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Does inequality affect the consumption  
patterns of the poor? The role of “status  
seeking” behaviour

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## **Does inequality affect the consumption patterns of the poor?**

### **The role of “status seeking” behaviour**

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#### **Abstract**

*We consider a situation where the relatively ‘poor’ are concerned about their relative income status with respect to a relevant reference group. Such a concern is explicitly introduced in a utility function to study the consequences of societal status on the consumption behavior of the poor. The theoretical model points toward a possible conflict between income based and nutrition-based measure of poverty. Our theoretical model point toward a direct and negative relationship between inequality and share of nutritional consumption as reflected in the consumption of food. Finally the paper looks at the empirical relationship between inequality and consumption across districts within states of India. The hypotheses that inequality impacts consumption patterns via status effect turns out to be statistically significant for almost all the Indian states.*

**Keywords:** Status; Consumption pattern; Inequality; Poverty;

**JEL Classification:** D01, O40, D12, C13, C14, C51

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## **I. Introduction**

A fundamental query involving the preference pattern of any individual in a society, has to deal with the influence of the society on the consumption behavior of the individual. The idea of conspicuous consumption and the so-called Veblen effect are quite well known in economics. Very recently, Sivanathan and Petit (2010) have confirmed the fact that individuals are quite sensitive to their relative status in the society and would like to ‘mend’ their ‘self’, under constant attack from various social pressures, by taking recourse to status-signaling consumption behaviour. A series of experiments confirms such a pattern of human behaviour. This is one of the building blocks of the utility function that we use in the subsequent analysis. Early literature includes Frank (1985) who talks about context dependent preferences and the concern for status as we discuss in this paper, is an issue related to a particular social context. More recently, Mujcic and Frijters (2013) have explicitly and convincingly demonstrated a method for measuring the willingness to pay to move up the status ladder. The paper starts off by highlighting a well-observed empirical phenomenon, discussed extensively in the literature on poverty in India. Patnaik (2007) and Deaton and Dreze (2009) have dealt with the conflict between income-based measure and nutrition-based measures of poverty. In India people moving above the poverty line with greater monthly expenditure on overall consumption demonstrate lower nutritional intake. Thus Patnaik (2007) asserts that actual poverty estimate is far greater than the optimistic figure provided by the government. While Deaton and Dreze (2009) analyze various reasons for such a behaviour, not much emphasis is given to the role of a status-driven consumption pattern, although they do not altogether ignore such a possibility. That social inequality can influence individuals’ consumption and induce greater consumption of the so-called status good, becomes quite relevant for such analysis. Thematically this is undermined and under-explored in the poverty literature. We will eventually demonstrate why preexisting social inequality can lead to the conflicting measures of poverty and provide empirical evidences to justify our standpoint.

## **II. Literature Review**

There are a number of works that highlight the conflict between income-based measure and nutrition-based measure of poverty and offer some reasonable explanations. Patnaik (2007)’s analysis shows that the official level of poverty (which has been very optimistic of lately) has

been highly underestimating the true scenario. The paper further focuses on the contradictory empirical finding that states having higher value in poverty index using income-based measure may have higher calorie intakes and the vice-versa. Such contradictions in results with the two different measures have been found for states in India like Gujarat and Bihar, Orissa and Andhra Pradesh. The paper also highlights the fact that calorie intake alone, cannot measure poverty to its maximum precision. There are many cases where high income groups consume lower levels of calories in comparison to their age and sex. This might be due to their job requirements, or their amount of physical labour might be low and due to certain health conditions.

Deaton and Dreze (2009) analyse the reason behind the discrepancies in the results of the two measures of poverty. They observe that nutritional intake, proxied by calorie intake, has been declining with rising incomes as a result of change in activity structure affecting the food intake pattern in both rural and urban societies. Though they emphasize that calorie intake in itself cannot measure the well-being of the society as other nutrients are also equally important. There is also an indication to the possibility of a squeeze in the food budget of poor household for increase in non-food expenses like schooling and other social necessities.

A paper by Radhakrishna and Ravi (2004) explores an empirical relationship between malnutrition and poverty for the rural India, along with a logit regression using maximum likelihood method to identify the determinants of rural malnutrition. Their findings suggest that even though there is some achievement in poverty reduction, India has not been very successful in reducing malnutrition. In a working paper by Mukherjee, Rajaraman, and Swaminathan (2010), they have modeled both under nutrition and over nutrition in India along with which they have discussed the role of different forms of economic inequality, and various behavioral variable (such as diet and activity) that affect nutrition. Analysis of under and over weight in India using data from 1998-1999 have found individual socioeconomic status to be an important predictor of being overweight [Griffiths and Bentley (2001)]. Peter Svedberg (2008) addressed the question as to why high overall economic growth in India has failed to alleviate child malnutrition. This paper tries to provide firm empirical and quantitative evidence of female subjugation relative to poverty income as a reason for stunted growth in nutritional status.

Nevertheless, not much focus has been given in India on the role of status affecting the consumption pattern of the poor people. Most of the explanations regarding falling nutrition levels, provided till date, have been related to stagnation in agricultural production with more

than 50% of the population being employed in agriculture. But the last few decades have seen a large shift in the sectorial composition of employment structure as well and so there is a need to explore further avenues to explain the contradictory results with the two measures of poverty. In general there is a need to understand the impact of status on consumption patterns of individuals for tax and welfare related policies in general.

One issue that is empirically relevant for research on poverty and nutrition, has to do with the causal relationship between inequality and poverty. The conventional wisdom that poverty causes inequality needs to be reexamined if the status effect is important. Faster growth rates do not mean that the increment is equally shared by various income classes. Rising inequality accentuates status effect and compels people toward status-based consumption pattern and may adversely affect poverty in terms of nutritional measure. Social perception about status might be related to the information about global consumption standard as projected through electronic media. These effects must be seriously looked into.

A voluminous literature discusses the impact of social status, relative income and relative rewards on productivity such as Hopkins and Kornienko (2010), Ku and Salmon (2009), on optimal taxation such as Beath and Fitzroy (2010), Kanbur and Tuomala (2010) and on networks such as Ghigliano and Goyal (2008). There is also a huge literature that has empirically examined the relationship between relative societal position and well-being. The papers by Easterlin [(1974), (1995) and (2001)] note that income and self-reported happiness are positively correlated across individuals within a country. The author interprets these findings as evidence that relative income rather than absolute income matters for well-being. Using European micro data, Van de Stadt, Kapteyn, and Van de Geer (1985), Clark and Oswald (1996), Senik (2004), and Ferrer-i-Carbonell (2005) find that well-being is partly driven by relative position, where reference groups are defined by demographic characteristics. Using U. S. data, McBride (2001) finds evidence that relative income affects subjective well-being, but they caution about the statistical reliability of their findings. Also, the paper by Luttmer (2005) using NSFH data finds that, controlling for an individual's own income, higher earnings of neighbors are associated with lower levels of self-reported happiness and that increased neighbors' earnings have the strongest negative effect on happiness for those who socialize more in their neighborhood. However, these papers do not deal with the issues we are discussing in this paper.

Status led consumption can hurt the level of intergenerational bequests and increase the probability of a poverty trap with imperfect credit markets as demonstrated in Moav and Neeman (2012). Status seeking behavior may impact risk-taking attitude of individuals with interesting consequences. Such issues have been discussed by Robson (1992) and Ray and Robson (2012). Concern for relative income status may affect the pattern of trade of a poor economy. These have been dealt with, in Marjit and Roychowdhury (2012).

We felt the importance of introducing the concept of status in a simple utility function that can capture the essence of the issue and then try to assess its implications. In the first phase of the paper we precisely do that and build up a case that increasing absolute level of purchasing power may actually decrease nutritional measure of poverty, where food effectively turns out to be an “inferior” good if the status-concerned consumer internalizes the distributional implication of an overall change in income. This result is generated through a direct impact of inequality on consumption, in particular on food to non-food consumption. Then we proceed to test this hypothesis in terms of the most widely used data set in India, the National Sample Survey Organization data on household level consumption with the latest two rounds of data across Indian states for the rural and urban sectors. Another motivation for using a large sample is that in earlier works, experiments, anecdotal observations, case studies (see Luttmer (2005), Fafchamps and Shilpi (2008), Banerjee and Duflo (2011), etc.) do point toward such behavior. Natural question is whether large data set and wider variations accommodate such claim.

The paper is structured as follows. The second section develops a basic theoretical model, one that explains the conflict between income and nutrition-based measures of poverty. The third section deals with the empirical evidence on inequality and poverty using the National Sample Survey data for Indian states and districts. The last section concludes.

### **III. A Theoretical Model**

We start with two axioms on how perceived social inequality affects the individual welfare.

*Axiom 1: Being down the societal ladder hurts.*

This implies that individuals’ perception about their societal position, positively affect their individual utilities. This prompts individuals down the societal ladder to revive some of their societal image by engaging in the consumption of certain conspicuous “status goods” which leads us to:

*Axiom 2: A lower relative societal position increases the value the representative individual confers to the status good relative to the non-status good.*

The above axiom is modeled as the property of the utility function where, a rise (fall) in the perceived status of the representative individual decreases (increases) the ratio of the marginal utility of the status good relative to the non-status good. That is if the utility  $U$  is represented by:

$U = U(n, s, \Phi)$ , then axiom 2 implies:

$$\frac{\partial}{\partial \Phi} \left( \frac{\partial U}{\partial s} / \frac{\partial U}{\partial n} \right) > 0$$

or, along with the usual assumptions of positive marginal utilities associated with the consumption of both the status and non-status goods:

$$\frac{U_{s\Phi}}{U_{n\Phi}} > \frac{U_s}{U_n}$$

where  $n$  denotes the consumption of the non-status good,  $s$  denotes the consumption of the status good,  $\Phi$  is a measure of the perceived status of the representative individual and the subscripts attached to the function  $U$  denotes the partial derivatives with respect to the respective variables. The above axiom is directly drawn from experimental psychology literature where intensity of desire to consume the status good seems to be greater among those who are affected by social inequality. Maximization of the utility function subject to the budget constraint:

$$p_s s + n = I \tag{M1}$$

which supposes the non-status good to be the numéraire yields the first order condition:

$$\frac{U_s}{U_n} = p_s \tag{M2}$$

where  $p_s$  denotes the price of the status good and  $I$  denotes income. In order to study the impact of axiom 2 on the consumption of the goods at optimal, we differentiate equations (M1) and (M2) to obtain:

$$p_s ds^* + dn^* = dI \tag{M3}$$

$$U_{ss}^* ds^* + U_{sn}^* dn^* + U_{s\Phi}^* d\Phi = p_s (U_{ns}^* ds^* + U_{nn}^* dn^* + U_{n\Phi}^* d\Phi) \tag{M4}$$

using a star as a superscript to indicate quantities evaluated at the optimal. Manipulating (M3) and (M4), we arrive at (note  $U_{sn}^* = U_{ns}^*$ ):

$$ds^* = \frac{(U_{sn}^* - U_{nn}^*)dI + (U_{s\Phi}^* - U_{n\Phi}^* p_s)d\Phi}{-[U_{ss}^* - 2p_s U_{sn}^* + p_s^2 U_{nn}^*]} \tag{M5}$$

$$dn^* = \frac{(U_{sn}^* p_s - U_{ss}^*)dI + (U_{n\Phi}^* p_s - U_{s\Phi}^*)p_s d\Phi}{-[U_{ss}^* - 2p_s U_{sn}^* + p_s^2 U_{nn}^*]} \tag{M6}$$

