	-0.088*** (0.016)	-0.005 (0.013)	-0.051* (0.028)	-0.036 (0.033)		41,894
(4) Instrumenting for total expenditure with income controls	-0.075*** (0.017)	-0.102*** (0.015)	-0.083*** (0.016)	0.011 (0.014)	-0.101*** (0.029)	-0.025 (0.032)	2.787 (0.248)	41,292
(5) Addition of wealth and demographic controls to specification (4)	-0.048** (0.024)	-0.021 (0.024)	-0.016 (0.026)	0.037 (0.023)	-0.158*** (0.045)	0.008 (0.030)	4.636 (0.865)	15,146

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of conspicuous consumption expenditures among households belonging to various caste and religious groups for IHDS II (2011–12). Each household is weighted with sample weights; the same results for the unweighted sample are reported in Appendix D. Specification (1) corresponds to Equation (1) in which the dependent variable is the log of conspicuous consumption expenditure and the independent variables are caste and religion dummies; the other variables are excluded from this specification. The base for the caste dummy is 'General', while the base category for the religion dummy is 'Hindu'. Specification (2) includes income controls in addition to the caste and religion dummies. These income controls include the log of household income for positive values of household income, a cubic in the household income, education measured as the number of years of education completed, and occupation classified as 7 divisions for which 6 dummies have been assigned. Specification (3) uses the log of total expenditure as an additional variable to specification (1). Specification (4) is an IV regression where the log of total household expenditure is instrumented with the same income controls used in specification (2). Like Specification (4), (5) is also an IV regression where the log of total household expenditure is instrumented with income controls; additionally, independent variables that serve as demographic and wealth controls are included. The demographic controls include state dummies, a rural–urban dummy, a dummy for the household head's marital status, a dummy indicating the household head's gender, the number of children in the household, and the number of adults in the household. Wealth control uses the *Asset Index* explained in Appendix A. While (1)–(5) are standard specifications, the inclusion or exclusion of variables from the IV specifications is determined by Hansen's J test for the overall validity of the instrumental variables. In (4) 'education' and 'occupation' are excluded from the instruments.

Source: authors' calculations.

Table 4: Caste and religion-based differences in expenditure on conspicuous goods 2004–05

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
Personal care	0.002 (0.024)	0.083** (0.035)	−0.244*** (0.063)	0.039 (0.028)	0.017 (0.049)	0.030 (0.053)	4.328 (0.228)	15,830
Jewellery <sup>a</sup>	−0.134 (0.199)	−0.089 (0.250)	0.292 (0.407)	−0.590** (0.271)	−0.821 (0.513)	−0.108 (0.448)		40,970
Clothing	0.000 (0.013)	−0.002 (0.016)	−0.060** (0.025)	−0.014 (0.017)	0.077** (0.031)	−0.092*** (0.027)		39,436
Vehicle <sup>a</sup>	0.155*** (0.045)	0.169*** (0.051)	0.181*** (0.067)	−0.106** (0.048)	0.308*** (0.109)	0.173*** (0.067)		40,980
Entertainment services <sup>a</sup>	0.058 (0.160)	0.287 (0.219)	1.319*** (0.413)	0.585*** (0.188)	0.301 (0.361)	−0.111 (0.327)		15,690

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of particular components of conspicuous consumption expenditures among households belonging to various caste and religious groups for IHDS I (2004–05). Each household is weighted with sample weights; the same results for the unweighted sample are reported in Appendix D. An IV regression is used, the same as specification (5) of Table 2, with the dependent variables as the log of the relevant conspicuous consumption categories as mentioned in Table 1. The inclusion of instruments depends on Hansen's J test for the overall validity of the instrumental variables. For the regression with *personal care* as the dependent variable, 'occupation' is excluded from the instruments while for the regression with *clothing* as the dependent variable, only the log of income is used. For those consumption expenditure categories with a superscript, an IV Tobit or Tobit specification was used (depending on the presence of endogeneity) due to a non-trivial proportion of zeros present in the data. *Jewellery* and *vehicle* regressions use Tobit due to the absence of endogeneity, while for *entertainment services* an IV Tobit model is used.

Source: authors' calculations.



Table 5: Caste and religion-based differences in expenditure on other consumption categories 2004–05

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
Food	−0.006 (0.007)	0.004 (0.009)	0.004 (0.017)	0.039*** (0.010)	−0.046*** (0.016)	0.008 (0.013)	12.54 (0.129)	15,684
Restaurants	0.110 (0.169)	−0.021 (0.237)	1.393*** (0.365)	0.769*** (0.206)	0.828** (0.378)	0.154 (0.346)		15,690
Alcohol	0.266** (0.107)	0.807*** (0.148)	0.808*** (0.168)	0.289** (0.125)	−0.160 (0.248)	−0.422* (0.235)		15,690
Utilities	0.032** (0.015)	−0.005 (0.018)	−0.089*** (0.027)	0.128*** (0.019)	−0.035 (0.036)	−0.098*** (0.029)	1.175 (0.278)	39,698
Housing	−0.292 (0.353)	−1.171* (0.608)	1.496 (1.411)	0.143 (0.506)	−0.591 (0.754)	−0.055 (0.720)		15,690
Consumables	−0.002 (0.016)	0.004 (0.022)	−0.067* (0.034)	−0.002 (0.021)	0.028 (0.040)	0.014 (0.035)	5.551 (0.697)	14,195
Furnishing	0.159* (0.091)	−0.160 (0.135)	0.027 (0.211)	0.040 (0.113)	0.329* (0.199)	0.109 (0.194)		15,690
Other transport	−0.019 (0.071)	−0.056 (0.104)	0.241 (0.160)	−0.259*** (0.098)	0.026 (0.140)	0.085 (0.172)		15,690
Entertainment durables	−0.101 (0.187)	0.065 (0.236)	0.135 (0.322)	−0.470* (0.265)	−0.419 (0.443)	−0.718* (0.386)		40,957
Social	0.030 (0.033)	0.018 (0.046)	0.087 (0.055)	0.019 (0.035)	−0.009 (0.047)	−0.107 (0.065)	6.366 (0.095)	13,326
Education	−0.310*** (0.061)	−0.434*** (0.073)	−0.675*** (0.111)	−1.277*** (0.079)	0.012 (0.152)	0.157 (0.133)		40,980
Health	0.032 (0.106)	0.304* (0.157)	−0.714*** (0.260)	−0.075 (0.140)	0.492** (0.224)	0.166 (0.241)		15,690
Other	−0.027 (0.107)	−0.391** (0.163)	0.446* (0.233)	−0.396*** (0.132)	−0.071 (0.233)	0.470** (0.211)		15,690

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of particular categories of consumption expenditures other than conspicuous consumption among households belonging to various caste and religious groups for IHDS I (2004–05). Each household is weighted with sample weights; the same results for the unweighted sample are reported in Appendix D. An IV regression is used, the same as specification (5) of Table 2, with the dependent variables as the log of the relevant conspicuous consumption categories as mentioned in the table. The inclusion of instruments depends on Hansen's J test for the overall validity of the instrumental variables. For the regressions with *food* and *consumables* as the dependent variable, 'log of income' is excluded from the instruments, for *utilities*, 'log of income', 'education', and 'occupation' are excluded, and for *social*, 'occupation' is excluded. For those consumption expenditure categories with a superscript, an IV Tobit or Tobit specification was used (depending on the presence of endogeneity), due to a non-trivial proportion of zeros present in the data. For the regressions with *entertainment durables* and *education* as the dependent variables, Tobit specification is used; all other categories of consumption use IV Tobit.

Source: authors' calculations.

Table 3 helps scrutinize whether the differences observed in 2004–05 in Table 2 hold up in 2011–12. It is interesting to note that these differences have in fact reversed for OBC households, while for SCs conspicuous consumption is not too different from that of General households. It is observed that, on average, OBC households spend 5 per cent less than the General category households on conspicuous consumption. Although the coefficient is not significant for SC and ST categories in the final specification, the sign of the coefficient suggests that they spend less as well. Muslims, however, continue to spend on conspicuous consumption—about 3.7 per cent more than Hindus. In other words, Muslims as a group spent the most on conspicuous consumption in 2011–12.

The change in spending patterns could be attributed to reservation policies in education and public employment. Studying in detail the break-up of household spending in each category would help to examine whether reservation policies have indeed helped the disadvantaged.

Table 6 reveals that in 2011–12 SC households spent about 65 per cent more on *jewellery* and 9 per cent more on *vehicles* compared to the base category, while spending about 46 per cent less on *entertainment services*. It appears from this table that even though SC households still spend more on *personal care*, *jewellery*, and *vehicles*, it is the significantly lower spending on *entertainment services* that makes the overall spending on conspicuous goods negligible, compared to the base category, in Table 3.

Table 6 shows that even if STs spend more on *jewellery*, it is the low expenditure on *entertainment services* and all other conspicuous consumption categories that flips the overall sign of conspicuous consumption for these groups in 2011–12.

In Table 7 it is observed that there have been considerable changes in expenditure on some categories in 2011–12; OBCs spend more than any other social group on *education*, while SC households still spend about 25 per cent less and STs spend 48 per cent less than the General category households.

Health expenditure is high for all groups. Expenditure on *social* functions is less for OBC, SC, and ST than the base category in 2011–12, while it was greater in 2004–05. Similarly, for *alcohol and tobacco* the spending is less in 2011–12 for OBC and SC, although ST households continue to spend higher than the base category at about 27 per cent more. Moreover, *housing* expenditure is 65 per cent higher for OBCs, although SCs and STs continue to spend relatively less in the category. OBCs, SCs, and STs spend significantly more on *restaurants* or food off-premises than the base category compared to 2004–05.

From these tables it is clear that significantly lower expenditure on conspicuous goods by OBC households compared to their unreserved counterparts has transformed into a comparatively high *productive* expenditure in the latter period. This is a welcome departure from what was observed in 2004–05, which makes a case for the existence of status-signalling behaviour in 2004–05. However, SC and ST households demonstrate excessive spending tendencies not on conspicuous goods but on goods that display properties of conspicuousness that do not necessarily fall under the conspicuous consumption category as per our survey. To conclude that ST households have been successful in channelling their pecuniary resources away from wasteful spending in the latter period based on the negative coefficient in Table 3 would be wrong. A careful look at Table 7 would disprove such a conclusion. We observe that, compared to General households, ST households spend 144 per cent more on *Restaurants*, 27 per cent more on *alcohol and tobacco*, and 4 per cent more on *entertainment durables*. What is common to these categories is that they all have elements of conspicuousness in them. Compared to 2004–05, these households have shown improvement in terms of lower spending on the *social* category and higher spending on *health*. But STs spend nearly 48 per cent less than the base category on *education*. From a policy perspective, ST households' tendency to spend more on goods or services that can be observed easily without close interactions, coupled with their tendency to spend less on those goods or investments that reap long-term social and economic benefits such as education, is a serious cause for concern.

