

Heterogeneous Pro-Poor Targeting in India's Mahatma Gandhi National Rural Employment Guarantee Scheme

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Abstract

We use the 2009/10 National Sample Survey data to describe patterns of seeking, rationing, and participation in India's Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). At the national level, we find that the self-targeting design of MGNREGS leads to greater rates of self-selection into the program by poorer and scheduled tribe or scheduled caste households. However, the administrative rationing of MGNREGS jobs is not pro-poor but, rather, exhibits a sort of middle-class bias. At the state level, roughly half of 27 states exhibit rationing and participation profiles that signal effective pro-poor targeting. The other half of India's states struggle to avoid high rates and regressive patterns of administrative rationing of MGNREGS jobs to which the poor have a legal right. Our results suggest that MGNREGS can be effectively deployed to attract, employ and improve the well-being of poor rural households but there remains room for improvement and perhaps much to be learned from in-depth comparative analysis of MGNREGS program implementation across states.

1. Introduction

India's Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), started in 2006, is the largest public works employment project in the world.¹ In the 2010-2011 fiscal year, MGNREGS employed 55 million households who put in 2.5 billion work days on 5.1 million projects, financed by a budget of Rs394 billion (roughly US\$7 billion) (<http://nrega.nic.in/>). The 2005 Act that created MGNREGS grants each rural household a legal right to employment of up to 100 days per year in public works projects at a state-specific minimum wage rate. The program is administered by state and local governments, which also contribute a small share of the variable costs of employment.

Rural poverty reduction is an explicit objective of the MGNREGS. While there are multiple hypothesized mechanisms through which guaranteed employment in public works schemes at a minimum wage might reduce poverty – e.g., by boosting labor demand at the minimum wage so as to induce market-based informal enforcement of the gender-equitable minimum wage on private employers, by investing in productivity-enhancing public goods such as roads, water

¹ MGNREGS was initially called National Rural Employment Guarantee Scheme (NREGS).

points, by providing a safety net that might encourage increased investment in higher-risk, higher-return livelihoods, etc. – MGNREGS’ most direct poverty reduction pathway is through boosting employment and income for the poor. How effectively this direct transfer mechanism reduces poverty turns fundamentally on the degree to which MGNREGS targets its resources towards otherwise-poor households.

In this paper we explore the degree to which MGNREGS targeting is pro-poor, both at national scale and at the level of individual states.² Using nationally-representative data from the National Sample Survey (NSS), we study which households seek MGNREGS work, which of those households are denied MGNREGS employment (i.e., administratively ‘rationed’) despite their legal right to work under the 2005 Act, and the resulting participation profile across the household per capita expenditure distribution, which is the joint product of households’ self-selection into MGNREGS job seeking and administrators’ rationing of work. We find that while, overall, MGNREGS does seem to target the rural poor reasonably effectively, there is striking heterogeneity across states, not just in rates of rationing and participation, as Dutta et al. (2012) have already demonstrated, but also in the progressivity or regressivity of the rationing and participation profiles. The interstate differences highlight the potential to improve performance by extracting lessons from states with exemplary pro-poor targeting performance, of which there are several, and applying those findings to states where targeting toward the poor could improve.

The basic economic logic of self-targeting employment guarantee schemes is that the households who are most likely to seek MGNREGS employment are those otherwise unemployed, or whose self-employment or market wage options would yield less than the program’s minimum wage, i.e., the poor. The demand-driven nature of MGNREGS is one of its many appeals as this self-selection is expected to generate a pro-poor (i.e., “progressive”) participation profile.

² Because MGNREGS confers a universal right to work, it is not intended to focus exclusively on the poor. Our analysis does not imply that participation by non-poor households is problematic. It merely reflects the intended distributional progressivity of MGNREGS, that the poor would be the primary beneficiaries.

The self-targeting feature can break down for any of multiple reasons, however, and the track record of self-targeting employment guarantee schemes is mixed (Barrett and Clay 2003, Coady et al. 2004). First, poorer households might not self-select into the scheme at appreciably higher rates. This might occur due to structural factors associated with multiple rural factor market failures that break down the usual strong positive correlation between the opportunity cost of labor time and household per capita expenditure level. Or it might be due to sociocultural mechanisms that lead to social isolation (e.g., of schedule castes or tribes, of religious minorities, or of women), or to the poor's lower awareness of the program or willingness to assert their rights under MGNREGS.

Moreover, not all those who seek MGNREGS employment receive a job, despite the official right to work. One can only speculate as to the various mechanisms behind administrative rationing of MGNREGS employment – elite capture, spatial mismatch, etc. – but if rationing is high among the poor, and especially if it regressively favors better-off job applicants over the poor, then program implementation would seem to run counter to the expressed intent of MGNREGS. Of course, given the decentralized administration of MGNREGS, one would expect heterogeneity of performance across jurisdictions and varied reasons for underperformance where that takes place.

MGNREGS has been quite controversial in both the policy and research communities. Directly pertinent to our analysis are widespread allegations, corroborated by some social audits, that MGNREGS jobs are too often allocated based on social status, personal connections, nepotism, political or religious affiliations, or corruption, thereby undercutting MGNREGS' self-targeting design and its capacity to reduce poverty (Niehaus and Sukhtankar 2011). While some local programs are cited for quite effective targeting, others are called out for serious flaws in program implementation, suggesting considerable heterogeneity in performance across jurisdictions (Bhatia and Drèze 2006). Several analyses of data from a few districts and states find significant benefits accruing to women (Jandu 2008, Khera and Nayak 2009, Pankaj and Tankja 2010, Azam 2011), or to scheduled caste (SC) and scheduled tribe (ST) households (Drèze and Khera 2009), mainly from increased labor market participation due to MGNREGS. But as summarized by Sjoblom and Farrington (2008), overall assessments of MGNREGS targeting “present a

mixed picture” (page 3). Dutta et al. (2012) provide the first nationwide evidence on MGNREGS performance; this paper picks up where they leave off, probing more deeply into the progressivity of rationing and participation and the interstate heterogeneity in pro-poor targeting of MGNREGS.

2. National MGNREGS targeting performance

The data we analyze come from the 66th round of the National Sample Survey (NSS66, <http://164.100.34.58/index.php/catalog/18>), conducted from July 2009 to June 2010. NSS66 interviewed 59,129 rural households from 35 states and is statistically representative at the state level.³ NSS66 provides self-reported information on MGNREGS participation for each rural household during the past 12 months. We construct three dummy variables based on this information: participation (if the household worked in MGNREGS); job-seeking (if it sought MGNREGS work); and rationing (if it sought employment but did not work in MGNREGS). Our focus is on the extensive margin of participation (i.e., whether or not a household had a member working in MGNREGS at all in the previous 12 months), rather than the intensive margin (i.e., days worked on MGNREGS) for the simple reason that we can identify rationing at the extensive margin but not at the intensive margin in the NSS66 data. For the purpose of this study, we dropped 8 states with fewer than 300 sampled rural households, which results in a sample of 58,263 rural households from 27 states.

Table 1 presents the median per capita monthly household expenditures and per capita landholdings by state, along with the means of the three MGNREGS-related dummy variables, providing state-level estimates of the proportions of rural households who sought MGNREGS jobs, were employed by MGNREGS, or were out of MGNREGS work. The overall participation rate is 24%, but 44% of households had sought MGNREGS work, of whom nearly half (44%) were rationed (i.e., not offered MGNREGS work). As Dutta et al. (2012) also show, there is considerable variation in MGNREGS participation across states, ranging from just 4-5% in Haryana, Maharastra, and Punjab to 89% in Mizoram.

³ Indeed, NSS is statistically representative at the below-state, regional level (i.e., groupings of multiple districts within a state).

Interstate variation in participation can be partly attributed to differences in self-selection, as households are not equally interested in participating and one might reasonably expect greater demand for MGNREGS work in poorer states. For example, only 20% of rural households sought MGNREGS employment in Haryana. As Dutta et al. (2012) and Table 1 both show, demand for MGNREGS work is indeed higher in poorer states, reflecting the self-targeting feature of a low wage employment guarantee scheme.

But a larger part of the variation reflects rationing among those who sought MGNREGS work. The state-level rationing rate varies from just 4% in Mizoram and Sikkim to a high of 83-84% in Maharashtra and Punjab. Given the limited budgetary resources of MGNREGS, the requirements on local and state governments to contribute skilled labor in project design and supervision, relatively high MGNREGS wage rate compared with prevailing market wages for casual labor in some locations and times of year, rationing is perhaps to be expected. But the high nationwide rate of rationing and the considerable variation across states is perhaps surprising.

While the state level aggregates and averages reported in Table 1 and Dutta et al. (2012) are informative, these necessarily mask the distributional implications of MGNREGS participation. In order to explore that targeting and rationing of MGNREGS at higher resolution, we use non-parametric, kernel-weighted, local polynomial smoothing to estimate and plot the probability of MGNREGS job-seeking, participation, and rationing conditional on per capita expenditure.⁴ Because the NSS expenditure data we use cover the same period as do the NSS MGNREGS participation data, however, these expenditures necessarily reflect earnings from MGNREGS participation. Assuming that poorer households work more under MGNREGS than richer

⁴ The procedure we use is the “lpoly” in Stata 12 SE with default optimal bandwidth. We also consider the relationship with landholdings, as an alternative indicator of rural households’ well-being. Appendix Figures A1a and A1b plot kernel densities of the logarithm of per capita monthly expenditure and per capita landholdings, respectively. Per capita expenditure exhibit a single mode at 906 Rupees (Rs.) while landholdings were bimodally distributed with the modes being 0.004 hectares (HA) and 0.170 HA. Landholdings here refers to the total amount of land owned, rented, or obtained through other channels reduced by the amount of land rented out. Landholdings are highly correlated with the amount of land owned (correlation coefficient = 0.93). Appendix Figure A2 shows the relationship between landholding and land owned using kernel-weighted smoothing. Landholding (versus land owned) has a slightly flatter slope than the 45 degree line, simply reflecting that households that own less land tend to rent in and those own more land tend to rent out. The plot of expenditure versus landholdings in Appendix Figure A3 exhibits a statistically significant upward-sloping curve, suggesting a strong positive correlation between expenditures and landholdings. Hence our focus on per capita household expenditures hereafter.

households do, we will underestimate targeting effectiveness because participants move up the per capita expenditure distribution relative to the unobserved counterfactual. With that important caveat, the resulting regressions offer a clear visual depiction of the targeting performance of MGNREGS. We also explore whether targeting and rationing differ across different social groups by estimating the conditional probabilities for households differentiated based on their scheduled tribe (ST) or scheduled caste (SC) status and on the gender of the household head.

The ideal would be that participation rates are high for the poor, declining to zero among the non-poor. A more realistic pattern of pro-poor targeting would exhibit a clear negative relation between participation and a household's per capita expenditure level. In contrast, a scheme that fails to target the poor effectively would exhibit an upward-sloping participation profile, indicating lower participation by poorer households relative to better-off ones.

Because participation rates are jointly determined by households' self-selection into the program, reflected in MGNREGS job-seeking, and by rationing among those seeking MGNREGS employment, in order to understand the participation profile it is essential to decompose participation into those two components as well. Participation may be low among the poor for any of a host of reasons: because few poor households know of their newfound right to MGNREGS employment, because they are discouraged from applying by officials or neighbors, or because the opportunity cost of their time is too high in spite of their poverty (Barrett and Clay 2003, Dutta et al. 2012). The job-seeking profile reflects self-selection into MGNREGS. Much of the job-seeking profile necessarily falls beyond the control of the state in its administration of MGNREGS.

The rationing profile is of perhaps greater interest because the progressivity of rationing of MGNREGS jobs reflects strongly on program administration, in particular on its orientation toward using MGNREGS to fight rural poverty. Because participation is determined locally, there may be considerable variation among states in rationing profiles and thus in the progressivity of MGNREGS as implemented. Progressively rationed MGNREGS employment would exhibit a pattern wherein rationing is low (ideally, zero) among the poor and rising to a high level at some point beyond the poverty line, perhaps even to 100% if MGNREGS is

intended only to benefit the poor and near-poor. Conversely, regressive patterns of MGNREGS administration will be reflected in a downward-sloping relationship between rationing and per capita household expenditures, with the poor more likely than their better-off neighbors to be denied requested employment.

Four main findings emerge from the pooled national data. First, the self-targeting design of MGNREGS indeed leads to greater rates of self-selection into the program by poorer and disadvantaged (ST/SC) households. Second, rationing of MGNREGS jobs is not pro-poor but, rather, exhibits a sort of middle-class bias as households near the poverty line are more likely to receive MGNREGS jobs they seek than are poorer households and, especially, relative to the upper range of the expenditure distribution. Third, because the self-selection effects dominate the rationing effects, the net result is that MGNREGS targeting is noticeably pro-poor and especially favors ST/SC households. Fourth, however, MGNREGS fares less well in reaching poor female-headed households, due both to self-selection and rationing effects.

Figure 1 depicts the estimated probability of the three targeting indicators (participation, job-seeking, and rationing), conditional on log per capita expenditures. We plot the point estimates with solid lines and the 95% confidence intervals with dotted lines of the same color as the corresponding point estimates in all figures hereafter. Throughout, we exclude households with per capita monthly expenditure lower than Rs. 150 or higher than Rs. 8000 (which together account for the extreme 0.25% of the whole sample), yielding a trimmed sample size of 58,590 households. The elimination of these outliers allows us to focus on the data with enough density where the conditional probability can be precisely estimated and where the likelihood of measurement error is perhaps less.

Although it is far from perfect targeting, the participation profile in Figure 1 is distinctly downward sloping, indicating clearly pro-poor MGNREGS targeting at national scale. The job-seeking curve runs almost parallel to the participation curve, consistent with the self-selection mechanism that is intended to guide the progressivity of MGNREGS participation: poorer households were substantially more likely to seek MGNREGS work.

The rationing rate was rather high, however, decreasing slightly – but statistically significantly – for the poorer households before becoming more sharply upward sloping after per capita monthly expenditures of around Rs 1100, which is about 60% higher than the all-India rural poverty line.⁵ This indicates that, at national scale, administrative rationing undoes part of MGNREGS’ progressivity that arises due to its self-targeting design. The best off households are actively rationed out of the program, to be sure, but the poorest households are also relatively more likely to be denied employment when they request it than are those in the middle of the per capita expenditure distribution. There thus appears a decided middle class bias in MGNREGS job rationing as implemented, on average, across India.