In the above equations, the denominator takes up a positive sign assuming the second order sufficient conditions for the utility maximization problem to hold. Also axiom 2 and equation (M2) along with positive marginal utilities of status and non-status commodities implies that the expression:  $U_{s\Phi}^* - U_{n\Phi}^* p_s$  remains strictly positive. Our assumption will be that individuals' status perception is based on their level of incomes relative to the society's average income level such that being above average does not matter, but being below definitely hurts. This asymmetry is deliberate to highlight the implications of belonging to the downside of inequality. This implies:

$$\Phi = \Phi\left(\frac{I}{\bar{I}}\right) \begin{cases} = 1 & \text{for } I \geq \bar{I} \\ < 1 & \text{for } I < \bar{I} \end{cases} \text{ together with } \Phi' \begin{cases} = 0 & \text{for } I \geq \bar{I} \\ > 0 & \text{for } I < \bar{I} \end{cases}$$

Thus from the equations (M5) and (M6) and along with the usual assumptions of diminishing marginal utilities of both the consumables and non-negative cross partial derivatives of the utility function, we may conclude that:

- i.  $\frac{\partial s^*}{\partial I} > 0$  unambiguously and
- ii.  $\frac{\partial n^*}{\partial I} \lesseqgtr 0$  according to as  $\Phi' \gtrless \frac{(U_{sn}^* p_s - U_{ss}^*)}{(U_{s\Phi}^* - U_{n\Phi}^* p_s) p_s}$ .

The last relationship also implies that  $\frac{\partial n^*}{\partial I} > 0$  if  $\Phi' = 0$  i.e. when status consciousness is absent.

It may also be noted that:

$$\frac{\partial U^*}{\partial I} = \frac{-(U_n^* U_{ss}^* - 2U_s^* U_{sn}^* + U_s^* U_{nn}^*) - \left[ U_{ss}^* - 2\frac{U_s^*}{U_n^*} U_{sn}^* + \left(\frac{U_s^*}{U_n^*}\right)^2 U_{nn}^* \right] U_{\Phi}^*}{-[U_{ss}^* - 2p_s U_{sn}^* + p_s^2 U_{nn}^*]} \text{ is unambiguously positive.}$$

The above properties of the optimal consumption and utility thus culminates in:

**Proposition 1: A growth in income may reduce consumption of non-status goods such as food and hence nutritional intake if it is accompanied by a worsening of income distribution. Thus non-status good will look to be an “inferior” good implying that income based and nutritional-based measures of poverty will not match. If income distribution remains unchanged, there will be no such conflict.**

**Proof:** See the discussion above. Q.E.D.

#### IV. Empirical Analysis:



Given the massive impact that distribution of income has on one's perception of her status in the society and thus her consumption decisions, it becomes vital at this stage to see the impact of such perceptions on one's decision making process, empirically. As the theory has already established that status concerns have an adverse effect on the nutritional state of the people, even in the face of rising incomes, here we exemplify the existence of such a phenomenon empirically. For our purpose, we take up India, as a prospective candidate and look for the prevalence of status, affecting the relative consumptions of commodities.

In India, it is often observed that higher levels of overall consumption expenditure (which is approximated as a proxy for income levels) among the poor do not imply higher nutritional intake which is quiet contrary to general perception. To present some anecdotal evidences along these lines, we consider the degree of poverty (measured by percentage of population lying below the poverty line) and child malnourishment (measured by percentage of children suffering from malnourishment) for the states of India. Figure F1 plots those two variables against the states' per capita gross state domestic product (taken in log). From the figure, we can clearly appreciate that although with a rise in the gross state domestic product (hereafter referred to as GSDP) as a proportion of total population there is an appreciable decline in poverty, no such trends is observed for child malnourishment. For example states like Andhra Pradesh, Gujrat, Haryana, Himachal Pradesh, Karnataka, Punjab and Tamil Nadu although having a respectable amount of per capita GSDP, still register a high degree of child malnutrition compared to the states having relatively lower amount of per capita GSDP like Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa and Rajasthan, Uttar Pradesh and West Bengal. But if we consider poverty, we can see that changes in poverty figures of the states are more amenable to the respective per capita GSDP figures.

*Insert Figure F1 about here*

World Bank Data reveals, in the past decade, India has seen high annual growth rates from about 4 percent to an average of 8 percent peaking to about 10 percent in 2011. Also the poverty levels (according to World Bank data) have reduced over years. But the nutritional status of many states of the country does not show respectable levels of improvement. Svedberg (2008) found that between 1993 and 2006, net state domestic product per capita grew by about 4.5% per year

on an average, nearly a doubling of real income, while the prevalence of child stunting and underweight reduced by a meagre 23 percent to 12 percent over the past 13 years. Whereas in China, child stunting fell from 33 to 10 percent during 1992-2005 and child underweight was practically eliminated. Also prevalence of under nutrition in adult women in 2005-2006 was 33%, down only by 3 percentage points from 36 percent in 1998-1999<sup>1</sup>. All these facts and figures indicate that not only does one may obtain different conclusions if one takes a nutrition based approach of poverty, rather than an income based approach but in addition, changes in per capita GSDP which may result from certain policy prescriptions may have different impacts as judged by these two measures of poverty.

One possible candidate that can generate such a non-trivial observation, have been attributed in our paper to the persistence of status effect (the inherent tendency to consume status goods rather than nutritious goods to conform to societal status) prevailing among the population which interacts with the income effect and determines the overall relative consumption patterns and might be important from the view point of formulating economic policies. In many middle income countries it has been observed that as the income levels of the people rises, with a rise in income inequality, the low income people try to mimic the consumption pattern of higher income class, thereby bringing a shift in their expenditure structure toward luxury goods and thus affecting their nutritional status. This would imply another aspect of income inequality – that income inequality distorts consumption and expenditure patterns among the poor. In accordance with the theory developed so far, we consider a situation where the poor people are concerned about their relative social status. In a society with unequal distribution of income, to keep up with the standards of the high income class, low income people try to spend more on luxury goods so as to retain their relative status. In other words, income inequality in a society has an impact on the tendency to retain relative social status among the poor. This can be quantified by the spending on non-food luxury items in comparison to food items. In the ensuing sections we develop an empirical model to validate the widespread prevalence of status consciousness in the Indian society.

## **V. Data and Methodology**

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<sup>1</sup>International Institute of Population Sciences, Research Brief, No. 2, (2007).

The entire empirical analysis is entirely based on the extensive datasets provided by the National Sample Survey Organization of India viz. the NSS 66th and 68th round all India unit level survey on consumption expenditure (Schedule 1.0, Type 1 and 2). For both these rounds of NSSO data, the first stage sampling unit (hereafter referred to as FSU) is the 2001 census village for rural India and Urban Frame Survey blocks for urban India. For the urban sector, the Urban Frame Survey blocks are formed from towns/cities which are divided into **aerial compact** blocks with clear cut identifiable boundaries and permanent land marks. The ultimate stage units are the households and the datasets comprise of observations on various characteristics specific to the households and the individuals belonging to the households. Apart from this, data is also provided on the households' localization, such as the sector (Rural or Urban), district and state. The total number of household level observations in our analysis is 201649 for the 66th round and 203313 observations for the 68th round. The data spans thirty five states and union territories (henceforth, the union territories will be referred to as states). The total number of districts in our analysis is 612 for the 66th round and 625 for the 68th round.

Tables 1a and 1b summarize some of the key statistics related to the principal variables of our analysis namely the monthly per capita total expenditure and the monthly per capita expenditures on food commodities. Information is also provided for some subsidiary variables which are of interest such as the household size, the number of females in the household, the total land possessed and the amount of land cultivated by the household and the median age of the household. The statistics are reported for both the rounds and are categorized according to rural and urban sectors of the individual states as well as for the country as a whole.

In addition to the variables provided in the surveys, we construct a suitable inflator to account for the effect of price variations across the different administrative and economic agglomerations. More specifically, for each round, we calculate a state-district-sector specific price index that measures the amount of expenditure that is required to be made by a household living in that particular state, district and sector to attain the all-India median level of consumption of each of the essential non-durables<sup>2</sup>.

As discussed in the introduction, we are chiefly concerned with the impact of status on the food expenditures of the relatively poor people of the society and thus, we first identify the 'poor'

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<sup>2</sup> These constitutes the various food items, energy (for household use), clothing and bedding.

households. For our purpose, a household is defined to be “poor” if the monthly per-capita consumption expenditure of the household (which serves as a proxy to the respective household’s per capita income) falls short of the median monthly per-capita consumption expenditure of the particular FSU in which the household is located. This particular way of defining the poor households assumes the FSU specific per capita consumption expenditure level as our FSU specific poverty line. Note that this measure is able to account for the differences in the living standards across the different socio-economic agglomerations of the country as far as the data allows us to do so.

To motivate our empirical model, we present some preliminary observations from the data. For the same, we restrict our attention to those poor households belonging to a particular sector (rural/urban) whose monthly per-capita consumption expenditures, suitably deflated by the constructed price index, lie within a range of 10 percent above or below the Indian lowest quintile (i.e., 25<sup>th</sup> percentile) monthly per-capita consumption expenditure for that sector. Note that the deflated lowest quintile monthly per-capita consumption expenditure for rural Indian is Rs. 491 and Rs. 693 for 66<sup>th</sup> and 68<sup>th</sup> rounds respectively while the same for urban Indian is respectively Rs. 780 and Rs. 1069. Restricting ourselves to these households, we compute their FSU specific median food expenditure share and compare it against the respective FSU’s highest quintile (i.e., 75<sup>th</sup> percentile) deflated per capita consumption expenditure. We do this exercise separately for both the NSSO rounds. The plots from this exercise for both rounds of data are depicted in figure – F2. We find that each of the scatterplots depicts a negative relationship between the FSU’s median food expenditure ratios of the selected households and the FSU’s highest quintile per capita consumption expenditure irrespective of the sector and the rounds. To illustrate this clearly, we have superimposed a linear trend line to each of the scatterplots. The idea behind this exercise is that, if status consciousness is prevalent among the poor households then it would imply that these households living in a relatively affluent locality should spend relatively less on food items compared to those living in a relatively poor locality even if they have the same level of total expenditure. Thus the plots depicted, are in line with our conjecture and bears out the fact that relatively poor individuals belonging to a particular class of income (here proxied by total consumption expenditure), do tend to “mend their self” by revising their consumption patterns in a way that mimics the consumption patterns of the relatively richer sections in their societies.