Table 6: Caste and religion-based differences in expenditure on conspicuous goods 2011–12

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
Personal care	0.034 (0.027)	0.045* (0.026)	0.062** (0.028)	0.028 (0.022)	−0.003 (0.049)	−0.202*** (0.065)	0.000 (1.000)	39,580
Jewellery <sup>a</sup>	0.026 (0.430)	0.655 (0.417)	0.550 (0.464)	−0.067 (0.372)	−1.631** (0.755)	−2.074*** (0.645)		40,619
Clothing	−0.071*** (0.019)	−0.048*** (0.017)	−0.018 (0.020)	0.072*** (0.020)	−0.080** (0.037)	0.004 (0.048)		39,480
Vehicle <sup>a</sup>	−0.065 (0.113)	0.093 (0.105)	0.047 (0.118)	−0.180* (0.101)	−0.537** (0.244)	−0.109 (0.207)		40,620
Entertainment services <sup>a</sup>	−0.170 (0.156)	−0.460*** (0.152)	−0.323* (0.167)	−0.574*** (0.161)	−0.676** (0.276)	−1.300*** (0.285)		40,614

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of particular components of conspicuous consumption expenditures among households belonging to various caste and religious groups for IHDS II (2011–12). Each household is weighted with sample weights; the same results for the unweighted sample are reported in Appendix D. An IV regression is used, the same as specification (5) of Table 2, with the dependent variables as the log of the relevant conspicuous consumption categories as mentioned in Table 1. The inclusion of instruments depends on Hansen's J test for the overall validity of the instrumental variables. For the regressions with *personal care* as the dependent variable, 'log of income' and 'education' are excluded, for *clothing* all instruments except 'log of income' are excluded. For those consumption expenditure categories with a superscript, an IV Tobit or Tobit specification was used (depending on the presence of endogeneity), due to a non-trivial proportion of zeros present in the data. For *jewellery*, *vehicle*, and *entertainment services*, Tobit is used.

Source: authors' calculations.

Table 7: Caste and religion-based differences in expenditure on other consumption categories 2011–12

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
Food	0.041*** (0.012)	0.014 (0.014)	0.012 (0.017)	0.043*** (0.010)	0.018 (0.017)	0.006 (0.017)	13.287 (0.102)	15,159
Restaurants	0.527** (0.236)	0.766*** (0.243)	1.445*** (0.290)	0.325 (0.232)	-0.954*** (0.344)	-0.462 (0.390)		15,164
Alcohol	-0.513*** (0.086)	-0.277*** (0.075)	0.272*** (0.082)	0.151* (0.080)	-0.041 (0.208)	0.063 (0.176)		40,615
Utilities	0.013 (0.016)	-0.001 (0.016)	-0.021 (0.017)	0.000 (0.013)	0.043* (0.023)	0.050 (0.033)	0.000 (1.000)	39,980
Housing	0.655* (0.336)	-0.082 (0.322)	-0.853** (0.360)	0.282 (0.304)	-0.056 (0.569)	-0.088 (0.564)		40,633
Consumables	0.022 (0.021)	0.030 (0.022)	0.003 (0.025)	-0.033 (0.022)	0.030 (0.033)	-0.035 (0.034)	14.197 (0.077)	15,057
Furnishing	-0.072 (0.099)	0.074 (0.100)	0.166 (0.112)	-0.112 (0.098)	0.030 (0.177)	0.055 (0.168)		15,163
Other transport	-0.171*** (0.048)	-0.071 (0.044)	0.010 (0.050)	-0.099** (0.045)	-0.034 (0.079)	0.015 (0.099)	0.000 (1.000)	39,596
Entertainment durables	0.003 (0.023)	-0.040* (0.021)	0.039* (0.023)	-0.079*** (0.022)	-0.070 (0.045)	-0.039 (0.038)		40,617
Social	-0.075*** (0.026)	-0.034 (0.023)	-0.048* (0.027)	-0.024 (0.023)	-0.161*** (0.052)	0.217*** (0.040)	0.000 1.000	37,004
Education	0.115 (0.135)	-0.246* (0.135)	-0.475*** (0.162)	-1.068*** (0.137)	-0.029 (0.222)	0.026 (0.230)		15,161
Health	0.144* (0.083)	0.121 (0.081)	0.084 (0.094)	0.081 (0.079)	-0.119 (0.158)	-0.250 (0.160)	6.895 (0.648)	15,163
Other	-0.105 (0.067)	0.019 (0.068)	-0.044 (0.082)	-0.308*** (0.065)	-0.309*** (0.113)	-0.176 (0.112)	14.116 (0.118)	15,153

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of particular categories of consumption expenditures other than conspicuous consumption among households belonging to various caste and religious groups for IHDS II (2011–12). Each household is weighted with sample weights; the same results for the unweighted sample are reported in Appendix D. An IV regression is used, the same as specification (5) of Table 2, with the dependent variables as the log of the relevant conspicuous consumption categories as mentioned in the table. The inclusion of instruments depends on Hansen's J test for the overall validity of the instrumental variables. For the regressions with *food* and *consumables* as the dependent variable, 'log of income' is excluded from the instruments, for *utilities* and *social*, 'log of income', 'education', and 'occupation' are excluded, and for *other transport*, 'education' is excluded. For those consumption expenditure categories with a superscript, an IV Tobit or Tobit specification was used (depending on the presence of endogeneity), due to a non-trivial proportion of zeros present in the data. For the regressions with *entertainment durables*, *alcohol*, and *housing* as the dependent variables, Tobit specification is used; all other categories of consumption use IV Tobit.

Source: authors' calculations.

SC households, on the other hand, exhibited a greater propensity to spend on conspicuous goods in 2004–05 compared to 2011–12. Despite this fall, they continue to spend about 25 per cent less on *education* in 2011–12. This is offset by higher spending on *restaurants* and *health*. SC households have shown improvement compared to the previous period by spending less on many of the conspicuous goods and on alcohol and other intoxicants.

For OBC households, the coefficient on conspicuous consumption has changed from positive to negative, which shows that status-signalling behaviour among OBCs in 2004–05 became non-existent by 2011–12. Their expenditure on conspicuous goods, *alcohol and tobacco*, and *social* functions is considerably lower, while that on *education* is more than 11 per cent, and that on *health* is 14 per cent more compared to the base category. It is indeed interesting to note that their tendency to spend on *housing* has seen a drastic reversal compared to the previous period. In 2004–05, OBCs spent 30 per cent less on *housing* while in 2011–12, they spent 65 per cent more than their General category counterparts.<sup>28</sup> Similarly, the coefficient of expenditure on *restaurants* or food off-premises has also increased—around 52 per cent more than the base category. An inordinately high propensity to spend on goods that have potential status-signalling properties, such as housing, is likely to be an outcome of a rise in income for OBC households. This, coupled with the benefits they receive as a result of affirmative action policies in their favour, could have led to a rise in spending on *education*. Tables D1 and D2 show that OBCs are able to surpass the General category in income and are almost equal to the General category in average educational attainment.

Among religious groups, Muslims have shown a consistently high tendency to spend on conspicuous goods in addition to food off-premises and alcohol and other intoxicants compared to Hindu households, although in 2011–12 their tendency to spend on *entertainment services* had reversed. However, with the exception of *housing*, Muslims' expenditure on the more expensive consumption categories which have high visibility, such as *entertainment durables* and *social*, is considerably lower, with negative coefficients. From this, it may be reasonable to assume that it is the inability to afford them that makes Muslims spend less on goods that are both more expensive and more conspicuous.<sup>29</sup> What is striking is that Muslims continue to spend 107 per cent less than the base category households on *education*, which is a serious obstacle to their socio-economic progress, given their existing socio-economic vulnerability.

When viewed through the Stigma–Identity–Threat lens, we observe that OBCs, SCs, STs, and Muslims have chosen to move away from their devalued identities in 2004–05 and 2011–12. However, the manner in which they choose to distance themselves is rather different. OBCs choose a *productive* path, while all other groups choose *unproductive* ways. The former strategy is evident in OBC households' spending pattern, which is towards *education* and *health*, and away from conspicuous consumption. This ensures long-term benefits for OBCs that enable them to afford more expensive consumption. OBCs' advancement may be partly due to the reservation policies implemented in their favour in the past decade. SCs, STs, and Muslims have chosen *unproductive* ways of distancing themselves. This, in the absence of adequate policy action in their favour, has led them to seek this path. Although the reservation policy had pushed SCs and STs in the right direction, even in 2011–12 these groups were not fully capable of closing the gap with the General households. Moreover, Muslims are particularly deprived due to institutional factors that keep them structurally disadvantaged, although the recently implemented EWS reservation policy may be a step in the right direction in encouraging them towards a more *productive* path in their spending behaviour.

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<sup>28</sup> Higher expenditure on housing could also mean that OBCs are making greater investments in assets that will appreciate in value.

<sup>29</sup> It must be noted that at this point we assume that Muslim households' spending behaviour is consistent with status-signalling.

## 4.2 Testing the conspicuous consumption model

It may be argued that the differential spending observed in the earlier section could be due to differences in tastes and preferences among various caste groups. To eliminate this possibility, we test our model to see if they actually conform to the status-signalling theory.

### *Caste–state analysis*

This section explores the question of whether the expenditure on conspicuous goods is greater among low-income households of a given caste–state cell than among high-income households.