Figures 2-4 plot the conditional probabilities of MGNREGS job seeking, participation and rationing on per capita household expenditures, for female-headed and male-headed households separately. MGNREGS offers equal wage rates to women and men for the same work and makes payment directly to the individual workers. In principle this should lead to greater gender equity, especially because women face lower wages and worse employment prospects in the private labor market in India. But as shown in Figure 2, although both curves are downward sloping (in line with the self-selection mechanism of MGNREGS), male-headed households are much more likely than female-headed households to seek MGNREGS employment, regardless of expenditure level. The difference is statistically significant over much of the range, especially among households below the poverty line. This is consistent both with the notion that female-headed households, especially poor ones, may be more labor-constrained than male-headed households (Barrett and Clay 2003) and that there may be socio-cultural pressures that discourage female-headed households from seeking MGNREGS employment at the same rate as otherwise-identical male-headed households. This result raises a different issue of gender-specific effects of MGNREGS, compared with the findings of Azam (2011) and Imbert and Papp (2011), using earlier NSS rounds and different methods, that MGNREGS has a sharper impact on female labor force participation than that of males.

⁵ We use the state specific rural poverty lines released by the planning commission online at <http://pib.nic.in/archieve/others/2012/mar/d2012031902.pdf>

As Figure 3 shows, MGNREGS job rationing is more common among poor female-headed households than poor male-headed ones, while that ordering reverses for better off households, among whom rationing is more common among those with male heads. The U-shaped rationing profile – suggestive of a middle-class bias in awarding MGNREGS employment – is decidedly more pronounced among female-headed households than among male-headed households.

The net result, shown in Figure 4, is that poor male-headed households are statistically significantly more likely to participate in MGNREGS than are poor female-headed households. That ordering reverses, however, as one moves beyond the median and into the upper quantiles of the expenditure distribution, where female-headed households are as likely as or more likely than male-headed households to participate in MGNREGS. Among female-headed households, there is no statistically significant variation in the probability of participation for those below the poverty line, so MGNREGS is not preferentially targeted at the extreme poor among female-headed households. In general, the MGNREGS participation profile is more steeply sloped among male-headed households than female-headed ones, indicating greater progressivity in targeting among the former, partly due to differences in self-selection patterns, partly due to differences in job rationing profiles.

Figures 5-7 plot the conditional probabilities of the three targeting indicators for households belong to scheduled tribe/caste (ST/SC) and for those belong to other castes, replicating the preceding gender-differentiated analysis now for ST/SC status. A first interesting observation is that, compared to other households, ST/SC households were statistically significantly more likely to seek and participate in MGNREGS work and significantly less likely to be rationed out of desired MGNREGS employment. The higher likelihood of job-seeking may reflect fewer and less desirable alternative employment opportunities faced by ST/SC households. As implemented by state and local governments, MGNREGS clearly delivers on its promise to ST/SC households of helping to overcome caste-related labor market disadvantage, rationing them out of MGNREGS jobs with far lower frequency, thereby leading to a much higher participation rate among ST/SC households, almost twice that of the non-ST/SC counterparts.

3. Interstate variation

The national-level patterns are interesting and important. But since rationing of MGNREGS employment appears to undermine some of the pro-poor self-targeting feature of the program's design, it is especially useful to disaggregate further, to look at variation in these patterns across states. The results are especially illuminating in that they identify a large number of states where MGNREGS appears to serve the poor extremely effectively, as manifest in sharply progressive rationing and participation profiles. At the same time, the data also reveal a number of states that exhibit rather poor MGNREGS targeting performance. More intensive case study examination of differences in MGNREGS implementation among some of these states could usefully inform program refinements, although such analysis lies beyond the scope of this paper.

In order to explore interstate variation in MGNREGS targeting performance, we replicated the preceding exercise from section 2 for each of the 27 states listed in Table 1, estimating the expenditure-conditional probabilities of MGNREGS job seeking, rationing and participation, overall as well as disaggregated by ST/SC status and gender of the household head. The results (Figures 8-12 and Appendix Figures A4-A25) reveal that the all-India aggregates mask huge inter-state variation in targeting patterns. This interstate variation speaks both to various concerns about implementation expressed by MGNREGS critics as well as to the successes noted by proponents.

We organize the large mass of state-specific results by grouping states along three dimensions of pro-poor MGNREGS targeting performance. The desired pattern is high and pro-poor (i.e., progressive) participation with little rationing among the poor. Deviations from this desirable standard can occur in any of three directions: i) participation rates are low for the poor, ii) the participation and rationing profiles are flat or regressive (i.e. upward-sloping), or iii) rationing is high among the poor. This method of categorization leads to identification of roughly half (13/27) of the states as doing a very credible job in pro-poor targeting of MGNREGS and the other half (14/27) falling short in one or more dimensions.

Each direction of deviation from the desired pattern carries different implications for policy correctives. Limited participation by the poor due to low rates of MGNREGS job seeking could reflect any of a variety of problems: for example, limited awareness of the right to work and of

corresponding MGNREGS job opportunities, sociocultural pressures that discourage the poor from applying for jobs to which they know they are entitled, administrative impediments (e.g., physical access) to applying for MGNREGS employment, job requirements (e.g., the intensity, location or timing of physical labor) that effectively ration out some of the poor, or labor supply constraints (e.g., due to disability or illness) that make an employment guarantee an inappropriate instrument for addressing particular households' poverty status. It is also possible that the existence of other work-based, anti-poverty programs (e.g., the preexisting and similar Maharashtra Employment Guarantee Scheme) has made MGNREGS less attractive.⁶ High rates of rationing among the poor – and especially regressive rationing that favors better-off MGNREGS job applicants over poorer ones – clearly reflect administrative failures to use the employment guarantee to relieve rural poverty. The specific problems – elite capture, spatial mismatch, inappropriate job requirements, lack of political interest, administrative incapability, etc. (Khera 2011) – will necessarily vary from district to district and are thus not amenable to analysis using statistical surveys only. But survey evidence of the sort we present can effectively target states for more in-depth, qualitative investigation.

Based on these criteria, we identify five states as exemplary pro-poor targeting states: Manipur, Mizoram, Rajasthan, Sikkim, and Tripura. As an example of the profile exhibited by a state with pro-poor MGNREGS targeting performance, Figure 8 shows the estimated probabilities of each of the three targeting indicators conditional on expenditure for Mizoram. The poor overwhelmingly seek to participate in MGNREGS; over the lower half of the expenditure distribution, more than 80% of households indicated they sought MGNREGS jobs. The percentage of households rationed out of MGNREGS jobs was close to zero for poor households and statistically significantly increasing in household per capita expenditures. The joint product of high rates of self-selection into the program by the poor and low rates of administrative rationing, the MGNREGS participation profile is exemplary: above 80% for households with monthly per capita expenditure lower than 1200 rupees and significantly decreasing in per capita

⁶ In Maharashtra, the preexisting EGS generated more mandays of work than the MGNREGS for each fiscal year from 2006-2007 to 2010-2011 (Vijapurkar 2011).

expenditures, pointing to quite effective pro-poor targeting. The patterns for the other four states in this category were very similar.⁷

We then identify eight states – Andhra Pradesh, Chattisgarh, Himachal Pradesh, Madhya Pradesh, Meghalay, Nagaland, Tamil Nadu, and West Bengal – that deviated from exemplary pro-poor targeting only by having lower participation rates among the poor due to relatively high rates of self-selection out of MGNREGS. In these states, rationing of MGNREGS jobs is low among the poor and steeply progressive, indicating that the administrative implementation of MGNREGS is pro-poor even if the impacts on the poor are somewhat limited by lower rates of MGNREGS job seeking by poorer households. Figure 9 shows the targeting performance of Andhra Pradesh as an example. The participation curve shows clear pro-poor targeting and low and progressive rationing of MGNREGS jobs. However, the participation rate was lower than that in the first group of states because a far lower share of poor households seeks MGNREGS employment. Where in Mizoram, the estimated probability of a household seeking MGNREGS employment is at least 80 percent through the 70th percentile of the state expenditure distribution, in Andhra Pradesh, not even the poorest households exhibit a 75 percent likelihood of seeking MGNREGS jobs and far fewer than half do at the poverty line. As a result, participation among the poor is far lower in this group of eight states than in the first group of five states. For example, the participation rate for households with monthly per capita expenditure lower than Rs. 1000 was 41% in Andhra Pradesh, compared with 98% in Mizoram.

We emphasize again that self-selection can reflect any of a host of factors, some of which could perhaps be adjusted by improved program implementation. That is why we distinguish this group of states from the smaller group with exemplary pro-poor MGNREGS targeting performance. But without any capacity to identify why poor households self-select out of MGNREGS participation, we can only judge targeting performance by the level and progressivity of MGNREGS job rationing and the broader participation profiles, all of which point to solid performance among this set of states.

⁷ Appendix Figures A4-A25 display estimated targeting profiles for states not mentioned in the text, ordered alphabetically.

The remaining 14 states have more than one deviation from the desired pro-poor targeting characteristics, as summarized in Table 2. Among them, 11 states had low participation rates accompanied with high rationing among the poor (Assam, Bihar, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Orissa, Punjab, and Uttar Pradesh). In Figure 10 we display the estimated targeting profiles for Orissa as an example of the patterns that characterize this group. Although the figure indicates pro-poor targeting, as manifest in a progressive (i.e., upward-sloping) rationing profile, the MGNREGS participation rate was below 40% even for the poorest and half or more of all households seeking MGNREGS employment in the state were denied work, even among the poorest.

Figure 11 displays the targeting profiles for Uttaranchal as an example of a state that exhibited low MGNREGS participation for the poor and flat or regressive targeting. Although the rationing curve lies below the participation profile for the vast majority of the poor population, rationing of MGNREGS jobs is statistically significantly higher among the poor than among the better off, and the participation rate was below 50% for all expenditure levels.

The final two states, Arunachal Pradesh and Jammu and Kashmir, deviated from pro-poor targeting in all the three directions. Figure 12 shows the case of Arunachal Pradesh. The participation rate was below 20% and well below the rationing rate across the whole population. The participation curve is almost flat and slightly upward sloping for the poor component of the population, point to a non-pro-poor targeting. The rationing curve is downward sloping for the poor with the rate higher than 60% for the poorest. Even the self-targeting feature of MGNREGS seems to fail in these two states, as there is no statistically significant variation in the likelihood of MGNREGS job seeking across the expenditure distribution. In these states, MGNREGS is clearly not performing as intended.

4. Conclusions

The sheer scale of India's MGNREGS program naturally attracts considerable national and international attention to its performance in targeting the rural poor. To date, studies of MGNREGS have largely focused on individual state-level experiences. We use the 2009-10 NSS

data to describe patterns of MGNREGS job seeking, rationing and participation at national level and at the level of each of 27 states.

Six major findings emerge from this analysis. First, the self-targeting design of MGNREGS leads to greater rates of self-selection into the program by poorer and disadvantaged (ST/SC) households, as reflected in statistically significant negative associations between MGNREGS job seeking and household per capita expenditures nationally and in virtually every state. Second, at national scale, the administrative rationing of MGNREGS jobs is not pro-poor but, rather, exhibits a sort of middle-class bias as households near the poverty line are more likely to receive MGNREGS jobs they seek than are poorer households, although those in the upper reaches of the expenditure distribution are least likely to secure MGNREGS jobs. Third, this rationing pattern varies markedly across states, however, as MGNREGS job rationing among the poor is negligible and highly progressive in some states, but statistically significantly regressive and widespread in others. Fourth, because the self-selection effects generally dominate the rationing effects, the net result is that MGNREGS targeting is noticeably pro-poor and especially favors ST/SC households. Fifth, however, MGNREGS fares less well in reaching poor female-headed households, due both to self-selection and rationing effects; male-headed households are more likely to seek and receive MGNREGS jobs over most of the per capita expenditure distribution.

Finally, roughly half the states exhibit rationing and participation profiles that signal effective pro-poor targeting. At least five states' performance is truly exemplary, clearly signaling that MGNREGS can be effectively deployed to attract, employ and improve the well-being of poor rural households. But another half of India's states struggle to avoid high rates and regressive patterns of administrative rationing of MGNREGS jobs to which the poor have a legal right. Clearly, there is room for improvement and perhaps much to be learned from in-depth comparative analysis of MGNREGS program implementation across states that have demonstrated greater or lesser success in targeting the poor with MGNREGS job opportunities.

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Table 1: Summary statistics by State

State Name	Median monthly expenditure p.c. (Rs.)	Median land holdings p.c. (0.000Ha)	If worked under MGNRE GS	If sought MGNREGS job	If sought but not offered MGNREGS job	Average number of EGS days if worked under MGNRE GS	Sample Size
ANDHRA PRADESH	964	6	0.35	0.47	0.25	46.5	3926
ARUNACHAL PRADESH	939	333	0.18	0.43	0.58	53.9	1042
ASSAM	812	134	0.18	0.40	0.56	31.5	2616
BIHAR	646	10	0.10	0.44	0.79	24.5	3300
CHATTISGARH	576	101	0.48	0.69	0.31	35.2	1495
GUJARAT	940	54	0.18	0.32	0.44	24.6	1721
HARYANA	1272	6	0.05	0.20	0.74	38.7	1440
HIMACHAL PRADESH	1210	80	0.33	0.42	0.20	47.5	1660
JAMMU & KASHMIR	1039	75	0.08	0.28	0.71	33.5	1448
JHARKHAND	670	58	0.16	0.44	0.63	22.9	1759
KARNATAKA	815	11	0.08	0.23	0.65	29.7	2038
KERALA	1364	15	0.11	0.23	0.52	26.2	2606
MADHYA PRADESH	683	143	0.36	0.58	0.37	29.3	2735
MAHARASTRA	920	68	0.04	0.28	0.84	33.8	4017
MANIPUR	871	108	0.74	0.77	0.05	56.8	1376
MEGHALAYA	926	40	0.42	0.56	0.25	49.7	864
MIZORAM	1026	123	0.89	0.92	0.04	76.4	632
NAGALAND	1246	260	0.59	0.75	0.21	39.6	704
ORISSA	652	74	0.22	0.51	0.57	26.5	2976
PUNJAB	1281	4	0.05	0.31	0.83	30.3	1560
RAJASTHAN	951	177	0.59	0.70	0.16	71.0	2582
SIKKIM	1045	60	0.44	0.46	0.04	59.0	608
TAMIL NADU	882	4	0.34	0.41	0.19	42.8	3319
TRIPURA	916	30	0.77	0.85	0.09	61.0	1312
UTTAR PRADESH	765	49	0.16	0.35	0.54	31.4	5903
UTTARANCHAL	1154	38	0.27	0.38	0.28	23.0	1048
WEST BENGAL	753	7	0.43	0.66	0.34	16.8	3576
All India	826	29	0.24	0.44	0.44	37.4	58263