*Insert Figure: F2 about here*

With this initial result in hand, we move on develop a detailed and robust statistical framework in the subsequent paragraphs to study the nature and significance of the role of status in shaping individuals' food consumption patterns.

For our formal empirical model, we need to identify a variable that quantifies the influences that promotes the status responsiveness of the poor households. In order to do so, we take up each FSU and define the logarithm of the FSU's highest quintile (i.e., 75<sup>th</sup> percentile) per capita consumption expenditure as the status variable of all the prospective households belonging to that particular FSU. The status variable constructed thus has the advantage that it makes our analysis robust to specification biases. This follows since the manner in which the status variable of a household is defined makes it irresponsive to the household's income up to a certain extent thus guarantying that this variable truly represents the households' responsiveness to its societal position rather than capturing certain nonlinearity of the households' income.

To test for the presence of status concern among the poor households, we look at the statistical significance of the association of the status variable with the expenditure share of food while allowing for the influences of total expenditure and a host of other covariates. For our underlying empirical model, we assume that the expenditure share of food is related to the relevant explanatory variables according to the relationship:

$$S = F_1(p) + F_2(M) + F_3(D) + F_4(Z) + \varepsilon$$

In the above relation,  $S$  represents the total share of expenditure on food,  $p$  denotes the vector of prices of the consumables,  $F_i(\cdot) \forall i = 1$  to 4 are arbitrary functions,  $M$ ,  $D$  denote income and the status variable respectively,  $Z$  represents a vector of other control variables and  $\varepsilon$  represents the statistical error component. We estimate the above relationship with some additional structure particularly on the functional forms of  $F_i(\cdot)$ 's as well as on the error term. Since we are essentially estimating an Engel relationship, we take up the functional form suggested by Lesser (1963) (a rank three model) and estimate the relationship:

$$\ln S_{ijkl} = \alpha + \beta \ln M_{ijkl} + \gamma \frac{1}{M_{ijkl}} + \theta D_{ijk} + \pi Z_{ijkl}^h + \rho Z_{ij}^{ssd} + \varepsilon_{ijkl} \quad \dots \text{ (E1)}$$

where  $\varepsilon_{ijkl} \sim N(0, \sigma_{ij}^2)$ , the subscript ‘ $i$ ’ indexes the possible combinations of states and sector, ‘ $j$ ’ indexes the districts, ‘ $k$ ’ indexes the FSU’s belonging to the particular combination of state, district and sector and ‘ $l$ ’ indexes the households belonging to the region identified by the indices ‘ $ijk$ ’. Note that in the above relationship, we have partitioned the vector of control variables  $Z$  into a vector of household specific variates  $Z^h$  and a vector of variates specific to the respective state sector and district  $Z^{ssd}$  (and hence the form of the subscripts associated with these variables). For the household specific controls, we incorporate a number of household characteristics that comprises of the household size (in logs), the maximum level of education<sup>3</sup>, the median age, the squared median age, the number of females (in logs), the principal occupation class and indicators for the social group<sup>4</sup>. On the other hand, for the state-sector-district specific controls, we consider the price index (construction is detailed earlier), the overall per-capita consumption expenditure (in logs), the total amount of land cultivated (in logs) and the fraction of the population who are skilled<sup>5</sup> for the corresponding combination of state, sector and district. These later controls serve as the broad indicators of the cost of living, development and factor abundance of the respective state sector and district. We also generalize the above model and allow for the status variable to incorporate the large amount of cultural and social diversity of the country. We thus investigate an alternative formulation of equation (E1) given by:

$$\ln S_{ijkl} = \alpha + \beta \ln M_{ijkl} + \gamma \frac{1}{M_{ijkl}} + \theta_i D_{ijk} + \pi Z_{ij}^h + \rho Z_{ijkl}^{ssd} + \varepsilon_{ijkl} \quad \dots \text{ (E2)}$$

Note that in the above equation, the coefficients associated with the status variable are allowed to vary across the states and sectors and thus it differs from the previous specification. The above systems are estimated using least squares techniques and the results of this empirical exercises are elucidated next.

## VI. Results and Discussion

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<sup>3</sup> The general educational level of an individual is indicated by numbers where, not literate: 0, literate without formal schooling: 1, literate with formal schooling below primary: 2, primary: 3, middle: 4, secondary: 5, higher secondary: 6, diploma/certificate course: 7, graduate: 8, postgraduate and above: 9.

<sup>4</sup> The social groups are: Scheduled Tribes: 1, Scheduled Castes: 2, Other Backward Classes: 3 and the rest: 9.

<sup>5</sup> Skilled individuals are defined as those who have received at least secondary level of education.

If poor people are indeed concerned about their relative standing in the society then it must get reflected in our empirical exercise as a significant  $\theta/\theta_i$ : the coefficient associated with the log of the variable indicating status effect. If  $\theta/\theta_i$  is significantly negative, it indicates that overall or for the particular state and sector indexed by 'i', a rise in income inequality coerces the individuals who are relatively poor, to consume food commodities in relatively lesser quantities compared to other non-food items.

The results for the model estimated for the NSSO 66<sup>th</sup> round data reveals that overall, for the whole country, status effect among the poor (i.e.  $\theta$ ) significantly lowers their relative food consumption [Refer Table: 2a] and this results continue to hold good even if we allow the status variable to vary across the states and sectors [Refer Table: 2b]. When the status variable is allowed to vary across the states and sectors, we can see that the coefficients assume negative values for all the combinations of states and sectors and are significant for almost all these states and sectors except for rural Andaman and Nicobar Islands, rural Lakshadweep, and rural Assam [Refer Table: 2b]. The results for the NSSO 68<sup>th</sup> round does not vary much in terms of the sign and the significance of the coefficients associated with the status variable. Thus yet again, we find that overall, for India, the coefficient of the status variable (i.e.  $\theta$ ) is negative and significant [Refer Table: 3a] whereas when the status variable is allowed to vary across the states and sectors, the coefficients assume negative values for all the combinations of states and sectors and are significant for almost all these states and sectors except for rural Lakshadweep for which the status coefficient assumes an insignificant positive value [Refer Table: 3b].

The literature on the empirical testing of status consciousness voices some concerns about the estimation of models as depicted by equations E1 and E2. Firstly there is the intuitive problem that since the various components of total expenditure are jointly determined by a household, the total expenditure is likely to be endogenous for the model discussed above. Secondly, there is also the common statistical concern that the measurement errors in the components of total consumption, of which food items is one, is related to the measurement error in total expenditures. Given these concerns, we re-estimate our generalized model (i.e. equation E2) and instrument for the log of total expenditure using the total land possessed by the respective households, taken in logarithms. We report the results of the hypothesis test that whether the suspect endogenous regressor: total expenditure, can be treated as exogenous. We also test for any “weak instrument” concerns associated with the suggested instrument. The results from both

of these exercises [Refer Table – 4] reveal that both of the concerns discussed above are not relevant for our problem and guarantees the continued validity of the results forwarded in the previous tables.

If we summarize the results obtained from the above regressions, we show that the coefficient of log status is indeed negative and significant for the country as a whole and even for almost all the states and sectors. This empirically affirms our assumption regarding individuals' status consciousness and its impact on the individuals' consumption of certain “non-status” goods particularly food.

### **VIII. Conclusion**

In this paper we wanted to focus on the impact of relative status on the consumption behaviour of the poor who might feel relatively deprived in a society with highly unequal income distribution. We have demonstrated that concern for social status in a situation where a rise individual income is also accompanied by a worsening of income distribution, people may spend less on food and more on status good. Thus income based and nutrition-based measures of poverty will give qualitatively different result and income growth will be consistent with malnutrition. After theoretical demonstration we test our results in terms of the NSSO 66<sup>th</sup> and 68<sup>th</sup> round datasets across Indian states and estimation through various methodologies strongly corroborate our claim. In many states we cannot rule out the negative impact of inequality, which is the key force behind the concern for status, on relative consumption of food. Future work will try to explore the implication of such concern for status on health, education and gender related issues.

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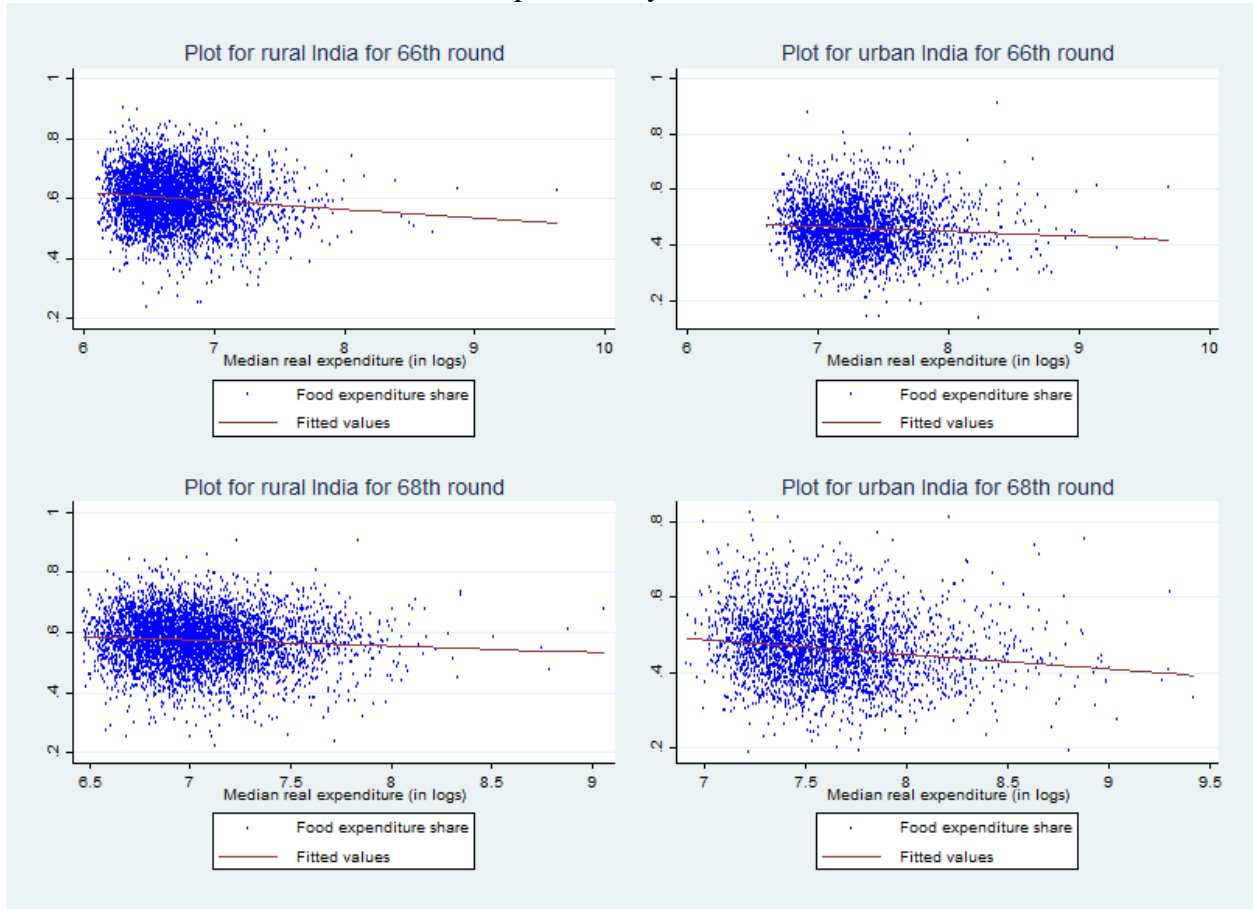
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Figure: E2  
Status effect: some preliminary observation from the data



Source: Based on authors' calculations from data.