We estimate an IV regression model for the total spending on conspicuous goods for a household  $i$  belonging to a caste  $c$  in a state  $s$ . The following model is an adaptation of the race–state analysis of Charles et al. (2009) in the Indian context.

$$\ln(\text{Conspicuous}_{ics}) = \beta_0 + \delta_{cs}(\Gamma_c * \Gamma_s) + \varphi \log(\text{TotalExpenditure}_{ics}) + \theta X_i + \eta_i \quad (2)$$

where the dependent variable is the log of expenditure on conspicuous goods for household  $i$  belonging to a particular caste–state cell,  $\delta_{cs}$  is the difference in the log of spending on conspicuous goods relative to the base category<sup>30</sup> conditional on the caste–state cell to which a household belongs. In this model, a caste–state cell is defined as the interaction of the caste group  $\Gamma_c$  of the household head and the state  $\Gamma_s$  where the household is located.  $\log(\text{TotalExpenditure})$  is the log of the total expenditure of a household, which is instrumented with income controls as in the previous models.  $X_i$  is a vector of demographic controls for household  $i$ .

Figure 1 plots  $\delta_{cs}$  on the  $y$ -axis with the log of the mean of income for each caste–state cell on the  $x$ -axis for the period 2004–05. Only those states and union territories that had households with all caste groups were included. Appendix A has details of these states. Since SC and ST represent the weaker sections of society, they were combined to form a single group, ‘SCST’.

Figure 1 shows a concentration of SC and ST households at the top-left corner of the figure, which corresponds to lower mean income for any caste–state cell and higher conspicuous spending compared to the base category (i.e. General category households in the erstwhile state of Jammu and Kashmir). The so-called lower caste groups spend disproportionately high levels of their low income on conspicuous consumption. It is also observed that in states where SCs and STs have higher mean income they have a lower  $\delta_{cs}$  coefficient. In other words, among SCs and STs there is a clear case for status-signalling.<sup>31</sup>

OBC households, on the other hand, have higher mean group income than SC and ST households, but lower mean income than the General category households. Their tendency to spend on conspicuous consumption on average is higher than the General category but lower compared to SC and ST households. The  $\delta_{cs}$  coefficient for OBC households is predominantly high in most states regardless of income. Therefore, the status-signalling tendency among OBCs is not as salient as that of SC and ST groups. General category caste–state cells are concentrated at the high mean income and low conditional difference in conspicuous consumption expenditure. The findings from Figure 1 are consistent with status-signalling behaviour when viewed from the perspective of caste differences. This is because it shows a concentration of SCs and STs on the lower mean income portion of the figure with greater expenditure on conspicuous goods, followed by OBCs; households belonging to the General category

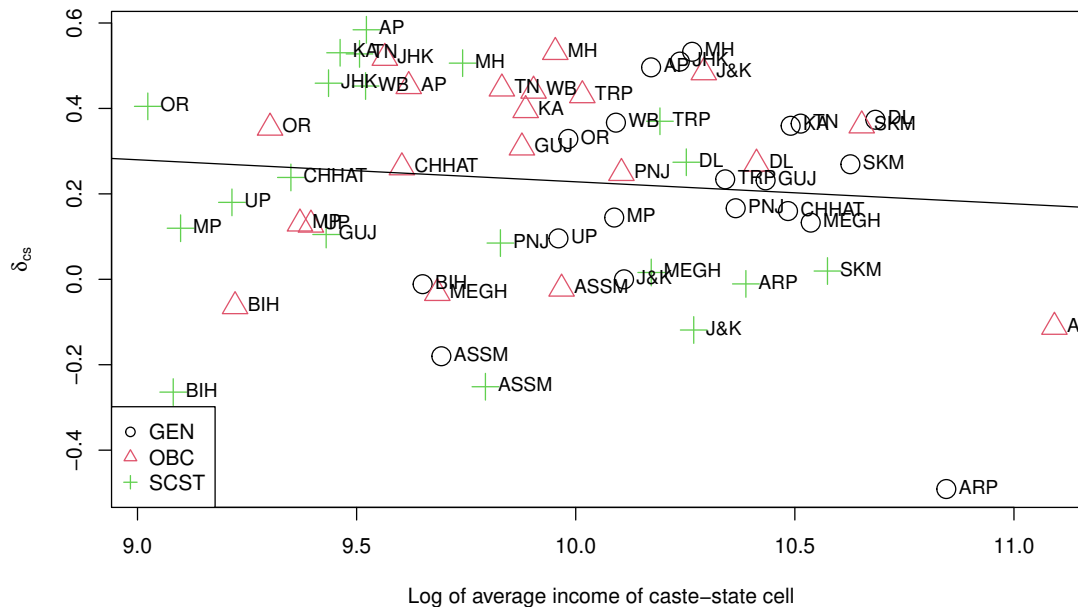
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<sup>30</sup>General category household in the erstwhile state of Jammu and Kashmir.

<sup>31</sup>At low levels of income there is a higher propensity to spend on conspicuous goods, but at high levels of income this propensity is lower compared to the base category.

have higher average income and hence a lower tendency to spend on conspicuous goods because of their higher socio-economic position in the society.

Figure 1: Relationship between conditional log expenditure on conspicuous consumption and log of average income by caste–state cells, 2004–05



Note: the figure shows the relation between the log of the mean income of each caste–state cell with its respective conditional log difference in spending on conspicuous consumption as shown in Equation (2), with the base category as General category households and the base state as the erstwhile state of Jammu and Kashmir. All calculations use sample weights. The same analysis is replicated without weights in Appendix D.

Source: authors' compilation.

Figure 2 shows a drastic departure from the pattern of concentration observed in Figure 1. The negative relationship between the log of the mean income of each caste–state cell and its corresponding log of the mean difference in conspicuous consumption is stronger in Figure 2. What is interesting is that by 2011–12 conspicuous consumption becomes an outcome of pure income differences rather than social factors such as caste affiliation. This is also because of the greater dispersion of income within a caste group. The figure shows that the average income of SCs and STs regardless of the state has risen significantly compared to the General category in which the growth in the average income is much less than that of SCs and STs.<sup>32</sup>

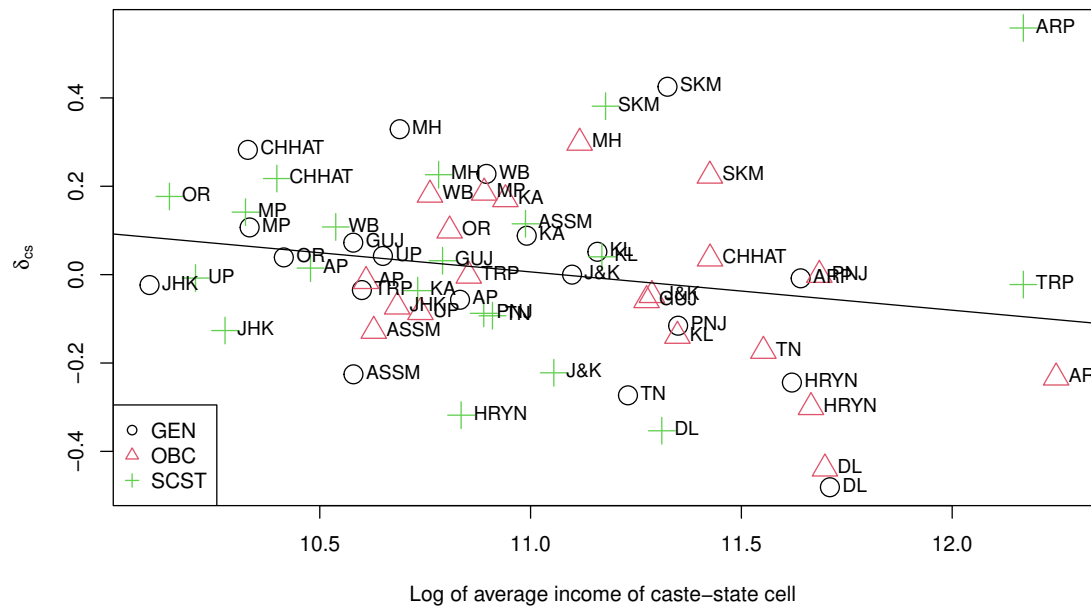
In other words, 2004–05 data show evidence for status-signalling behaviour of these groups as an outcome of low social status, while in 2011–12 the signalling behaviour is principally an economic phenomenon rather than a social one. This contention comes from the observation in Figure 2 that we no longer see a concentration of the so-called lower caste groups in the portion where the log of the average income is low and  $\delta_{cs}$  is high, as is the case in Figure 1; additionally, the negative relation becomes even more apparent in Figure 2, which makes the signalling behaviour an outcome of economic class and not social class.

What we observe in the two figures is, in essence, the effect of social and economic identity on a household's tendency to signal its status. In Figure 1, a low social class coincided to a great extent with economic class. This is especially true of SCs and STs who not only occupy a lower position in the

<sup>32</sup>This is corroborated in Tables D1 and D2 in Appendix D.

social hierarchy, but also have lower income, which led to a higher tendency to signal status. There is an inverse relation between  $\delta_{cs}$  and the log of the average income for each caste–state cell in 2004–05, but it is not as overt as is the case in 2011–12, where a high dispersion of income among all social groups (i.e. an increase in dispersion of income among caste categories) mars the lower-caste–lower-income (higher-caste–higher-income) relation that is observed in Figure 1. In Figure 2 the inverse relation becomes evident since all low-income caste–state cells tend to spend more on conspicuous consumption regardless of their social group.

Figure 2: Relationship between conditional log expenditure on conspicuous goods and log of average income by caste–state cells, 2011–12



Note: the figure shows the relation between the log of the mean income of each caste–state cell with its respective conditional log difference in conspicuous consumption as shown in Equation (2), with the base category as General category households and the base state as the erstwhile state of Jammu and Kashmir. All calculations use sample weights. The same analysis is replicated without weights in Appendix D.

Source: authors' compilation.

### *The role of a reference group in conspicuous consumption*

In this section we test whether the differential expenditure between SC, ST, and OBC category households and General category households persists even after controlling for their income and the average income of their caste (religious) peer group in a particular state, *ceteris paribus*.

The regression equation estimated is the same as Equation (1), with the inclusion of the variables  $\mu_k^y$  and  $D_k^y$ , which can be defined as the log of the mean income of own-group (caste or religion) in a given state, and the dispersion of own-group income,<sup>33</sup> respectively. The new regression equation is estimated as:

$$\ln(\text{Conspicuous}_i) = \beta_0 + \beta_1 \text{OBC}_i + \beta_2 \text{SC}_i + \beta_3 \text{ST}_i + \beta_4 \text{Muslim}_i + \beta_5 \text{Christian}_i + \beta_6 \text{OtherReligion}_i + \delta_1(\mu_k^y) + \delta_2(D_k^y) + \varphi \ln(\text{TotalExpenditure}_i) + \theta X_i + \eta_i \quad (3)$$

<sup>33</sup> Measured by coefficient of variation.



where the dependent variable is the log of the expenditure on conspicuous goods and the log of total expenditure is instrumented with income controls.  $k$  stands for either caste–state cells or religion–state cells<sup>34</sup> depending on the specification<sup>35</sup> of Equation (3) used.