Table 2 Summary of deviations from pro-poor targeting, by state

	Low participation	Flat or regressive targeting	High rationing
ARUNACHAL PRADESH	X	X	X
ASSAM	X		X
BIHAR	X		X
GUJARAT	X		X
HARYANA	X		X
JAMMU & KASHMIR	X	X	X
JHARKHAND	X		X
KARNATAKA	X		X
KERALA	X		X
MAHARASTRA	X		X
ORISSA	X		X
PUNJAB	X		X
UTTAR PRADESH	X		X
UTTARANCHAL	X	X	

Figure 1: All India probability of MGNREGS job-seeking, rationing and participation

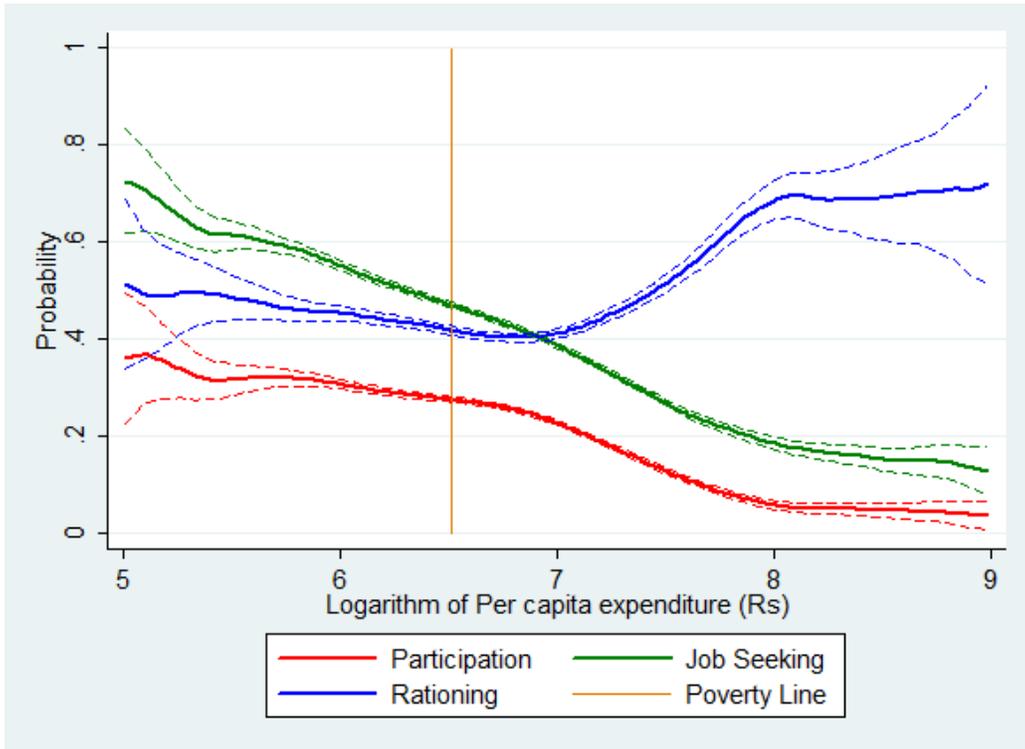


Figure 2: All India probability of MGNREGS job seeking, by gender of household head

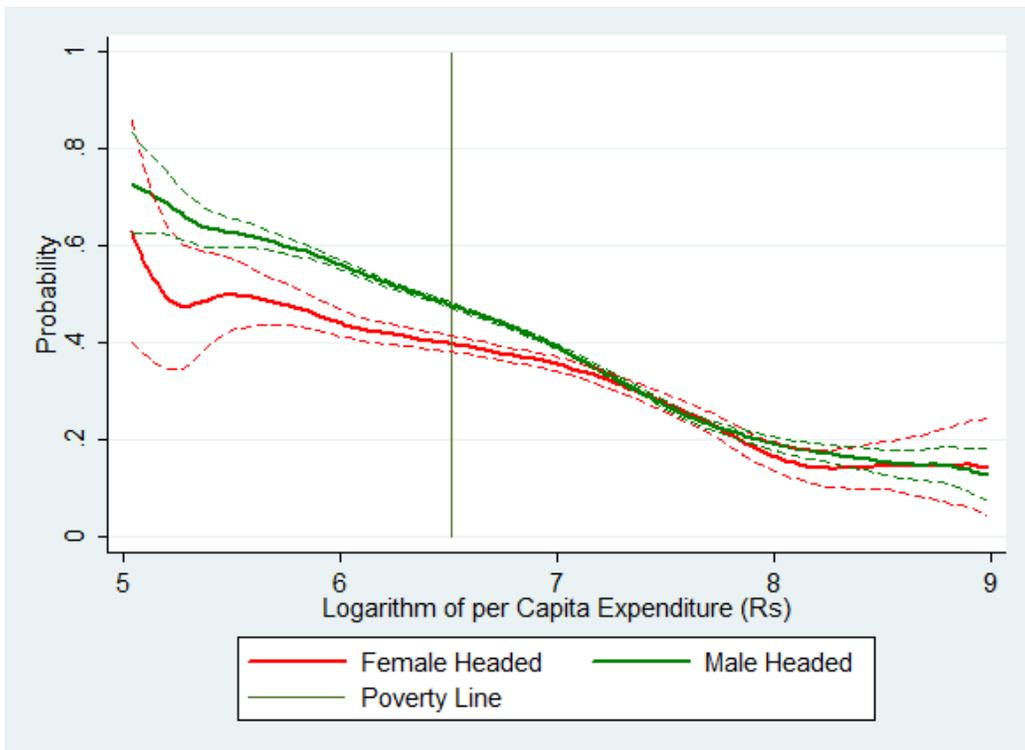


Figure 3: All India probability of MGNREGS job rationing, by gender of household head

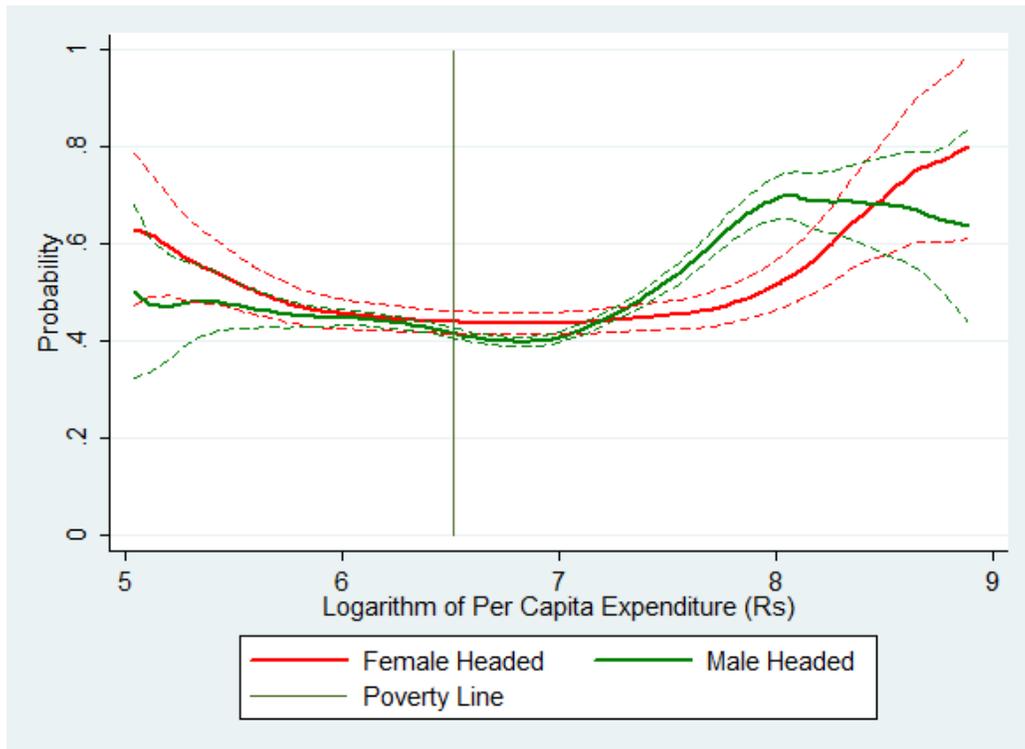


Figure 4: All India probability of MGNREGS participation, by gender of household head



Figure 5: All India probability of MGNREGS job seeking, by household ST/SC status

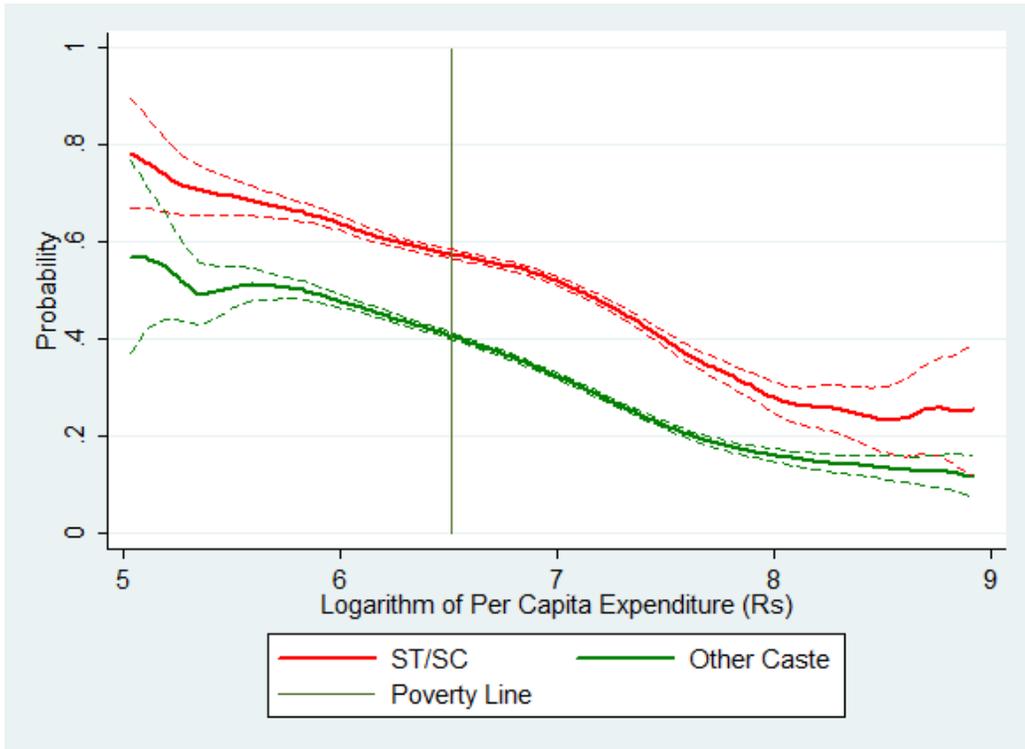


Figure 6: All India probability of MGNREGS job rationing, by household ST/SC status

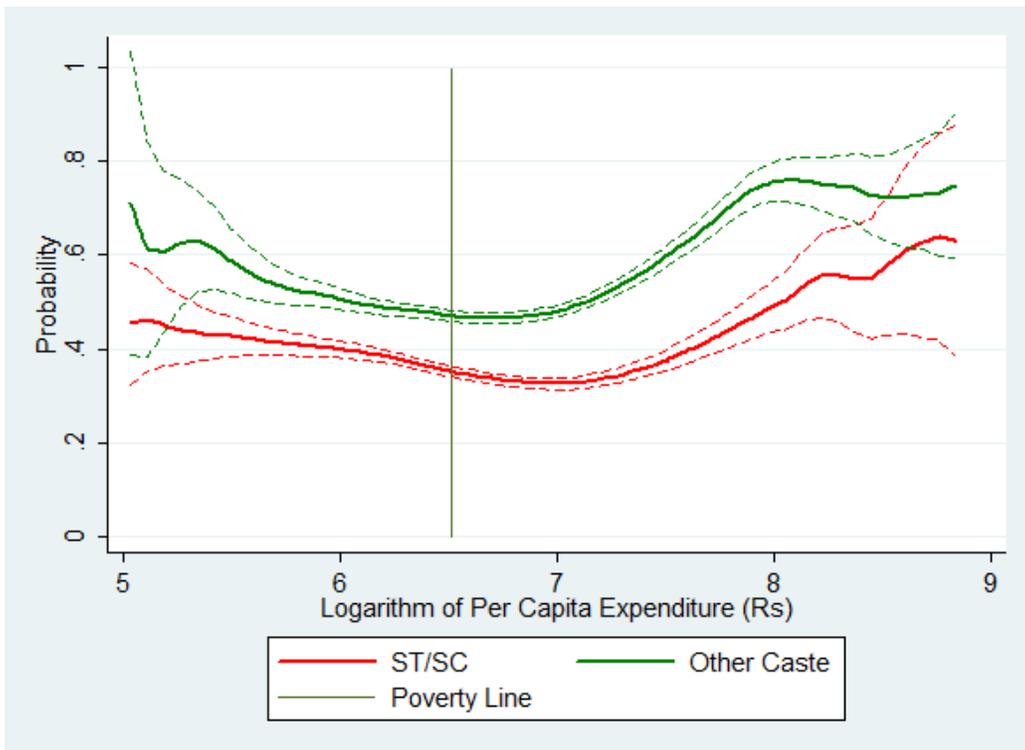


Figure 7: All India probability of MGNREGS participation, by household ST/SC status