Table 1a: Descriptive statistics of important variables for the 66<sup>th</sup> round.

State	Sector	Monthly per-capita consumption expenditure					Monthly per-capita food expenditure					Household size		Number of females	Land possessed in hectares				Land cultivated in hectares				Median age		
		Mean	Median	SD	Min	Max	Mean	Median	SD	Min	Max	Mean	Max		Mean	Median	SD	Max	Mean	Median	SD	Max	Mean	Median	SD
Jammu & Kashmir	Rural	1362.3896	1203.6145	693.0399	322.6367	1.65e+04	732.9030	658.6000	298.9507	204.8750	3845.9045	5.2955	25.0000	2.5598	0.5343	0.4000	0.5304	6.0000	0.4876	0.3540	0.4875	9.0000	25.7959	24.0000	12.5438
Jammu & Kashmir	Urban	2302.1224	1874.2196	1817.3171	452.1689	3.08e+04	895.3167	793.7500	424.4530	239.0000	7730.0000	4.7952	16.0000	2.2960	0.1389	0.0200	0.3140	3.0360	0.4281	0.2750	0.5619	7.0000	28.7357	27.0000	11.8903
Himachal Pradesh	Rural	1680.2692	1352.7319	1263.9772	284.3021	2.67e+04	810.1229	700.9429	427.0145	168.1667	7038.7144	4.3963	19.0000	2.2256	0.5514	0.3200	1.1113	74.4000	0.3921	0.2600	0.4579	7.2870	31.1001	28.0000	14.8790
Himachal Pradesh	Urban	3424.8008	2767.9480	3599.8169	424.8000	6.46e+04	1218.7541	1058.9524	854.5211	194.6000	9869.2861	3.3983	18.0000	1.6607	0.1256	0.0070	0.4625	8.0000	0.4937	0.2120	0.9791	8.0000	29.1890	26.5000	13.1129
Punjab	Rural	1751.4918	1395.9673	1555.8492	284.5531	3.32e+04	803.8595	704.8979	372.0106	202.8750	7170.3999	4.8675	21.0000	2.2960	0.7957	0.0150	2.1451	101.1750	2.5117	1.6180	3.1936	97.5330	28.6769	25.5000	13.8761
Punjab	Urban	2688.5316	2113.3835	2071.3220	302.6370	1.92e+04	966.3746	840.0000	516.0335	211.0000	6921.4287	4.2783	24.0000	1.9519	0.1463	0.0070	0.9098	20.4350	2.7536	2.0200	2.5997	12.1410	29.5602	27.5000	13.0577
Chandigarh	Rural	2691.7606	2162.4858	1533.1864	745.2485	8755.7295	1037.5412	897.2500	457.9251	361.2000	2803.8572	2.9078	12.0000	1.0219	0.0917	0.0050	0.4262	4.6470	0.9843	0.4040	1.3402	4.3470	24.1719	25.0000	9.2927
Chandigarh	Urban	5284.2473	4183.0674	4390.1795	473.9076	3.06e+04	1506.1749	1175.0000	1126.8482	270.7500	1.22e+04	3.3063	11.0000	1.5293	0.2022	0.0040	0.8392	8.1440	3.3647	2.8320	2.4159	8.0940	29.7663	26.0000	13.8947
Uttaranchal	Rural	3355.4430	1296.2275	3988.3262	301.1693	1.34e+04	1132.2190	698.7143	909.7914	198.5000	4765.5000	3.8234	27.0000	1.7815	0.3625	0.1600	0.7825	25.2300	0.4409	0.2200	0.8670	25.2000	26.6682	22.0000	14.5746
Uttaranchal	Urban	2407.3700	1933.9315	1597.4983	337.8755	1.61e+04	877.2340	779.0000	430.8543	150.0000	4050.1428	4.5352	19.0000	2.1291	0.0338	0.0060	0.2089	6.0040	0.3549	0.0600	0.7799	5.8000	26.4137	24.0000	12.8593
Haryana	Rural	1543.3842	1302.0724	940.2314	301.7363	1.66e+04	801.4947	730.2321	425.4056	149.3214	8611.3926	5.1190	30.0000	2.4196	0.9124	0.0210	2.1514	51.8930	2.1120	1.4000	2.8900	48.0000	25.3185	23.0000	12.6420
Haryana	Urban	2935.5979	2018.4374	2896.2793	366.1866	2.87e+04	996.0188	855.5714	628.5407	190.4000	6414.5718	4.4303	21.0000	2.0994	0.1659	0.0080	1.0709	26.4060	2.5169	1.2140	3.6922	26.4000	26.5026	24.0000	12.5132
Delhi	Rural	2181.3442	2076.3149	1205.3392	727.2192	7625.2310	1166.0629	984.6667	840.7632	362.8000	5644.2856	2.7595	12.0000	1.0785	0.0064	0.0010	0.0130	0.4000	0.0167	0.0160	0.0090	0.0260	26.9983	24.0000	11.7147
Delhi	Urban	3746.3057	2760.2876	2972.3198	456.8853	2.50e+04	1154.6985	1046.1428	613.7545	200.6250	8993.0000	3.6840	15.0000	1.5711	0.0046	0.0020	0.0323	2.0000	0.2187	0.0000	0.4825	1.5000	26.9702	25.0000	11.7670
Rajasthan	Rural	1196.3873	1024.8611	957.7786	242.1204	1.98e+04	639.3392	578.1905	384.8109	119.6429	1.35e+04	5.2769	30.0000	2.5327	1.7931	0.8750	2.8154	60.0000	2.1763	1.2500	2.7081	50.6000	23.9295	21.0000	13.5006
Rajasthan	Urban	2298.9792	1759.4071	1808.8947	340.6082	2.13e+04	854.3326	736.3333	517.6811	163.8333	1.06e+04	4.9027	33.0000	2.3791	0.3178	0.0040	2.1057	50.6570	2.7972	1.0000	4.0063	25.3000	25.4454	23.0000	12.7460
Uttar Pradesh	Rural	939.2199	805.0366	575.3915	159.7123	2.21e+04	526.5634	467.1714	294.6266	42.8571	1.43e+04	5.5268	34.0000	2.7081	0.6387	0.2880	1.0568	40.6000	0.8454	0.5020	1.1254	40.4700	24.0035	20.0000	14.6866
Uttar Pradesh	Urban	2545.0870	1534.6810	3161.2037	285.2466	2.26e+04	838.0306	638.2500	637.0249	136.6667	1.29e+04	4.8910	23.0000	2.3138	0.1400	0.0080	0.7863	20.5080	1.0601	0.5060	2.0915	20.5000	25.2321	23.0000	12.5332
Bihar	Rural	797.2713	712.7292	371.0808	154.5744	9659.1729	495.0195	453.2727	212.5169	110.4000	3007.5000	5.2175	21.0000	2.4479	0.4129	0.0400	0.9287	25.1650	0.7271	0.4000	1.0625	25.0090	22.1022	19.0000	13.1656
Bihar	Urban	1602.3617	1257.4961	1183.4919	158.2123	1.12e+04	699.3577	579.3214	404.7920	98.6667	3985.0000	4.7972	22.0000	2.2720	0.1583	0.0120	0.6003	11.2150	0.7780	0.4050	1.1225	10.0360	23.7990	21.0000	12.2737
Sikkim	Rural	1609.1404	1165.5206	1440.5055	425.1308	1.82e+04	789.4375	635.8333	613.3556	267.6286	1.71e+04	4.0023	12.0000	1.9207	0.3983	0.2800	0.4868	6.2000	0.4156	0.3500	0.4126	6.1800	26.1632	24.5000	10.9527
Sikkim	Urban	2741.3477	2384.8425	1691.1751	576.5753	1.81e+04	1182.3274	1015.2500	574.5399	393.6000	2950.0000	3.2394	16.0000	1.4954	0.0136	0.0030	0.0594	0.5030	0.0016	0.0000	0.0218	0.3000	27.8586	26.0000	11.0466
Arunachal Pradesh	Rural	1591.3043	1231.4110	1134.7652	297.7973	1.18e+04	860.5166	678.9286	640.9535	173.0000	8471.5361	4.9239	16.0000	2.3243	2.8821	2.0000	4.8251	100.0000	1.8109	1.2000	2.8454	90.0000	24.0524	22.0000	11.5498
Arunachal Pradesh	Urban	2001.2649	1649.8484	1374.5476	228.3105	1.51e+04	946.8739	793.1429	631.6078	134.0000	7208.4287	4.0811	15.0000	1.8690	0.7851	0.2000	2.0018	40.0000	1.0359	0.5000	1.8964	16.1880	23.2532	21.5000	10.1729
Nagaland	Rural	1491.4782	1357.0593	601.8869	592.1592	7612.2876	826.0288	771.2571	281.5772	397.5714	6000.0000	5.1008	9.0000	2.5302	1.7188	1.2000	1.7124	15.5000	0.9416	0.8000	0.9479	9.0000	22.9739	20.5000	9.9184
Nagaland	Urban	2148.8579	1930.9484	1054.1023	781.6130	1.32e+04	904.8238	801.7143	384.8495	353.8571	2828.5715	4.7535	9.0000	2.3221	1.0254	0.8000	1.1390	12.0000	0.4354	0.2000	0.6710	5.0000	23.0755	21.0000	10.1303
Manipur	Rural	1011.9581	937.2466	361.0962	436.6446	6081.1372	589.3497	560.1667	160.9309	233.0000	2124.7144	5.1784	15.0000	2.4938	0.6880	0.5620	0.8678	52.0000	0.7526	0.6000	0.7031	9.0600	25.1094	24.0000	10.8292
Manipur	Urban	1404.2124	1183.9049	750.9621	520.0106	1.21e+04	609.9689	552.2500	328.3592	231.1250	1.16e+04	4.8517	28.0000	2.3924	0.2765	0.0600	0.4101	3.3640	0.4355	0.4040	0.4207	3.0000	25.4050	25.0000	10.9265
Mizoram	Rural	1239.6161	1110.1119	567.3801	394.6931	5785.7104	706.4235	655.0476	288.2805	219.2500	2933.2856	4.8596	14.0000	2.3565	0.6694	0.6070	0.5756	8.1170	0.6288	0.6000	0.4092	4.0460	24.7096	22.5000	12.3234
Mizoram	Urban	2229.5775	2048.2212	1068.3173	470.2082	1.32e+04	972.7754	898.0000	437.1347	174.2000	4120.3335	4.9818	13.0000	2.4789	0.3183	0.0150	0.6466	8.0100	0.7744	0.6070	0.8006	8.0000	25.2613	23.5000	11.1488
Tripura	Rural	1132.3449	1021.0206	526.6854	340.9139	7181.1094	700.9773	638.0000	281.0407	192.4000	3379.7144	4.2375	15.0000	2.0627	0.3360	0.1240	0.5139	14.4000	0.4704	0.4800	0.3460	10.4000	28.1819	25.5000	12.5980
Tripura	Urban	2205.5321	1841.2936	1473.5148	409.1507	1.13e+04	997.2024	895.6428	486.9140	182.5000	3817.7144	3.5570	15.0000	1.7674	0.0520	0.0180	0.1422	3.0000	0.2773	0.1650	0.4376	2.9520	32.0696	29.5000	12.8008
Meghalaya	Rural	1121.6950	998.6693	470.5018	392.1811	7131.5356	606.5406	545.0357	233.6059	201.0000	3713.1428	5.1010	14.0000	2.5694	0.5597	0.1440	1.1572	20.2350	0.5864	0.2200	0.9731	17.5350	21.7256	20.5000	10.2969
Meghalaya	Urban	1980.2963	1716.8995	1112.0813	498.8995	1.25e+04	744.4296	654.4000	332.0241	235.0357	4031.0000	4.7038	16.0000	2.4101	0.0687	0.0130	0.2820	4.0000	0.2271	0.0480	0.3881	3.0800	23.3802	21.0000	10.4236
Assam	Rural	975.4923	862.5362	461.7016	309.9486	7842.8101	625.0082	574.4081	254.3916	154.2500	3103.6785	5.1071	16.0000	2.4289	0.9917	0.6920	1.1577	30.0000	1.1240	0.8750	0.9895	28.7000	24.5381	24.0000	10.3470
Assam	Urban	2140.4827	1790.3069	1485.0025	391.9699	3.50e+04	954.9719	822.00																	