Tables 8 and 9 report the estimates of Equation (3) for 2004–05 and 2011–12, respectively. All specifications except (1) and (3) include state fixed effects. The last two specifications include the effect of the average income of own religion as well as the coefficient of variation, while all other specifications pertain to own caste effects in each state.

As per status-signalling theory drawn from Veblen, the coefficient of the reference group income, or  $\mu_k^y$ , should be negative. This signifies that only an individual or household belonging to a group that has low average own-group income will engage in status-signalling behaviour characterized by conspicuous consumption. Once the average income of the reference group goes up, the tendency to spend on conspicuous consumption goes down. The relationship between the dispersion of own-group income and expenditure on conspicuous goods is ambiguous as far as the status-signalling model is concerned.<sup>36</sup>

Surprisingly, the results from Table 8 point to the opposite. Column (3) shows a positive and highly significant slope coefficient for the log of average income of own caste group in a state. Column (3) also shows that the coefficients for OBCs, SCs, and STs are also positive and significant. The magnitude of the coefficients are in line with caste hierarchy, with SCs tending to spend more on conspicuous goods than OBCs. However, from column (5) in Table 8 it may be deduced that the inclusion of state fixed effects along with the average income of each caste group in every state renders the differences in log conspicuous consumption among caste groups inconsequential. This means that state-level controls explain most of the differences across castes in conspicuous consumption. Similarly, the average income and dispersion of own religious group make differential spending between religions trivial and insignificant. It is, however, worth noting that the average income of the own religious group in a state has a positive and significant slope coefficient in column (6), which again goes against the hypothesis based on Veblen’s status-signalling theory.

Hence, from our reference group analysis in 2004–05, it is clear that status-signalling behaviour in Veblen’s sense of the term does not hold. This anomaly lends support to our contention that Veblen’s theory cannot be blindly adopted to study status-signalling behaviour among social groups such as caste and race. This finding corroborates the fact that status-signalling is a social phenomenon where the class hierarchy of Veblen is an incomplete frame for understanding such behaviour among social groups such as caste and race. The overlapping nature of caste and class hierarchy as observed in Figure 1, without the findings of this section, would not have led us to question the applicability of Veblen’s theory to social groups. To elaborate further, we draw insights from Bros (2014), who finds evidence for class perceptions being affected by caste affiliations. The positive coefficients for each of the groups suggest a greater tendency for stigmatized social groups to signal status in comparison with the dominant caste category, while a positive coefficient for the reference group income implies that these groups will signal status more if their group’s average income goes up. For stigmatized social groups who will signal status regardless of income, a rise in income would translate into a greater opportunity for signalling status due to a rise in affordability. This behaviour is intended to ‘overcompensate’ for their social status and the extent of overcompensation is in line with their position in the social hierarchy—as illustrated by a

<sup>34</sup>  $k$  takes a unique value for each caste (religion) in each state. Progression from specifications (1) to (5) shows how the difference in the log of conspicuous consumption changes as more state-specific controls are introduced. Only those states and union territories that have all castes and religious groups are considered. See Appendix A for the list of included states.

<sup>35</sup> In specifications (1)–(5),  $k$  refers to caste–state cells, while in specifications (6) and (7)  $k$  refers to religion–state cells.

<sup>36</sup> See Glazer and Konrad (1996) for a theoretical explanation for the relational ambiguity.

larger coefficient for SCs than OBCs. For socially disadvantaged groups, income does not necessarily moderate status-signalling behaviour.

We observe that this is no longer the case in 2011–12 since the coefficient for the log of the average income of the own caste and religious group in a given state is negative and significant in most specifications that become insignificant with the introduction of state fixed effects in Table 9. The results also show that the coefficients for caste groups such as SC and ST are negative and significant. There is only one plausible explanation for this flip. Note that in Table D2 the median income of SC households in 2011–12 is higher than that of General category households, while that of STs is almost as much as General category households. The results of Table 9, along with the findings of Table D2, potentially indicate a sufficient rise in affluence of the SCs and STs compared to the dominant castes, which no longer necessitates status-signalling behaviour.

To summarize the main findings from Tables 8 and 9, which correspond to the years 2004–05 and 2011–12, socially stigmatized groups initially exhibit a greater tendency to signal status with rising income due to a rise in affordability. This pattern is observed till a particular income threshold is reached. The income threshold is commensurate with the group’s position in the social hierarchy. A highly stigmatized group needs to attain a higher income threshold to stop status-signalling behaviour than a group that faces relatively less stigma. This further strengthens our understanding of why the slope of the line in Figure 2 is steeper than that of Figure 1, and why we observed that by 2011–12 status-signalling becomes a purely economic phenomenon as opposed to a social phenomenon in 2004–05.

Table 8: Difference in log conspicuous consumption for various caste and religious groups in 2004–05

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coefficient for OBC	0.013 (0.019)	0.029 (0.019)	0.138*** (0.032)	0.035 (0.039)	0.034 (0.040)	0.047** (0.019)	0.029 (0.019)
Coefficient for SC	0.048* (0.029)	0.033 (0.026)	0.211*** (0.045)	0.041 (0.057)	0.040 (0.058)	0.068** (0.029)	0.032 (0.026)
Coefficient for ST	-0.103*** (0.038)	0.006 (0.039)	0.122** (0.053)	0.016 (0.074)	0.012 (0.077)	-0.051 (0.038)	0.005 (0.039)
Coefficient for Muslim	-0.032 (0.020)	0.049** (0.024)	-0.005 (0.023)	0.050* (0.026)	0.050* (0.026)	-0.048* (0.025)	0.031 (0.031)
Coefficient for Christian	-0.012 (0.028)	0.016 (0.036)	0.052 (0.038)	0.016 (0.036)	0.016 (0.036)	0.013 (0.038)	0.005 (0.040)
Coefficient for other religion	-0.034 (0.032)	-0.031 (0.038)	-0.049 (0.038)	-0.032 (0.038)	-0.032 (0.038)	-0.058 (0.038)	-0.038 (0.038)
Log of average income of own caste group in a state			0.214*** (0.051)	0.013 (0.078)	0.008 (0.082)		
Dispersion of income for own caste group in a state					0.005 (0.028)		
Log of average income of own religious group in a state						0.113*** (0.034)	0.024 (0.059)
Dispersion of income for own religious group in a state						-0.112*** (0.017)	-0.061 (0.038)
Inclusion of state fixed effects	No	Yes	No	Yes	Yes	No	Yes
Hansen's J	6.923 (0.328)	12.154 (0.205)	9.558 (0.387)	12.259 (0.199)	12.27 (0.199)	9.411 (0.400)	11.827 (0.223)
N	15,876	12,385	12,385	12,385	12,385	12,385	12,385

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the coefficients for each caste category for five different specifications using IHDS I (2004–05). Each household is weighted with sample weights; the same results for the unweighted sample are reported in Appendix D. Specification (1) is the same as specification (5) of Table 2 with the exclusion of state fixed effects and the 'log of income', and a quadratic in income as instruments. These instruments are dropped based on Hansen's J test for the overall validity of the instrumental variables. All other specifications use all instruments. Specification (2) adds state fixed effects to specification (1). Specification (3) adds the log of the mean of own caste income in a particular state without state fixed effects. Specification (4) adds state fixed effects to specification (3). Specification (5) adds the coefficient of variation of income for own caste group in the state to specification (4). Specification (6) adds the log of the mean of own religion income in a particular state and coefficient of variation of income for own religion in each state to specification (1) while specification (7) adds state fixed effects to specification (6).

Source: authors' calculations.

Table 9: Difference in log conspicuous consumption for various caste and religious groups in 2011–12

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coefficient for OBC	−0.048** (0.024)	−0.033 (0.025)	0.002 (0.020)	−0.030 (0.029)	−0.038 (0.029)	−0.046** (0.019)	−0.035 (0.025)
Coefficient for SC	−0.021 (0.024)	−0.021 (0.026)	−0.081*** (0.016)	−0.022 (0.026)	−0.009 (0.026)	−0.072*** (0.016)	−0.021 (0.026)
Coefficient for ST	−0.016 (0.026)	−0.018 (0.027)	−0.099*** (0.018)	−0.021 (0.028)	−0.003 (0.028)	−0.064*** (0.018)	−0.019 (0.027)
Coefficient for Muslim	0.037 (0.023)	0.029 (0.025)	0.020 (0.017)	0.029 (0.026)	0.026 (0.026)	0.015 (0.017)	0.024 (0.030)
Coefficient for Christian	−0.158*** (0.045)	−0.175*** (0.048)	−0.108*** (0.037)	−0.176*** (0.048)	−0.172*** (0.047)	−0.062* (0.037)	−0.190*** (0.050)
Coefficient for other religion	0.008 (0.030)	−0.006 (0.031)	−0.009 (0.036)	−0.006 (0.031)	−0.011 (0.031)	−0.009 (0.036)	−0.019 (0.032)
Log of average income of own caste group in a state			−0.197*** (0.021)	−0.014 (0.051)	0.016 (0.052)		
Dispersion of income for own caste group in a state					−0.049*** (0.014)		
Log of average income of own religious group in a state						−0.157*** (0.022)	0.073 (0.062)
Dispersion of income for own religious group in a state						0.067*** (0.013)	−0.067* (0.035)
Inclusion of state fixed effects	No	Yes	No	Yes	Yes	No	Yes
Hansen's J	4.636 (0.865)	5.693 (0.770)	3.274 (0.070)	5.675 (0.772)	6.078 (0.732)	3.527 (0.060)	5.567 (0.782)
N	15,146	12,815	33,356	12,815	12,815	33,356	12,815

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the coefficients for each caste category for five different specifications using IHDS II (2011–12). Each household is weighted with sample weights; the same results for the unweighted sample are reported in Appendix D. Specification (1) is the same as specification (5) of Table 2 with the exclusion of state fixed effects. Specification (2) adds state fixed effects to specification (1). Specification (3) adds the log of the mean of own caste income in a particular state without state fixed effects. Specification (4) adds state fixed effects to specification (3). Specification (5) adds the coefficient of variation of income for own caste group in the state to specification (4). Specification (6) adds the log of the mean of own religion income in a particular state and coefficient of variation of income for own religion in each state to specification (1), while specification (7) adds state fixed effects to specification (6). For specifications (3) and (6) the variables 'income', 'occupation', and 'education' are excluded as instrumental variables based on Hansen's J test for over-identifying restrictions.