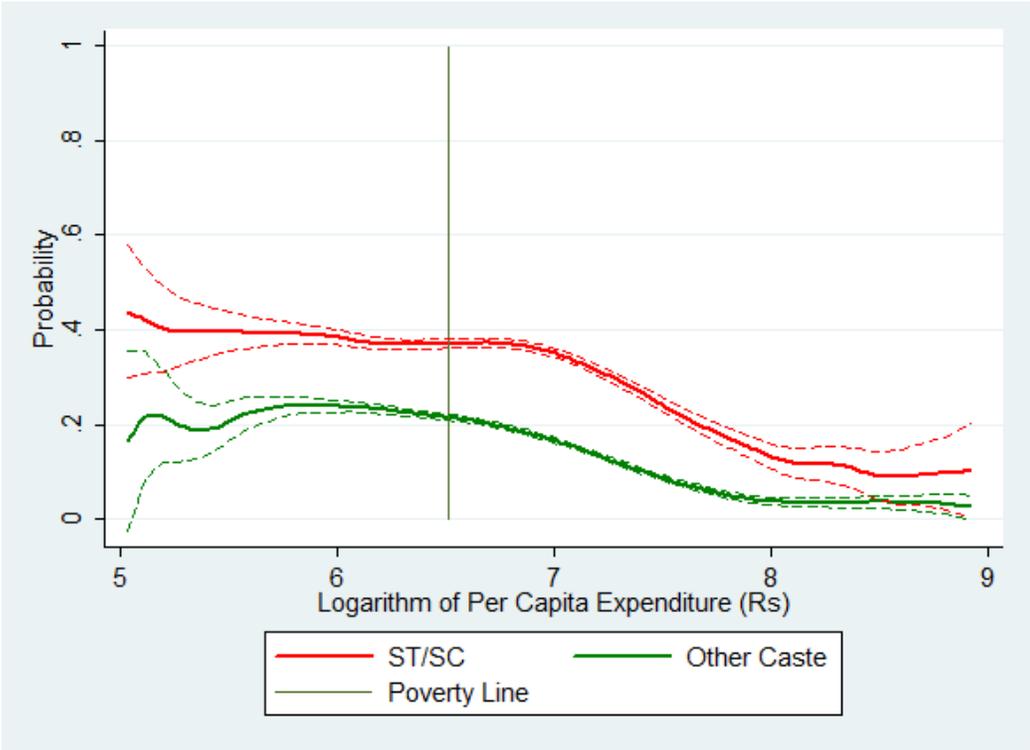


Figure 8: MGNREGS job-seeking, rationing and participation in Mizoram

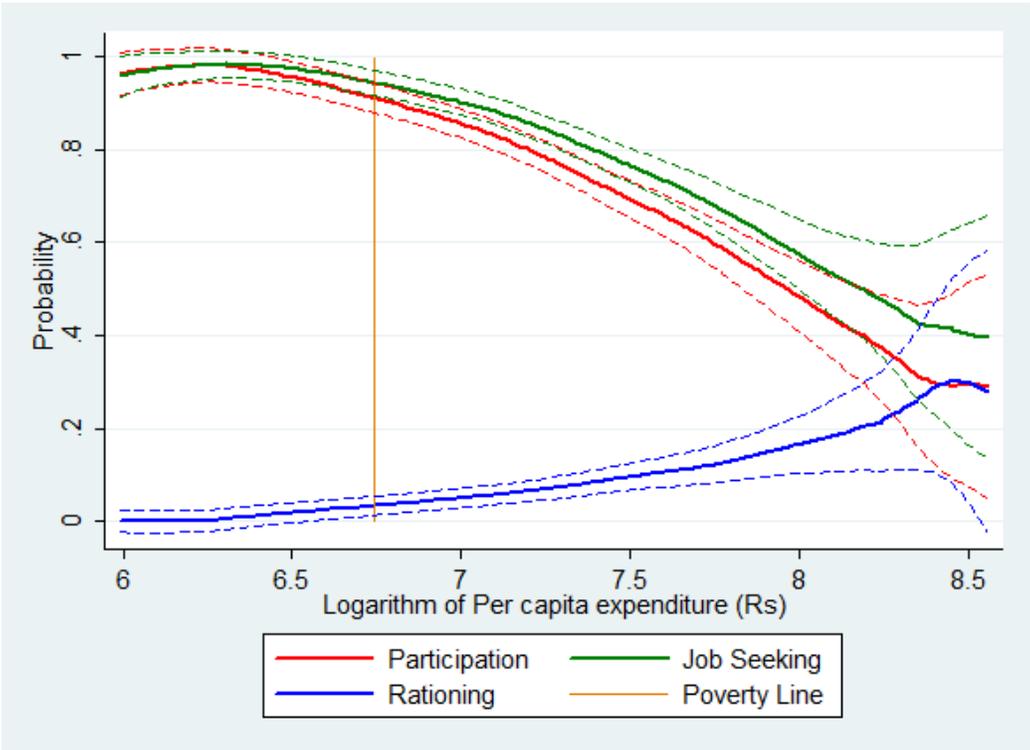


Figure 9: MGNREGS job-seeking, rationing and participation in Andhra Pradesh

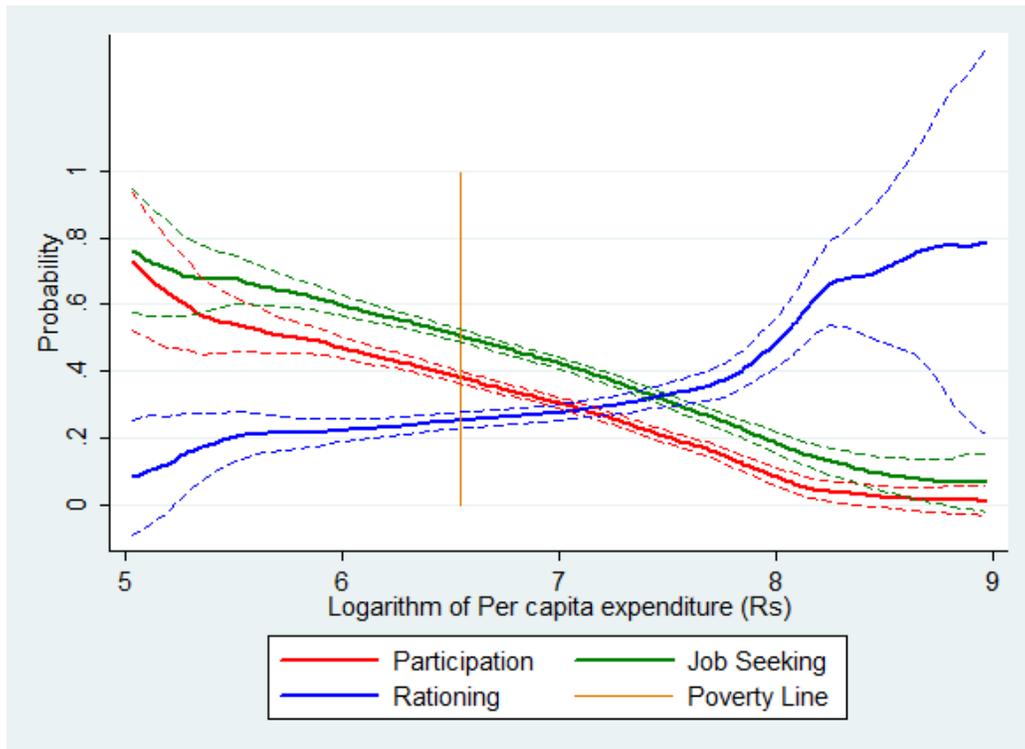


Figure 10: MGNREGS job-seeking, rationing and participation in Orissa

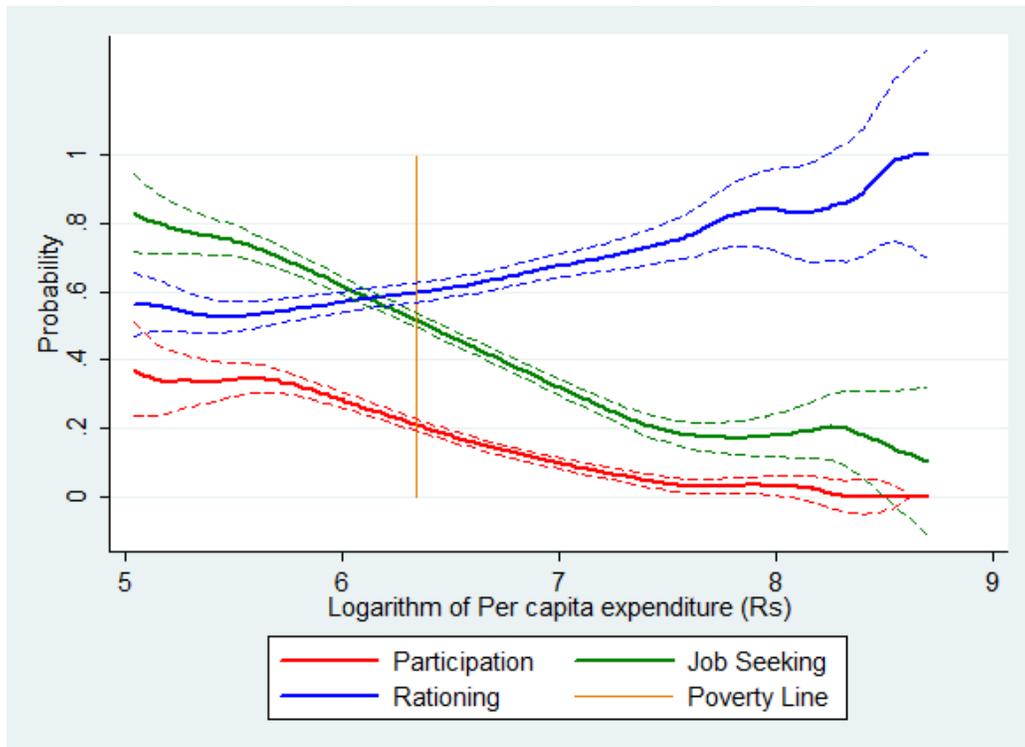


Figure 11: MGNREGS job-seeking, rationing and participation in Uttarakhand

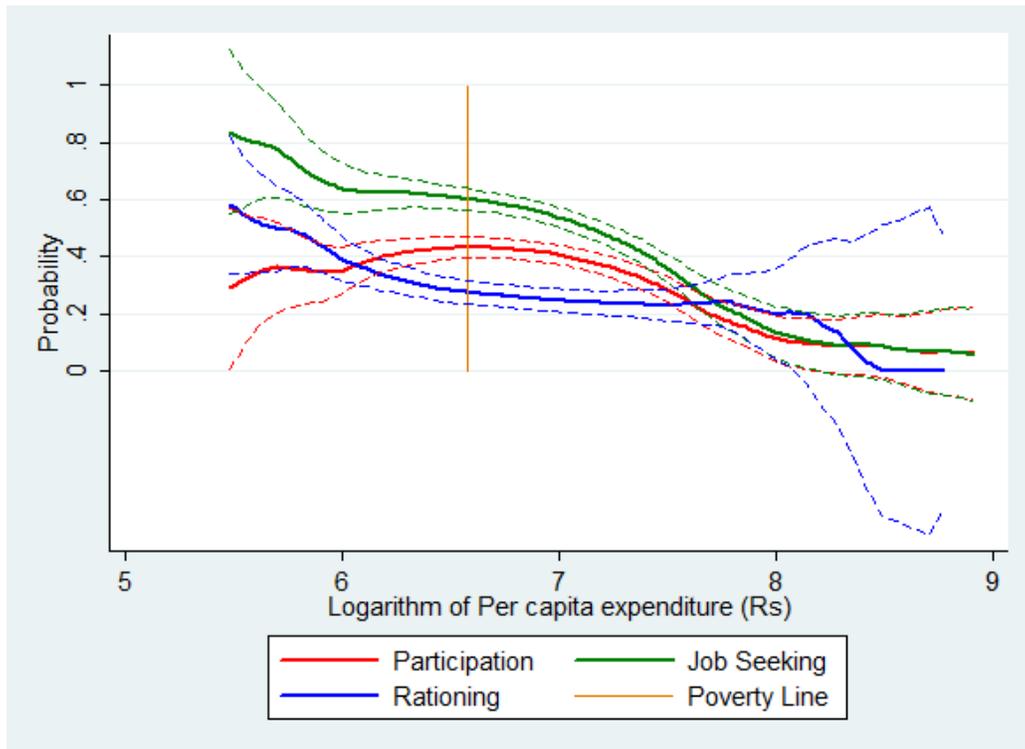
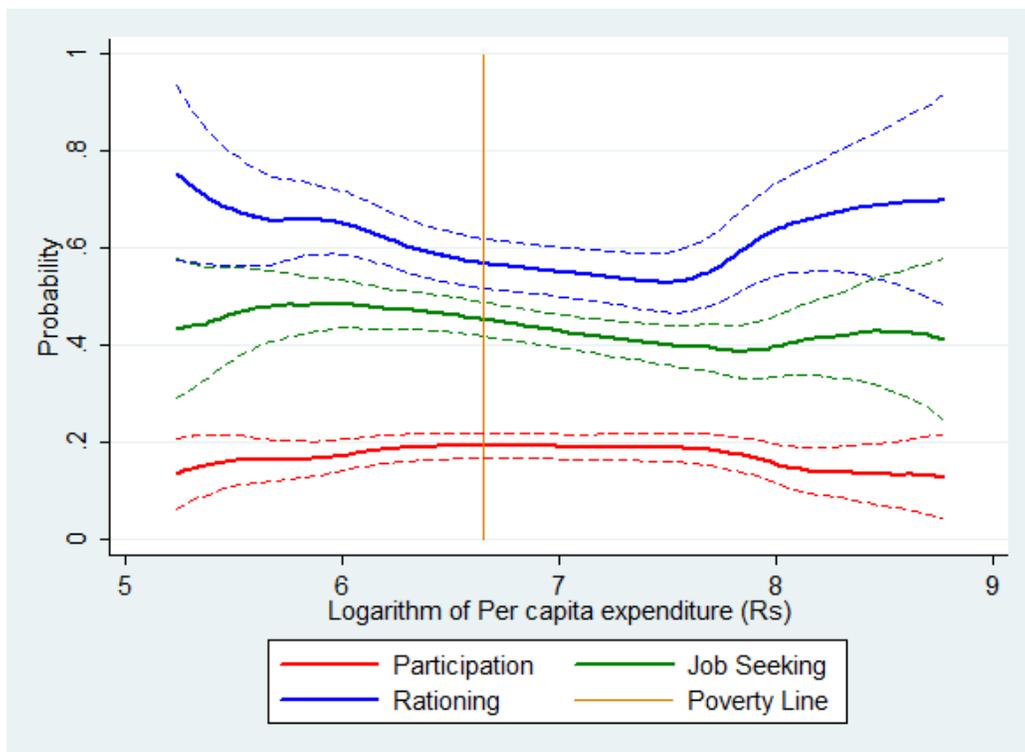


Figure 12: MGNREGS job-seeking, rationing and participation in Arunachal Pradesh



Appendix

Figure A1a: Estimated kernel density of logarithm of per capita expenditures (rupees)