Table 1b: Descriptive statistics of important variables for the 68<sup>th</sup> round.

State	Sector	Monthly per-capita consumption expenditure					Monthly per-capita food expenditure					Household size		Number of females	Land possessed in hectares				Land cultivated in hectares				Median age		
		Mean	Median	SD	Min	Max	Mean	Median	SD	Min	Max	Mean	Max	Mean	Median	SD	Max	Mean	Median	SD	Max	Mean	Median	SD	
Jammu & Kashmir	Rural	2190.0586	1920.4144	1202.2317	462.5255	3.39e+04	1191.6718	1093.2000	538.6518	255.2222	1.17e+04	5.2091	20.0000	2.5403	0.4773	0.3290	0.6183	15.0000	0.4685	0.3530	0.5509	14.5000	25.5219	24.0000	11.7647
Jammu & Kashmir	Urban	3927.6200	3307.0630	2529.3265	629.3151	3.07e+04	1540.1778	1378.1714	725.6981	349.5000	5786.4287	4.6768	19.0000	2.2286	0.1037	0.0200	0.2883	4.7970	0.3007	0.2000	0.4315	4.0470	28.1307	27.0000	11.7191
Himachal Pradesh	Rural	2599.6425	2139.7842	1905.9752	705.9602	3.63e+04	1235.2977	1058.5000	885.9075	251.0000	2.50e+04	4.3723	18.0000	2.2351	0.4602	0.2400	0.7300	9.5750	0.3385	0.2200	0.4478	8.0430	31.5037	28.5000	14.8137
Himachal Pradesh	Urban	4899.5116	4121.5928	3152.0123	661.8239	6.08e+04	1917.6442	1694.7500	987.1502	260.4000	1.47e+04	3.1284	13.0000	1.4543	0.1255	0.0040	0.6248	12.2560	0.4042	0.1520	0.9903	12.0640	29.5436	26.0000	12.7709
Punjab	Rural	2906.5183	2436.0410	1803.5584	699.6689	2.70e+04	1292.9449	1165.7500	616.4730	368.4000	1.50e+04	4.7293	18.0000	2.2634	0.7090	0.0150	1.9563	44.5170	2.4037	1.6180	2.9234	28.3290	29.2965	26.5000	13.7489
Punjab	Urban	4279.4867	3461.2200	3184.6493	773.1644	5.28e+04	1547.4702	1352.2500	828.5415	327.6286	1.22e+04	4.0957	20.0000	1.9294	0.1199	0.0080	0.7759	16.1880	2.7485	2.0220	2.8793	15.6830	29.5145	27.5000	12.6804
Chandigarh	Rural	3502.8492	2892.9910	1856.3049	1090.2416	9641.6504	1552.9182	1236.6666	903.4825	566.1818	5681.7144	3.8348	15.0000	1.6637	0.0385	0.0040	0.3159	4.5320	1.4075	0.8090	1.5677	4.4520	27.7256	26.5000	13.7169
Chandigarh	Urban	4814.7189	3823.6814	3729.3763	671.5851	3.30e+04	1675.8912	1315.2858	1153.6166	361.9048	1.04e+04	4.1830	13.0000	1.8462	0.0238	0.0050	0.0787	3.2320	.	.	.	.	26.8409	25.0000	11.8104
Uttaranchal	Rural	2163.7040	1837.6849	1253.7042	616.3014	2.96e+04	1118.2924	1005.3143	494.8844	382.0000	6380.0000	4.4953	20.0000	2.2217	0.3199	0.1300	0.6383	10.4200	0.4413	0.2400	0.7067	10.0000	28.4191	25.0000	14.9760
Uttaranchal	Urban	3875.1159	3099.1919	2934.8587	597.9467	3.11e+04	1526.5889	1261.4642	905.2604	365.6143	8992.5000	4.3923	14.0000	2.0568	0.0615	0.0050	0.5853	20.5000	0.9944	0.1600	2.5095	20.0000	27.2648	24.5000	12.7748
Haryana	Rural	2663.5295	2344.3357	1421.6059	542.2685	3.32e+04	1426.9227	1249.6000	759.5164	248.0000	2.65e+04	4.9149	20.0000	2.2711	0.8097	0.0180	1.6393	24.2580	1.9369	1.4160	2.0218	24.2400	26.4991	24.5000	12.1839
Haryana	Urban	5568.0080	3916.3455	4956.1437	691.7291	5.86e+04	1942.9774	1589.5143	1714.6389	207.0130	5.54e+04	4.1846	16.0000	1.9387	0.0883	0.0080	0.5865	20.4370	1.3993	0.8090	1.9658	20.0320	28.4872	26.0000	12.4877
Delhi	Rural	3635.6449	3146.6248	1610.2142	871.6473	1.18e+04	1541.9888	1424.4000	664.8495	360.0000	5354.6431	4.4805	14.0000	1.9985	0.0744	0.0040	0.3376	4.0120	0.8340	0.3230	0.9327	4.0470	26.6724	25.5000	9.2469
Delhi	Urban	5626.6841	3912.6895	6570.6003	857.5284	1.20e+05	1791.5148	1536.3572	1026.8234	337.1429	1.20e+04	4.0501	18.0000	1.8160	0.0270	0.0020	0.5089	30.0010	0.4243	0.0000	1.7462	20.0000	28.3856	26.0000	12.4610
Rajasthan	Rural	1962.1184	1745.6484	1668.5358	461.8063	7.05e+04	1010.3592	910.2500	868.1061	156.2000	3.73e+04	4.9651	22.0000	2.3916	1.6095	0.7680	2.3906	50.7050	1.9229	1.1000	2.3379	50.0000	25.4088	22.0000	14.4935
Rajasthan	Urban	3966.7236	3010.5652	3052.7673	551.9413	5.67e+04	1524.0106	1204.6906	1247.1993	280.5143	2.20e+04	4.5997	22.0000	2.1454	0.2628	0.0050	1.2557	37.9730	2.1910	1.2500	3.1884	37.9350	25.8514	23.0000	12.6877
Uttar Pradesh	Rural	1502.0065	1281.1240	1019.3023	158.7557	1.08e+05	809.6091	707.5000	495.9016	42.8571	3.15e+04	5.4842	39.0000	2.6713	0.5668	0.2510	1.0107	35.7500	0.7672	0.4600	1.1151	35.7050	23.6140	20.0000	14.3032
Uttar Pradesh	Urban	3277.9141	2205.1616	3205.3903	465.3510	7.15e+04	1259.9786	1006.3928	816.5240	75.0000	1.26e+04	4.9230	32.0000	2.3229	0.1228	0.0060	0.6358	24.3040	0.9027	0.4570	1.5940	24.3000	25.3394	23.0000	12.9969
Bihar	Rural	1402.0557	1267.3914	629.3847	338.7241	1.17e+04	817.9953	754.0714	355.4214	189.5000	5668.6855	5.1554	23.0000	2.4197	0.4182	0.0700	0.8647	44.0700	0.6123	0.2800	0.9161	38.4250	23.7638	21.5000	13.3131
Bihar	Urban	2330.6799	1932.9707	1393.3744	474.0417	1.83e+04	1026.7235	914.7500	512.2029	246.0000	6043.8569	5.0359	22.0000	2.3249	0.1494	0.0100	0.5416	11.9430	0.9109	0.3800	1.4481	11.9000	23.9172	22.0000	11.7759
Sikkim	Rural	2048.1426	1773.0182	902.9665	864.2951	8740.9336	1089.8449	981.5000	424.6195	488.7143	5956.1426	3.9991	13.0000	1.9653	0.6299	0.6000	0.5722	14.1640	0.6529	0.5600	0.5027	14.1000	28.4631	27.0000	12.6245
Sikkim	Urban	3826.2882	3374.8684	1855.6333	1018.1187	1.55e+04	1647.6241	1541.0477	655.2973	534.0000	5306.8574	2.9584	10.0000	1.4568	0.0236	0.0020	0.1107	1.0100	0.3916	0.4000	0.2481	0.9150	28.9894	28.0000	12.1229
Arunachal Pradesh	Rural	2303.5430	1774.8174	1732.1051	438.8767	1.84e+04	1142.5955	867.0000	932.0414	155.0000	1.31e+04	4.6925	18.0000	2.2301	2.4741	2.0000	2.8482	35.0000	1.5619	1.0000	1.7526	20.0000	23.9903	22.0000	11.2077
Arunachal Pradesh	Urban	3258.2424	2644.9590	2283.8829	413.4301	2.37e+04	1413.8219	1169.0000	997.8499	147.6000	1.05e+04	4.1412	14.0000	2.0124	0.4290	0.0400	1.1302	20.0000	0.7636	0.5000	1.2314	10.0000	23.2796	22.0000	9.7839
Nagaland	Rural	2346.2972	2132.5386	951.6115	697.1165	1.22e+04	1269.2811	1172.3334	527.0881	467.3333	6443.5356	5.2674	10.0000	2.5634	2.5131	2.0000	1.8027	14.5000	1.0876	0.9000	0.9625	8.5000	23.2183	21.0000	10.3987
Nagaland	Urban	3242.2614	3013.3770	1344.7792	1254.3090	1.37e+04	1427.9230	1334.8000	564.6728	526.5000	5488.0000	4.9017	9.0000	2.3134	1.5153	0.9000	1.6915	13.0000	0.4985	0.3000	0.7850	9.5000	23.0705	22.0000	8.9968
Manipur	Rural	1784.8750	1589.8494	753.8082	660.8849	9077.1230	938.9255	820.4524	428.7358	265.3571	6061.8413	5.1731	14.0000	2.4987	0.6463	0.5080	0.8978	30.0000	0.7271	0.5500	0.6649	13.9000	25.1773	24.0000	10.3817
Manipur	Urban	2333.0536	2049.3123	1133.1307	817.9425	1.43e+04	947.4560	851.1667	405.0659	274.0000	3636.7144	4.9078	15.0000	2.3996	0.2471	0.0500	0.4999	10.0250	0.4756	0.4600	0.5735	8.0970	26.9465	26.5000	11.7407
Mizoram	Rural	1989.1226	1752.2008	956.8441	498.5945	1.04e+04	1199.0990	1058.7142	594.5622	299.0000	8834.6426	4.7800	13.0000	2.3979	0.6907	0.5130	0.7304	13.9050	0.7472	0.7000	0.5808	13.8680	25.1224	23.5000	12.5145
Mizoram	Urban	3461.1184	3148.8491	1547.9781	903.3065	1.45e+04	1675.3340	1562.7500	693.9161	466.4000	8061.5713	4.9360	14.0000	2.4915	0.1794	0.0150	0.4686	10.0120	0.4937	0.4050	0.4204	3.3050	25.1623	24.0000	10.8159
Tripura	Rural	1643.0003	1449.8164	764.4507	499.8239	1.40e+04	1002.8115	914.3928	419.3956	314.5000	4749.2144	4.0915	21.0000	1.9566	0.2942	0.1600	0.3949	7.0130	0.3975	0.3300	0.3450	6.6000	29.0004	26.5000	13.1436
Tripura	Urban	3172.3025	2766.6621	1806.4800	551.0359	1.40e+04	1458.1379	1308.6964	691.0411	267.0000	5451.5713	3.5256	17.0000	1.7500	0.0363	0.0180	0.0866	2.8050	0.0986	0.0000	0.2139	2.4750	31.9328	30.0000	12.8010
Meghalaya	Rural	1799.4774	1648.2941	711.5345	697.6139	5.47e+04	1032.8547	943.6667	448.5800	357.8333	5.19e+04	5.1563	14.0000	2.5803	0.7075	0.5400	0.8452	13.1340	0.6276	0.4380	0.6448	6.0460	21.7153	20.0000	10.8720
Meghalaya	Urban	3411.0884	2930.5769	1646.1288	849.3536	1.45e+04	1426.2775	1294.6666	656.8494	319.7143	7398.4287	4.8886	14.0000	2.5549	0.0921	0.0220	0.3615	10.0040	0.3858	0.1750	0.6151	4.0000	24.0896	22.0000	10.6495
Assam	Rural	1505.8557	1325.7371	741.7792	453.0297	1.69e+04	928.7436	819.7959	444.4295	205.0000	7907.0000	4.9014	19.0000	2.2448	0.8611	0.5000	1.4093	120.6660	1.0257	0.6690	1.4485	120.0000	25.4026	24.0000	11.0866
Assam	Urban	3254.9961	2680.6492	2207.7110	637.6794	1.64e+04	1393.1063	1200.8857	805.2967	342.2500	7385.5356	4.1009	18.0000	1.9745	0.1156	0.0270	0.5628	12.3580	0.3056	0.0000	1.1363	7.3480	29.4513	28.0000	11.5411
West Bengal	Rural	1624.5831	1431.6781	949.0727	270.0753	3.90e+04	952.6155	857.7500	610.7333	34.2143	3.53e+04	4.1281	22.0000	2.0454	0.1826	0.0260	0.3903	9.2800	0.3882	0.2560	0.4978	9.2460	29.0852	26.5000	13.7527
West Bengal	Urban	4091.0557	3023.3052	3703.1903	457.6343	6.94e+04	1574.2088	1371.9387	995.9990	203.0000	2.22e+04	3.7463	16.0000	1.8027	0.0369	0.0090	0.3251	21.0450	0.5623	0.2000	1.5458	20.0330	34.4520	32.0000	14.0135
Jharkhand	Rural	1295.0806	1146.9150	651.6202	328.4460	1.65e+04	739.1463	662.2143	353.2042	133.5556															