Source: authors' calculations.

## 5 Discussion and conclusion

This study dismisses the blind use of Veblen's theory to explore status-signalling among social groups. The study uses a theoretical framework from the social psychology literature since it is the only field of inquiry that can explain the internalization of stigma that manifests in low self-esteem that necessitates stigmatized groups' need to signal status in order to overcome this low self-esteem. No study in the status-signalling literature discusses the possibility of status-signalling as being an action motivated by a deeper internal conflict that cannot be explained by the notion of *Homo economicus*. Since stigma plays upon the minds of individuals, its manifestation in economic decisions can only be explained by drawing insights from a relevant field; in this case, social psychology. This study treats every aspect of society and the individual with conscientiousness, since the closer we are to a good representation of reality, the better our understanding of socio-economic phenomena.

Our study finds sufficient evidence to affirm that all social groups that face stigma have chosen to distance themselves from their devalued identity. The difference, however, lies in how they choose to distance themselves. OBC households have been able to do so through *productive* means which has helped them develop their relational identities, making their categorical identities trivial. SCs, STs, and Muslims are far worse off because they have chosen to move away from their devalued identity through *unproductive* means that are not only ineffective in diminishing categorical influences but also do little to improve their long-term relational identity.

To summarize our study in terms of its findings for the periods 2004–05 and 2011–12, we may note that (1) using the Stigma–Identity–Threat framework in India, all social groups that are subject to stigma and prejudice distance themselves from their devalued social identity; (2) OBC households use *productive* means while SC, ST, and Muslim households use *unproductive* means to move away from their socially assigned identity, which has made OBCs particularly successful in shedding their devalued affiliations; (3) as observed in 2004–05, status-signalling behaviour for stigmatized identity groups increases with a rise in income till an income threshold is reached; (4) this threshold is at a higher level of income for identity groups that are highly stigmatized compared to those who face less stigma, which explains why socially stigmatized groups demonstrate a flip in status-signalling behaviour in 2011–12—they crossed this income threshold in the latter period.

The analyses for the two periods under study—2004–05 and 2011–12—point to rather distinct findings, which strengthens our assertion that status-signalling theory as drawn from Veblen (1899) is profoundly deficient in its applicability to status-signalling behaviour among social identity groups such as caste or race. While it can explain the findings for 2011–12, since they are well in line with Veblen's theory, its explicability is seriously challenged by its inability to interpret the observations from 2004–05. This makes a stronger case against the unbridled use of Veblen's concept of status-signalling to non-economic identity classes.

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## Appendix A      Definition of key variables

1. *Caste*: There are four caste categories used in this paper: *General category*, *Other Backward Classes (OBC)*, *Scheduled Caste (SC)*, and *Scheduled Tribe (ST)*. *General category* is a combination of *Brahmin* and *Forward Caste* categories. *SC* and *ST* categories are combined for all caste–state analyses in this paper as they represent the most marginalized groups in India.
2. *Religion*: The broad classifications under this variable are *Hindu*, *Christian*, *Muslim*, and *Other*. The *Other* category is a combination of *Sikh*, *Buddhist*, *Jain*, *Tribal*, and *Other*. IHDS II had an additional category, *None*. All households that reported *None* were removed in order to make IHDS II comparable with IHDS I, which did not have this category.
3. *Asset Index*: This is a constructed variable that comprises the sum of consumer goods owned by a household. It includes the ownership of a house, cycle/bicycle, sewing machine, generator set, mixer/grinder, motorcycle/scooter, television, cooler, fan, chair/table, cot, telephone, mobile phone, fridge, pressure cooker, car, air conditioner, washing machine, computer, laptop, etc. Some of the items were modified since they served as less expensive alternatives to other consumer goods on the same scale. This included air cooler and air conditioner, laptop and computer, black and white TV and colour TV, car and motor vehicle/scooter, and cycle, motor vehicle/scooter and car. These categories were treated in such a way that if the more expensive consumer good was owned, it was assumed that the less expensive good was also owned. This is done to ensure that the items are scaled in such a way that greater ownership of items corresponds to greater affluence.
4. *Occupation*: This variable pertains to the occupation of the household head. The variable is transformed to represent seven divisions as per the NCO 1968. *Division 1* encompasses professional, technical and related workers, *Division 2* includes administrative, executive, and managerial workers, *Division 3* has clerical and related workers, *Division 4* is for sales workers, *Division 5* pertains to service workers, *Division 6* includes farmers, fishermen, hunters, loggers, and related workers, *Divisions 7–9* are for production and related workers, transport equipment operators, and labourers, and *Undefined* is for workers not classified by occupation.
5. *State*: Includes 33 states and union territories. This variable is treated differently in Table 8, Table 9, Figure 1, and Figure 2, where state-specific analyses are carried out. Only those states and union territories that have all caste and religious groups (*Brahmin*, *SC*, *ST*, *OBC*, and *Other* under the caste variable; and *Hindu*, *Christian*, *Muslim*, and *Other* under the religion variable) are included. Under IHDS I, *Andhra Pradesh*, *Arunachal Pradesh*, *Assam*, *Bihar*, *Chhattisgarh*, *Delhi*, *Gujarat*, *Jammu and Kashmir*, *Jharkhand*, *Karnataka*, *Meghalaya*, *Maharashtra*, *Madhya Pradesh*, *Orissa*, *Punjab*, *Sikkim*, *Tamil Nadu*, *Tripura*, *Uttar Pradesh*, and *West Bengal* are included. Under IHDS II, *Andhra Pradesh*, *Arunachal Pradesh*, *Assam*, *Chhattisgarh*, *Delhi*, *Gujarat*, *Haryana*, *Jammu & Kashmir*, *Jharkhand*, *Karnataka*, *Kerala*, *Maharashtra*, *Madhya Pradesh*, *Orissa*, *Punjab*, *Sikkim*, *Tamil Nadu*, *Tripura*, *Uttar Pradesh*, and *West Bengal* are included.
6. *Equivalent Income and Consumption*: This variable is constructed to account for the size of a household and the age bracket under which each member falls. We make use of the OECD Modified Equivalence Scale, first proposed by Hagenaaers et al. (1994), which assigns a value of 1 to the household head, 0.5 to every additional adult, and 0.3 to each child in the household. The household income or consumption expenditure is divided by the equivalent scale to arrive at the equivalent income for each household.

## Appendix B Consumption categories

Table B1: Consumption categories

Spending categories	Corresponding IHDS I spending categories	Corresponding IHDS II spending categories
Food on-premises	Rice (CO1), Wheat (CO2), Sugar (CO3), Other Cereals (CO5), Cereal products (CO6), Pulses and pulse products (CO7), Meat, chicken and fish (CO8), Gur and other sweeteners (CO9), Edible oil and vanaspati (CO10), Eggs (CO11), Milk (CO12), Milk products (CO13), Vegetables (CO14), Salt and spices (CO15), Other food items (CO16), Fruits and nuts (CO18)	Rice (CO1), Wheat/Flour (CO2), Sugar (CO3), Other cereals (CO5), Pulses and pulse products (CO6), Meat, chicken and fish (CO7), Gur and other sweeteners (CO8), Edible oil and vanaspati (CO9), Eggs (CO10), Milk (CO11), Milk products (CO12), Cereal products (CO13), Vegetables (CO14), Salt and spices (CO15), Tea and coffee (CO16), Processed foods (CO17), Fruits and nuts (CO19)
Food off-premises	Food at restaurants, eating out, etc. (CO19)	Food at restaurants, eating out, etc. (CO20)
Paan, alcohol, and tobacco	Paan, tobacco, intoxicants (CO17)	Paan, tobacco, intoxicants (CO18)
Personal care	Toilet articles (CO24)	Cosmetics/toilet articles (CO25)
Jewellery	Jewellery and ornaments (CO40)	Jewellery and ornaments (CO44)
Clothing	Clothing and bedding (CO34), Footwear (CO35)	Clothing and bedding (CO38), Footwear (CO39)
Housing	House rent, rent (CO27)	House rent/society charges (CO30), House loan instalment (CO30a), Other rent (CO30b)
Household consumables	Household items (CO25)	Household items (CO26), Soap, detergent/washing powder, agarbati, insecticide, etc. (CO27)
Household furnishings	Personal care (CO23), Furniture and fixtures (CO36), Crockery and utensils (CO37), Cooking and household appliances (CO38), Other personal goods (CO43)	Furniture and fixtures (CO40), Crockery and utensils (CO41), Cooking and household appliances (CO42), Personal care and household items (CO47), Other personal goods (CO48)
Vehicle	Personal transport equipment (CO41)	Personal transport equipment (CO45)
Other transportation	Conveyance (CO26)	Transportation (CO28), Diesel, petrol, CNG, maintenance (CO29)
Utilities	Kerosene (CO4), Fuel and light (CO20), Telephone, cable, internet (CO22), Consumer taxes, cesses, and fees (CO28)	Kerosene (CO4), Household fuel (CO21), Household electricity (CO22), Telephone/mobile, cable/dish, internet charges (CO24), Consumer taxes, cesses, and fees (CO31)
Entertainment durables	Goods for recreation (CO39)	Goods for recreation (CO43)
Entertainment services	Entertainment (CO21), Vacations (CO46)	Entertainment (CO23), Vacations/holidays (CO51)
Social functions	Social functions (CO47)	Social functions (CO52)
Education	School/private tuition fees (CO32), School books and other educational articles (CO33)	School/college fees (CO35), Private tuition fees (CO36), School books and other educational articles (CO37)
Health	Medical expenses (outpatient services) (CO30), Medical (in-patient) (CO31), Therapeutic appliances (CO42)	Medical expenses (CO33), Medical (in-patient) (CO34), Therapeutic appliances (CO46)
Other	Services (CO29), Repair and maintenance (CO44), Insurance premiums (CO45)	Services (CO32), Repair and maintenance (CO49), Insurance premiums (CO50)

Source: authors' compilation.