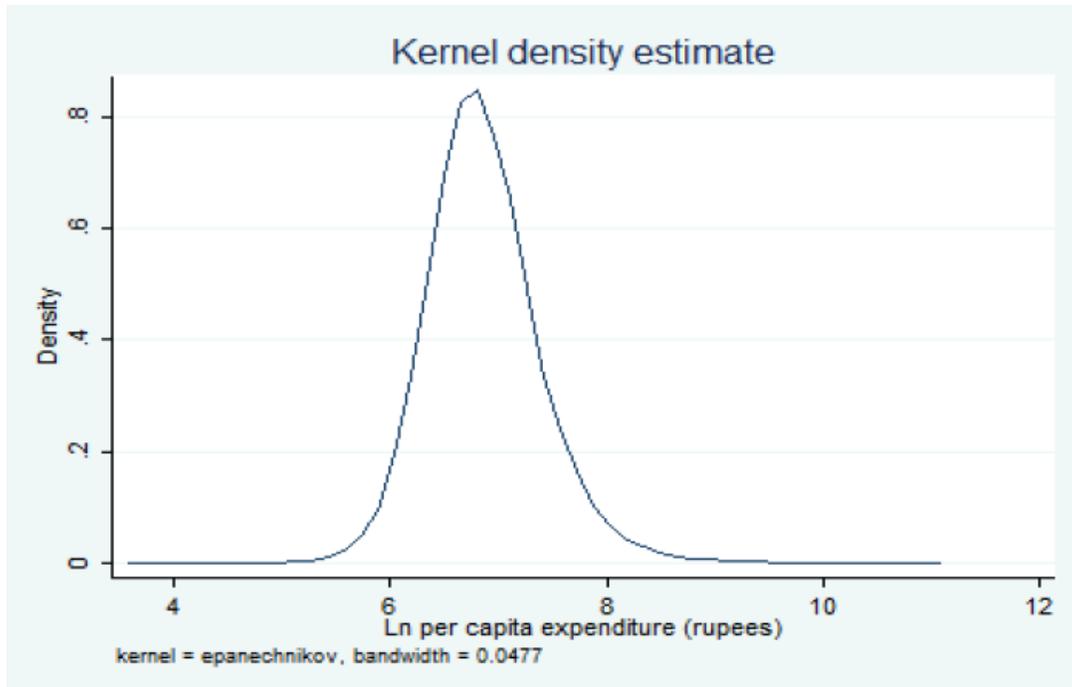


Figure A1b: Estimated kernel density of logarithm of household landholdings (HAs)

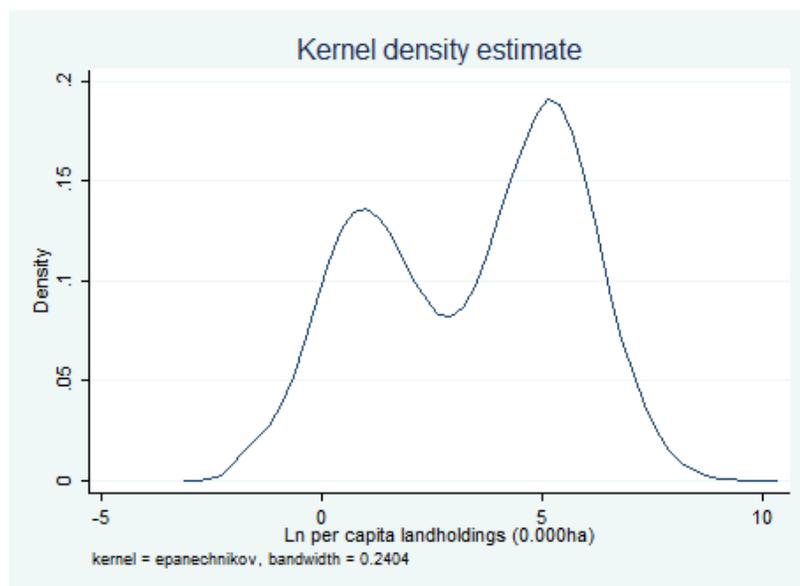


Figure A2: Per capita landholdings versus per capita land owned (0.000 HAs)