**Table 2a: Estimation Results for 66<sup>th</sup> Round for equation 25**

Regression	1	2	3
Variables			
Status	-0.0442*** (0.0031)	-0.0276*** (0.0030)	-0.0212*** (0.0028)
MPCE (log)	-0.1539*** (0.0073)	-0.1558*** (0.0056)	-0.1557*** (0.0056)
MPCE (Inverse)	-77.9270*** (6.3254)	-78.7518*** (5.3367)	-82.7492*** (5.0329)
Household size (log)	0.0079** (0.0034)	0.0036 (0.0033)	0.0047 (0.0033)
Max education	-0.0072*** (0.0005)	-0.0051*** (0.0004)	-0.0056*** (0.0004)
Median age	0.0001 (0.0002)	0.0002 (0.0002)	0.0001 (0.0002)
Median age (squared)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
No of females (log)	0.0039** (0.0018)	0.0047*** (0.0017)	0.0049*** (0.0017)
NCO Code	0.0023*** (0.0003)	0.0019*** (0.0003)	0.0020*** (0.0003)
Social group: 1	-0.0154*** (0.0043)	-0.0161*** (0.0041)	-0.0166*** (0.0041)
2	-0.0119*** (0.0026)	-0.0108*** (0.0023)	-0.0105*** (0.0023)
3	-0.0128*** (0.0028)	-0.0113*** (0.0023)	-0.0119*** (0.0023)
MPCE (state-district-sector aggregate) (log)			-0.0359*** (0.0076)
Per-capita land cultivated (state-district-sector aggregate) (log)		-0.0055*** (0.0019)	-0.0065*** (0.0017)
Price index (log) (state-district-sector)	-0.0771*** (0.0195)	-0.0106 (0.0173)	0.0213 (0.0168)
Educated fraction (state-district-sector aggregate)		-0.2156*** (0.0159)	-0.1532*** (0.0221)
Constant	2.0598*** (0.0575)	1.9918*** (0.0467)	2.1817*** (0.0591)
No of Observations	78560	78169	78169
R Squared	0.4524	0.4671	0.4698

Note: The figures in the parenthesis indicate standard errors of the coefficients and \*, \*\*, \*\*\* denote significance of the coefficients at 10, 5, 1 per cent respectively.



**Table 2b: Estimation Results for 68<sup>th</sup> Round for equation 25**

Regression	1	2	3
Variables			
Status	-0.0392*** (0.0030)	-0.0272*** (0.0030)	-0.0215*** (0.0028)
MPCE (log)	-0.1308*** (0.0062)	-0.1319*** (0.0069)	-0.1304*** (0.0072)
MPCE (Inverse)	-120.6895*** (8.5100)	-121.2165*** (9.0609)	-123.6256*** (9.3511)
Household size (log)	0.0144*** (0.0031)	0.0132*** (0.0030)	0.0134*** (0.0030)
Max education	-0.0063*** (0.0005)	-0.0047*** (0.0004)	-0.0050*** (0.0004)
Median age	0.0002 (0.0002)	0.0002 (0.0002)	0.0002 (0.0002)
Median age (squared)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
No of females (log)	0.0013 (0.0017)	0.0009 (0.0017)	0.0014 (0.0016)
NCO Code	0.0031*** (0.0003)	0.0027*** (0.0003)	0.0028*** (0.0003)
Social group: 1	-0.0165*** (0.0045)	-0.0159*** (0.0044)	-0.0170*** (0.0044)
2	-0.0150*** (0.0026)	-0.0135*** (0.0024)	-0.0127*** (0.0024)
3	-0.0140*** (0.0026)	-0.0114*** (0.0022)	-0.0114*** (0.0023)
MPCE (state-district-sector aggregate) (log)			-0.0350*** (0.0082)
Per-capita land cultivated (state-district-sector aggregate) (log)		-0.0061*** (0.0020)	-0.0063*** (0.0020)
Price index (log) (state-district-sector)	-0.0581*** (0.0145)	0.0116 (0.0207)	0.0702*** (0.0260)
Educated fraction (state-district-sector aggregate)		-0.1790*** (0.0158)	-0.1397*** (0.0199)
Constant	1.9132*** (0.0477)	1.8512*** (0.0534)	2.0210*** (0.0727)
No of Observations	80398	80030	80030
R Squared	0.3453	0.3602	0.3624

Note: The figures in the parenthesis indicate standard errors of the coefficients and \*, \*\*, \*\*\* denote significance of the coefficients at 10, 5, 1 per cent respectively.