## Appendix C      The Survey

The study uses an online survey whose respondents were paid to answer questions on demographic details, caste, religious affiliation, and the monthly per-capita income of the respondent's household in one section of the survey. The other section is described as: *This section has two questions on the consumption expenditure made by a third person in various categories..* Table C1 shows the descriptive statistics for the survey.

Table C1: Descriptive statistics, nationally representative online survey ( $N = 487$ )

Categories	Sample size (%)
<i>Gender</i>	
Female	51.5%
Male	48.5%
<i>Religion</i>	
Hindu	80.9%
Muslim	12.5%
Christian	4.7%
Other	1.8%
<i>Caste</i>	
General	54.8%
OBC	32.6%
SC	9.7%
ST	2.9%
<i>Marital status</i>	
Unmarried	25.7%
Married	72.5%
Divorced/separated	1.4%
Widowed	0.4%

Source: authors' compilation.

Question 1 is *How closely would you have to interact with a person X to observe that they spend more than average on each of the following items?* with multiple-choice options: 1. *No interaction*; 2. *Occasional interaction*; 3. *Friend*; 4. *Close friend*; 5. *No observation despite many interactions*.

Question 2 is *How would you expect person X's spending on the following items to change if his/her income is increased by 20%?* with the options 1. *Fall*; 2. *Remain the same*; 3. *Increase by less than 20%*; 4. *Increase by 20%*; 5. *Increase by more than 20%*. The consumption categories are described in Appendix B.

Table 1 describes the percentage of respondents who responded 1 or 2 for Questions 1 and 4 or 5 for Question 2 since the former corresponds to high visibility and the latter represents high income elasticity, both of which are features of conspicuous consumption.

## Appendix D Additional tables and figures

Table D1: Average and median income, education, and asset ownership without sample weights among caste groups

	Income				Education				Asset ownership			
	2004–05		2011–12		2004–05		2011–12		2004–05		2011–12	
	Average	Median	Average	Median	Average	Median	Average	Median	Average	Median	Average	Median
General	30,088.99	19,657.1	53,643.95	27,878.16	7.21	7	7.24	7	8.43	8	7.92	8
OBC	18,420.15	11,588.25	69,202.42	40,081.25	5.8	5	7.11	7	6.57	6	9.85	10
SC	15,193.2	10,325.88	45,155.75	28,326.06	5.67	5	6.13	5	5.66	5	8.43	8
ST	16,104.88	8,797.84	40,112.13	27,500	5.35	5	5.96	5	4.6	4	7.46	7

Note: income refers to equivalent income which is calculated using the *Modified OECD Equivalence Scale* (Hagenaars et al. 1994); education is measured in years; and ownership of household assets is measured by the *Asset Index*, details of which are given in Appendix Appendix A.

Source: authors' calculations based on IHDS I and II data.

Table D2: Average and median income, education, and asset ownership with sample weights among caste groups

	Income				Education				Asset ownership			
	2004–05		2011–12		2004–05		2011–12		2004–05		2011–12	
	Average	Median	Average	Median	Average	Median	Average	Median	Average	Median	Average	Median
General	27,509.27	17,052.63	46,163.35	24,295.24	6.94	6	7.35	7	7.91	8	7.49	7
OBC	16,701.44	10,571.43	62,652.22	36,129.07	5.79	5	7.07	7	6.27	6	9.38	9
SC	13,580.73	9,473.68	41,853.82	26,470.59	5.57	5	6.22	5	5.2	5	8.13	8
ST	13,328.36	8,180.01	36,840.39	25,000	4.84	4	5.9	5	4.34	4	6.99	7

Note: income refers to equivalent income which is calculated using the *Modified OECD Equivalence Scale* (Hagenaars et al. 1994); education is measured in years; and ownership of household assets is measured by the *Asset Index*, details of which are given in Appendix Appendix A.

Source: authors' calculations based on IHDS I and II data.

Table D3: Caste and religion-based differences in log conspicuous consumption 2004–05

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
(1) No controls	−0.334*** (0.011)	−0.513*** (0.013)	−0.948*** (0.019)	−0.188*** (0.015)	0.196*** (0.027)	0.213*** (0.021)		41,265
(2) Addition of income controls	−0.074*** (0.015)	−0.139*** (0.020)	−0.461*** (0.032)	−0.079*** (0.020)	−0.041 (0.031)	0.045 (0.031)		15,876
(3) Addition of total expenditure controls	−0.028*** (0.008)	−0.053*** (0.009)	−0.136*** (0.014)	−0.106*** (0.010)	−0.001 (0.018)	−0.010 (0.015)		41,265
(4) Instrumenting for total expenditure with income controls	0.053*** (0.012)	0.073*** (0.017)	−0.008 (0.026)	−0.032** (0.015)	−0.046* (0.026)	−0.076*** (0.026)	11.836 (0.223)	15,876
(5) Addition of wealth and demographic controls to specification (4)	0.014 (0.013)	0.039** (0.017)	0.029 (0.028)	0.018 (0.016)	−0.008 (0.029)	−0.052* (0.027)	15.584 (0.076)	15,648

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of conspicuous consumption expenditures among households belonging to various caste and religious groups for IHDS I (2004–05). Specification (1) corresponds to Equation (1) in which the dependent variable is the log of conspicuous consumption expenditure and the independent variables are caste and religion dummies; the other variables are excluded from this specification. The base for the caste dummy is 'General', while the base category for the religion dummy is 'Hindu'. Specification (2) includes income controls in addition to the caste and religion dummies. These income controls include the log of household income for positive values of household income, a cubic in the household income, education measured as the number of years of education completed, and occupation classified as 7 divisions for which 6 dummies have been assigned. Specification (3) uses the log of total expenditure as an additional variable to specification (1). Specification (4) is an IV regression where the log of total household expenditure is instrumented with the same income controls used in specification (2). Like specification (4), (5) is also an IV regression where the log of total household expenditure is instrumented with income controls; additionally, independent variables that serve as demographic and wealth controls are included. The demographic controls include state dummies, a rural–urban dummy, a dummy for the household head's marital status, a dummy indicating the household head's gender, the number of children in the household, and the number of adults in the household. Wealth control uses the *Asset Index* explained in Appendix Appendix A. While (1)–(5) are standard specifications, the inclusion or exclusion of variables from the IV specifications is determined by Hansen's J test for the overall validity of the instrumental variables. In specification (5), 'occupation' is excluded from the instruments.

Source: authors' calculations.

Table D4: Caste and religion-based differences in log conspicuous consumption expenditure 2011–12

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
(1) No controls	0.354*** (0.018)	0.094*** (0.016)	-0.135*** (0.017)	-0.058*** (0.016)	0.215*** (0.032)	0.231*** (0.026)		41,894
(2) Addition of income controls	0.071*** (0.023)	0.014 (0.022)	-0.114*** (0.025)	0.077*** (0.024)	-0.062* (0.037)	0.088** (0.036)		15,709
(3) Addition of total expenditure controls	-0.029*** (0.011)	-0.057*** (0.010)	-0.093*** (0.011)	-0.014 (0.010)	-0.047** (0.021)	0.033** (0.016)		41,894
(4) Instrumenting for total expenditure with income controls	-0.078*** (0.012)	-0.074*** (0.011)	-0.086*** (0.011)	-0.008 (0.011)	-0.087*** (0.021)	0.011 (0.016)	2.581 (0.275)	41,292
(5) Addition of wealth and demographic controls to specification (4)	-0.034* (0.018)	0.003 (0.018)	-0.01 (0.020)	0.038* (0.020)	-0.156*** (0.036)	0.003 (0.028)	13.302 (0.149)	15,146

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of conspicuous consumption expenditures among households belonging to various caste and religious groups for IHDS II (2011–12). Specification (1) corresponds to Equation (1) in which the dependent variable is the log of conspicuous consumption expenditure and the independent variables are caste and religion dummies; the other variables are excluded from this specification. The base for the caste dummy is 'General' while the base category for the religion dummy is 'Hindu'. Specification (2) includes income controls in addition to the caste and religion dummies. These income controls include the log of household income for positive values of household income, a cubic in the household income, education measured as the number of years of education completed, and occupation classified as 7 divisions for which 6 dummies have been assigned. Specification (3) uses the log of total expenditure as an additional variable to specification (1). Specification (4) is an IV regression where the log of total household expenditure is instrumented with the same income controls used in specification (2). Like specification (4), (5) is also an IV regression where the log of total household expenditure is instrumented with income controls; additionally, independent variables that serve as demographic and wealth controls are included. The demographic controls include state dummies, a rural–urban dummy, a dummy for the household head's marital status, a dummy indicating the household head's gender, the number of children in the household, and the number of adults in the household. Wealth control uses the *Asset Index* explained in Appendix Appendix A. While (1)–(5) are standard specifications, the inclusion or exclusion of variables from the IV specifications is determined by Hansen's J test for the overall validity of the instrumental variables. In specification (4), 'education' and 'occupation' are excluded from the instruments.

Source: authors' calculations.

Table D5: Caste and religion-based differences in expenditure on conspicuous goods 2004–05

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
Personal care	0.023 (0.017)	0.054** (0.023)	−0.161*** (0.045)	0.013 (0.024)	0.017 (0.035)	0.017 (0.038)	4.77 (0.190)	15,830
Jewellery <sup>a</sup>	−0.134 (0.199)	−0.089 (0.250)	0.292 (0.407)	−0.590** (0.271)	−0.821 (0.513)	−0.108 (0.448)		40,970
Clothing	−0.005 (0.010)	−0.002 (0.012)	−0.022 (0.017)	−0.009 (0.013)	0.064*** (0.024)	−0.050*** (0.019)		39,436
Vehicle <sup>a</sup>	0.155*** (0.045)	0.169*** (0.051)	0.181*** (0.067)	−0.106** (0.048)	0.308*** (0.109)	0.173*** (0.067)		40,980
Entertainment services <sup>a</sup>	−0.181 (0.114)	0.362** (0.158)	1.028*** (0.254)	0.382** (0.155)	−0.154 (0.251)	−0.426 (0.276)		15,690

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of particular components of conspicuous consumption expenditures among households belonging to various caste and religious groups for IHDS I (2004–05). An IV regression is used, the same as specification (5) of Table 2, with the dependent variables as the log of the relevant conspicuous consumption categories as mentioned in Table 1. The inclusion of instruments depends on Hansen's J test for the overall validity of the instrumental variables. For the regression with *personal care* as the dependent variable, 'occupation' is excluded from the instruments while for the regression with *clothing* as the dependent variable, only the log of income is used. For those consumption expenditure categories with a superscript, an IV Tobit or Tobit specification was used (depending on the presence of endogeneity), due to a non-trivial proportion of zeros present in the data. *Jewellery* and *vehicle* regressions use Tobit due to the absence of endogeneity while for *entertainment services* an IV Tobit model is used.