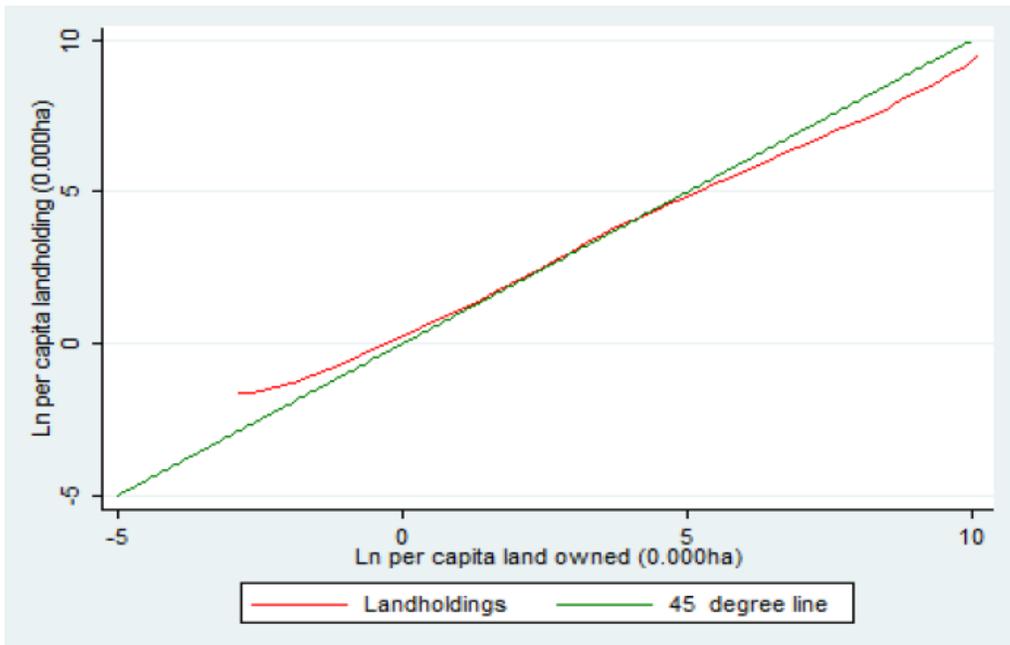


Figure A3: Per capita expenditures versus per capita landholdings

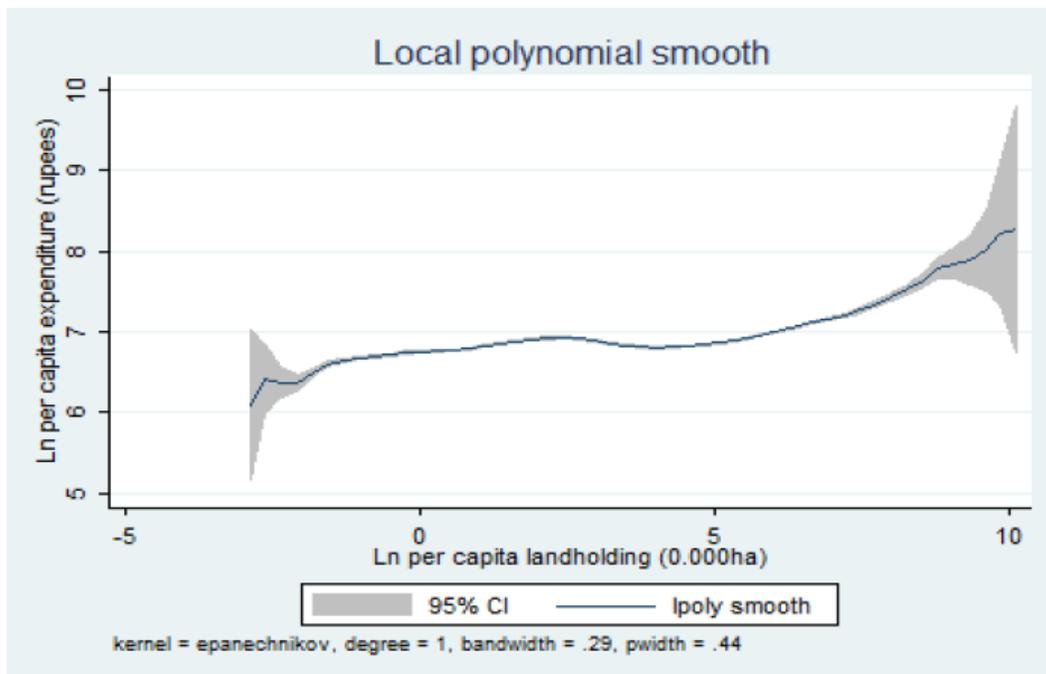


Figure A4: MGNREGS job-seeking, rationing and participation in Assam

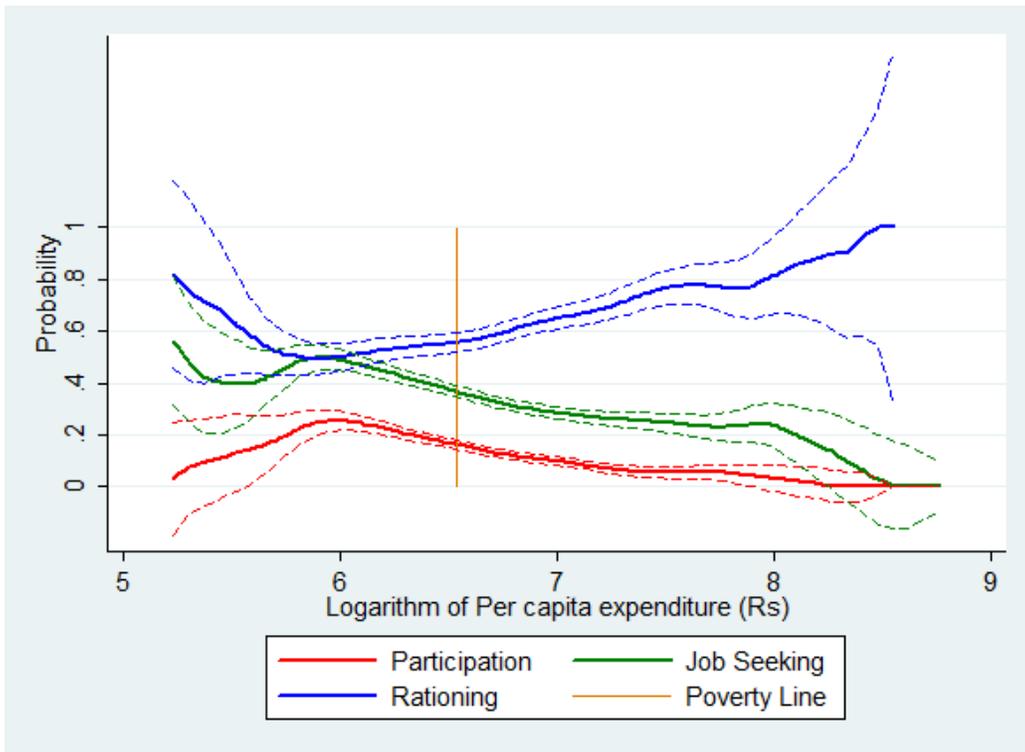


Figure A5: MGNREGS job-seeking, rationing and participation in Bihar

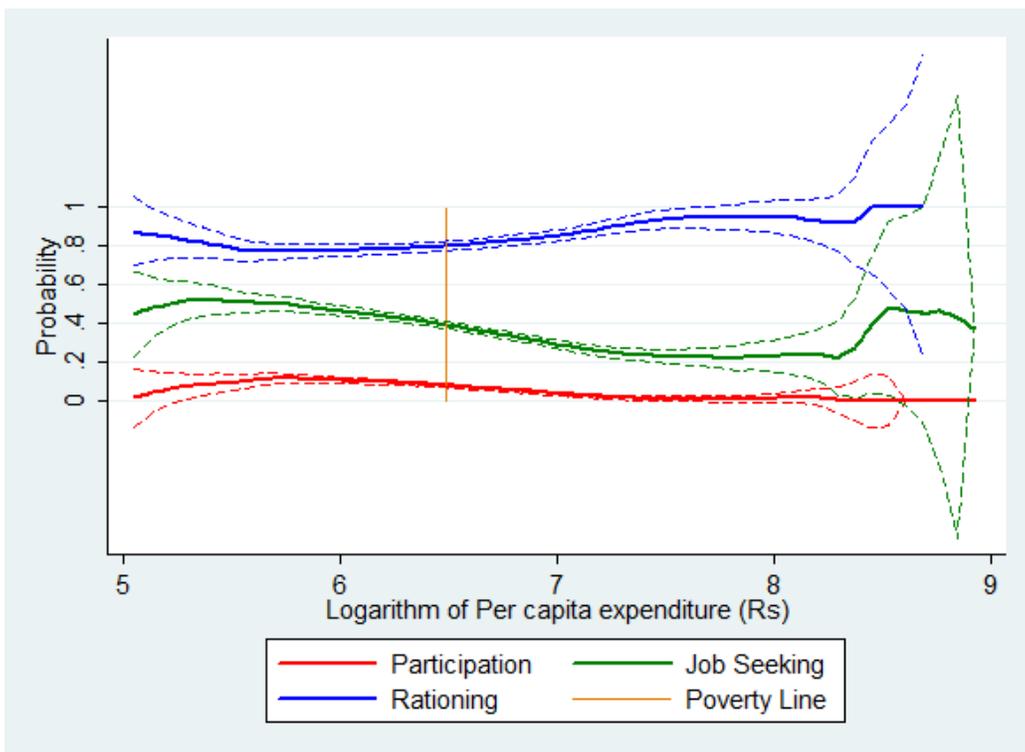


Figure A6: MGNREGS job-seeking, rationing and participation in Chhattisgarh

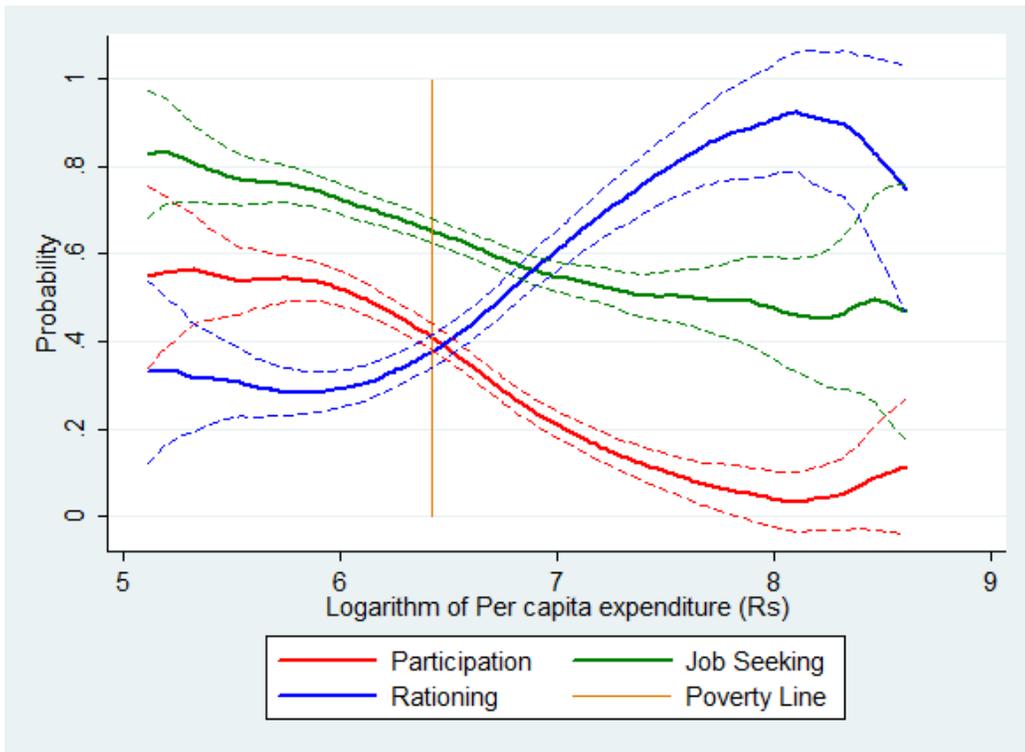


Figure A7: MGNREGS job-seeking, rationing and participation in Haryana

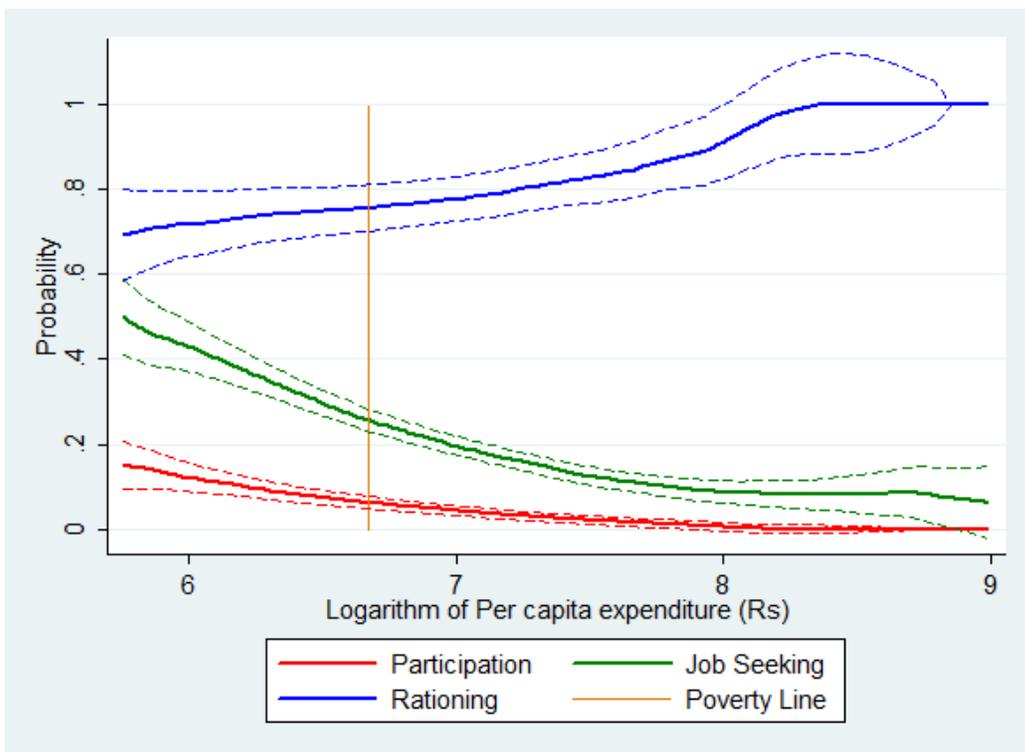


Figure A8: MGNREGS job-seeking, rationing and participation in Himachal Pradesh

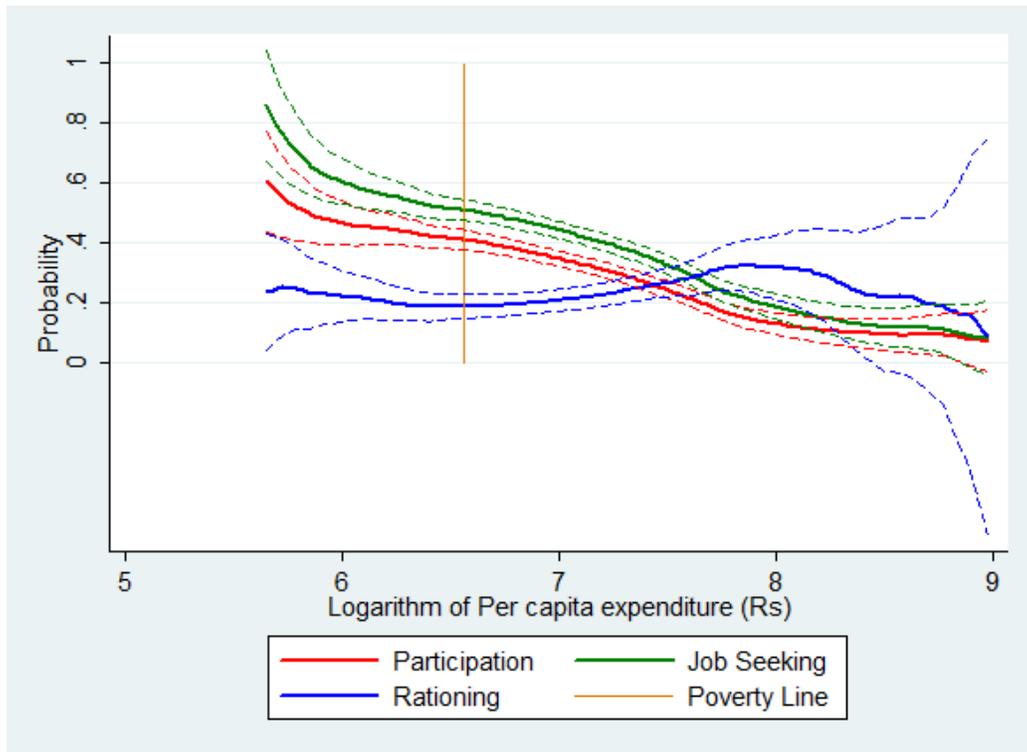


Figure A9: MGNREGS job-seeking, rationing and participation in Jammu & Kashmir

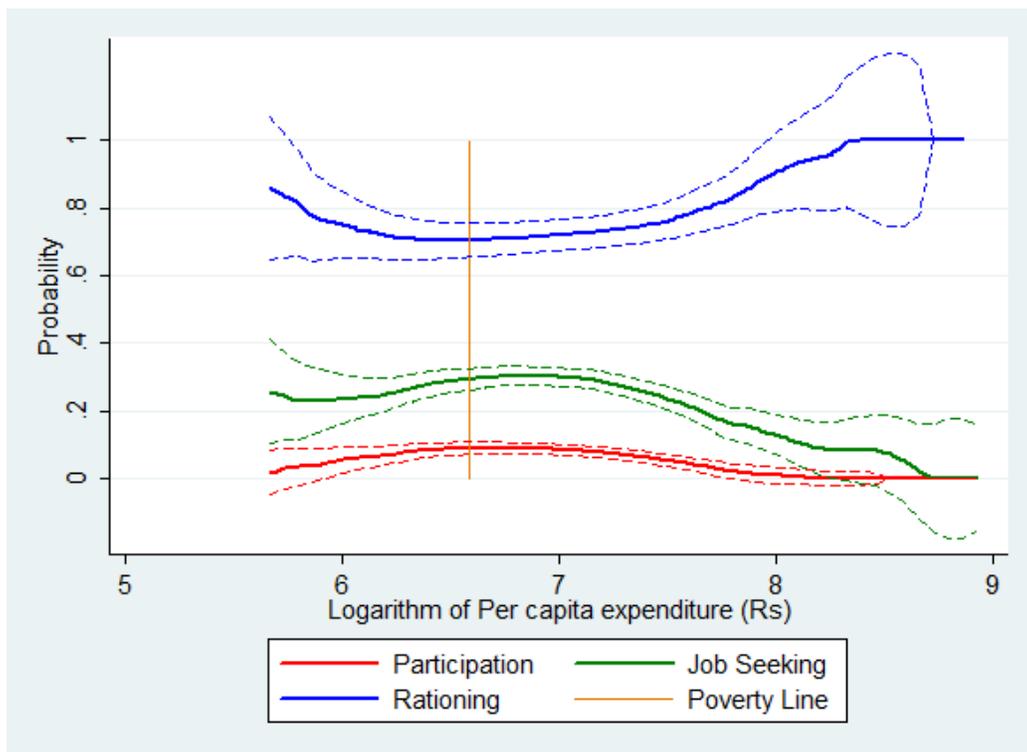