**Table 3a: Estimation Results for 66<sup>th</sup> for equation 26**

Regression	1	2	3	Regression	1	2	3	Regression	1	2	3
Variables				Variables				Variables			
Status (Jammu & Kashmir Rural)	-0.0136*** (0.0027)	-0.0135*** (0.0027)	-0.0135*** (0.0027)	Status (West Bengal Rural)	-0.0078*** (0.0025)	-0.0079*** (0.0026)	-0.0079*** (0.0025)	MPCE (log)	-0.1365*** (0.0051)	-0.1363*** (0.0053)	-0.1363*** (0.0053)
Status (Jammu & Kashmir Urban)	-0.0218*** (0.0025)	-0.0217*** (0.0026)	-0.0217*** (0.0026)	Status (West Bengal Urban)	-0.0196*** (0.0024)	-0.0196*** (0.0025)	-0.0196*** (0.0025)	MPCE (Inverse)	-65.7143*** (4.9787)	-65.5589*** (5.0690)	-65.5763*** (5.0608)
Status (Himachal Pradesh Rural)	-0.0141*** (0.0026)	-0.0140*** (0.0027)	-0.0140*** (0.0027)	Status (Jharkhand Rural)	-0.0143*** (0.0026)	-0.0143*** (0.0026)	-0.0143*** (0.0026)	Household size (log)	0.0122*** (0.0029)	0.0121*** (0.0029)	0.0121*** (0.0029)
Status (Himachal Pradesh Urban)	-0.0210*** (0.0028)	-0.0208*** (0.0030)	-0.0207*** (0.0030)	Status (Jharkhand Urban)	-0.0195*** (0.0024)	-0.0194*** (0.0025)	-0.0194*** (0.0025)	Max education	-0.0060*** (0.0004)	-0.0060*** (0.0004)	-0.0060*** (0.0004)
Status (Punjab Rural)	-0.0152*** (0.0025)	-0.0151*** (0.0025)	-0.0150*** (0.0026)	Status (Orissa Rural)	-0.0116*** (0.0026)	-0.0115*** (0.0027)	-0.0115*** (0.0027)	Median age	-0.0004** (0.0002)	-0.0004** (0.0002)	-0.0004** (0.0002)
Status (Punjab Urban)	-0.0225*** (0.0026)	-0.0223*** (0.0027)	-0.0223*** (0.0027)	Status (Orissa Urban)	-0.0206*** (0.0024)	-0.0204*** (0.0025)	-0.0204*** (0.0025)	Median age (squared)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
Status (Chandigarh Rural)	-0.0239*** (0.0024)	-0.0239*** (0.0024)	-0.0238*** (0.0025)	Status (Chhattisgarh Rural)	-0.0192*** (0.0031)	-0.0190*** (0.0031)	-0.0190*** (0.0031)	No of females (log)	0.0036** (0.0016)	0.0037** (0.0016)	0.0037** (0.0016)
Status (Chandigarh Urban)	-0.0227*** (0.0023)	-0.0226*** (0.0025)	-0.0225*** (0.0025)	Status (Chhattisgarh Urban)	-0.0288*** (0.0024)	-0.0286*** (0.0026)	-0.0285*** (0.0025)	NCO Code	0.0011*** (0.0003)	0.0011*** (0.0003)	0.0011*** (0.0003)
Status (Uttaranchal Rural)	-0.0132*** (0.0025)	-0.0132*** (0.0026)	-0.0132*** (0.0026)	Status (Madhya Pradesh Rural)	-0.0195*** (0.0025)	-0.0194*** (0.0025)	-0.0194*** (0.0025)	Social group: 1	-0.0059 (0.0037)	-0.0060 (0.0037)	-0.0060 (0.0038)
Status (Uttaranchal Urban)	-0.0233*** (0.0024)	-0.0232*** (0.0025)	-0.0231*** (0.0024)	Status (Madhya Pradesh Urban)	-0.0288*** (0.0025)	-0.0286*** (0.0026)	-0.0286*** (0.0026)	2	-0.0051*** (0.0019)	-0.0051*** (0.0019)	-0.0051*** (0.0019)
Status (Haryana Rural)	-0.0133*** (0.0025)	-0.0132*** (0.0026)	-0.0132*** (0.0026)	Status (Gujarat Rural)	-0.0112*** (0.0025)	-0.0111*** (0.0025)	-0.0111*** (0.0025)	3	-0.0024 (0.0018)	-0.0026 (0.0018)	-0.0026 (0.0018)
Status (Haryana Urban)	-0.0240*** (0.0025)	-0.0239*** (0.0026)	-0.0238*** (0.0026)	Status (Gujarat Urban)	-0.0225*** (0.0024)	-0.0223*** (0.0025)	-0.0223*** (0.0025)	MPCE (state-district-sector aggregate) (log)			-0.0002 (0.0071)
Status (Delhi Rural)	-0.0182*** (0.0033)	-0.0220*** (0.0028)	-0.0220*** (0.0027)	Status (Daman & Diu Rural)	-0.0145*** (0.0024)	-0.0143*** (0.0026)	-0.0143*** (0.0025)	Per-capita land cultivated (state-district-sector aggregate) (log)		-0.0006 (0.0011)	-0.0006 (0.0011)
Status (Delhi Urban)	-0.0262*** (0.0025)	-0.0268*** (0.0027)	-0.0267*** (0.0027)	Status (Daman & Diu Urban)	-0.0243*** (0.0031)	-0.0263*** (0.0025)	-0.0263*** (0.0025)	Price index (log) (state-district-sector)	-0.0224* (0.0124)	-0.0215 (0.0144)	-0.0214 (0.0160)
Status (Rajasthan Rural)	-0.0155*** (0.0025)	-0.0154*** (0.0025)	-0.0154*** (0.0026)	Status (D & N Haveli Rural)	-0.0052** (0.0025)	-0.0052** (0.0025)	-0.0052** (0.0025)	Educated fraction (state-district-sector aggregate)		-0.0049 (0.0176)	-0.0046 (0.0216)
Status (Rajasthan Urban)	-0.0253*** (0.0024)	-0.0251*** (0.0025)	-0.0250*** (0.0025)	Status (D & N Haveli Urban)	-0.0225*** (0.0024)	-0.0224*** (0.0025)	-0.0224*** (0.0024)	Constant	1.6963*** (0.0390)	1.6975*** (0.0418)	1.6989*** (0.0592)
Status (Uttar Pradesh Rural)	-0.0145*** (0.0025)	-0.0144*** (0.0025)	-0.0144*** (0.0025)	Status (Maharashtra Rural)	-0.0157*** (0.0025)	-0.0155*** (0.0026)	-0.0155*** (0.0025)	No of Observations	78560	78169	78169
Status (Uttar Pradesh Urban)	-0.0245*** (0.0023)	-0.0244*** (0.0024)	-0.0244*** (0.0024)	Status (Maharashtra Urban)	-0.0234*** (0.0024)	-0.0234*** (0.0025)	-0.0233*** (0.0025)	R Squared	0.5310	0.5241	0.5241
Status (Bihar Rural)	-0.0090*** (0.0025)	-0.0090*** (0.0026)	-0.0090*** (0.0025)	Status (Andhra Pradesh Rural)	-0.0110*** (0.0025)	-0.0110*** (0.0026)	-0.0109*** (0.0026)				
Status (Bihar Urban)	-0.0213*** (0.0025)	-0.0212*** (0.0026)	-0.0211*** (0.0025)	Status (Andhra Pradesh Urban)	-0.0213*** (0.0024)	-0.0212*** (0.0025)	-0.0212*** (0.0025)				
Status (Sikkim Rural)	-0.0147*** (0.0024)	-0.0146*** (0.0025)	-0.0146*** (0.0025)	Status (Karnataka Rural)	-0.0155*** (0.0026)	-0.0154*** (0.0026)	-0.0154*** (0.0026)				
Status (Sikkim Urban)	-0.0181*** (0.0024)	-0.0180*** (0.0024)	-0.0180*** (0.0025)	Status (Karnataka Urban)	-0.0240*** (0.0023)	-0.0239*** (0.0025)	-0.0239*** (0.0025)				
Status (Arunachal Pradesh Rural)	-0.0143*** (0.0028)	-0.0141*** (0.0029)	-0.0141*** (0.0029)	Status (Goa Rural)	-0.0129*** (0.0026)	-0.0129*** (0.0027)	-0.0128*** (0.0027)				
Status (Arunachal Pradesh Urban)	-0.0170*** (0.0027)	-0.0167*** (0.0028)	-0.0167*** (0.0028)	Status (Goa Urban)	-0.0236*** (0.0027)	-0.0234*** (0.0028)	-0.0234*** (0.0028)				
Status (Nagaland Rural)	-0.0077** (0.0032)	-0.0075** (0.0033)	-0.0075** (0.0032)	Status (Lakshadweep Rural)	0.0013 (0.0024)	0.0011 (0.0025)	0.0012 (0.0025)				
Status (Nagaland Urban)	-0.0184*** (0.0031)	-0.0182*** (0.0032)	-0.0181*** (0.0032)	Status (Lakshadweep Urban)	-0.0114*** (0.0024)	-0.0116*** (0.0025)	-0.0115*** (0.0025)				
Status (Manipur Rural)	-0.0083** (0.0032)	-0.0081** (0.0033)	-0.0081** (0.0033)	Status (Kerala Rural)	-0.0160*** (0.0025)	-0.0160*** (0.0026)	-0.0160*** (0.0026)				
Status (Manipur Urban)	-0.0224*** (0.0032)	-0.0221*** (0.0033)	-0.0221*** (0.0033)	Status (Kerala Urban)	-0.0244*** (0.0026)	-0.0243*** (0.0027)	-0.0243*** (0.0027)				
Status (Mizoram Rural)	-0.0112*** (0.0032)	-0.0112*** (0.0032)	-0.0112*** (0.0032)	Status (Tamil Nadu Rural)	-0.0147*** (0.0025)	-0.0147*** (0.0026)	-0.0147*** (0.0025)				
Status (Mizoram Urban)	-0.0199*** (0.0026)	-0.0197*** (0.0027)	-0.0197*** (0.0027)	Status (Tamil Nadu Urban)	-0.0233*** (0.0024)	-0.0228*** (0.0025)	-0.0227*** (0.0025)				
Status (Tripura Rural)	-0.0061** (0.0026)	-0.0062** (0.0027)	-0.0062** (0.0027)	Status (Pondicherry Rural)	-0.0110*** (0.0030)	-0.0110*** (0.0030)	-0.0110*** (0.0030)				
Status (Tripura Urban)	-0.0121*** (0.0024)	-0.0121*** (0.0025)	-0.0120*** (0.0025)	Status (Pondicherry Urban)	-0.0178*** (0.0023)	-0.0177*** (0.0025)	-0.0177*** (0.0025)				
Status (Meghalaya Rural)	-0.0173*** (0.0031)	-0.0173*** (0.0031)	-0.0173*** (0.0031)	Status (A & N Islands Rural)	-0.0005 (0.0027)	-0.0005 (0.0027)	-0.0005 (0.0028)				
Status (Meghalaya Urban)	-0.0260*** (0.0027)	-0.0259*** (0.0028)	-0.0259*** (0.0028)	Status (A & N Islands Urban)	-0.0151*** (0.0024)	-0.0151*** (0.0025)	-0.0151*** (0.0025)				
Status (Assam Rural)	-0.0033 (0.0027)	-0.0033 (0.0027)	-0.0032 (0.0027)								
Status (Assam Urban)	-0.0134*** (0.0032)	-0.0132*** (0.0033)	-0.0132*** (0.0033)								

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Note: The figures in the parenthesis indicate robust standard errors of the coefficients and \*, \*\*, \*\*\* denote significance of the coefficients at 10, 5, 1 per cent respectively.