Source: authors' calculations.

Table D6: Caste and religion-based differences in expenditure on other consumption categories 2004–05

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
Food	0.002 (0.006)	0.008 (0.007)	0.005 (0.012)	0.044*** (0.007)	-0.038*** (0.013)	0.002 (0.012)	12.32 (0.138)	15,684
Restaurants <sup>a</sup>	-0.008 (0.123)	0.081 (0.177)	0.726*** (0.263)	0.568*** (0.171)	0.623** (0.262)	-0.101 (0.304)		15,690
Alcohol and tobacco <sup>a</sup>	0.336*** (0.078)	0.823*** (0.103)	0.722*** (0.146)	0.374*** (0.101)	0.151 (0.203)	-0.662*** (0.207)		15,690
Utilities	0.028*** (0.010)	-0.007 (0.013)	-0.140*** (0.019)	0.156*** (0.013)	-0.005 (0.024)	0.036* (0.021)	1.32 (0.251)	39,698
Housing <sup>a</sup>	-0.743*** (0.267)	-1.596*** (0.385)	-0.699 (0.668)	-0.439 (0.366)	-0.013 (0.640)	0.013 (0.641)		15,690
Consumables	0.002 (0.013)	0.010 (0.017)	-0.025 (0.029)	-0.006 (0.018)	-0.013 (0.031)	0.002 (0.028)	9.047 (0.338)	14,195
Furnishing <sup>a</sup>	0.059 (0.066)	-0.095 (0.092)	0.268* (0.148)	0.155* (0.091)	-0.049 (0.145)	0.085 (0.154)		15,690
Other transport <sup>a</sup>	-0.064 (0.054)	0.002 (0.078)	0.211* (0.127)	-0.150** (0.074)	-0.131 (0.116)	0.176 (0.137)		15,690
Entertainment durables <sup>a</sup>	0.004 (0.143)	0.232 (0.179)	0.954*** (0.268)	-0.378* (0.199)	-0.200 (0.406)	-0.857*** (0.327)		40,957
Social	0.059*** (0.022)	0.011 (0.030)	0.059 (0.049)	0.039 (0.029)	-0.031 (0.042)	-0.057 (0.051)	2.961 (0.398)	13,326
Education <sup>a</sup>	-0.281*** (0.046)	-0.500*** (0.055)	-0.742*** (0.082)	-1.245*** (0.062)	-0.004 (0.121)	-0.005 (0.101)		40,980
Health <sup>a</sup>	0.090 (0.081)	0.369*** (0.109)	-0.673*** (0.190)	-0.117 (0.109)	0.459** (0.180)	0.121 (0.200)		15,690
Other <sup>a</sup>	-0.184** (0.077)	-0.225** (0.110)	0.285* (0.167)	-0.363*** (0.111)	-0.357* (0.182)	0.287 (0.175)		15,690

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of particular components of conspicuous consumption expenditures among households belonging to various caste and religious groups for IHDS I (2004–05). An IV regression is used, same as specification (5) of Table 2, with the dependent variables as the log of the relevant conspicuous consumption categories as mentioned in Table 1. The inclusion of instruments depends on Hansen's J test for the overall validity of the instrumental variables. For the regression with *personal care* as the dependent variable, 'occupation' is excluded from the instruments while for the regression with *clothing* as the dependent variable only the log of income is used. For those consumption expenditure categories with a superscript, an IV Tobit or Tobit specification was used (depending on the presence of endogeneity), due to a non-trivial proportion of zeros present in the data. *Jewellery* and *vehicle* regressions use Tobit due to the absence of endogeneity while for *entertainment services* an IV Tobit model is used.

Source: authors' calculations.



Table D7: Caste and religion-based differences in expenditure on conspicuous goods 2011–12

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
Personal care	0.042** (0.018)	0.048*** (0.018)	0.068*** (0.019)	−0.003 (0.017)	−0.007 (0.037)	−0.050 (0.031)	10.37 (0.169)	39,580
Jewellery <sup>a</sup>	−0.143 (0.330)	0.530* (0.311)	0.487 (0.348)	0.039 (0.315)	−1.526** (0.628)	−0.940* (0.543)		40,619
Clothing	−0.064*** (0.014)	−0.028** (0.012)	−0.009 (0.013)	0.067*** (0.013)	−0.069** (0.029)	−0.012 (0.021)		39,480
Vehicle <sup>a</sup>	−0.002 (0.089)	0.221*** (0.080)	0.129 (0.088)	−0.341*** (0.086)	−0.497** (0.198)	0.053 (0.126)		40,620
Entertainment services <sup>a</sup>	−0.214 (0.177)	−0.238 (0.178)	−0.232 (0.211)	−0.343* (0.199)	−0.870*** (0.306)	−0.094 (0.313)		15,166

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of particular components of conspicuous consumption expenditures among households belonging to various caste and religious groups for IHDS II (2011–12). An IV regression is used, the same as specification (5) of Table 2, with the dependent variables as the log of the relevant conspicuous consumption categories as mentioned in Table 1. The inclusion of instruments depends on Hansen's J test for the overall validity of the instrumental variables. For the regressions with *personal care* as the dependent variable, 'log of income' and 'education' are excluded, for *clothing* all instruments except 'log of income' are excluded. For those consumption expenditure categories with a superscript, an IV Tobit or Tobit specification was used (depending on the presence of endogeneity), due to a non-trivial proportion of zeros present in the data. For *Jewellery* and *vehicle*, Tobit is used, while *entertainment services* uses IV Tobit.

Source: authors' calculations.

Table D8: Caste and religion-based differences in expenditure on other consumption categories 2011–12

	OBC	SC	ST	Muslim	Christian	Other	Hansen's J	N
Food	0.036*** (0.008)	0.016** (0.007)	0.013 (0.009)	0.051*** (0.008)	0.023 (0.015)	0.012 (0.012)	13.138 (0.107)	15,159
Restaurants <sup>a</sup>	0.449** (0.198)	0.770*** (0.196)	1.170*** (0.225)	0.248 (0.203)	-0.857*** (0.302)	0.069 (0.344)		15,164
Alcohol and Tobacco <sup>a</sup>	-0.216* (0.124)	-0.101 (0.117)	0.567*** (0.134)	0.104 (0.135)	0.149 (0.257)	-0.436* (0.242)		15,166
Utilities	0.020** (0.010)	0.013 (0.009)	-0.001 (0.010)	0.005 (0.010)	0.029 (0.018)	0.007 (0.017)	0.095 (0.758)	39,980
Housing <sup>a</sup>	1.026*** (0.382)	0.222 (0.386)	-0.498 (0.455)	-0.376 (0.405)	-0.246 (0.594)	0.188 (0.704)		15,171
Consumables	0.014 (0.016)	0.022 (0.015)	0.013 (0.018)	-0.025 (0.018)	0.020 (0.029)	-0.047* (0.028)	11.393 (0.180)	15,057
Furnishing <sup>a</sup>	-0.031 (0.079)	0.070 (0.077)	0.117 (0.089)	-0.140 (0.086)	0.033 (0.152)	0.118 (0.130)		15,163
Other transport	-0.146*** (0.051)	-0.051 (0.050)	0.020 (0.061)	-0.141** (0.057)	0.058 (0.080)	0.027 (0.084)	14.396 (0.109)	15,171
Entertainment durables <sup>a</sup>	0.003 (0.024)	-0.040* (0.021)	0.039* (0.022)	-0.079*** (0.021)	-0.070 (0.049)	-0.039 (0.042)		40,617
Social	-0.056*** (0.019)	-0.021 (0.017)	-0.028 (0.018)	-0.035* (0.018)	-0.158*** (0.036)	0.105*** (0.028)	0.94 (0.332)	37,004
Education <sup>a</sup>	0.102 (0.101)	-0.190** (0.099)	-0.471*** (0.116)	-1.127*** (0.111)	-0.094 (0.172)	-0.117 (0.183)		15,161
Health	0.143** (0.072)	0.084 (0.070)	0.114 (0.081)	0.083 (0.075)	0.063 (0.131)	-0.229* (0.133)	6.714 (0.667)	15,163
Other	-0.109** (0.053)	0.043 (0.051)	-0.010 (0.060)	-0.314*** (0.056)	-0.281*** (0.094)	-0.277*** (0.106)	14.209 (0.115)	15,153

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the gaps in the log of particular categories of consumption expenditures other than conspicuous consumption among households belonging to various caste and religious groups for IHDS II (2011–12). An IV regression is used, the same as specification (5) of Table 2, with the dependent variables as the log of the relevant conspicuous consumption categories as mentioned in the table. The inclusion of instruments depends on Hansen's J test for the overall validity of the instrumental variables. For the regressions with *food* and *consumables* as the dependent variable, 'log of income' is excluded from the instruments, and for *utilities* and *social* 'log of income', 'Education', and 'Occupation' are excluded. For those consumption expenditure categories with a superscript, an IV Tobit or Tobit specification was used (depending on the presence of endogeneity), due to a non-trivial proportion of zeros present in the data. For the regression with *entertainment durables* as the dependent variables, Tobit specification is used; all other categories of consumption use IV Tobit.

Source: authors' calculations.