Figure A10: MGNREGS job-seeking, rationing and participation in Jharkhand

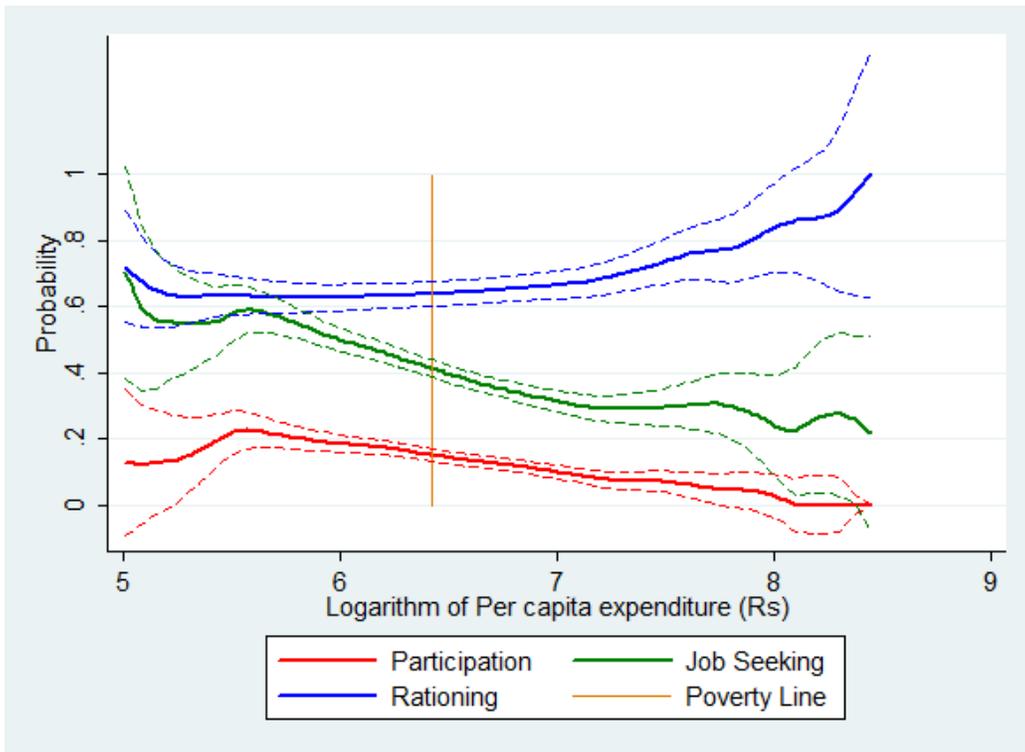


Figure A11: MGNREGS job-seeking, rationing and participation in Karnataka

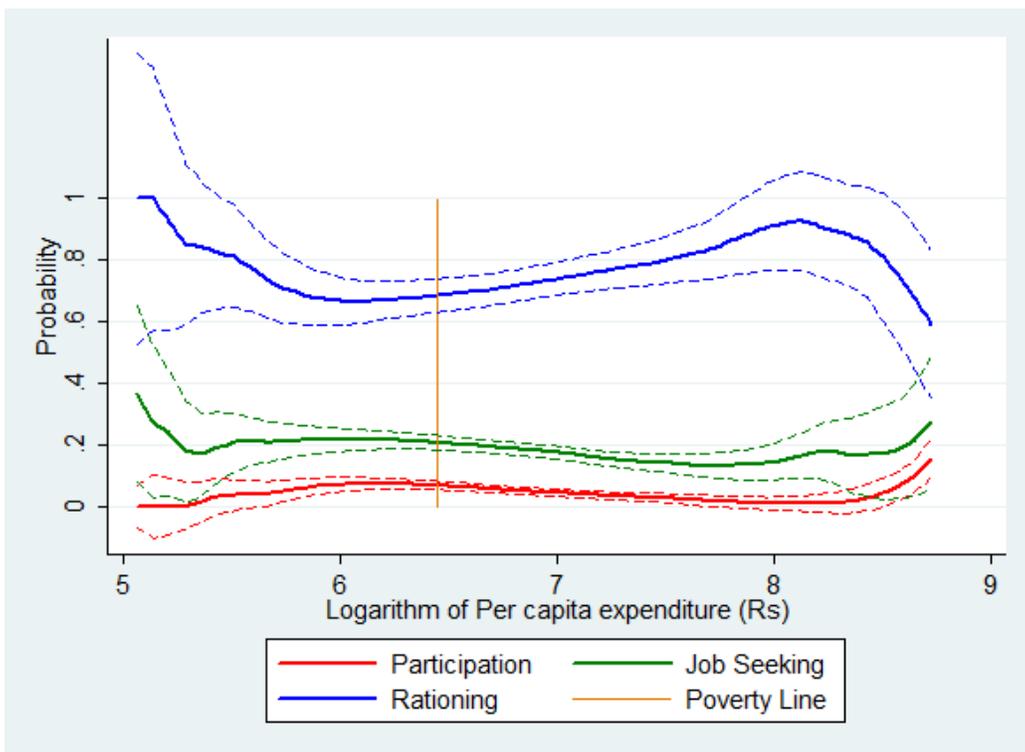


Figure A12: MGNREGS job-seeking, rationing and participation in Kerala

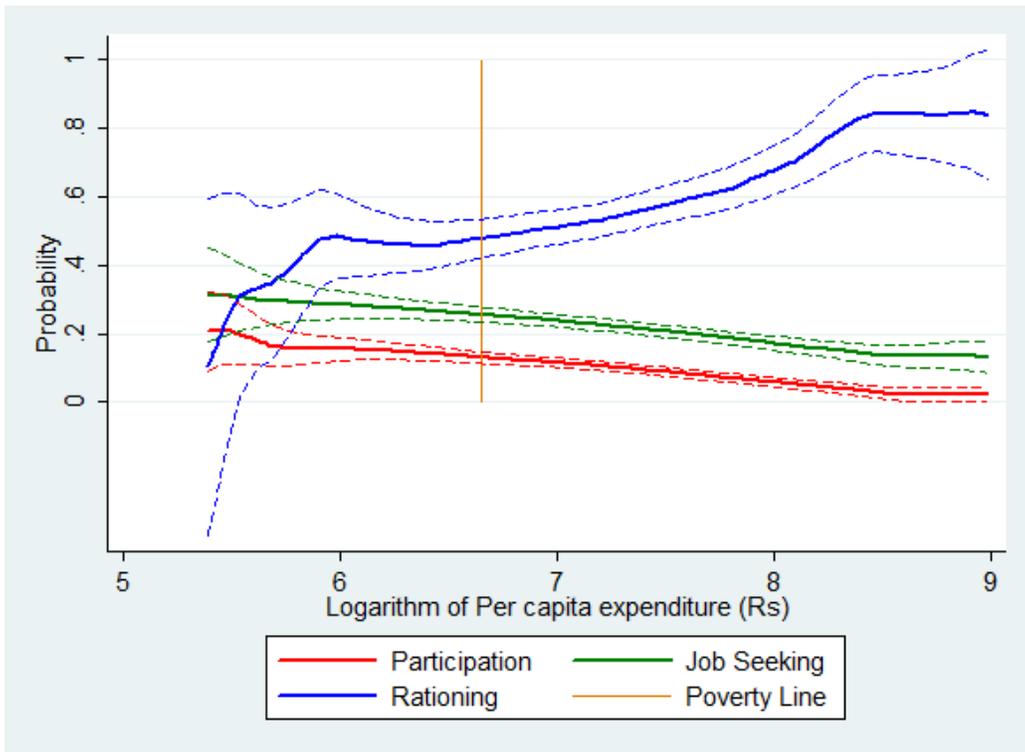


Figure A13: MGNREGS job-seeking, rationing and participation in Madhya Pradesh

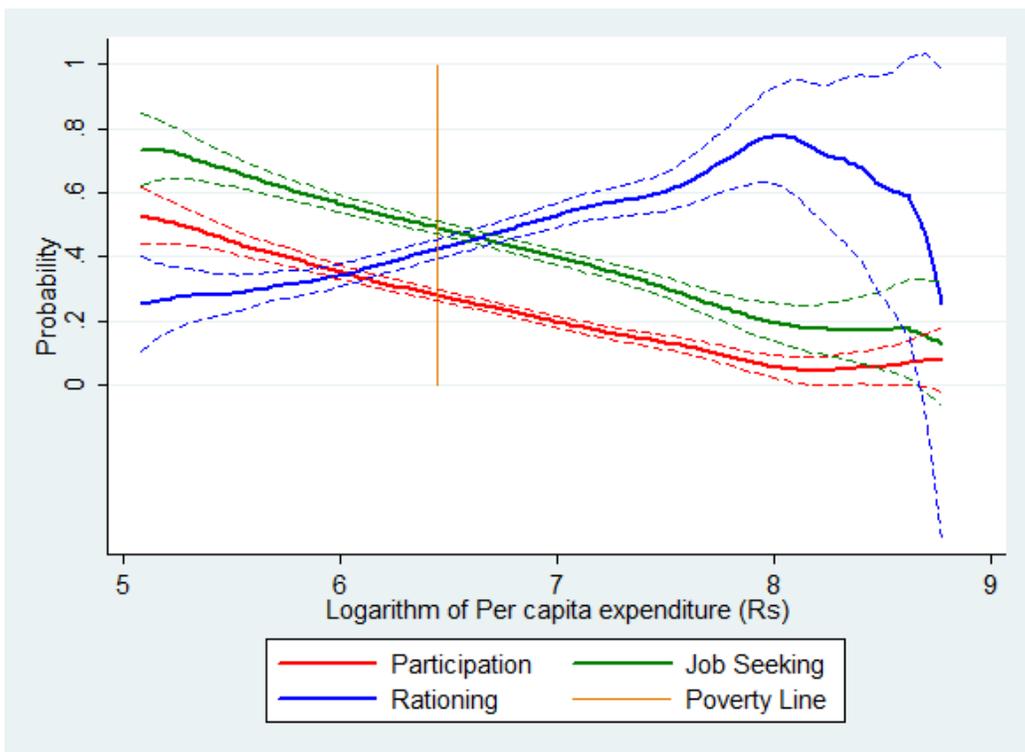


Figure A14: MGNREGS job-seeking, rationing and participation in Maharashtra

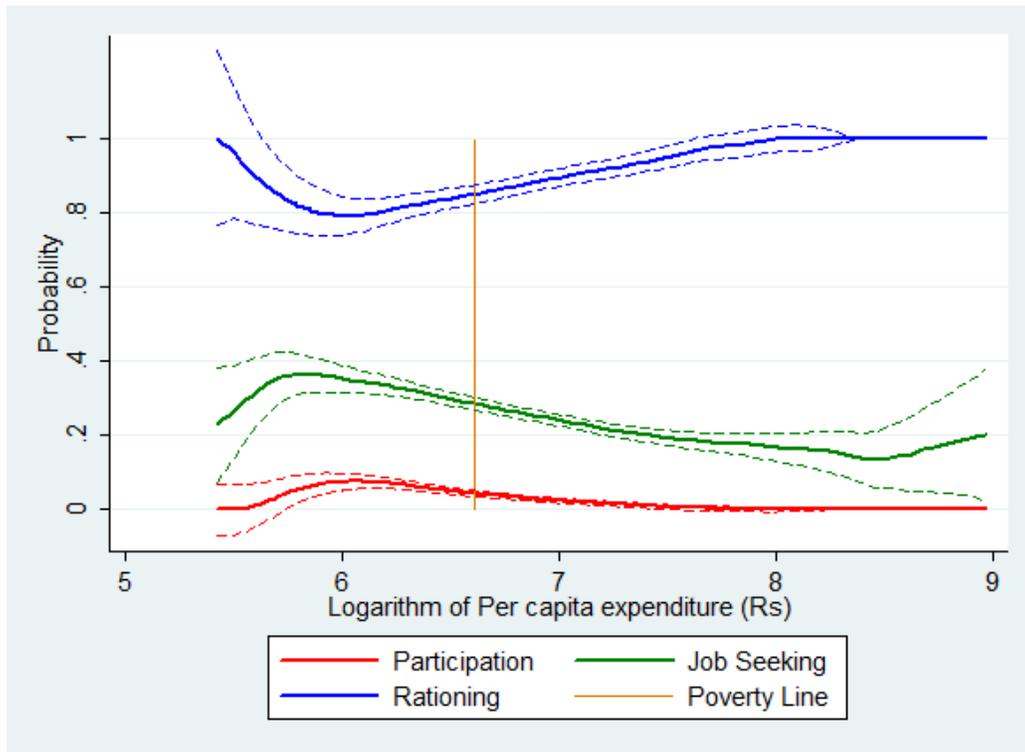


Figure A15: MGNREGS job-seeking, rationing and participation in Manipur

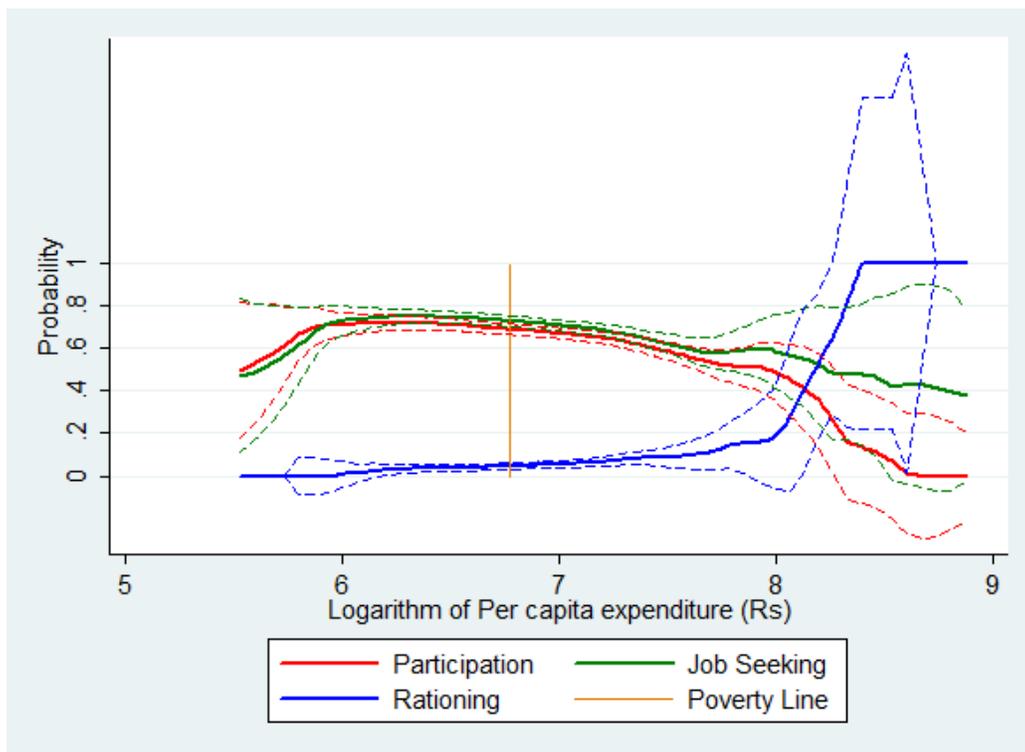


Figure A16: MGNREGS job-seeking, rationing and participation in Meghalaya

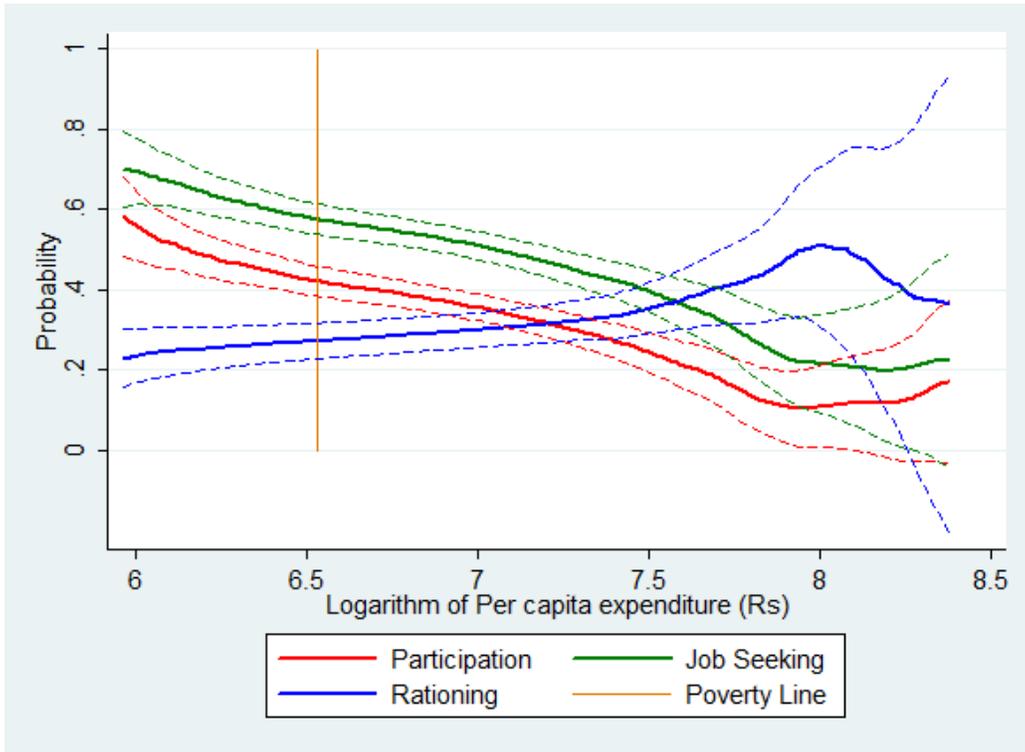