**Table 3b: Estimation Results for 68<sup>th</sup> Round for equation 26**

Regression	1	2	3	Regression	1	2	3	Regression	1	2	3
Variables				Variables				Variables			
Status (Jammu & Kashmir Rural)	-0.0126*** (0.0028)	-0.0125*** (0.0028)	-0.0131*** (0.0027)	Status (West Bengal Rural)	-0.0093*** (0.0027)	-0.0089*** (0.0027)	-0.0096*** (0.0026)	MPCE (log)	-0.1116*** (0.0062)	-0.1098*** (0.0063)	-0.1101*** (0.0063)
Status (Jammu & Kashmir Urban)	-0.0213*** (0.0025)	-0.0210*** (0.0025)	-0.0219*** (0.0024)	Status (West Bengal Urban)	-0.0193*** (0.0025)	-0.0188*** (0.0025)	-0.0196*** (0.0024)	MPCE (Inverse)	-96.8536*** (8.2142)	-94.8599*** (8.2798)	-94.5506*** (8.2051)
Status (Himachal Pradesh Rural)	-0.0178*** (0.0026)	-0.0174*** (0.0027)	-0.0181*** (0.0025)	Status (Jharkhand Rural)	-0.0158*** (0.0029)	-0.0155*** (0.0029)	-0.0160*** (0.0028)	Household size (log)	0.0206*** (0.0031)	0.0211*** (0.0031)	0.0210*** (0.0031)
Status (Himachal Pradesh Urban)	-0.0214*** (0.0027)	-0.0211*** (0.0028)	-0.0220*** (0.0026)	Status (Jharkhand Urban)	-0.0222*** (0.0026)	-0.0217*** (0.0026)	-0.0224*** (0.0025)	Max education	-0.0056*** (0.0004)	-0.0056*** (0.0004)	-0.0056*** (0.0004)
Status (Punjab Rural)	-0.0195*** (0.0026)	-0.0195*** (0.0026)	-0.0203*** (0.0025)	Status (Orissa Rural)	-0.0138*** (0.0028)	-0.0136*** (0.0028)	-0.0141*** (0.0026)	Median age	-0.0006*** (0.0002)	-0.0005*** (0.0002)	-0.0005*** (0.0002)
Status (Punjab Urban)	-0.0247*** (0.0026)	-0.0246*** (0.0026)	-0.0254*** (0.0025)	Status (Orissa Urban)	-0.0232*** (0.0027)	-0.0229*** (0.0026)	-0.0237*** (0.0025)	Median age (squared)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
Status (Chandigarh Rural)	-0.0222*** (0.0026)	-0.0214*** (0.0026)	-0.0218*** (0.0025)	Status (Chhattisgarh Rural)	-0.0187*** (0.0029)	-0.0186*** (0.0029)	-0.0192*** (0.0028)	No of females (log)	-0.0006 (0.0016)	-0.0006 (0.0016)	-0.0006 (0.0016)
Status (Chandigarh Urban)	-0.0245*** (0.0026)	-0.0235*** (0.0026)	-0.0242*** (0.0025)	Status (Chhattisgarh Urban)	-0.0271*** (0.0027)	-0.0271*** (0.0027)	-0.0279*** (0.0026)	NCO Code	0.0018*** (0.0002)	0.0018*** (0.0003)	0.0018*** (0.0003)
Status (Uttaranchal Rural)	-0.0138*** (0.0029)	-0.0134*** (0.0029)	-0.0141*** (0.0028)	Status (Madhya Pradesh Rural)	-0.0183*** (0.0028)	-0.0182*** (0.0028)	-0.0189*** (0.0026)	Social group: 1	-0.0100*** (0.0035)	-0.0098*** (0.0034)	-0.0096*** (0.0034)
Status (Uttaranchal Urban)	-0.0230*** (0.0026)	-0.0227*** (0.0026)	-0.0235*** (0.0025)	Status (Madhya Pradesh Urban)	-0.0275*** (0.0026)	-0.0274*** (0.0026)	-0.0282*** (0.0024)	2	-0.0069*** (0.0020)	-0.0069*** (0.0020)	-0.0070*** (0.0020)
Status (Haryana Rural)	-0.0142*** (0.0026)	-0.0141*** (0.0026)	-0.0148*** (0.0025)	Status (Gujarat Rural)	-0.0105*** (0.0027)	-0.0106*** (0.0027)	-0.0112*** (0.0026)	3	-0.0034** (0.0017)	-0.0032* (0.0017)	-0.0033* (0.0017)
Status (Haryana Urban)	-0.0236*** (0.0027)	-0.0235*** (0.0027)	-0.0244*** (0.0026)	Status (Gujarat Urban)	-0.0197*** (0.0027)	-0.0197*** (0.0027)	-0.0205*** (0.0026)	MPCE (state-district-sector aggregate) (log)			0.0073 (0.0082)
Status (Delhi Rural)	-0.0192*** (0.0031)	-0.0185*** (0.0031)	-0.0192*** (0.0031)	Status (Daman & Diu Rural)	-0.0136*** (0.0026)	-0.0132*** (0.0027)	-0.0139*** (0.0025)	Per-capita land cultivated (state-district-sector aggregate) (log)		0.0018 (0.0014)	0.0018 (0.0014)
Status (Delhi Urban)	-0.0248*** (0.0027)	-0.0241*** (0.0026)	-0.0249*** (0.0025)	Status (Daman & Diu Urban)	-0.0204*** (0.0027)	-0.0198*** (0.0027)	-0.0205*** (0.0026)	Price index (log) (state-district-sector)	0.0218 (0.0145)	0.0371** (0.0189)	0.0248 (0.0246)
Status (Rajasthan Rural)	-0.0186*** (0.0028)	-0.0188*** (0.0029)	-0.0195*** (0.0028)	Status (D & N Haveli Rural)	-0.0176*** (0.0028)	-0.0176*** (0.0028)	-0.0181*** (0.0026)	Educated fraction (state-district-sector aggregate)		-0.0112 (0.0161)	-0.0171 (0.0180)
Status (Rajasthan Urban)	-0.0264*** (0.0026)	-0.0265*** (0.0026)	-0.0273*** (0.0025)	Status (D & N Haveli Urban)	-0.0238*** (0.0026)	-0.0237*** (0.0026)	-0.0243*** (0.0025)	Constant	1.5405*** (0.0469)	1.5091*** (0.0511)	1.4696*** (0.0676)
Status (Uttar Pradesh Rural)	-0.0158*** (0.0026)	-0.0154*** (0.0026)	-0.0161*** (0.0025)	Status (Maharashtra Rural)	-0.0158*** (0.0027)	-0.0157*** (0.0026)	-0.0163*** (0.0025)	No of Observations	80398	80030	80030
Status (Uttar Pradesh Urban)	-0.0231*** (0.0026)	-0.0229*** (0.0026)	-0.0237*** (0.0024)	Status (Maharashtra Urban)	-0.0237*** (0.0026)	-0.0235*** (0.0026)	-0.0242*** (0.0025)	R Squared	0.4206	0.4164	0.4165
Status (Bihar Rural)	-0.0141*** (0.0028)	-0.0139*** (0.0028)	-0.0144*** (0.0027)	Status (Andhra Pradesh Rural)	-0.0151*** (0.0026)	-0.0151*** (0.0026)	-0.0158*** (0.0025)				
Status (Bihar Urban)	-0.0233*** (0.0027)	-0.0229*** (0.0027)	-0.0235*** (0.0026)	Status (Andhra Pradesh Urban)	-0.0237*** (0.0026)	-0.0235*** (0.0026)	-0.0242*** (0.0024)				
Status (Sikkim Rural)	-0.0153*** (0.0027)	-0.0156*** (0.0027)	-0.0161*** (0.0026)	Status (Karnataka Rural)	-0.0144*** (0.0027)	-0.0143*** (0.0027)	-0.0150*** (0.0026)				
Status (Sikkim Urban)	-0.0203*** (0.0026)	-0.0202*** (0.0026)	-0.0210*** (0.0024)	Status (Karnataka Urban)	-0.0242*** (0.0026)	-0.0239*** (0.0026)	-0.0248*** (0.0025)				
Status (Arunachal Pradesh Rural)	-0.0224*** (0.0029)	-0.0227*** (0.0029)	-0.0232*** (0.0028)	Status (Goa Rural)	-0.0168*** (0.0031)	-0.0162*** (0.0031)	-0.0168*** (0.0030)				
Status (Arunachal Pradesh Urban)	-0.0246*** (0.0030)	-0.0248*** (0.0030)	-0.0253*** (0.0029)	Status (Goa Urban)	-0.0237*** (0.0027)	-0.0231*** (0.0027)	-0.0239*** (0.0026)				
Status (Nagaland Rural)	-0.0131*** (0.0029)	-0.0131*** (0.0029)	-0.0136*** (0.0028)	Status (Lakshadweep Rural)	0.0006 (0.0026)	0.0009 (0.0026)	0.0002 (0.0024)				
Status (Nagaland Urban)	-0.0210*** (0.0026)	-0.0208*** (0.0026)	-0.0214*** (0.0025)	Status (Lakshadweep Urban)	-0.0103*** (0.0025)	-0.0099*** (0.0025)	-0.0108*** (0.0024)				
Status (Manipur Rural)	-0.0190*** (0.0029)	-0.0189*** (0.0029)	-0.0192*** (0.0028)	Status (Kerala Rural)	-0.0148*** (0.0027)	-0.0144*** (0.0027)	-0.0152*** (0.0026)				
Status (Manipur Urban)	-0.0284*** (0.0028)	-0.0284*** (0.0028)	-0.0286*** (0.0027)	Status (Kerala Urban)	-0.0234*** (0.0026)	-0.0231*** (0.0026)	-0.0240*** (0.0025)				
Status (Mizoram Rural)	-0.0097*** (0.0031)	-0.0101*** (0.0031)	-0.0105*** (0.0030)	Status (Tamil Nadu Rural)	-0.0143*** (0.0027)	-0.0140*** (0.0027)	-0.0146*** (0.0026)				
Status (Mizoram Urban)	-0.0165*** (0.0028)	-0.0167*** (0.0027)	-0.0173*** (0.0026)	Status (Tamil Nadu Urban)	-0.0221*** (0.0026)	-0.0213*** (0.0026)	-0.0221*** (0.0025)				
Status (Tripura Rural)	-0.0072*** (0.0027)	-0.0068** (0.0028)	-0.0075*** (0.0027)	Status (Pondicherry Rural)	-0.0135*** (0.0031)	-0.0129*** (0.0031)	-0.0136*** (0.0031)				
Status (Tripura Urban)	-0.0148*** (0.0025)	-0.0144*** (0.0025)	-0.0152*** (0.0024)	Status (Pondicherry Urban)	-0.0201*** (0.0026)	-0.0196*** (0.0026)	-0.0205*** (0.0025)				
Status (Meghalaya Rural)	-0.0134*** (0.0039)	-0.0135*** (0.0039)	-0.0140*** (0.0038)	Status (A & N Islands Rural)	-0.0067** (0.0027)	-0.0072*** (0.0027)	-0.0079*** (0.0026)				
Status (Meghalaya Urban)	-0.0219*** (0.0029)	-0.0218*** (0.0029)	-0.0223*** (0.0028)	Status (A & N Islands Urban)	-0.0161*** (0.0026)	-0.0161*** (0.0026)	-0.0170*** (0.0025)				
Status (Assam Rural)	-0.0089*** (0.0027)	-0.0089*** (0.0027)	-0.0094*** (0.0026)								
Status (Assam Urban)	-0.0196*** (0.0027)	-0.0195*** (0.0027)	-0.0201*** (0.0025)								

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Note: The figures in the parenthesis indicate robust standard errors of the coefficients and \*, \*\*, \*\*\* denote significance of the coefficients at 10, 5, 1 per cent respectively.

**Table 4: Results from endogeneity tests**

	66th round (Table 3a)	68th round (Table 3b)
Endogeneity test of endogenous regressors test statistic	0.1000	1.1500
Chi squared(1) P-Value	0.7523	0.2836
Weak identification test (Kleibergen-Paap rk Wald F statistic)	10.6070	20.4220