Table D9: Difference in log conspicuous consumption for various caste and religious groups in 2004–05

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coefficient for OBC	0.033*** (0.013)	0.023* (0.014)	0.097*** (0.017)	0.007 (0.022)	0.006 (0.022)	0.047*** (0.014)	0.023 (0.014)
Coefficient for SC	0.053*** (0.017)	0.033* (0.018)	0.133*** (0.024)	0.009 (0.031)	0.008 (0.031)	0.056*** (0.019)	0.032* (0.018)
Coefficient for ST	-0.041 (0.027)	0.028 (0.030)	0.067* (0.035)	-0.001 (0.043)	-0.006 (0.044)	-0.028 (0.030)	0.025 (0.030)
Coefficient for Muslim	-0.021 (0.016)	0.039** (0.018)	-0.014 (0.017)	0.036** (0.018)	0.037** (0.018)	-0.054*** (0.019)	0.006 (0.023)
Coefficient for Christian	-0.047* (0.024)	0.006 (0.036)	0.017 (0.037)	0.007 (0.036)	0.006 (0.036)	0.000 (0.037)	0.015 (0.038)
Coefficient for other religion	-0.086*** (0.025)	-0.033 (0.030)	-0.089*** (0.030)	-0.031 (0.030)	-0.031 (0.030)	-0.104*** (0.029)	-0.038 (0.030)
Log of average income of own caste group in a state			0.113*** (0.027)	-0.038 (0.043)	-0.045 (0.045)		
Dispersion of income for own caste group in a state					0.010 (0.020)		
Log of average income of own religious group in a state						0.037 (0.024)	-0.047 (0.048)
Dispersion of income for own religious group in a state						-0.102*** (0.012)	-0.065** (0.032)
Inclusion of state fixed effects	No	Yes	No	Yes	Yes	No	Yes
Hansen's J	3.932 (0.686)	7.623 (0.573)	10.305 (0.326)	7.547 (0.580)	7.571 (0.578)	11.054 (0.272)	7.534 (0.582)
N	15,876	12,385	12,385	12,385	12,385	12,385	12,385

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the coefficients for each caste category for five different specifications using IHDS I (2004–05). Each household is weighted with sample weights; the same results for the unweighted sample are reported in Appendix D. Specification (1) is the same as specification (5) of Table 2 with the exclusion of state fixed effects and the 'log of income', and a quadratic in income as instruments. These instruments are dropped based on Hansen's J test for the overall validity of the instrumental variables. All other specifications use all instruments. Specification (2) adds state fixed effects to specification (1). Specification (3) adds the log of the mean of own caste income in a particular state without state fixed effects. Specification (4) adds state fixed effects to specification (3). Specification (5) adds coefficient of variation of income for own caste group in the state to specification (4). Specification (6) adds the log of the mean of own religion income in a particular state and coefficient of variation of income for own religion in each state to specification (1), while specification (7) adds state fixed effects to specification (6).

Source: authors' calculations.

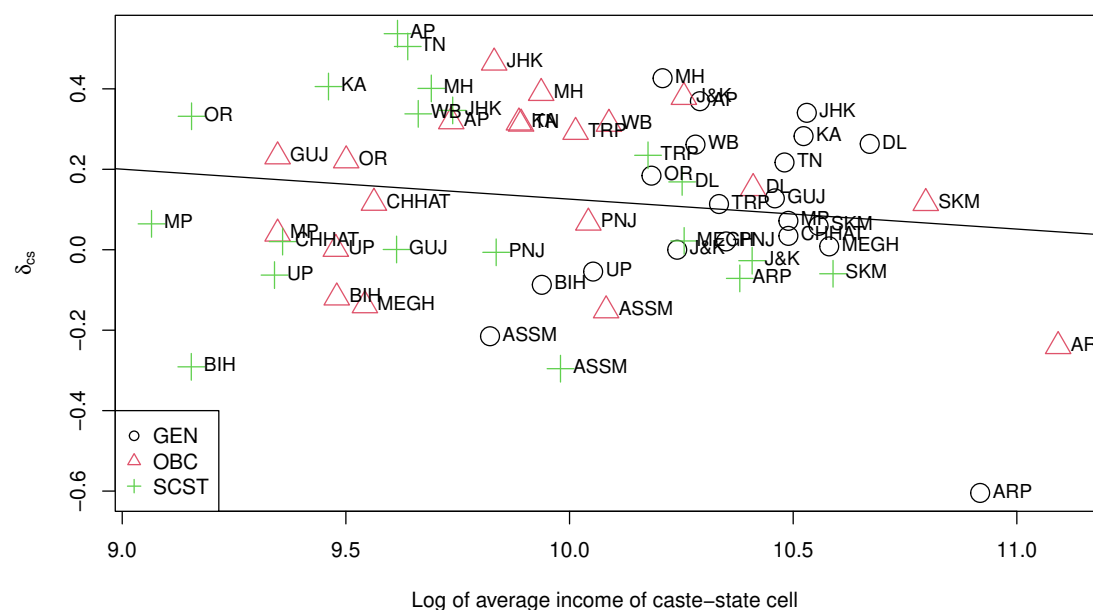
Table D10: Difference in log conspicuous consumption for various caste and religious groups in 2011–12

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coefficient for OBC	−0.034*	−0.023	0.033**	−0.018	−0.024	−0.028**	−0.026
	(0.018)	(0.020)	(0.014)	(0.022)	(0.022)	(0.013)	(0.020)
Coefficient for SC	0.003	0.005	−0.052***	0.004	0.012	−0.048***	0.004
	(0.018)	(0.019)	(0.012)	(0.019)	(0.019)	(0.012)	(0.019)
Coefficient for ST	−0.011	−0.014	−0.100***	−0.018	−0.009	−0.048***	−0.016
	(0.020)	(0.021)	(0.012)	(0.023)	(0.023)	(0.013)	(0.021)
Coefficient for Muslim	0.038*	0.034	−0.003	0.034	0.032	−0.030**	0.026
	(0.020)	(0.021)	(0.012)	(0.021)	(0.021)	(0.013)	(0.025)
Coefficient for Christian	−0.156***	−0.174***	−0.098***	−0.175***	−0.171***	−0.074***	−0.184***
	(0.036)	(0.039)	(0.026)	(0.039)	(0.039)	(0.027)	(0.041)
Coefficient for other religion	0.003	−0.015	0.030*	−0.014	−0.014	0.024	−0.032
	(0.028)	(0.030)	(0.018)	(0.030)	(0.030)	(0.018)	(0.030)
Log of average income of own caste group in a state			−0.239***	−0.019	0.005		
			(0.016)	(0.040)	(0.041)		
Dispersion of income for own caste group in a state					−0.036***		
					(0.013)		
Log of average income of own religious group in a state						−0.216***	0.071
						(0.015)	(0.054)
Dispersion of income for own religious group in a state						−0.004	−0.075**
						(0.009)	(0.030)
Inclusion of state fixed effects	No	Yes	No	Yes	Yes	No	Yes
Hansen's J	13.302	11.877	2.538	11.863	12.827	2.604	12.17
	(0.149)	(0.220)	(0.111)	(0.221)	(0.171)	(0.107)	(0.204)
N	15,146	12,815	33,356	12,815	12,815	33,356	12,815

Note: robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The table shows the coefficients for each caste category for five different specifications using IHDS II (2011–12). Specification (1) is the same as specification (5) of Table 2 with the exclusion of state fixed effects. Specification (2) adds state fixed effects to specification (1). Specification (3) adds the log of the mean of own caste income in a particular state without state fixed effects. Specification (4) adds state fixed effects to specification (3). Specification (5) adds the coefficient of variation of income for own caste group in the state to specification (4). Specification (6) adds the log of the mean of own religion income in a particular state and coefficient of variation of income for own religion in each state to specification (1), while specification (7) adds state fixed effects to specification (6). For specifications (3) and (6), the variables 'income', 'occupation', and 'education' are excluded as instrumental variables based on Hansen's J test for over-identifying restrictions.

Source: authors' calculations.

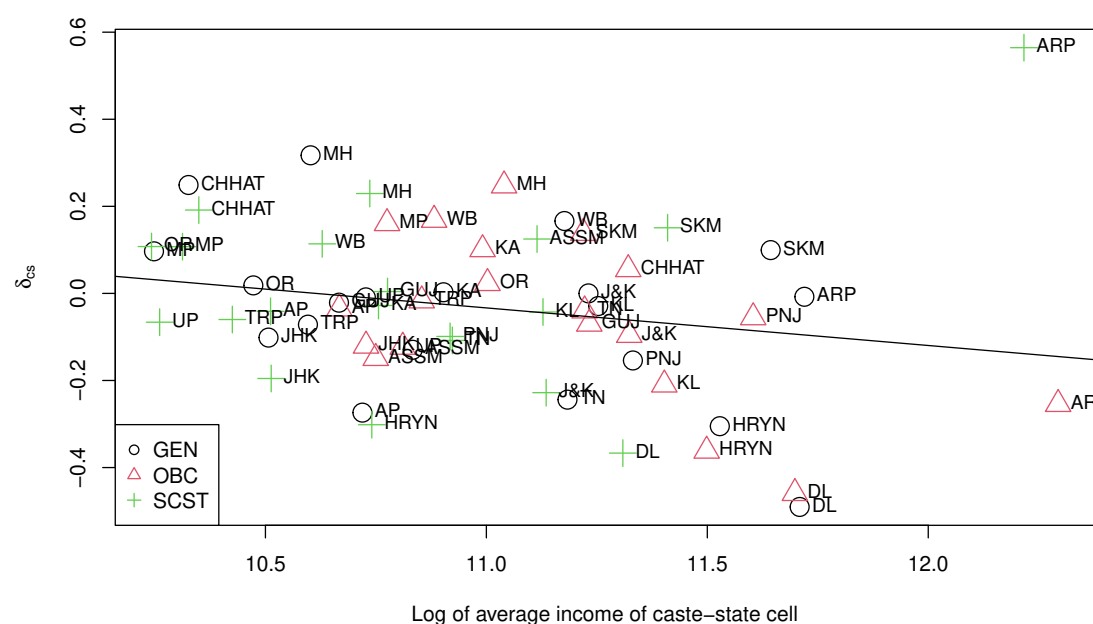
Figure D1: Relationship between conditional log expenditure on conspicuous consumption and log of average income by caste-state cells, 2004–05



Note: the figure shows the relation between the log of the mean income of each caste-state cell with its respective conditional log difference in spending on conspicuous consumption as shown in Equation (2), with the base category as General category households and the base state as the erstwhile state of Jammu and Kashmir.

Source: authors' compilation.

Figure D2: Relationship between conditional log expenditure on conspicuous goods and log of average income by caste–state cells, 2011–12



Note: the figure shows the relation between the log of the mean income of each caste–state cell with its respective conditional log difference in conspicuous consumption as shown in Equation (2), with the base category as General category households and the base state as the erstwhile state of Jammu and Kashmir.

Source: authors' compilation.