Figure A17: MGNREGS job-seeking, rationing and participation in Nagaland

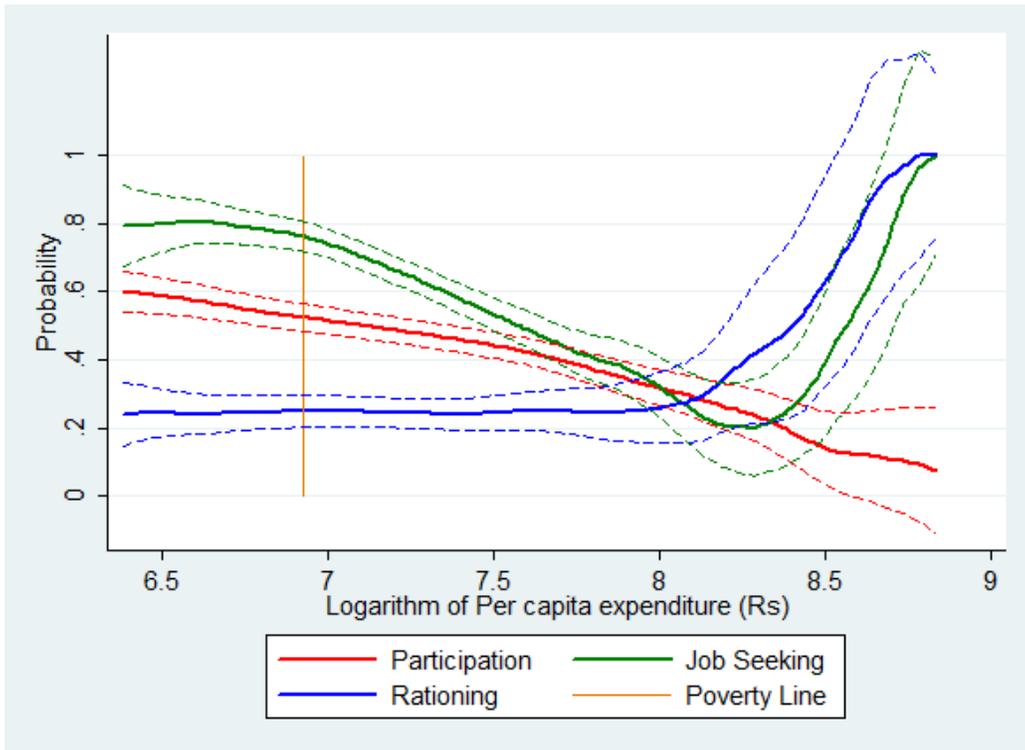


Figure A18: MGNREGS job-seeking, rationing and participation in Punjab

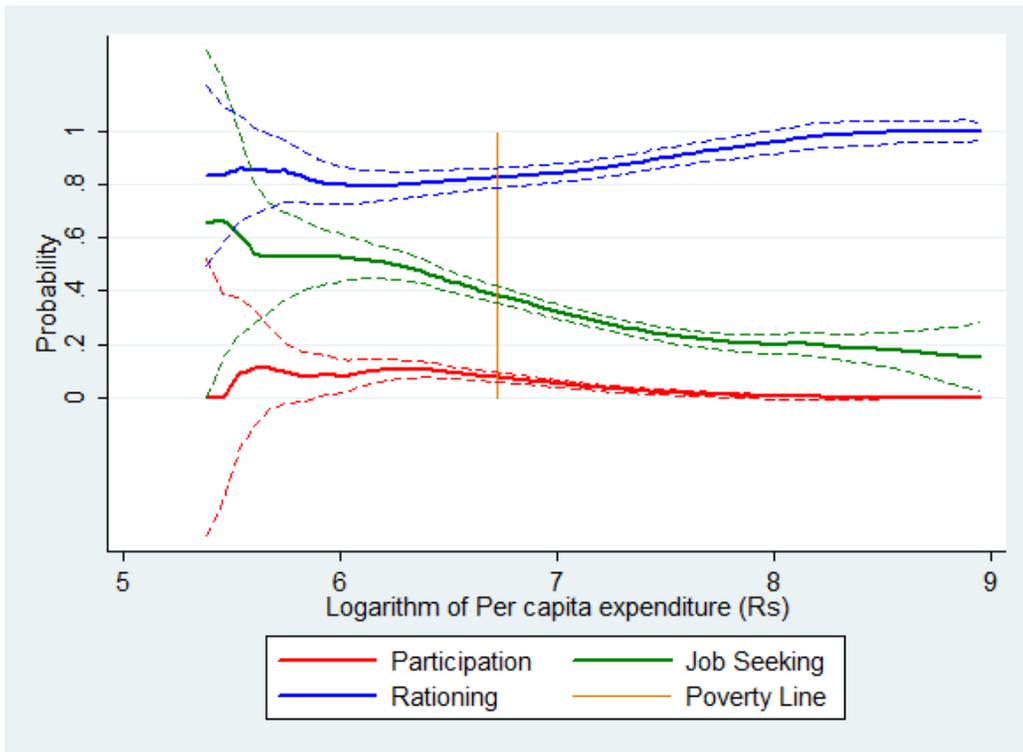


Figure A19: MGNREGS job-seeking, rationing and participation in Rajasthan

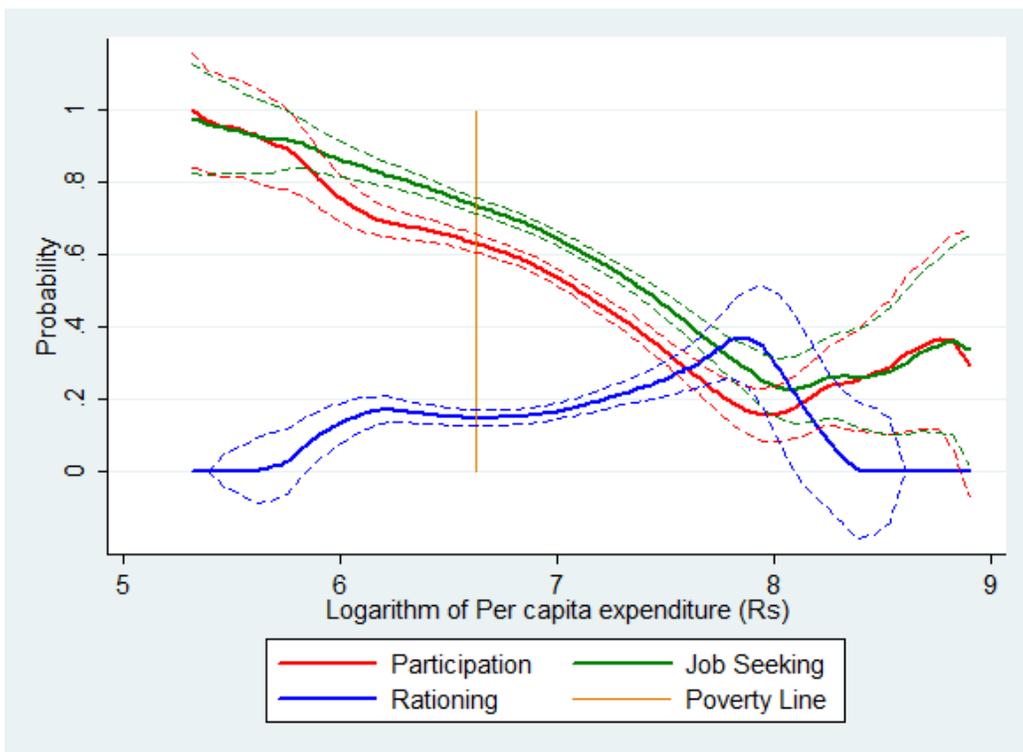


Figure A20: MGNREGS job-seeking, rationing and participation in Sikkim

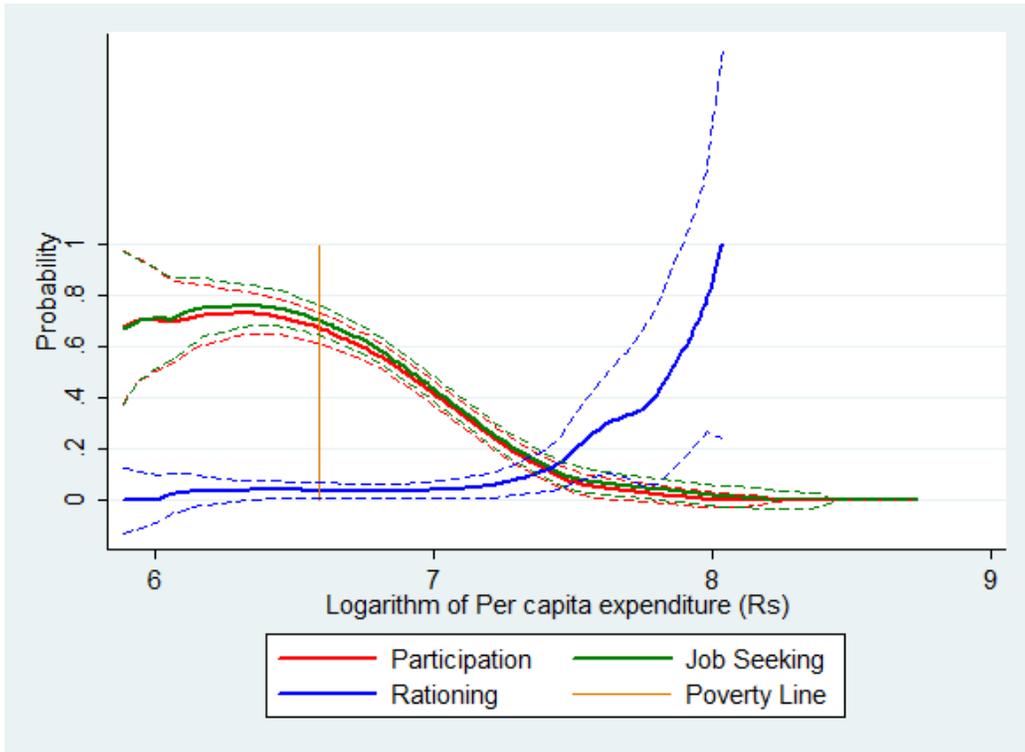


Figure A21: MGNREGS job-seeking, rationing and participation in Tamil Nadu

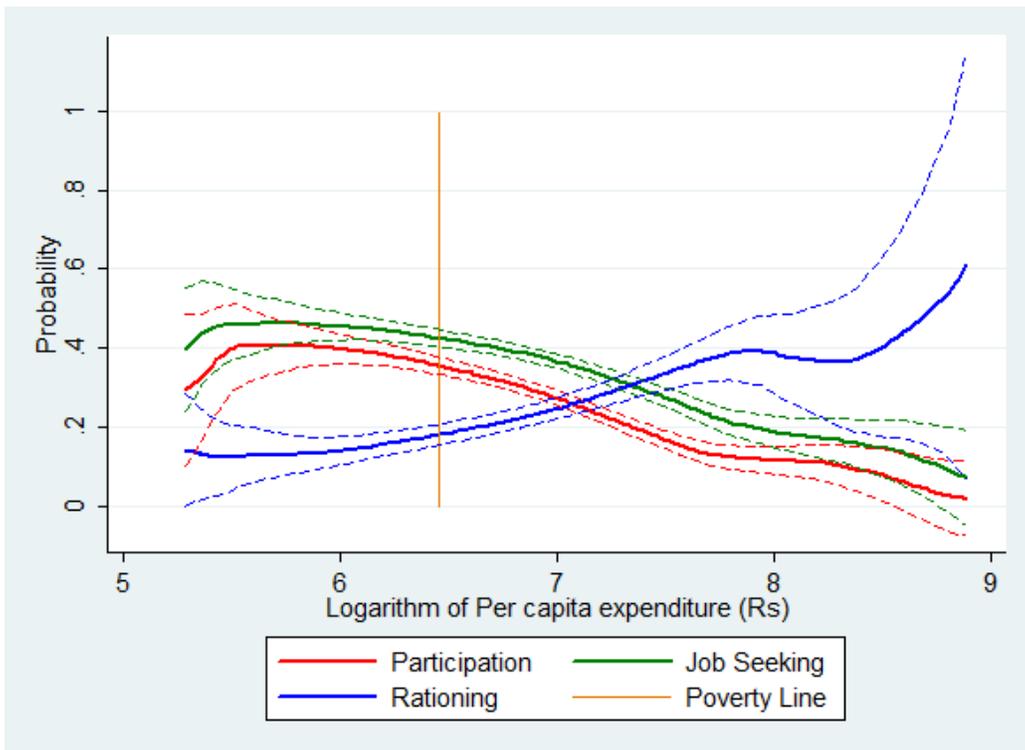


Figure A22: MGNREGS job-seeking, rationing and participation in Tripura

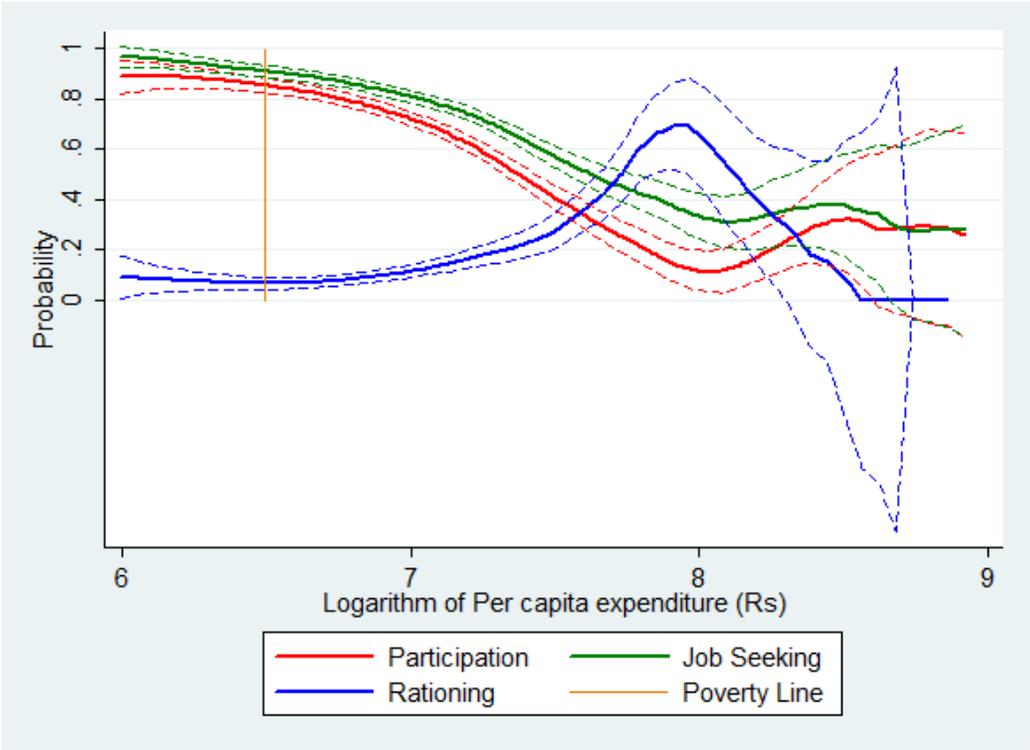


Figure A23: MGNREGS job-seeking, rationing and participation in Uttar Pradesh

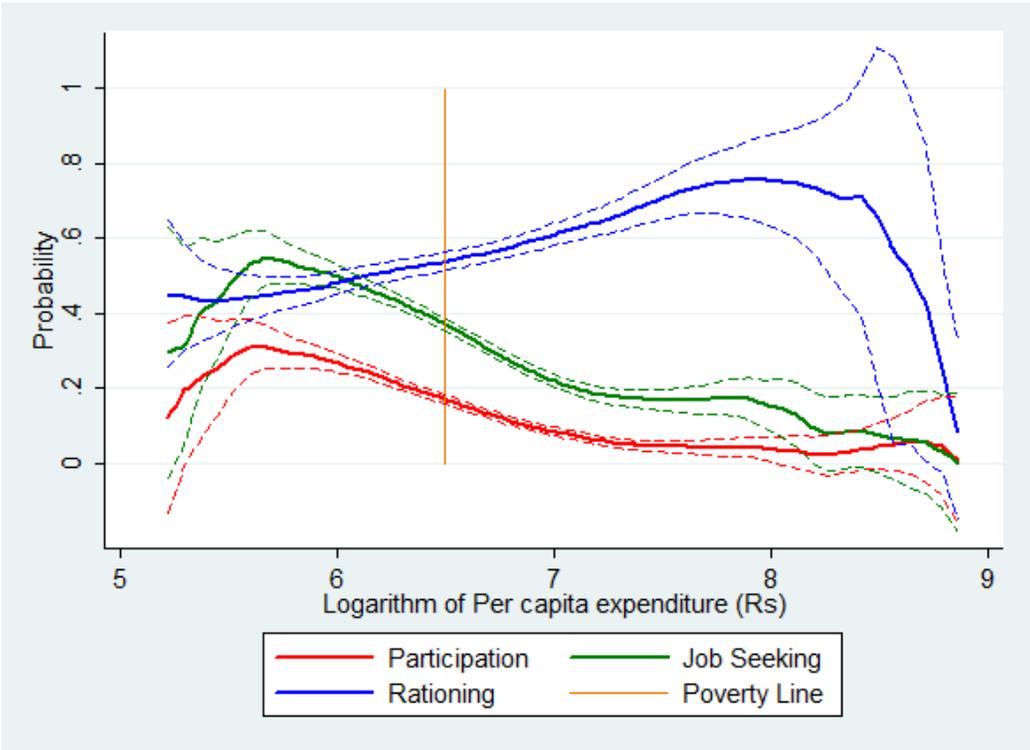


Figure A24: MGNREGS job-seeking, rationing and participation in West Bengal

